

**Garments on the Move: the local dynamics of
export networks in La Laguna, Mexico**

The Latin America Series is published jointly with the Facultad Latinoamericana de Ciencias Sociales (FLACSO), Programa de Costa Rica and the Center for Latin American and Caribbean Studies (CLACS) of Utrecht University, the Netherlands.

This research was funded by the Netherlands Foundation for the Advancement of Tropical Research (WOTRO).

Backlist: see last page.

ISBN 90 5170 739 8

NUR 740

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Cover design: Puntspatie, Amsterdam

Figures and lay-out: Rien Rabbers & Gérard van Betlehem – KartLab, Faculty of Geographical Sciences, Universiteit Utrecht

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Rozenberg Publishers, Rozengracht 176A, 1016 NK Amsterdam, The Netherlands.

Tel.: + 31 20 625 54 29, Fax: + 31 20 620 33 95 E-mail: info@rozenbergps.com

www.rozenbergps.com

**Garments on the Move: the local dynamics of
export networks in La Laguna, Mexico**

**Kleding in beweging: de lokale dynamiek van
export-netwerken in La Laguna, Mexico**

(met een samenvatting in het Nederlands)

Proefschrift

ter verkrijging van de graad van doctor
aan de Universiteit Utrecht
op gezag van de Rector Magnificus, Prof. Dr. W.H. Gispen,
ingevolge het besluit van het College voor Promoties
in het openbaar te verdedigen op
vrijdag 3 oktober 2003 des namiddags te 16.15 uur

door

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geboren op 3 februari 1973 te Almelo

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Preface

Wow, it's done! While I am happy it is finished, the insertion of the final full stop is much more difficult than I had imagined. The finalisation of this thesis means the end of a journey that I have greatly enjoyed and of which little more than a tiny fragment is reported here (I once planned to write a 'True Story'- version, but well...).

I hope that at least at a few points in the following academic chapters my appreciation for La Laguna and its people shines through. This study is about an incredibly industrious industrial region with wonderful people. A region that has known many adverse conditions, with people that face these conditions and ride out their ride to the end. People that recognise an opportunity and do not hesitate to react to it. The entrepreneurial spirit of La Laguna is impressive. I was most impressed by the people of my age, or younger, that managed and/or owned garment factories, bore the responsibility for their personnel and did so with reckless courage, respect and great determination. Equally striking were the pioneers of the old times who watched and followed the changes of the new times but refused to get caught up in the turmoil and madness of globalisation in which not even the sky appeared to be accepted as the limit. *Mi respeto*. I hope to have done justice to your daily work and maybe in some way to have contributed to it by sketching what you are up against.

The hesitation and suspicion that also characterise the Laguna garment cluster, made a maximum call on my stubborn nature and caused me to spend hours on the phone, but they usually dissolved during the first minutes of an interview. Many interviews were thoroughly enjoyable and I want to thank everybody who contributed their time and expertise to this study – they are listed in Annex 1. Most special were those interviews in which the very Mexican mixing of business and personal (how come several of these talks turned to Amsterdam, Utrecht, my ambitions and then back to their sons or nephews?) sparked a connection. A few people need to be mentioned here personally: Rigoberto Soto, Roberto Tohmé, Juan Miranda, Felipe Pamanes, Fernando Carzo and the Juárez family: thanks for always receiving me with a smile, open arms and new information!

A number of organisations also supported me. I am indebted to the UAL for giving me an office to work from. Most especially I am indebted to Lic. Pepe Castro for it was his office that I was to share. You were a good colleague and regulator of my work pace. SECOFI-Torreón, CNIV and FOMEC have also given me their much appreciated help.

Life in La Laguna has been more than 'just' this study. I have tried to have my own place and have had many different addresses in La Laguna. But I most enjoyed my time with Rhodante, Adela, Hans and Wilma and especially Piet and Martha, who opened their houses to me and have contributed immeasurably to my feeling at home in Torreón and Cd. Lerdo. Also, several women have tried to upgrade my cooking, make-up and dancing skills, assuring me of their indispensability. While not much has come of making *mole* or *tamales*, I have really enjoyed the hours spent chatting, dancing, eating and cooking (or looking) in the kitchens of Tita & Nena, Sandra (and family) and Martha. Finally, looking out over the city from Cristo Rey, driving through the countryside (with the radio blasting) or the city centre to look at the *mariachis*,

enjoying the scent of the orange tree blossom and listening to Mexican pop music make very vivid and cherished memories. Jorge, Ernesto, Lalo or Alberto were there with me in many of these moments. I need to thank you for being my friends and for being there whenever I needed a shoulder, hand or a good laugh. The time spent with you left me with a liking for hats and cowboy boots, for Mexican music of all kinds and a love for the desert and cacti that have not always been easy to match with my daily routine in Utrecht (but have definitely made it more colourful). *Gracias*.

There were also times when I felt lost or out of place and at those moments I could almost bet on the miraculous appearance of one of my two 'wise old men': Cor Zwezerijnen and Allen Levine. With their outsider views, Cor's contagious laughs and Allen's sarcasm they never failed to cheer me up and put me back on track. Cor: I really enjoyed our trips to the factories but feel I still need to apologise for my possibly all-too-adapted driving style that appeared to really scare you.

Another halfway station between La Laguna and home was (Johannah, Julian and) Cheryl's kitchen in El Paso. A place to put things in perspective, to relax and to get inspired again. Cheryl, I hope you know what a difference you have made, just by listening and making time to share a drink at your kitchen table.

Each time I came back from the Mexican desert and sun I had trouble re-adjusting to the dreary Dutch reality, which appeared to be personified by the architectonical horrors of the van Unnikgebouw. I am glad that after my first fieldwork my colleague and friend Gery Nijenhuis suggested we might share an office, which we soon turned into a semi-jungle with colourful posters on the wall. That greatly eased the transitions. The friendship, support, coffee and lunches shared with Gery and our other colleagues Leendert, Floor and Paul made the writing phases and grey weather seem okay (and were missed during the last six months of self-imposed isolation). Thanks.

Of course, my promotores Otto Verkoren and Menno Vellinga and co-promotor Guus van Westen deserve many thanks. Otto has been greatly involved with this project ever since (and even before) its conception. His steadfast, calm and reassuring focus on the larger picture and efforts to tame my impatience have been vital to its successful finalisation. Despite the distance Menno's encouraging e-mails arrived just at the right moment and struck the right cord. I am also thankful for Guus van Westen's late but valuable involvement in this project. Meetings with Guus were never very long, but always to the point, helpful and encouraging.

For the nice-looking book that you now have in front of you, thanks are due to Rien Rabbers at the KartLab who made the figures and did the final lay-out and to Jeremy Rayner who corrected my English.

Of course, there are 'innocent bystanders' who proved to be of vital importance. Invaluable are those friends who always knew when to ask and when not to ask... I want to thank my parents for setting me off on the adventure path; they gave me the freedom and confidence to search for my own ways and never held me back on account of their own doubts (and of course for telling me to stick with it when that was what I needed to hear). Finally, 'eagle-eye' Quinten has worked very hard to eliminate my typos and organise my reference system chaos when I was

really fed up with those sides of the study. More importantly, he never doubted the fact that one day this would all be over and has supported me until it was. Love.

Utrecht, August 2003.

Glossary: Abbreviations and Definitions

AAMA	American Apparel Manufacturers Association
Avecindados	Landless farmers in the rural areas of Mexico
Cabeceras (municipales)	Municipal towns
CBI	Caribbean Basin Initiative: a trade agreement between the USA and Caribbean countries that allowed access to the US market – under specific conditions – of garment produced in Caribbean countries.
CTM	Confederación de Trabajadores Mexicanos, Mexico’s largest and institutionalised trade union
Cluster	A geographical and sectoral concentration of firms
CMT	Cut-Make-Trim
Descampesinización	De-agrarianisation; process marked by rural depopulation and growing importance of non-agricultural sources of income for the rural population.
EDI	Electronic data interchange; systems used in the garment industry to create an integrated information channel between retailers and manufacturers/suppliers.
Ejididos	Organisations of agricultural small-holders in Mexico that came into existence after the land reform in 1936. Ejido land is in communal ownership, but commonly divided into individually exploited plots.
Ejidatarios	Agricultural small-holders in Mexico, members of an ejido community
EOI	Export-oriented industrialisation. Implementation of EOI in Mexico has entailed far-reaching liberalisation and a radical remodelling of the relationship between the state and the market. In essence, the role of the Mexican state under EOI is limited to securing stable and beneficial macro-economic conditions: state interventions through industrial or social policies are abandoned.
EPZ	Export processing zone
FDI	Foreign direct investment
GATT	General Agreement on Tariffs and Trade
Guayaberas	Short-sleeved, embroidered men’s shirt. Traditional garment product of Yucatán.
GVC	Global Value Chain; a network of labour and production processes whose end result is a finished product. Syn. Global Commodity Chain (GCC) or <i>filière</i> .
Hacendado	Owner of a very large farm estate in Mexico prior to land reform in 1936
Haciendas	Large or very large farm estate. In La Laguna, as in the rest of Mexico, these were expropriated and ceased to exist during the late 1930s. Syn. <i>latifundio</i> .
HTS 9802	Harmonized Tariff Schedule item that regulated production sharing arrangements, it was formerly known as the US 807/807A Program.

ISI	Import substitution industrialisation. From 1940 to 1970 Mexican economic policy was based on import substitution industrialisation. Initially, high economic growth rates were achieved but when growth stagnated, ISI was abandoned in the late 1970s.
LMIC	Low and Middle Income Country, syn. Lesser Developed Country (LDC)
Maquiladoras	Mexican assembly factories that paid no duties on imported components under the condition that products were exported after assembly and not sold on the Mexican market.
Municipio	Municipality
MFA	Multi-Fibre Agreement; initiated in 1974 to liberalise international trade in textiles and clothing as well as to protect the domestic markets of importing countries through the 'orderly' development of international trade flows. Renegotiated four times to become increasingly more restrictive. MFA restrictions are currently being phased out so that textiles and clothing will be fully liberated 1 January 2005.
NAFTA	North American Free Trade Agreement: agreement that since 1994 unites Canada, the United States and Mexico into the North American Free Trade Area.
NIC	Newly industrialising country
NIDL	New International Division of Labour; results from a process of geographical relocation of labour intensive production activities to LMICs while more knowledge- and capital intensive activities remain in developed countries (DCs). NIDL is facilitated by improved communication and transportation technology and divisibility of the production process.
OBM	Original Brand Manufacturer; involved in independent production and export of finished garment under own brand.
ODM	Original Design Manufacturer; manufacturer engaged in design and manufacturing of garments for export to be marketed by a foreign buyer (under the latter's label).
OEM	Original Equipment Manufacturer; syn. full-package supplier/commercial subcontractor/contractor; manufacturer involved in the production of finished garments based on specification of a (foreign) buyer.
OPT	Outward processing trade
Pequeños propietarios	Literally: small owners. Privately-owned farms, in La Laguna commonly located on the best lands. Many have expanded over the course of time to become fairly large farms.
Piratería	Production of cheap brand rip-offs, commonly sold on informal markets
Private label lines	Labelled garment/merchandise lines manufactured for specific retailers and sold exclusively in their stores.
SME	Small- and Medium-sized Enterprise
Subcontracting	Production of components or finished products by one firm for another firm based on the latter's specifications. Syn. sourcing
[16] Tianguis	Street markets in Mexico

TNC	Trans-National Corporation: a firm which has the power to co-ordinate and control operations in more than one country, even if it does not own them
UPS	Unit Production System; a rail transportation system that transports individual garments or garment pieces on a hanger between sewing operators
Vertical disintegration	The splitting off of parts of the production process to separate firms or establishments
WTO	World Trade Organisation

Introduction

Several decades ago the Institute of Development Studies at Utrecht University (IDSUU) became involved with research on the US-Mexican border region and Northern Mexico. Since then, the research undertaken by IDSUU students and staff members in the border region has focused on three main themes: urbanisation (Hoenderdos, 1983), migration (Verkoren & Beneker, 2000; Hoenderdos & Schuurman, 1985) and industry (Verkoren & Hoenderdos, 1985; Haring, 1985; Verkoren, 1994; van Dooren & Verkoren, 2000). This study ties in with the latter theme.

More in particular, this study has its roots in research undertaken in 1996 in El Paso and Cd. Juárez, two cities on opposite sides of the US-Mexican border. The aim of that research – which is reported in the MSc thesis ‘The garment industry in El Paso and Cd. Juárez: automate, emigrate or eliminate?’ (van Dooren & van der Waerden, 1997) – was to examine production linkages in and between the garment industries of the two cities. Whilst unintended and in part unexpected, during my fieldwork two years after the passage of the North American Free Trade Agreement (NAFTA), I was directly confronted with the agility of the garment industry in a globalising world economy, and with the devastating effect such agility can have on a region, a local economy, entrepreneurs, workers and their families. Within only a couple of years, most local garment factories had been closed down and thousands of workers had lost their jobs and income. El Paso – the ‘Jeans Capital of the World’ – was one of the US cities most hard hit by NAFTA.

Despite decades of specialisation and a concentration of jeans-specific infrastructure and know-how in El Paso, most local capacity became redundant as El Paso’s clients shifted their demand for jeans from El Paso to Mexican production locations such as Puebla/Tehuacan and, most notably, La Laguna. In many ways, El Paso provides an example of the potential danger of globalisation for local industrial clusters that depend on external linkages for production orders and, more in general, for market access. This dramatic development posed several interesting questions. Was El Paso little more than a way station along the winding route of the never-ending relocation process in the garment manufacturing sector (see van Dooren & Verkoren, 2003)? Was its demise inevitable, or were other outcomes possible? To what extent do alternative outcomes depend on local level production organisation, linkages and business strategies? As a very large share of production from El Paso was shifting to the Laguna region in Northern Mexico, a central question also concerned the possibility that the problems in El Paso would eventuate in La Laguna and at other new production sites. In order to shed light on this last question it is necessary to examine the driving forces in the global garment industry, as well as the production structure, the intra- and extra-cluster links, and many other characteristics of the industry in such a new production location, in this case, La Laguna.

(i) Background to the study

The garment industry and the textile industry were the first manufacturing industries to take on a global dimension. Moreover, no other industries are more geographically dispersed across

developed and developing countries than the garment industry (Dickerson, 1995; Dicken, 1998). This progressive globalisation process is driven by the international relocation of production from industrialised countries to low- and middle-income countries (LMICs), many of which are just starting their industrialisation process. Most notable is the early participation of the Southeast Asian newly industrialising countries (NICs), which continue to be successful players. Likewise, countries such as Turkey and Morocco (Broer, 1977; Scheffer, 1992) and Caribbean countries, which are on the periphery of the European and the US market, respectively, have been popular production sites.

The Southeast Asian NICs were in the cradle of the garment industry's globalisation. Since the 1960s, they have built on their early participation in Western garment markets to spark a further and wider industrialisation process. Several of these countries were able to upgrade their position in the garment industry by moving low value added production activities offshore. They became coordinating hubs of high value-added activities, able to coordinate and control production throughout Asia and to connect it to demand in the US and European markets. While Asia continues to occupy a hegemonic position in garment trade, faster-paced fashion changes and the resulting pressures to shorten order cycles and response times may set in motion a relocation process benefiting production locations closer to the markets. The resulting regionalisation of garment sourcing may provide new, latecomer countries with development opportunities based on garment production and export.

Mexico is one of the most commonly quoted examples of a country benefiting from this regionalisation trend. It is a relative newcomer on the global garment scene: it became a significant player in the global garment trade only after the passage of NAFTA in 1994. The question now is whether these more recent developing country garment exporters, including the countries on the periphery of the main markets, will be able or should strive to follow the path pioneered by the Asian NICs (Gereffi, 1999).

Since the 1960s, when the Asian NICs initiated their garment export participation, the world economy has changed – and so has the garment industry. In the main Western markets, garment retailing is increasingly concentrated in the hands of fewer and larger retailers. Garment sales are driven by faster-paced fashion changes and the marketing strategies of mass-advertised global brands. Meanwhile, the international sourcing strategies of garment retailers and other buyers that first centred on a few Asian countries have continued and expanded. Buyers occupy a pivotal role in global production networks that may cover numerous LMICs. These networks operate within a global trade regulation system based on quotas and duties that has restricted global garment trade over the past decades. Within this context of powerful buyers, a web of restrictive trade regulations and a large and increasing number of LMIC competitors, latecomer suppliers are faced with the challenge to connect to the demands of modern garment markets and to use that connection to secure a strong position in them. There is reason to believe that today's new exporters are operating in another context and face other challenges than their Asian predecessors of several decades ago.

[20] The academic approaches used to analyse the functioning of new exporters have also changed; they now have different focuses and emphasise different aspects. In the academic discourse on industrial development in LMICs, attention has shifted from the role of transnational corporations (TNCs), whose foreign direct investment in developing countries carried with it the risk of converting these countries' economies into branch plant economies, to clusters of

local firms and to production networks that may connect these firms and clusters to export markets. The central question of these studies is the ability of LMIC firms and clusters to use their export participation as a lever for sustainable industrial and/or regional development.

There is a strong localisation tendency in garment manufacturing, as reflected by the presence of garment clusters in many developed and developing countries (Tewari, 1999; Cawthorne, 1995; McCormick, 1999; Visser, 1996, 1999; Peña St. Martin, 1994). Garment companies in these clusters benefit from clustering through various mechanisms. As a consequence, clustered garment firms in LMICs may be able to penetrate export markets. Most commonly, they do so by establishing supply relationships with Western buyers. Especially for latecomer firms that supply the complex and dynamic Western garment markets, the linkage to a buyer and the access to know-how, information and experience with regard to market standards and conditions embedded in that linkage are essential. Facing the new competition in garments requires more from LMIC suppliers than just low/competitive prices: quality, flexibility, service and short turn-around times are becoming the keywords in the global competition between garment manufacturers. In most instances the capabilities in these and other areas are new to latecomer suppliers, and therefore the relationship between them and their buyers is marked by tight governance and the transfer of information and know-how from buyer to supplier. Vertical linkages to global buyers allow LMIC exporters to attain the standards of export markets. However, in order to remain competitive, learning and constant upgrading by LMIC suppliers are prerequisites that may also be stimulated by buyers or by the entrance of new buyers (buyer succession).

On the other hand, the development of a cluster or its firms in the global economy does not depend directly or solely on outside impetuses. A cluster's participation is generally the outcome of a long evolutionary process marked by change, adaptation, specialisation (of firms and institutions) and path dependence or even lock-in. Evolutionary and institutional economics have pointed to the importance of these processes (Boschma et al., 2002). Furthermore, the competitive strength of export clusters is commonly derived from their ability to stimulate the cementing of strong, trust-based and embedded intra-cluster links. Such linkages and accumulated specialist knowledge may facilitate local learning, innovation and upgrading – processes that support the competitive position of the cluster.

The questions that spring to mind based on these general characteristics of global garment production concern the interaction between 'the global' and 'the local' in this garment production system. These questions touch upon a more general debate about the relevance of and interaction between various levels of geographical scale in the globalised/globalising world economy. Is the local being overruled by and subordinated to the global, rendering local economies and cultures helpless and insignificant in the face of global forces? Or is globalisation leading to a rediscovery and appreciation of localities and regions? Perhaps the local-global dichotomy is unnecessary, as a process of 'glocalisation' is affecting interrelationships between various levels of scale. One thing is certain, however: more research is needed into the interaction between global forces in the world economy and local dynamics, especially in industrial clusters (Amin & Thrift, 1992; Humphrey & Schmitz, 2000). The garment industry provides ample opportunities for examining the dynamic linkages between local-level cluster dynamics and global/international production networks.

From a development angle, relevant questions relate to the long-term developmental results of the incorporation of LMICs (and their clusters and suppliers) into industrial export markets. There is little doubt that industrialisation and development are not synonymous. In fact, several cases of LMIC lock-in or even immiserating growth have been documented (Kaplinsky, 1993; Mathews, 2002; Mortimore, 2002). Especially Latin American countries have a record of industrial growth that is not or only to a limited extent reflected in improvements in per capita income, income distribution and human development indicators, such as access to health and education. Export success is not necessarily translated into development.

(ii) Why Mexico?

For several reasons that extend beyond the particular background to this project, Mexico is a highly interesting location for the study of above mentioned issues. Since NAFTA came into effect almost a decade ago, Mexican exports to the US have grown explosively and garment exports have been amongst the fastest growers. This recent, explosive growth of garment exports appears to qualify Mexico as a latecomer country. Yet, Mexico's industrialisation process started several decades ago. In fact, its apparent success based on import substitution industrialisation as early as the 1960s and 1970s caused it to be qualified, together with Argentina, Brazil and Venezuela, as a Latin American NIC. However, so far Mexico has not been able to use its industrial success to spark a development process for the benefit of the entire Mexican population. Industrialisation was and still is highly concentrated geographically and its benefits primarily accrue to the middle- and upper-class strata of Mexican society.

Even though Mexico is a latecomer in garment exports, it is not a latecomer in garment production or in industrial production in general. Over the past decades, Mexico's industrial exports, including garment exports, were predominantly destined for the US and were overwhelmingly part of a production sharing or export processing type of arrangement. In this arrangement, those parts of the production process that are labour-intensive and low value added were undertaken in Mexico, while the remainder was carried out in the US. This export model, based on assembly for export, has hampered or truncated the industrialisation process and limited its potential to spark economic development in Mexico; the same applies to those Caribbean countries operating under similar trade regimes (Bair & Gereffi, 2001, 2002; Mortimore, 1999).

For Mexico, this situation changed radically with the passage of NAFTA. NAFTA liberalisation eliminated the duty-based logic behind this export-processing arrangement and paved the road for the integration of the production process in Mexico. Within the general NAFTA context of the economic integration of complementary economies, larger parts of the garment manufacturing process are expected to shift to Mexico, turning the country into a more important and all-round supplier for the US market.

[22] In contrast to other latecomer garment exporters (e.g. Vietnam and Cambodia), Mexico is not using garment exports as a stepping stone to an industrialisation process. Instead, Mexico needs to undergo a transformation in order to get out of its deep-seated, historically grown role of export assembly platform of a number of different industrial products to the US. It is striving to attain a more all-round position in the US, and possibly in other markets. Geographically, this particular process is played out most clearly in a few particular regions, many of which have specialised in the production of specific industrial products. This development has been most

pronounced for the garment regions: based on a humble tradition in garment production, these Mexican regions have grown explosively into major export clusters. Garment export clusters are located outside the border region. With its high concentration of *maquiladoras* (export assembly factories) of many different industries, the border region has traditionally received the most attention in the literature on the recent industrial development in Mexico. NAFTA is now stimulating the geographical dispersal of industrial export production in Mexico to more southern locations. The garment industry is a forerunner in this process.

(iii) Why La Laguna?

A large part of the jeans production capacity that was made obsolete in El Paso as a result of NAFTA was transferred to regions in North and Central Mexico. One of the most notable upcoming production locations is in and around the city of Torreón in the Laguna region. As a result, La Laguna represents the most spectacular example of post-NAFTA growth in Mexico resulting from garment exports. So much so, that in only of couple of years it became known as the 'New Jeans Capital of the World', easily overshadowing its predecessor, even in the latter's heydays.

On the basis of a comparatively limited local production capacity in dress pants and jeans, a full-fledged blue jeans export cluster has been built up in only a couple of years. As such, the Laguna cluster provides a unique research location for the investigation of the impact of participation in a demanding export market on a industrial cluster in an LMIC environment. This study reports on the development of the Laguna cluster, most specifically the interaction within the cluster and between the cluster and its buyers in the US. Bearing in mind the fate of its predecessor El Paso, attention is paid to the external network linkages that connect the cluster to its US buyers. Attention is also given to the local production structure and organisation, and changes therein, as well as to intra-cluster links, the sociocultural environment, and local learning and upgrading processes.

(iv) Research goal and research questions

This study presents an analysis of the interaction between local-level cluster dynamics and globalisation processes in the garment industry. Geographically, the focus is on La Laguna, a garment export cluster in Northern Mexico that has become an important foothold for US-Mexico binational production networks of standardised, mass-produced garments, most notably jeans. The examination of the development of the cluster since its export boom as well as its prospects for the future is broken down into six research questions:

- 1 What are the main features and trends of the global and North American industrial context within which the Laguna garment cluster is operating?
- 2 What are the main economic, geographical and historical characteristics of the Laguna region, and does its current position as garment export cluster stem from these characteristics?
- 3 What is the structure of the Laguna garment cluster, in terms of product- and market-orientation and firm characteristics and does it correspond to the structure of other garment clusters?
- 4 To what extent is the garment industry in La Laguna locally embedded through intra-cluster linkages? If it is embedded, how does embeddedness in the economic and sociocultural environment affect the competitive position of the cluster and its firms?
- 5 What is the composition of the garment production networks connecting La Laguna to the US market, in terms of the actors involved and their productive, organisational and strategic activities and responsibilities?

6 Have upgrading processes taken place in the garment cluster, and if so, what kinds of upgrading processes are found, which factors are driving these processes and who are the actors involved?

(v) Terminology/definition of the main concepts

The garment industry: that part of the textile apparel complex whose end product is clothing rather than other sewn products, such as household or industrial goods. In this study, two terms are used as synonyms for the garment industry: the clothing industry and the wearing apparel industry.

Garment production networks: different types of garment firms – including buyers in Western markets and suppliers/subcontractors in LMICs – that act and maintain relations across various distances and levels of scale and through diverse intermediaries for the (joint) production of garments.

Buyers: the broad denominator used for different types of garment lead firms, such as retailers (department stores, mass merchandisers, discounters), designers/marketers and branded manufacturers. The use of this general term evinces the homogenisation of their strategies and underscores the general importance of buying or sourcing as part of the strategies of all lead garment firms. Increasingly, buyers focus on strong sales and marketing competencies while outsourcing all manufacturing responsibility to a large, international production network of LMIC suppliers/subcontractors.

Subcontractor: a firm that produces components or finished products based on another firm's specifications.

Cluster: a geographical and sectoral concentration of firms. Commonly, clustered firms maintain network links to each other and other actors within the cluster.

The Global Value Chain (GVC): a network of labour and production processes whose end result is a finished product. This study's principal concern is with the garment value chain.

Other concepts, terms and abbreviations are included in the glossary.

(vi) Research methodology

The fieldwork and data collection were carried out during three rounds conducted between October 1998 and December 2000. The first round was dedicated primarily to collecting information on the composition of the local garment industry and to surveying garment firms in order to create a database. The available information on the composition of the local garment cluster was highly fragmented and incomplete. Therefore, data from different sources were combined to create a new listing of companies. Since export networks are the central theme of the study, the decision was taken to select a number of large companies that could be identified as local lead export firms. The selected companies were surveyed using an extensive, standard questionnaire. After these interviews, where possible the subcontractors of the local lead firms were contacted and surveyed, and this process was continued until no further tiers of subcontractors were found. This manipulated snowball methodology could have led to an oversampling of large companies and a bias towards the export sector. In order to limit this potential bias, the data obtained during the first survey round was complemented by randomly

selecting and surveying a number of small and medium-sized companies from the listing. A total of 73 local garment companies are included in the database. The factory tours that followed many interviews were also highly informative.

The second round of fieldwork was used to gain a more detailed understanding of the wider cluster context of local garment firms in La Laguna. To gain insight into the employment structure and labour conditions in the local garment industry, a small-scale employee survey was carried out. Information was also systematically collected from a number of suppliers of different materials, ranging from machine parts to needles and thread and from a number of laundries. Finally, more in-depth information, in particular on topics such as industrial policy, rural garment factories, informal local linkages and relations with buyers, was gathered by means of semi-structured, open-ended interviews with key entrepreneurs, informants at organizations such as SECOFI, Bancomext and CNIV, and with other closely involved parties, such as suppliers, specialist merchandisers and personnel transporters.

The third round of fieldwork was used to investigate and map the external environment of the Laguna cluster. Two other important garment export clusters – Puebla/Tehuacan and Yucatán – were visited. Locally, secondary sources on the structure of the clusters were gathered, and interviews with entrepreneurs and key informants in both clusters were carried out. These interviews concentrated on various local and external aspects of the clusters' development. In addition, a few of La Laguna's main buyers in the US were visited. The interviews held with them in El Paso, Miami and New York were focused specifically on their global sourcing and business strategies, and on the role of Mexico and La Laguna within these strategies. These interviews helped to see the Laguna region and its development from the buyers' global perspective. All the buyer interviews were open-ended and semi-structured. During all the fieldwork rounds, both national and local newspapers were frequently consulted. In addition, a large body of other secondary sources was consulted.

Finally, when it became clear that the Laguna jeans cluster had been suffering from a severe downturn in demand since early 2001, a brief field visit was organised to gain insight into the nature and impact of the crisis. The main findings of this last visit are reported in Appendix IV. Appendix I contains a detailed overview of the methodology used in this study.

(vii) Outline of this study

Chapters 1 to 3 present an overview of the broad, global and North American industrial context of the Laguna garment cluster, based on literature and secondary sources (see Figure 0.1). Chapter 1 sketches the basic characteristics of garment production and marketing as well as more recent changes therein. Within the general outline of global trends, special attention is paid to the US, as it is the main market for the Mexican garment export sector. Chapter 2 introduces the various theoretical perspectives and their insights pertinent to the analysis of the interaction between localised garment firms and the global garment industry and its main actors. Globalisation in the case of the Mexican economy largely coincides with its economic integration into NAFTA, most notably its trade with the US. Therefore, Chapter 3 deals with the garment industries in the US and Mexico, as well as with the linkages between them and the challenges posed by economic integration under NAFTA.

Chapters 4 and 5 discuss the most important features and structural aspects of the region and the local garment industry. Chapter 4 presents the main spatial and socioeconomic features and the historical development of the study area, the Laguna region, which straddles the states of Durango and Coahuila in Northern Mexico. Chapter 5 presents the basic structure of the Laguna cluster and pays attention to, for example, market- and product-orientation, and cluster size and firm size.

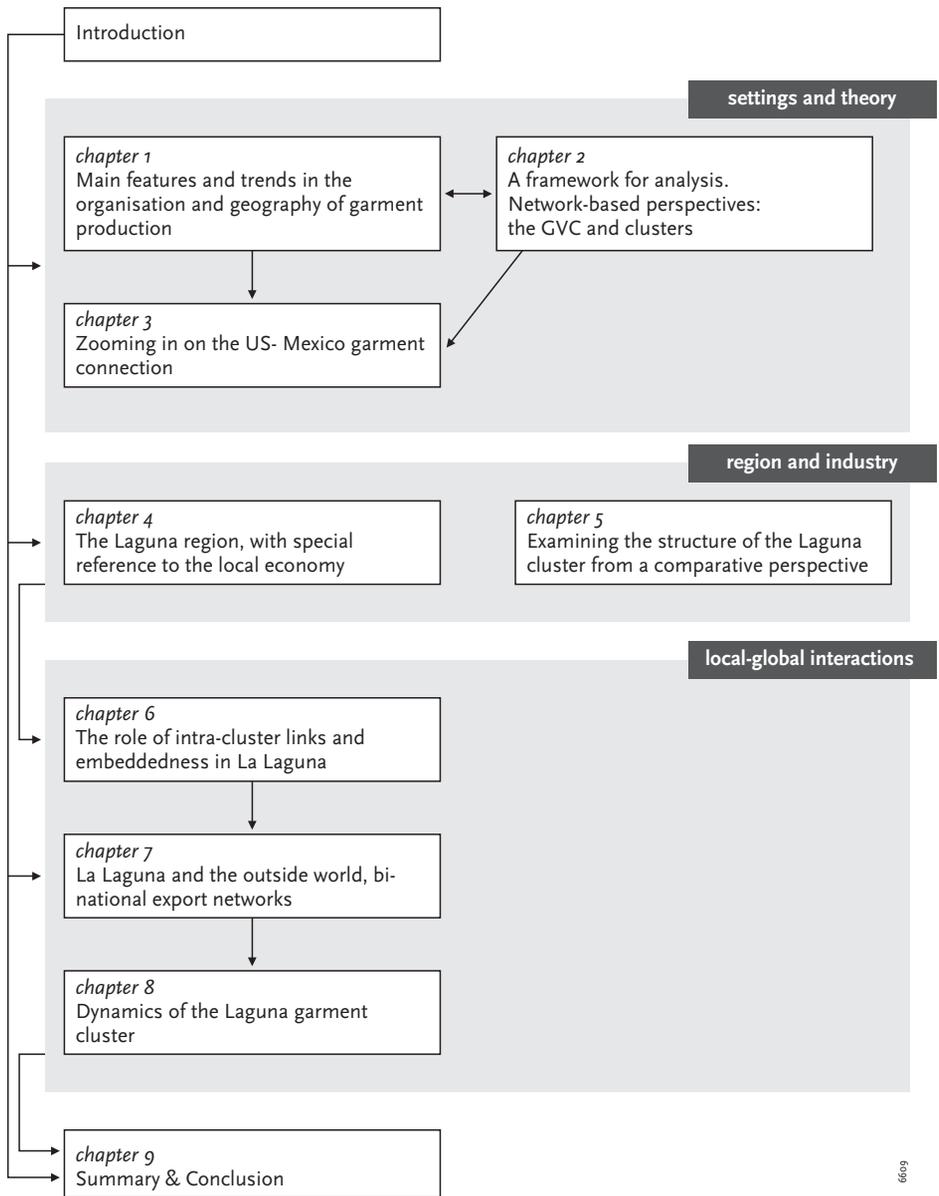


Figure 0.1: Structure of the study

Chapters 6 to 8 present the main findings of the field research. Chapter 6 examines intra-cluster links and sheds light on the role of such links and the wider sociocultural and economic environment of the cluster on the competitive position of the cluster and firms. Chapter 7 focuses on network relations, centred on and orchestrated by various types of US buyers that connect La Laguna to the US market and their role in the development of La Laguna. Chapter 8 reviews the development of the cluster since NAFTA and examines whether upgrading processes have taken place that may contribute to strengthening or improving the position of La Laguna. The chapter is concluded with a brief discussion of the impact of the crisis that affected the local cluster since mid 2001.

Chapter 9 summarises the main findings of the study and answers the research questions. These are then placed within the general and theoretical context as sketched in Chapters 1 and 2.

1 The global garment industry: organizational and geographic features and trends

The history of the industrial production of garments dates back to the early nineteenth century. Since then there have been few truly revolutionary changes: the basic principles in the organization of garment production have remained unchanged, and fashion and a dichotomy between retailers and manufacturers continue to characterise the industry¹. However, market-related aspects became much more pronounced in the last decades of the twentieth century. In fact, sales and marketing now play a dominant role in clothing. The most notable evidence of this trend is the proliferation of brands and labels on clothing. Several of these brands and labels have a global reach and are both sold and produced around the world. The fact that the global success of these highly advertised brands and labels is often based on a global manufacturing strategy in which low-wage countries – and especially the most sensitive segments of the labour force in those countries – perform the lion’s share of production, is characteristic of the past decades. It has also caused the industry and many of its high-profile firms to be at the centre of both academic and popular polemic². This chapter does not take sides in this moral debate, but gives an overview of the basic organizational and geographical features and trends that underlie the current structure of the global garment industry.

This chapter highlights the industry’s distinctive characteristics. It also sketches the most important dynamics over the past decades, based on a synopsis of existing garment studies. The aim is to outline the global industrial environment within which the local garment industry in La Laguna is operating, as well as the challenges posed by that environment. The focus of the first section of the chapter is on the organization of production. It uses the garment production process as a stepping stone for a brief and broad introduction to the basic structural and organizational characteristics of the garment industry. Also, the most basic organizational principles in garment production – viz. vertical disintegration and subcontracting – are discussed. Likewise, the progressive dominance of sales and marketing over manufacturing, the emergence of new actors and strategies and shifts in existing power balances are introduced. All of these phenomena are affecting and transforming organizational practices and structures in the industry.

The second section of this chapter focuses on the geography of garment production. It shows the garment industry to be a truly omnipresent industry, displaying high mobility on a global scale. Within the broad globalisation pattern, a number of sub-patterns can be noted: for example, the decline in garment production in developed countries is paralleled by growing participation of a greater number of developing countries. There is little doubt that simple production techniques and the labour-intensive nature of the garment production process are pushing the relocation of garment production to low and middle income countries (LMICs). However, developing countries on the periphery of the main market appear especially

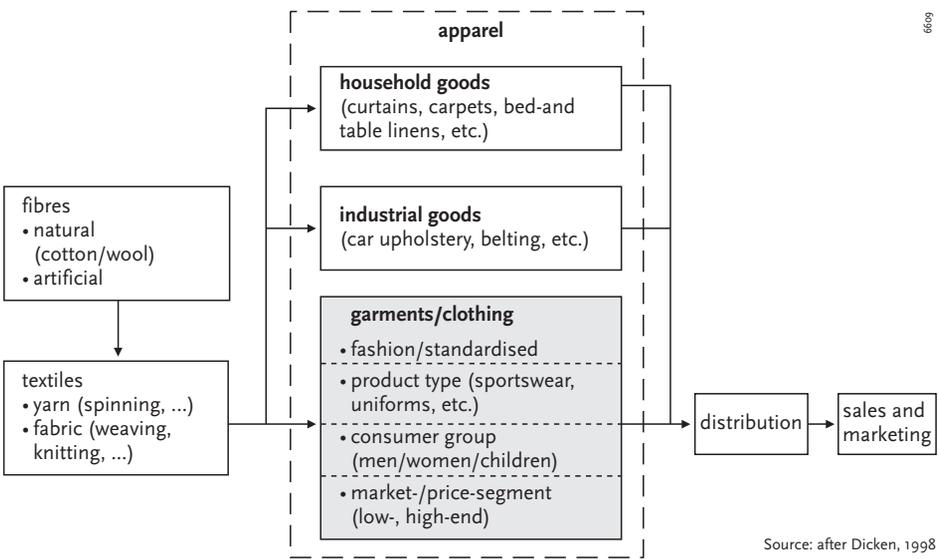
successful. The resulting patterns and their underlying strategies are highly complex, dynamic and even volatile.

1.1 Characterising the industry

The garment industry is part of the textile-apparel production complex, as illustrated in Figure 1.1. The individual parts of this complex – the clothing/garment, apparel and textiles industries – are common subjects of industry studies. Because of their interlinkages and partial overlap they are quite commonly grouped together and even (mistakenly) treated as one³. To avoid confusion, Figure 1.1 highlights the subject of this study: the shaded area is the garment or clothing industry as defined here. As such, the garment industry produces only clothing and no other sewn products (see also Spinanger, 1992). In this study, two terms are used as synonyms for the garment industry: the clothing industry and the wearing apparel industry.

One of the first characteristics of the garment industry that deserves attention is that it is highly segmented. There are numerous clothing categories, with segmentations, among others for types of consumers (children, men, women), product categories (e.g. casual clothing, work wear, sportswear) and market segment (low-end vs. high-end). Each product category unites a number of particular product types with specific characteristics, which in turn are reflected in the nature of the production process. Also, in most literature on the garment industry a very broad distinction is made between fashion and standardized, mass-produced garments that are generally believed to have slightly different characteristics and dynamics (Taplin, 1994; Dicken, 1992, 1998; Mody & Wheeler, 1987).

The garment production process consists of three broad groupings of production activities: the pre-assembly, assembly and post-assembly production phases (see Figure 1.2). Pre-assembly involves grading and marking patterns, and cutting fabric into individual pattern pieces.



Source: after Dicken, 1998

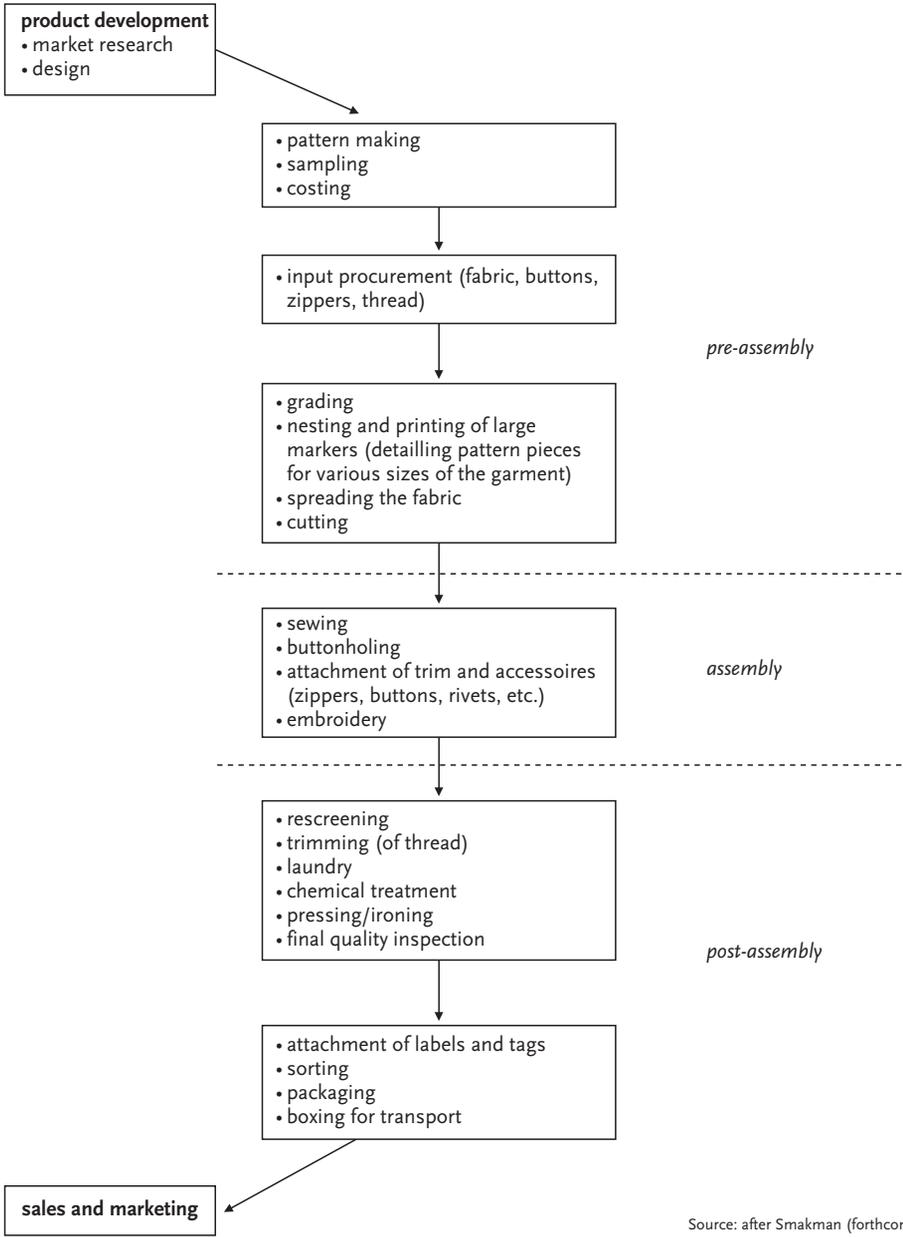
Figure 1.1: The textile-apparel production complex

Assembly is the sewing together of these pattern pieces. The traditional garment assembly process is called the 'bundle system', since it involves the sequential transportation of bundles of about thirty garment pieces along sewing lines of specialist, one-task operators. Post-assembly is in most cases a synonym for finishing and consists of such activities as re-screening, trimming, pressing and packaging. Only few types of garments, most notably jeans, require laundry as part of the post-assembly process. Each phase of the production process has distinct labour requirements and specific capital-labour ratios, which opens up different possibilities for new technology and plant locations for each phase. Prior to the manufacturing or production process, which runs from pattern making to packaging, product development takes place. Product development and sales and marketing are generally carried out close to the final market.

The production column in Figure 1.2 depicts the production process for clothes as a continuous sequence. In the old days, most garments were produced domestically or by tailor shops, and the production process was integrated; pre-assembly, assembly and post-assembly processes were carried out in one location. However, since the establishment of the first clothing 'manu-factory' in the early nineteenth century – which started the industrialisation of garment production – vertical disintegration of the production process was introduced (Dickerson, 1995). Mass production and the vertical disintegration of the production process became standard practice in Western garment production (Jernigan & Easterling, 1990; Dickerson, 1995; Berry et al., 1976). At that time, urbanisation and factory-based industrialisation caused an increase in demand for mass-produced garments. With the concentration of production in factories, the possibilities for specialization increased. Specialization and flexibility advantages associated with vertical disintegration led to the emergence of an institutionalised division of labour. In the USA, for example, jobbers close to the main market in New York performed design and marketing activities, while manufacturing was often done by contractors in rural locations in the Northeast or in southern parts of the country (Hall, 1959; Jernigan & Easterling, 1990; Taplin, 1997). Production was coordinated through subcontracting/contracting linkages between these two types of specialist garment firms. Over time, vertical disintegration and subcontracting have become the rule rather than the exception (Hall, 1959; Taplin, 1994, 1997; Dickerson, 1995; Dicken, 1992, 1998; Elson, 1988). Specialization is also reflected in the scale of operation of garment firms. Overall, the garment industry is a comparatively fragmented, small-scale industry, consisting primarily of small production units (Hall, 1959; Dickerson, 1995; Dicken, 1998).

Inter-firm production networks, based on the above-mentioned specialist subcontracting linkages, have long been the backbone of the industry. These networks have recently become characterized by deeper specialization. Bull et al. (1993) also note this: ...'variegation in products and processes leads to effective specialization opportunities, which in turn make intra-industry linkages more important'. Within these networks small- and medium-sized contractors generally take care of the lion's share of manufacturing. However, very large and modern 'lead' firms play a central role in these networks. Increasingly these lead firms derive their strong competitive position from global retailing strategies based on mass marketing and the creation of global brands and labels. While they handle very large volumes they are often not involved in manufacturing but instead coordinate and control manufacturing activities as carried out by the contractors in their networks.

One of the interesting aspects of Figure 1.2 is that its basic elements have hardly changed over time. The modernisation of products and processes has been limited, undergoing only fairly humble changes. One of the reasons is that, compared to other industries, automation options are limited. The few technological innovations that have taken place have had the most impact on the pre-assembly activities of design and cutting (Hoffman, 1985; Mody and Wheeler, 1987;



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Source: after Smakman (forthcoming)

Figure 1.2: The garment production column

OTA, 1992; Audet, 1996; Wyatt, 1989) and on distribution. By contrast, assembly technology has changed little: conventional sewing machines, only slightly more sophisticated than those of several decades ago, still dominate factory floors. The soft, limp nature of the fabric limits the advancement of automation in assembly (OTA, 1992; Taplin, 1994; Dickerson, 1995). Thus, the few advances that have been made are mostly geared towards the mechanised transportation of garment pieces on the factory floor and to the automation of specialized operations (such as buttonholing, pocket setters and collar attachers). In other words: 'the one operator/one machine link has not been broken' (Hoffman, 1985, p. 378). As a consequence, garment production is highly labour-intensive: estimates of the relative importance of labour cost in total manufacturing cost vary between 25 and 35 percent (Scheffer, 1992; Jernigan & Easterling, 1990). Also, compared to other industrial sectors, garment production requires skilled workers (Berry et al., 1976; Alexander & Gibson, 1979; Audet, 1996; Taplin, 1997; Dicken, 1998). Much of the speed and quality of production depends on the sewing skills of the operators, who turn flat, one-dimensional fabric into three-dimensional garments. Sewing skills can be passed on relatively easily through on-the-job training (Spinanger, 1992).

The generally low technology levels in garment manufacturing lead to low barriers to entry, which is reflected in the earlier mentioned fragmentation and the presence of a multitude of small- and medium-sized firms. Combined with general improvements in telecommunications and transportation technology, it also facilitates the globalisation of the garment industry through the incorporation of garment firms in developing countries into global garment production networks. Thus, low barriers to entry and high labour intensity of the production process make the garment industry a common first stepping-stone for LMICs into the industrialisation process. Producers in LMICs are becoming more and more involved in garment production for export: the share of LMICs in garment imports of the main Western markets is increasing (Audet, 1996; WTO, 1994, 2000). Moreover, an increasing number of LMICs are participating in this development. As will be explained in more detail in the second section of this chapter, certain patterns can be discerned with regard to the involvement of LMICs in garment export. Though overall low levels of technology and high labour intensity characterise the garment industry, it is important to recognise, as mentioned earlier, that each phase of the production process has distinct capital-labour ratios. The assembly phase is the most labour-intensive, which is why assembly is especially amenable to international relocation to LMICs. The internationalisation of garment production thus commonly involves a geographical separation between the pre-assembly and the assembly stages of production (Fröbel et al., 1980; Dicken, 1998; Audet, 1996; see also section 1.2.2).

In both developed countries and LMICs the garment industry is typically seen to employ the most vulnerable or sensitive segments of the labour force (Dicken, 1998). On average, 80% of garment workers are female (Spinanger, 1992). Unsurprisingly, there are many studies of seamstresses in LMICs concerning their position in the factories and households (Benería & Roldán, 1987; Robert, 1983; Wilson, 1993; Lawson, 1999; Peña St. Martin & Gamboa, 1991; Estrada Iguíniz, 2002). Especially in LMICs, garment workers are often young, have a low educational level and only limited working experience. Skills are often the result of on-the-job training and are not easily transferable to jobs in other industries. In industrialized countries, and also in LMICs, immigrants typically make up a large share of the workforce. Several studies document the employment of immigrants in sweatshops and semi-underground factories in large metropolises (Glasmeier et al., 1992; Taplin, 1994; Ross, 2002; ILO, 1996; Hartog & Zorlu,

1999; Kumcu, 2001), resulting in ‘an international division of labour within developed countries’ (Scheffer, 1992, p. 15). At the same time, garment employment is also present in rural areas, where it may be a dominant factor in the local economy (Jernigan & Easterling, 1990; Glasmeier et al., 1992; Estrada Iguíniz, 2002; van Dooren & Zarate Hoyos, 2003; Simmons & Kalantaridis, 1996). Overall, the garment industry is notorious for its bad labour conditions, low wages and low unionisation levels, whether in underground sweatshops, in factories in export processing zones in LMICs, or the hired-and-fired homeworkers or outworkers (Fernandez-Kelly, 1983; Wilson, 1993; Benería & Roldán, 1987). Generally, instead of receiving a set wage, garment workers are paid a rate for each piece completed (Jernigan & Easterling, 1990; Taplin, 1997). This is called ‘piecework’ or the ‘piece rate system’.

The following section expands on this first introduction by examining the two most basic and interlinked characteristics of the organization of garment production: vertical disintegration and subcontracting. The section after that deals with aspects of the garment industry that have been latently present for a very long time but became especially pronounced in the 1970s to 1990s. Attention is paid to the increasing power of retailers, the increasing prominence of segmentation and fashion as drivers of the garment market, and the increasing prevalence of branding and labelling as tools for product differentiation. The final section looks ahead and examines incipient and expected changes in the garment production arena as a consequence of the recent market dynamics.

1.1.1 Organizational cornerstones of garment production

Vertical disintegration

As discussed above, early and pervasive vertical disintegration lies at the root of the current organization of garment production. Here, vertical disintegration is understood as the splitting off of parts of the production process to separate firms or establishments, or the externalisation (buying) – as opposed to internalisation (making) – of certain production activities or services of the production process (see Figure 1.3). A business firm’s decision concerning what to make and what to buy is central to industrial organization. Since the 1930s, transaction costs have played a determinant role in answering this question. The basic contention was that a firm will internalise transactions ‘until the costs of organising an extra transaction within the firm become equal to the cost of carrying out the same transaction by means of an exchange on the open market’ (Coase, as quoted in Yeung, 1998, p. 105).

While still a valid observation, in the context of today’s global economy Coase’s insights can be seen as economically deterministic (see also Yeung, 1998). Such criticism is prompted by the fact that new and multiple competitive pressures on business enterprises during the last decades of the twentieth century have complicated the ‘make or buy’ dilemma. Most noteworthy in this respect is the need to become more flexible⁴. One way to achieve flexibility is by corporate restructuring aimed at specialization or emphasising/re-emphasising core competencies and the outsourcing of other production and service activities (Porter, 1980; Dicken, 1998). As such, since the 1980s and 1990s flexibility has often been obtained through specialization and vertical disintegration (Piore & Sabel, 1984; Best, 1990; Malecki, 1997; Dicken,

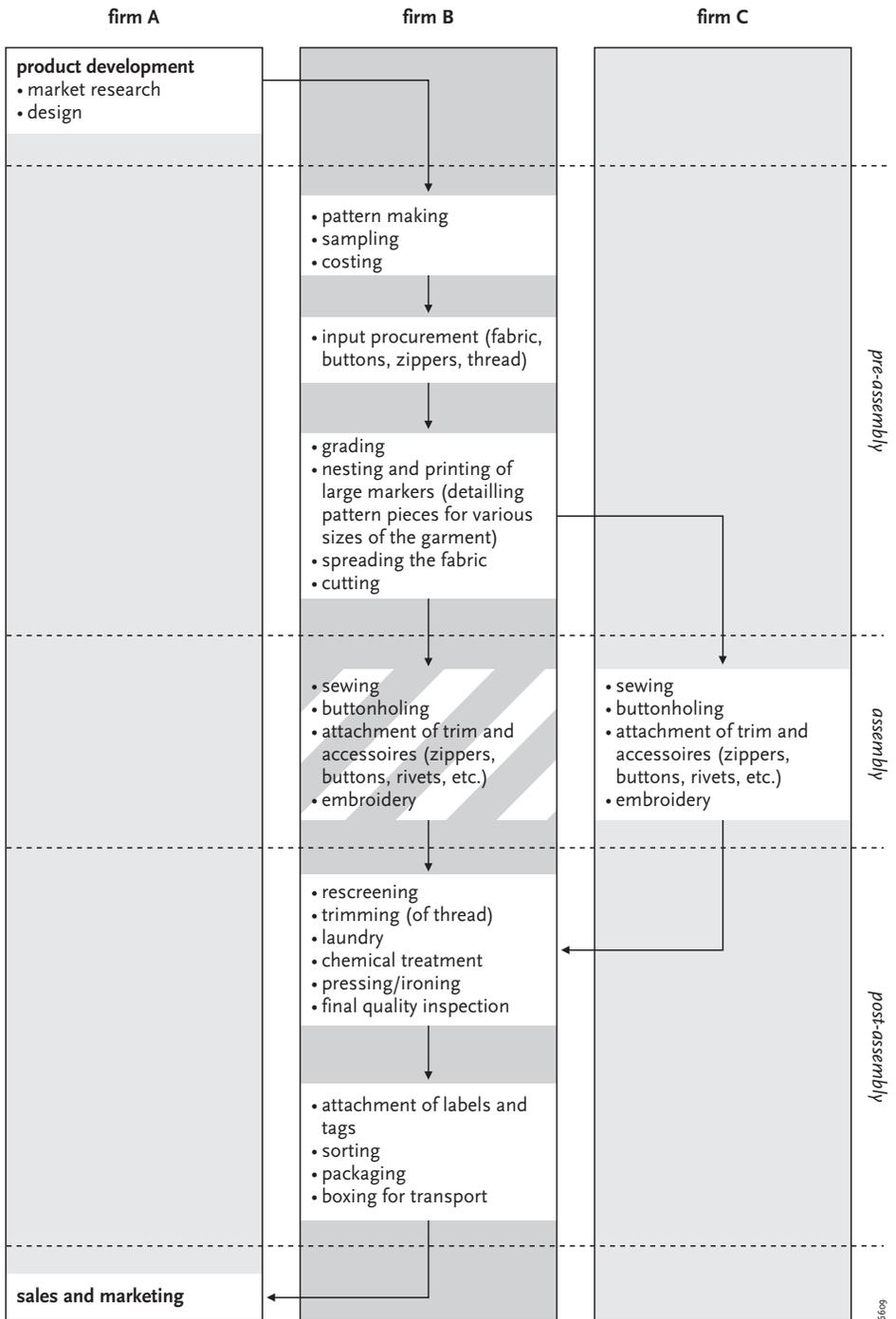


Figure 1.3: Vertical disintegration and subcontracting arrangements

In the garment industry, vertical disintegration pre-dates the flexibilisation trend of the late twentieth century. For example, textbooks on economic geography written several decades ago (Hall, 1959; Berry et al., 1976, 1987; Alexander & Gibson, 1979) trace the separation of production from design and marketing in the US garment industry back to over a century ago. In recent decades the division of labour has become more complex and fine-grained: a great variety of garment firms – such as retailers, marketers, jobbers, vendors, buying agents/traders and manufacturers – have sprung up, each performing a part of the production process. Vertical disintegration in the garment industry is facilitated by the fact that the garment production process is easily segmented into separate production activities or nodes, each of which has a different capital-labour ratio (see section 1.1).

Subcontracting

With vertical disintegration and increasing specialization in garment production, subcontracting relations have become an integral part of the production organization. Here, subcontracting is understood as the production of components or finished products by one firm for another firm based on the latter's specifications. A commonly used synonym for subcontracting is 'sourcing'⁵. Such an intermediate, 'neither purely firm-like nor purely market-like' (Casson, as quoted in Malecki, 1997, p. 114) coordination mechanism allows lead garment firms to maintain the flexibility associated with vertical disintegration (Holmes, 1986; Crewe & Davenport, 1992; Crewe, 1996). On the other hand, through tight coordination embedded in subcontracting relations, lead garment firms still have control over their subcontractors and are able to dictate prices and impose product specifications, quality and delivery standards (Humphrey & Schmitz, 2000; see also Chapter 2). In reference to subcontracting relations, the firm placing the order or contract is generally called the 'principal firm'. The division of labour in subcontracting arrangements is such that the principal firm has total control over the marketing of the product.

Several types of subcontracting may be distinguished on different grounds. For this research, the most appropriate, broad distinction is between industrial and commercial subcontracting (Dicken, 1998; see Visser, 1996; Holmes, 1986; Hayter, 1998, for alternative approaches). In industrial subcontracting arrangements, either components or processes may be contracted out. Dicken (1998) further subdivides industrial subcontracting into largely self-explanatory types: speciality subcontracting, cost-saving subcontracting and complementary subcontracting⁶. Between the three types of industrial subcontracting, not only does the principal firm's reason for involvement vary, but so too does the extent of its and the subcontractor's⁷ involvement in the production process. In Figure 1.3 the shift of assembly from firm B to firm C is an illustration of an industrial subcontracting arrangement.

In commercial subcontracting, the contractor produces a finished product. In the garment industry, commercial subcontracting is a central notion and is commonly referred to as 'full package' production (Gereffi, 1997). In full-package production arrangements, subcontractors purchase all the material inputs and use these to produce a finished garment in accordance with the specifications of their principal firm, to which the garment is subsequently sold. Since the insertion of LMIC contractors in the production networks of Western lead firms often starts with pure assembly activities, full-package production is seen as an important step in a development trajectory, in which LMIC contractors gradually extend their command over the production process (Gereffi, 1999). As will be further discussed in Chapter 3, full-package production features especially prominently in recent studies on the Mexican garment industry.

The shift of the entire manufacturing process from firm A to firm B in Figure 1.3 is an example of commercial subcontracting or full-package production.

In all subcontracting arrangements, marketing is the sole responsibility of the principal firm. In the case of garments, this latter observation is often taken to an extreme as the role of the principal (or 'lead') firm is increasingly assumed by retailers whose only involvement is with retailing and marketing. As will be discussed in the following section, their leading role is based on the fact that they have slowly gained power and have come to hold and consolidate a position of power over manufacturing firms.

1.1.2 Changes in the garment market

For a long time, a fairly clear and deep dichotomy based on the separation of manufacturers and retailers characterised the wearing apparel industry. The division of labour between them was fairly clear-cut: manufacturers took charge of the production, and often also the design of garments which they sold to retailers, who in turn sold them to the final consumers. Nowadays, the situation is not as straightforward. Sophisticated marketing has become an essential element in the strategies of all successful lead garment companies. In fact, the overwhelming importance of marketing is the basis for an entirely new type of garment firms, the 'marketers' or 'manufacturers without factories'. These marketers have built their business on marketing without getting involved in manufacturing (Glasmeier et al., 1992; Gereffi, 1994a). They compete directly with retailers and branded manufacturers. Currently, all three types of garment firms are combining manufacturing and retailing strategies and adopting more hybrid forms of organization⁸. As a consequence, it has become hard – certainly in the US – to clearly distinguish retailers from marketers and branded manufacturers; all are involved to some extent in retailing as well as in manufacturing or the coordination of manufacturing. Meanwhile, garment retailing has changed dramatically as such marketing tools as brands and labels are used to segment the market and for the frequent introduction of new fashion elements.

Product differentiation through brands and labels

As mentioned, garment manufacturing is characterized by fragmentation and small- or medium-sized companies. Only a few manufacturers, viz. those that are known as 'branded manufacturers', have managed to distinguish themselves from this small- and medium-sized enterprise (SME) manufacturing army by building a strong brand image. Traditionally, their garment brands were attached to only a few models of one type of standardized commodity garments such as jeans, socks or tee-shirts. Well-known brand examples are Lee, Wrangler, Levi Strauss, and Fruit of the Loom. These brands are owned and managed by branded manufacturers, whose main preoccupation for decades was the manufacturing of garments worthy of their brand, and less with the marketing side of their business and the brand. Nevertheless, the success of brands inspired retailers to develop their own private labels.

The development by retailers of their own private label lines marks an important change in the marketing of garments as well as a shift in the relation between various actors in the industry. Private label lines are manufactured for specific retailers and sold exclusively in their stores (Dickerson, 1995). For retailers, these lines have two clear advantages. Firstly, they give retailers direct control over the types of garments sold in their stores, enabling them to seek variety and exclusivity as a way to differentiate themselves from the competition. Secondly, private label

products are generally sourced directly from LMIC manufacturers at low prices, allowing for higher mark-ups – certainly compared to domestic sourcing (Dickerson, 1995). In the USA, retailers started to develop private labels during the 1960s and 1970s as a means to maintain profits in a market characterized by stagnant sales, stable and homogeneous prices, and the consumer demand for greater product-mix variety. Typical examples of private labels are Kmart’s ‘Route 66’, JC Penny’s ‘Arizona Jeans’ and ‘Canda’ by C&A. Generally, private labels are positioned in the lower-priced segments of the market. The private-label strategy has been highly successful. Inspired by the success of manufacturers’ brands they are now means to compete with them (Palpacuer, 2002). So much so, that instead of being the main clients of domestic manufacturers, retailers have become important competitors of garment manufacturers, especially as they are developing direct relationships with overseas producers.

The development of private-label lines by department stores and other traditional retailers is not an isolated phenomenon. Besides brands and private labels, the 1970s also saw the birth of ‘designer labels’. These are owned by marketers or designers such as Calvin Klein, Ralph Lauren, Zara, Gucci, and Mexx (Dicken, 1998; Palpacuer, 2002). They are similar to private labels but have a more exclusive image and predominate in the middle- to high-price segments.

The general aim of brands, private and designer labels is to differentiate between largely similar products. Though applied throughout the industry, brands and labels are most effectively used as marketing tools in the mid to high segments of the clothing markets.

The branding and labelling strategy has been so successful that it has been taken one step further in a process that has been called ‘horizontal brand stretching’ (Gibbon, 2000). Horizontal brand stretching involves the sourcing and marketing of non-clothing items under brands or labels. Stretching into non-clothing items such as furniture, wristwatches, perfumes, jewellery, and bed- and bath linens (Gibbon, 2000; Speer, 2001a) turns clothing ‘styles’ into ‘lifestyles’. This phenomenon is becoming more and more common; marketers of designer labels are particularly proactive in this respect. Furthermore, marketers and designers engage in internal brand differentiation, through the development of slightly differentiated, often sound-alike brands (Gibbon, 2000), such as ‘Liz’, ‘Liz Claiborne Casual’ and ‘Claiborne Men’ by Liz Claiborne Inc. Similarly, ‘GapKids’, ‘BabyGap’ and ‘GapBody’ are spin-off labels of Gap Inc.. Clearly, brands and labels provide the retailers, marketers and branded manufacturers behind them with a powerful marketing tool. Through the consistent association of a brand or label with a certain style and/or with other product characteristics, such as price or quality, its owners seek to manipulate and control the garment market. They try to win consumer loyalty by segmenting the market and stimulate sales through frequent fashion changes.

Market dynamics: segmentation and ‘fashionisation’

The garment industry is also characterized by high levels of segmentation (section 1.1). Segmentation may be based on the final consumer (man, woman, child), type of garment (bottoms/tops, outerwear/underwear) or price/exclusivity (cheap, mass-produced/expensive, exclusive), etc. After massification in garment marketing and production during the 1960s and early 1970s (Griffin et al., 1971; Crewe & Davenport, 1992), the 1980s saw a renewed tendency towards segmentation of the mass market for garments⁹. Current market segmentation is based on the creation of specific clothing styles that correspond to consumer profiles and the use of brands or labels to achieve consumer recognition and loyalty. During the 1990s, consumption patterns for clothing became highly opaque, as price, fashion, brands/labels and

style played a role in determining garment sales. The dualism between ‘cheap and cheerful, throw-away fashion’ and higher value, quality clothes appears to have become less absolute. In attempting to maintain garment sales and gain control over fickle and stagnant consumer demand (Audet, 1996), the creation of clear and popular clothing styles is an increasingly important instrument. The aim is to identify or even create discrete segments of the consumer market – or discrete consumer profiles, such as skaters, female professionals and young urban professionals – for which a specific style, often under a separate brand or label, can be developed.

Besides the segmentation of the garment market into a greater number of specific styles, the greater importance and faster-paced nature of fashion change is dynamising the garment market. Though pinpointed as a trend many decades ago (Hall, 1959; Berry et al., 1976), nowadays fashion change is seen by some as the main motor behind the continued consumer demand for clothing (Dicken, 1998; Dickerson, 1995; Crewe & Davenport, 1992), which would otherwise be hampered by clothing’s negative elasticity of demand and a saturation of Western mass markets (Audet, 1996). Across the various segments, fashion changes are frequent and multiple fashion collections cater for such changes as well as stimulate sales. Six or even eight fashion seasons a year has become the rule rather than the exception. It is important to note that this applies to the industry as a whole. Fashion trends are incorporated into most garments, from cheap lower-end to expensive and exclusive (OTA, 1992). Even garments such as jeans, tee-shirts and underwear, which are traditionally characterized by a high degree of standardisation, have increasingly had to incorporate fashion elements in order to maintain market share (Gibbon, 2000).

Brands and labels are important tools in the segmentation of the market and they have become key assets. Manufacturers, designers and retailers concentrate efforts and capital investment on the creation of a global brand or label image. The capital investment necessary to launch and maintain a successful mass advertised, global image have contributed to strengthening the barriers to entry in garment retailing. As will be discussed next, the branding and labelling trend has re-enforced the power of lead firms that are successful in this segment over other garment firms.

Lead garment firms: examining the positions of retailers and manufacturers

In recent literature on the garment industry, one general trend stands out above all others: the increasing dominance of retailers over manufacturers (Clairmonte & Cavanagh, 1981; Scheffer, 1992; Taplin, 1994; Dickerson, 1995; Elson, 1988; Dicken, 1998; Jernigan & Easterling, 1990; Gibbs, 1988). In more general terms, there has been a shift of core competencies away from manufacturing towards the marketing and design phases of the production process. Strong design and marketing competences, rather than manufacturing skills, are the keys to success in the garment industry today. Changes have been especially dramatic in the UK, where the phenomenon has been referred to as a ‘retailing revolution’ (Crewe & Davenport, 1992; Scheffer, 1992). Similarly, in reference to the USA, Dickerson (1995, p. 453) speaks of ‘power retailers’.

Concentration in retailing has increased. Nowadays fewer retailers enjoy larger market shares and increased purchasing power over manufacturers (Crewe & Davenport, 1992; Scheffer, 1992; Dickerson, 1995; Gereffi, 1994a). Retailers increasingly exercise command and control over the

products in their stores as well as over the manufacturers that produce these clothes. Many retailers occupy the position of lead firm in garment production networks. Traditional general retailers, including mass merchandisers, department stores and mail-order companies, are participating in this shift, as is the new type of retailer, the marketers. The result appears to be a general power shift from manufacturers to retailers.

However, manufacturers have not been passive bystanders: especially branded manufacturers (that have a long history of working with brands) have adapted their business strategies to be able to confront the competition from retailers (see also Box 1.1). In most cases their strategic reorientation has involved the increased promotion of existing brands and/or the acquisition of new brands, whilst de-emphasising their production activities. Most have not completely divested out of manufacturing, but have opted for a combination of in-house production and subcontracting. Several branded manufacturers have integrated forward into retailing mostly through the establishment of 'outlet stores'. Based on the success of such and other strategies, several branded manufacturers are able to maintain a position of power and control over their 'filière' or production column and production network. Smaller manufacturers that do not produce under their own brand are generally finding it hard to carve out a niche for themselves. They occupy a dependent position vis-à-vis retailers and other lead firms and may be threatened as the latter internationalise their sourcing networks (see also section 1.2).

As lead garment firms become more hybrid and business strategies converge, retailers, marketers and branded manufacturers are commonly grouped together under the broad denominator 'buyers'. This nomenclature points to the homogenisation of their strategies and the declining relevance of the manufacturing or retailing 'roots' of individual buyers. More importantly, it also underscores the general importance of buying or sourcing as part of the strategy of all lead firms. Increasingly, lead firms in the main Western markets have strong sales and marketing competencies, and outsource manufacturing responsibility to a large and often international production network. They orchestrate the production of their clothes by tightly coordinating and controlling these networks and participant producers.

Box 1.1: The dynamics of garment marketing: the case of blue jeans

Though they have an image of being quintessentially American, blue jeans have a very international background: their inventor, Levi Strauss, was a German immigrant from Bavaria; 'jeans' is derived from Genoa ('Genes' in French) in Italy where local sailors were the first to wear jeans; and 'denim' comes from Nimes, the French town where the fabric for the first jeans was bought (Knight, 1999). Since their invention, jeans have only become more internationalised; they are now as international as any other type of garment. In addition, they have lost their status as the uniform of the blue-collar worker and the American cowboy and – after what appears to have been a brief identity crisis – are moving towards the centre stage of fashion. All in all, jeans provide an excellent illustration of the dynamics of the garment industry in general.

Branding and market segmentation feature prominently in the strategies of blue-jeans producers nowadays. Evidence to this is a Levi Strauss press release in which the company announces the launch of a new Levi Strauss & Co. brand, Levi Strauss Signature™:

'Entering the mass channel in the United States with a new brand is a natural next step for us as we continue to broaden our product availability through a portfolio of brands. We've segmented the marketplace by consumer types, product, price and retail channel. For example, consumers will easily see the difference between the jeanswear lines within the Levi Strauss Signature(tm) and Levi's(r) brands. Each brand will have differentiated products in distinctive fabrics and finishes at various price points [...] but they will all be rooted in what we stand for – originality, quality and style. (Company press release, 30 October 2002)

Levi Strauss' most direct competitor – VF Corporation – appears to be following a more aggressive strategy to broaden its portfolio of brands, in which the acquisition of existing brands plays an important role. Currently (2003), VF owns and manages sixteen brands, including Lee, Wrangler, Rustler and Gitano, as well as non-jeans brands such as East Pack, The North Face and JanSport.

The upsurge in private labelling has also affected the blue-jeans segment. One of the companies seen to have initiated this trend in the 1970s was Gap Inc. (Knight, 1999), a company that moved from retailing Levi jeans to becoming the marketer of its own private-label lines. At that time jeans sales were at an all-time high and both retailers in the lower segments of the market and designers for the higher segments began to launch private-label jeans. By the beginning of the 21st century, Arizona Jeans (by JC Penney), Route 66 (Kmart), Guess, Diesel, Polo and many others were firmly established names in blue jeans.

Finally, blue jeans have not escaped the fashionisation trend, so that now one can distinguish fashion jeans from basic jeans, where the former are progressively taking over market share from the latter. This change was not made overnight, certainly not by the main players, the branded manufacturers such as Levi Strauss and VF Corporation. The laggardly attitude towards fashionisation of the segment's traditional leaders – most notably Levi Strauss, which as a consequence suffered great losses in market share – as well as the uncertain direction and success of this fashionisation trend caused a number of industry watchers to publish alarming reports on the 'disappearance of jeans' (Tubantia, 1999). The initial narrow focus on standardized 5-pocket jeans of many of these reports to some extent explains the overly dramatic picture they paint. Furthermore, efforts were made to recover the lost market share, most notably by increasing the design efforts in jeans. New fashion elements were incorporated not only by retailers and marketers, but also by the branded manufacturers. This appears to have paid off: the street scene of today shows that jeans have by no means disappeared. A considerable share of the loss incurred by 5-pocket jeans is being balanced by growth in fashion denim products. Thus, once the classic example of a mass-produced, standardized garment, the progressive but cautious incorporation of fashion elements during the 1990s and the active participation in the generation of new trends around the turn of the new century have radically changed the face of blue jeans. Reports in industry magazines bearing titles such as 'Denimwear is hotter and more fashion forward than ever' (Swedberg, 2002) confirm this trend. The range of denim fabrics has expanded dramatically over the past years, especially with regard to stretch fabric and new types of weaves, but finishing techniques now determine the look of jeans. Low-rise jeans are popular and these are treated with finishing techniques such as sand-blasting, hand-sanding (creating faded patches on thighs and seat) and 'whiskering' (artificial creases at the crotch and knees). These and other treatments with chemicals, dyes or abrasives determine the appearance and popularity of a pair of jeans.

1.1.3 Changing to face new challenges

From the above it is clear that non-price aspects have become crucial to building and maintaining a strong position in the wearing apparel market. Besides price, garment sales are now determined by brand reputation, which amongst other things depends on product quality, styling, advertising, and rapid and accurate response to fashion trends (Richardson, 1996). The garment marketing arena has witnessed fairly radical changes leading to the progressive subordination of production to marketing and a more central position of retailers in garment production networks. However, this is just one step in a sequence of changes that is transforming garment production networks and organizational processes as well as manufacturing firms. This section connects recent developments in the industry with the production organization in order to highlight incipient and expected changes in garment networks and firms.

Technological innovations and rapid progress in computer technology are transforming the competitive dynamics of the industry by allowing the easy and low-cost collection, processing and dissemination of consumer sales data (Abernathy et al., 1995; Dicken, 1998). Similarly, the internet is affecting the organization of garment production, mainly by facilitating fast and direct business-to-business (B2B) contact and data exchange between geographically distant participants in a production network. The result is an 'information-integrated channel' (Abernathy et al., 1995)¹⁰.

The industry-wide fashionisation trend creates a push for short delivery or turn-around times. It also diminishes the predictability of sales and discourages the issuing of predictable bulk orders, which is reflected in an overall reduction of order sizes and the break-up of orders into a large initial order complemented by smaller replenishment orders. The resulting pressures on garment manufacturers and contractors to become more flexible are paramount (Audet, 1996; Malecki, 1994). At the same time, greater variety, volatility and uncertainty in the market pose considerable risks to retailers. Risk minimisation or aversion is achieved by 'lean retailing': the direct transfer of risk – most notable in inventory management – and responsibility to manufacturers and contractors. It is also achieved by closer cooperation between buyer and manufacturer.

Risk minimisation is also important with regard to control over suppliers in the sphere of labour conditions and environmental standards. Consumer pressure and boycotts based on concerns over labour conditions and/or pollution can easily blemish the reputation of brands or labels. The reputation of brands has proven to be vulnerable, and malpractices – or allegations thereof (Berron, 1999) – can have a notable negative impact on sales. Following a number of labour condition scandals involving, amongst others, Nike and Gap Inc., many buyers have formulated corporate codes of conduct (see Annex 2). Nowadays the codes of conduct of most garment buyers specify the labour condition and environmental requirements with which factories that produce for them need to comply (Hale, 2000)¹¹.

[42] These very broad changes affect the production organization in a number of ways. First, to reduce inventories and make production correspond more directly to sales, retailers are building closer working relationships with manufacturers. These retailer-manufacturer partnerships are especially needed in the fields of inventory control and product development (Abernathy et al., 1995; Palpacuer, 2002; Wyatt, 1989). The formation of these relationships goes hand in hand with a streamlining and rationalisation of the production networks, in which

those manufacturers are favoured that can meet not only price and quality requirements but can also offer high flexibility and responsiveness to market changes and retailer demands. Abernathy et al. (1995, p. 176) note that:

'...lean retailing strategies place pressure on apparel manufacturers to adopt information systems, order fulfilment practices, distribution practices and related services that allow them to fill retailers' orders rapidly, efficiently and flexibly ... the long-term competitive performance of the firms responsible for the production and distribution of apparel products will therefore be shaped by their capabilities to respond rapidly to consumer demand while minimising exposure to inventory risk. This fact potentially places a premium on such characteristics as geographic proximity to market; technological sophistication in planning, distribution and production; and investment in closer, longer term relationships with the other players in the channel.'

The pattern of regionalisation of sourcing mentioned by Abernathy et al. will be dealt with in the second section of this chapter; here the focus is on the organisational transformation of production networks. In that respect, close and strategic buyer-supplier cooperation combined with the large production volumes involved explains the concentration on fewer but larger and more capable manufacturers as 'key suppliers' in the networks.

Which manufacturers or suppliers are in the best position to attain a key supplier position? Such a position requires more than investment in technology, the transformation and adaptation of the organization of production in order to shorten delivery times, and more flexibility. Common elements of what in the industry is known as a 'quick response' strategy are better communications between buyer and manufacturers (based on electronic data interchange (EDI), which may go as far as the direct transmittance of point-of-sale data to the manufacturer) and improved inventory tracking. However, flexibilisation of the production process on the factory shop floor may also be needed (AAMA, 1988; KSA, 1988; Bailey, 1993; Dicken, 1998). The traditional bundle system is typically Taylorist¹² in its focus on high specialization of workers – whose earnings are based on piece rates – and promotion of individual productivity. The downsides of the system are tremendous amounts of in-process inventory (several bundles each comprising thirty garment pieces may be awaiting each operator) and complicated quality control. This implies quality risks, long throughput times and inflexibility. The installation of a unit production system (UPS) – a rail transportation system that transports individual garments or garment pieces on a hanger between operators – is one way to reduce in-process inventory. Module systems, in which workers have more responsibilities and each garment piece is immediately handed from one operator to the next, are thought to be a good alternative, especially because they bring dramatic reductions in in-process inventory and in throughput time (Bonacich & Waller, 1994a; Bailey, 1993). The flexibility gains associated with the module system are great: lead times may be reduced from several days to a few hours (see KSA, 1988). However, its implementation may be complicated, not in the least because it requires a new division of tasks and a departure from many typically Taylorist features of the production organisation (Bailey, 1993).

All in all, the responsiveness and flexibility on the shop floor as well as in the relations with others in the network require key suppliers to implement strategic management and to make capital investments. These are great challenges, especially to new manufacturers, and the stakes are high. Key suppliers may serve as gatekeepers between retailers and the rest of the production network, where they monopolise the information exchange with retailers. They translate retailer demands into the practical programming and organization of production and

exercise control over the army of other subordinate contractors/subcontractors in the production network. The result is a hierarchy of suppliers in which the position of key supplier is highly desirable, not in the least because it ensures direct access to the market and to strategic information.

1.2 Garments: straddling the globe

The characteristics and trends presented in the first part of this chapter are only one part of a broader overview of developments in the garment industry. The discussion in this chapter would be far from complete without an examination of the main geographical shifts and patterns in garment production and trade over the past decades. This will be done in this section.

For most of its existence, the garment industry has served local, regional or – at most – national markets. Until the 1960s, garment producers in most countries were oriented towards the domestic market. In that decade, Japan initiated extensive international subcontracting in Asia. This indirectly stimulated the first-generation of newly industrialising countries (NICs) – viz. Singapore, Hong Kong, Taiwan and South Korea – to make their first garment exports (Dicken, 1998). They soon established themselves as major players (see Table 1.1) and caused great concern and protest in Western Europe and the US (Dickerson, 1995; Bonacich & Waller, 1994b). Garment sales in these markets were largely stagnant and the growth of exports from LMICs was largely at the expense of domestic production in the importing countries.

This pattern of shrinkage of the industry in most industrialized countries – even in some traditionally highly competitive producers and exporters such as Italy, Germany and the UK – and the growth and export success of LMICs caused much upheaval, involving labour unions, an influential lobby of industry representatives and government officials (Dickerson, 1995). Growing garment exports from LMICs were perceived as a serious threat to the traditional producer countries. The characteristics of the garment labour force added to the concern, since those in highly sensitive segments of the labour force stood to lose their job and become unemployed. In response to these concerns, in 1974 an international regulatory framework for the clothing industry was established. This framework – the Multi Fibre Agreement (MFA) – was meant to curb and contain the growth of garment production for export in LMICs, and more specifically to limit their penetration of the main Western markets. In practice, however, it did the reverse: it stimulated rapid sophistication of the industry in a number of NICs. MFA

Table 1.1: Annual growth (%) in value added in garments

Country groupings	1963-1973	1973-1980	1980-1990	1990-1998
Industrialized countries	2.1	0.2	-0.6	-1.4
Eastern Europe and the former USSR	6.7	5.2	1.7	N/A
All developing countries	5.8	4.2	2.6	-0.3
Asia	4.8	5.6	N/A	N/A
1st generation NICs			2.2	-3.5
2nd generation NICs			5.5	7.1*

also caused the industries' further proliferation and global dispersal (Glasmeyer et al., 1992; see Table 1.1 and section 1.2.1). As decades went by, the increasing volumes of LMIC garment exports as well as the growing number of LMICs involved in it proved irreversible trends, despite – or possibly stimulated by – the strict international regulatory framework.

Table 1.1 shows that the pattern of selective growth and decline extends into the 1980s and 1990s, the era of the extensive use of protective measures. During the 1980s rapid and widespread growth in LMICs was accompanied by the considerable decline of the industry in industrialized countries (see also Dicken, 1998; Dickerson, 1995; Audet, 1996). For the 1990s the overall pattern in Table 1.1 is less clear, but the most important figures stand out clearly: the decline in value added in garments in the industrialized countries continued in a more dramatic manner than in the previous decade. The overall value added for garments in LMICs eroded, but only slightly. This erosion, however, is the result of two opposite trends: decline in the first-generation NICs and rapid growth in the second generation. The decline of the first-generation NICs appears in part to have been a result of the successful continuation of their industrialisation process (see also Box 1.2). They are now competing in a wider array of industries and are de-emphasising garment manufacturing activities.

How much impact has this pattern of selective growth and decline based on world trade had on the actual pattern of clothing production across the globe? Where are garments produced? Which are the main producing countries? By presenting garment employment figures across the globe, Figure 1.4 gives a broad indication of the location of garment production worldwide. First and foremost, the figure shows the garment industry to be omnipresent, on every continent in a very large number of countries. The very large numbers of garment workers in China, and throughout most of Asia, is one of the first features in the map that stands out. The predominance of Asia vis-à-vis other LMICs is the result of an early start in garment production, sustained regional growth rates and sizeable intra-regional trade. Similarly noteworthy, however, is the continuing importance of the industry as an employer in the US and most European countries. Much of the current writing on and concern with the globalisation of the industry and its growth in LMICs, might cause one to forget that the largest garment producers are still the industrialized countries that have a very long history in this industry (see also Table 1.2). Finally, open spots on the map are also remarkable, indicating limited industrial garment employment in large parts of Africa and the Middle East.

The data presented in Figure 1.4 concern overall garment employment, without distinguishing between production for export and that for the domestic market. Although some domestic market production takes place in LMICs, its relative importance in most of these countries is limited. Increasing shares of garment production of LMICs are destined for export rather than the domestic market. As a consequence, world trade in clothing is still expanding: the global garment trade grew by 6% a year in the period 1990-1999 (WTO, 2000).

In order to provide a more detailed understanding of global garment production and trade, Table 1.2 lists the top ten global garment producers, exporters and importers of the late 1990s. It clearly confirms the still very strong position of the US, Japan and several European countries in garment production (Figure 1.4). In fact, the only LMICs in this top ten are Brazil and China. The exceptional position of both these countries is based on the combination of a large domestic market and significant exports. The table, however also indicates the overwhelming

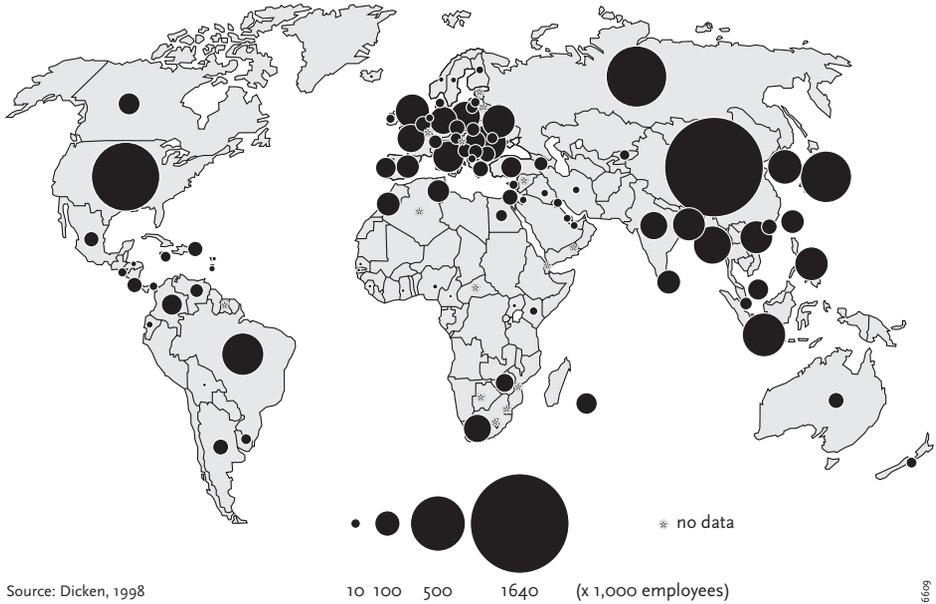


Figure 1.4: Worldwide employment in the garment industry, 1995

export position of China built up during the 1990s, whereas Brazil's large production volumes appear to be largely sustained by and destined for the countries' enormous domestic market.

Interestingly, columns 1 and 2 in Table 1.2 consist of mostly the same Western countries: most of the leading garment producers are also the largest importers. Sizeable domestic production – part of which is exported (as indicated in column 3) – is clearly insufficient to satisfy domestic demand in these countries. In fact, large import volumes cause many of these countries to maintain a negative trade balance in clothing (WTO, 2000). Overall, garment imports and production are highly concentrated and dominated by just a few countries.

Of special interest in Table 1.2 is the list of the top ten garment exporters. Although half of this list coincides with the lists in the first two columns of the table, the other half is occupied by LMICs that are not amongst the largest producers, nor amongst the largest importers. The main LMIC exporters as listed in the table may hardly be a surprise, given the broad trends and shifts outlined above: with the exception of Mexico, all LMICs in the list are Asian countries. Despite international trade limitations, China, Hong Kong and other Asian countries have successfully penetrated the world market, in a sense doing so against all odds.

Overall, the concentration of garment exports is less pronounced than that of production and imports. This confirms the successful participation in world exports by a larger number of LMICs. More and more new countries are becoming active participants in garment production and export. For example, several African countries are garment suppliers for the US and European markets. Building on different backgrounds and linkages, Mauritius/Madagascar (Gibbon, 2000), Kenya (McCormick, 2001) and South Africa/Lesotho (Gibbon, 2002) are amongst the African newcomers. Many LMICs rely relatively heavily on garment exports. The share of

Table 1.2: World-leading garment producers, importers and exporters (in US\$ value)

World-leading producers in 1998		World-leading importers in 1999		World-leading exporters in 1999	
Country	Share (%)	Country	Share (%)	Country	Share (%)
USA	24.7	USA	30.0	China*	16.2
Japan	12.2	Germany	10.6	Italy	7.1
Italy	11.5	Japan	8.4	Hong Kong	5.1
France	3.7	UK	6.4	USA	4.4
UK	3.6	France	5.9	Mexico*	4.2
Brazil	3.2	Italy	3.0	Germany	4.0
Germany	3.2	Netherlands	2.6	Turkey	3.5
Spain	3.0	Belgium	2.5	France	3.1
Canada	2.8	Mexico*	1.9	South Korea	2.6
China	2.7	Spain	1.8	India	2.6
Total	70.6		73.1		52.8

Sources: WTO (International Trade Statistics 2000), UNIDO (International Yearbook of Industrial Statistics 2001).

* includes significant shipments through processing zones

clothing in world trade in manufactured goods was almost 6% in 2002 – up from 3.3% of total manufactured exports in 1973 (Spinanger, 1992). However, for Africa, clothing made up 18%, for Latin America 10.7% and for Asia 10.3% of their total manufactured exports (WTO, 2000). For individual LMIC economies, dependence of clothing may be much more pronounced still: clothing accounts for 75% of Bangladesh's, 64% of Mauritius' and 50% of Sri Lanka's export earnings (EC, 2003). These figures underline the importance of clothing production in the early stages of industrialisation.

The position of Mexico is noteworthy, not only because it is the subject of this study, but also because of its surprisingly prominent presence in Table 1.2. Just a decade ago, Spinanger (1992, p. 91) ranked Latin America – and more specifically Mexico, Brazil and Colombia – next to Africa because of their poor export performance in garments. Now, however, Mexico is the only non-Asian LMIC amongst the top ten garment exporters and the only LMIC in the importers list. Its unique position can be explained by the importance of production sharing arrangements between Mexico and the USA. As will briefly be discussed in the following section, this type of production is limited to assembly or cut-make-trim (CMT) processes using imported materials. In these arrangements, Mexico imports pre-cut fabric from the USA for assembly, and then re-exports it to the USA (see Chapter 3 for a more detailed case discussion).

NAFTA combined with Mexico's proximity to the US provides a solid and unique base for Mexico's position as 'the industrial backyard' of the US. However, the strong ties between the two countries also point to the more general importance of regional trade patterns as part of aggregate, global trade flows. An examination of the sourcing patterns for the main garment markets in the world – viz. Western Europe, the US and Japan (see Figure 1.5) – reveals clear regional patterns. For the Western European market as a whole, most clothing imports come either from within Western Europe or from Eastern Europe. For Japan, 86.3% of total garment imports are sourced from other Asian countries. For the US, Asia is still the most important source of garment imports, but Latin America is second and is catching up.

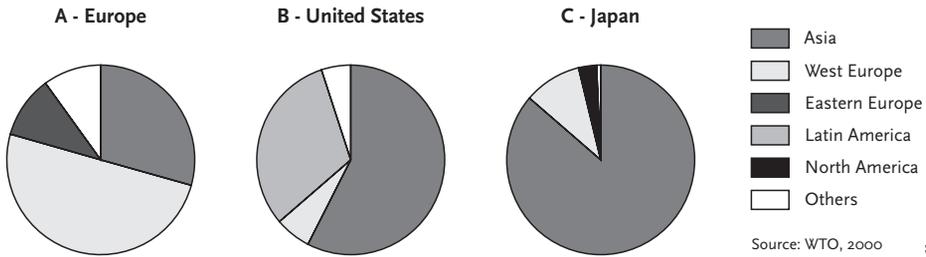


Figure 1.5: Origins of garment imports for main markets

Regional sourcing has been stimulated by a number of trade regulations that favour sourcing from nearby countries; these regulations are discussed in the following section. They support the internationalisation of domestic manufacturers to nearby countries as a way to lower total production cost and remain competitive vis-à-vis Asian competitors. On the basis of these trade benefits, existing import linkages between Western Europe and North Africa, Eastern Europe and the Mediterranean were consolidated and expanded. For the US, a large share of clothing imports originate from the Caribbean, Mexico and Central America. Recent market changes and trends, mentioned in the first part of this chapter, also firmly underpin regional sourcing. The pressures in the direction of shorter order cycles and quick response provide a powerful stimulus for the increased regionalisation of trade flows (Gereffi, 1997; Dicken, 1998; Dickerson, 1995; Scheffer, 1992; Audet, 1996; EC, 2003).

This is also beginning to be reflected in trade statistics. For example, recent WTO statistics confirm the regionalisation of US sourcing, as imports from Latin America – most notably Mexico – are growing much more than those from Asia are. At the same time, for Western European markets intra-European imports are shrinking, and imports from nearby sources

Box 1.2: Asia – the making of a garment giant

'Asia has been a powerhouse of growth' (Dickerson, 1995, p. 147). Interestingly, a common element in the economic success of Japan and Asian NICs such as Hong Kong, Taiwan and South Korea is their emphasis on export-oriented industries, most notably textile and apparel production. The development strategies of the NICs mirror Japan's economic development strategy and the central role the state and textile production played in it. Though there are differences between the industrialisation paths of individual NICs, with regard to the garment industry a number of common elements stand out.

First, the NICs used their successful textile and apparel production and export to spark a wider process of export oriented industrialisation. As their industrialisation process progressed, textile and apparel production lost relative importance and employment in the industry declined. As other industries grew and began to compete for industrial workforce, the textile and apparel industries in these countries were plagued by labour shortages and rising wages. Some nations have tried to counter this trend by facilitating the incorporation of immigrant workers into the textile and apparel workforce. Nevertheless, the upward pressure on wages has continued, as has competitive pressure

from low-wage production locations in the Asian region. As a result, all NICs have at some stage become engaged in foreign investment and offshore production. Especially the Hong Kong and South Korean textile and apparel industries are active foreign investors; they have factories throughout Asia as well as in Latin America and the Caribbean.

Secondly, these industrialisation paths – including the growth and downsizing of domestic textile and apparel production – of most Asian nations did not develop without the interference of state governments. In Japan, Taiwan and South Korea, the state is especially known to interfere directly in the economy by forging linkages between the state, the financial sector and industrial sectors. In Singapore, too, the government devised measures to manipulate the local industrial environment in order to steer the national economy in the desired direction of higher value-added and capital-intensive activities (Smakman, forthcoming). In several cases, macro-economic variables were dominated by industrial priorities (Dussel Peters, 1997a, 2000). In many nations the general effect on the garment industry has been a push to upgrade to higher value-added activities and to relocate manufacturing to offshore low-wage locations. On the whole, the East and Southeast Asian economies can be characterized as developmental states: market economies with highly interventionist governments. In whatever shape or form, on the whole state intervention and strategic guidance have been fundamental factors in the transition of many Asian economies (Dicken, 1998; Gereffi, 1989). It is therefore all the more surprising that the Asian development model has been used as the case for export-oriented industrialisation, as well as for neo-liberal policy reforms and a retreat of the state in other parts of the world. In the discourse adopted by the Washington Consensus, most especially the World Bank, governments in LMICs were presented with an ‘East Asian Miracle’ model in which the role of the state was reduced to ‘getting the fundamentals/prices right’. Development was to be based on ‘hands off, export-based industrialisation’ (Dicken, 1998).

Finally, international trade restrictions have been a major influence on the development of these industries in Asia. Japan was largely unrestricted and Hong Kong obtained generous export quotas before the mushrooming of LMIC participation in the late 1960s and 1970s. This was not the case for most other Asian garment nations: those countries that began to engage in textile and apparel exports later were bound by strict MFA trade limitations (see also section 1.2.1).

The combination of labour shortages, government policies and restrictive trade regulations led to the ‘flying geese’ model of progressive relocation of industrial production in the Asian region. This flying geese pattern started with Japanese investments in offshore production locations in the NICs. As the NICs were confronted with labour shortages and restructured towards less labour-intensive industries, they relocated production to the ASEAN countries (most notably Singapore, Indonesia, Malaysia and the Philippines) and China. Later on, other newcomers such as Cambodia, Vietnam and Bangladesh were also incorporated. The resulting regional production system has been called ‘triangle manufacturing’. In triangle manufacturing, suppliers in the first-generation NICs become intermediaries that control production in many, generally Asian countries (Bonacich & Waller, 1994a; Gereffi, 1996). These triangles make use of the state-of-the-art capabilities and skills built up over decades in the first-generation NICs. Thus the continuously strong position of exports from the Asian region as a whole are based on, among other things, the coupling of industrial knowledge and capabilities built up in, for example, Hong Kong and Singapore, with the large low-cost labour reserves in their regional backyards. While both upgrading in early participants as well as low labour costs in Asian newcomers have received attention, it is the combination of the two factors that underpins the competitive position of the region as a whole.

such as Turkey and Tunisia are growing. However, working against the regionalisation stream, Asian imports into the EU are still growing (WTO, 2000). Ironically, the continuing success of Asia is at least partially also based on the regional division of labour arrangements (Gereffi, 1996; Bonacich & Waller, 1994a; see Box 1.2).

1.2.1 Regulating apparel

Since the early 1960s the garment industry has been subject to international regulations, first through the 'Short- and Long-term Arrangements'. 1974, however, saw the introduction of the MFA, a more strict and elaborate international regulatory framework. The aim of the MFA was to liberalise international trade in textiles and clothing as well as to protect the domestic markets of importing countries through the 'orderly' development of international trade flows. The MFA in itself was quite general. Orderly development was to be achieved through bilateral agreements specifying a combination of tariffs and especially quota, which were set per product category (Dickerson, 1995). Thus, in practice, the MFA led to the creation of highly detailed and relatively strictly controlled listings that specified the export volume quota for each country, in each product category. Once a country had filled its quota for a certain product, no more of that product could be exported to the main markets. The MFA was originally intended to be in force for four years, but has been extended or renegotiated four times (1977, 1982, 1986, 1991), each time further restricting imports and allowing less room for liberalisation.

Ironically, the repeated extension of MFA and its increased emphasis on restriction is, in some way, the result of its own success (Glasmeier et al., 1992). The MFA was intended to limit the growth and development of manufacturers in developing countries. Soon after the MFA came into force, manufacturers in these lesser developed countries (LDCs) began to seek (and indeed, found) ways to circumvent the restrictions. They did so in a number of different ways (Dickerson, 1995; Glasmeier et al., 1992). Firstly, manufacturers illegally hid the true nature of their products, mainly through false labelling. Secondly, and more importantly, many turned to the production of other types of garments as soon as the quota for the garment they originally produced had been filled. In many cases this resulted not only in a diversification of the product base, but also in upgrading through a shift towards more sophisticated garments with higher margins. Furthermore, the agreement indirectly stimulated manufacturers to shift part of their production to nearby countries that had not filled their quota or were not bound by restrictions. Thus the above mentioned intricate webs of trade and production relations came into existence, linking especially manufacturers in Asian countries. Finally, some LMIC suppliers established FDI facilities in their main markets to circumvent quota limitations.

Within the international MFA framework, a few countries, most notably the US and Germany but also other EU countries, designed their own, additional national policies or provisions. Two types of national regulations or policies can be distinguished (Dicken, 1998): policies designed to encourage restructuring of the domestic industry, and those that stimulate/facilitate offshore assembly arrangements. Whereas the former may indirectly affect international trade patterns, the latter have had a direct impact on global production and trade patterns. Offshore assembly arrangements – also called 'production sharing' in the US, and 'outward processing trade' (OPT) or '*trafic de perfectionnement passif*' in Europe – allow the duty-free, temporary export of fabric and material inputs for garment assembly in low labour cost countries. Though generally not restricted to certain groups of countries, in practice the logistics and costs involved in the shipment of materials and finished products means the

provisions were mostly used by Western manufacturers to shift assembly to supplier countries on the periphery of their markets. In practice, offshore assembly provisions thus underpinned the tendency towards regionalisation (Smith et al., 2002; EC, 2003). The US 807 and Caribbean Basin Initiative (CBI) programs, for example, mostly benefited Mexican and CBI assemblers (Glasmeyer et al., 1993; Spener, 2002; see also section 3.2.1).

However, LMICs are not passive subjects of externally devised policies. In fact, in LMIC garment-export countries, national policies may play a very important role in the development of the industry. As mentioned, the governments of Japan, South Korea, Taiwan and Singapore for example actively stimulated the upgrading and modernisation of the industry in order to maintain its competitive position and to facilitate the switch to higher value products and processes (Dicken, 1998, Smakman, forthcoming; see Box 1.2). In many other countries, the role of the government has been more facilitative and geared to the attraction of FDI in garments. As will be discussed in Chapter 3, Mexico is an example of a country with a government that has decided to play a more facilitating role. Governments may also play a significant role at the sub-national level, especially in LMICs in the early stages of industrialisation. In decentralised political environments, state governments are actively pursuing FDI in the garment sector as a way to create employment and possibly spark a further industrialisation process within the confines of their state.

Clearly, trade policies have been a determining factor in the shaping of geographical garment trade flows for decades, and they still are. Indeed, the current trade patterns of garments are shaped largely on the basis of the existing myriad of quota and tariffs, a practice which goes directly against the spirit and agreements of the WTO. The exceptional position of garment trade has not gone unnoticed: as a result of the GATT Uruguay Round, clothing was incorporated into the WTO and a ten-year phase-out (1995-2004) of the MFA was negotiated. Existing tariffs and quotas will soon be completely eliminated, and this will no doubt have a profound impact on the global garment production landscape (EC, 2003). In this respect, especially the lifting of limitations on Chinese garment exports is causing great concern amongst garment exporters in other LDCs.

1.2.2 Production networks and strategic localisation

This section examines the interrelations between the changes in the main garment markets and lead firms, and the patterns in the garment trade as illustrated above.

As mentioned, the internationalisation of clothing production was sparked by US and European retailers and marketers that began to buy finished products (full packages) for their private label lines from overseas suppliers – mostly in Asia. After that, US and EU manufacturers began to engage in international subcontracting of assembly services. The resulting pattern of increasing participation of LMICs – on the periphery of final markets and further away – in global garment exports is not a result of arms-length trade or a reflection of independent, successful penetration by LMIC manufacturers of markets in developed countries. In large part this pattern is orchestrated by Western lead firms, or buyers (see Chapter 2). Individual firm strategies of buyers in developed countries and of their producers in LMICs, are the basic building-blocks behind this pattern.

The omnipresence of the garment industry is widely recognized. It is one of the most globalised industries, if not the most globalised industry, in the world (Bonacich et al., 1994;

Table 1.3: Global sourcing patterns, late 1990s

Type of retailer	Representative firms	Main sourcing areas	Characteristic of Buyer's orders
Fashion-oriented designer companies	Donna Karan, Ralph Lauren, Gucci, Hugo Boss, Esprit	Western Europe 1st generation NICs	Small batches Designer labels Sophisticated garments: high needle-time and skill-levels
Department stores	Macy's, Marks and Spencer	1st generation NICs 2nd generation NICs	Medium to large batches
Speciality stores	Gap, Liz Claiborne, The Limited, Mexx, Zara, Benetton	Established supplier countries in E. Europe and Latin America	Private labels High priced garments, high to medium quality
Mass merchandisers	Sears, J.C. Penney, Woolworth, Carrefour	Established supplier countries in E. Europe and Latin America	Large batches Good quality, medium-priced garment Private labels
Discount chains	Wal-Mart, Kmart, Target, C&A	New entrant countries (Africa, Asian periphery)	Very large batches Low-priced garments
Small importers		New entrant countries (Africa, Asian periphery)	Small quantities of 'pilot purchases'

Source: adapted from Dicken (1998) and Gereffi (1994)

Dickerson, 1995; Dicken, 1998). Following Dicken (1992, 1998), this study defines globalisation as the functional integration between internationally dispersed production activities (see also Mittelman, 1996). Vertical disintegration and international subcontracting being common practice, the garment industry has long displayed the far-reaching, kaleidoscopic organizational and spatial fragmentation of the production process regarded as characteristic of globalised industries.

Table 1.3 gives an overview of the relationships between buyers, types of orders and favoured production locations (see also Dicken, 1998; Gereffi; 1994; Toyne et al., 1984) and provides more insight into the sourcing trends that underlie the broad garment trade patterns found.

As expected based on the previous sections, Table 1.3 does not confirm the popular view of the garment industry as an industry that buys its products at the lowest prices from the poorest countries. Rather than a straightforward relocation of production to a few of the world's lowest wage countries, the table shows considerable variation. In fact, the very least developed and lowest wage countries in the world are hardly represented in the table. The observed complexity confirms that aspects besides labour cost also matter, viz. the characteristics of the labour force, political stability, the quality of the infrastructure, business mentality and flexibility (see also Elson, 1988). The lowest wage regions in the world do not offer these basic requirements necessary for garment export industrialisation. Thus, at the very minimum, the determinant role of labour cost only works within the boundaries of certain operational requirements. While Table 1.3 illustrates a great complexity in sourcing patterns, production sites and trade flows, it is not the result of complete anarchy and random behaviour. On the

contrary, it implies a strong link between the market segment or sophistication of a product and the industrial history of the production location (Glasmeyer et al., 1992). Mair (1997) called the result of such matching between product and the characteristics of the production location 'strategic localisation'. There appears to be a general tendency with regard to strategic localisation in the industry: countries with a longer industrial tradition in garments – which often means higher wage but also skill levels – produce more complex and sophisticated clothes, often in smaller batches. Hence, buyers in the upper segments of the market source predominantly from the NICs. Gereffi (1999, p. 40) discusses this pattern in terms of organizational succession:

'There is a clear pattern of organizational succession [...] whereby foreign buyers that occupy positions or price points in their home markets source from each of the major exporting nations in distinctive cycles or sequences. This succession drives the geographical expansion of global sourcing networks, as buyers for less expensive goods are pushed into lower-cost production sites ...'

Though there is a basic truth in the pattern illustrated in Table 1.3, four complicating factors need to be mentioned. First, through smart branding and segmentation strategies many buyers – especially the department and speciality stores in the middle rows of Table 1.3 – operate in various price segments. To serve these segments, a buyer may well source from various country groupings at the same time. The all-round involvement of many buyers in various price segments with collections consisting of many different product types and operating under time pressure, means that their sourcing pattern may be highly dispersed.

Second, the importance of labour cost in relation to total cost differs per product type: the number of minutes required to produce a product determines its sensitivity to labour cost. For example, small orders of complicated garments such as suits or evening dresses may be produced in small batches in metropolitan sweatshops close to the main Western markets (Massey, 1984; Dicken, 1998; Scheffer, 1992; Taplin, 1997). Alternatively, especially when larger batches are needed, the large number of production minutes – also called 'needle-time'¹³ – explains their production in low-wage countries, mostly in Asia (Crewe & Davenport, 1992). By contrast, basic or standardized items, such as blue jeans and plain tee-shirts, are produced in very large volumes through slightly more automated processes. Comparatively high levels of automation and short assembly time explain their lower sensitivity to labour costs and hence their location in peripheral regions in or close to the Western final markets.

Thirdly, market dynamics and the new set of retailing strategies aimed at minimising risks by adjusting the supply of garments as closely as possible to actual demand complicate matters. They favour the geographical proximity of buyer and supplier¹⁴. Production countries on the periphery of the final markets benefited greatly because they represent the best of both worlds: their low-wage labour can offer quick turnaround at the lowest cost (Appelbaum & Gereffi, 1994; Dicken, 1998; Dickerson, 1995; Scheffer, 1992; Gibbon, 2000).

Finally, the extent of the involvement of LMIC suppliers in the production process may vary widely; from participating in product development and the supply of full packages to doing only assembly. Table 1.4 gives a very broad overview of garment supplier countries and their position and activities within international production networks.

A clear element within the globalised complexity of garment production, illustrated in Table 1.4, is the link between types of buyers' orders and the capabilities of sourcing areas. Newcomers to the industry generally start off with the assembly of basic, low-cost and low-

Table 1.4: Position of supplier countries in international production networks

Position/Role	Characteristics	Geography
Pure assembly contracting	Syn. industrial subcontracting: assembly subcontractor/ contractor assembles garments from inputs supplied by its buyer, to the specifications given by that buyer.	<i>Established:</i> Mexico, CBI, Central America, China, Central & Eastern Europe, Turkey, North Africa, South Asia (India, Sri Lanka); <i>Newcomers:</i> South Africa, the former USSR (especially Belarus & Ukraine), South Asia (Vietnam, Cambodia, Bangladesh).
Full package/OEM	Syn. commercial subcontracting: production of finished garments by locally owned firms in LMICs. Product development, sales & marketing are undertaken by the firm's buyer.	<i>Established:</i> Central Europe, Southeast Asia; <i>Newcomers:</i> Mexico, China, Eastern Europe, Turkey.
ODM	Independent, locally-owned manufacturer in LMIC develops/designs and manufactures garments for sale to export buyers.	<i>Established:</i> US, Italy, France, UK, Japan; <i>Newcomers:</i> Hong Kong, Singapore.
OBM	Independent, locally-owned manufacturer in LMIC exports own garment under its own brand. No subcontracting relation between manufacturer and retailer.	<i>Established:</i> US, Italy, France, UK, Japan; <i>Newcomers:</i> Hong Kong, Singapore.

Source: based on Gereffi (1992), Sturgeon (2001) and EC (2003)

quality clothes for small importers and discount chains. By implication, newcomer countries that rely on assembly activities need to be part of a network in which other manufacturers participate. In fact, their insertion into global garment trade flows is commonly initiated by manufacturers in more expensive locations wanting to bring down their production costs. As such, the constellation of the production networks and the sourcing strategies of participants add to the complexity by giving rise to global assembly lines parts of which may be in a number of different countries. The emerging global division of labour can be described as follows (Mittelman, 1996, p. 6):

'Within a globalizing division of labour, technological and managerial cores form specifically regional divisions and redivisions of labour and generate their own peripheries subject to both constraints and developmental opportunities. Distinct regional divisions of labour [...] provide diverse modes of coordinating capital flows but are ultimately subordinate to the globalisation process.'

[54] One of the interesting questions – and a central theme in this study – is how such a starter's position in garment assembly may be used as a lever for a further industrialisation and

development process. The importance of such an upgrading process will be discussed in general terms in the next chapter and specifically for the Mexican case in Chapter 3.

So far, the discussion of trade and production patterns has concentrated on the global and national developments. This overlooks the fact that the garment industry displays a strong localisation tendency, favouring regions with a tradition in the manufacturing of clothing. In other words: the production of garments, like other industrial as well as artisan products and even services, tends to agglomerate into localised, specialist clusters within nations. Bull et al. (1993, p. 21) point to complex divisions of labour across various scale levels:

'... different patterns and levels of interdependence [exist] within regional and national filières and in the international market place ... The wide mix of potential industrial and commercial strategies introduces further elements of variegation into the complex picture in which local, national and international comparative advantage constrain in-firm strategy formulation and lead to discrete geographical patterns of specialization.'

The analytical challenge then appears to be to do justice to the myriad of production and trade considerations and the resulting highly complex pattern, without falling into the trap of assigning a caricatural, dominant role to labour cost considerations as the one and only driving force behind spatial relocation in garment manufacturing. Ultimately, individual firm strategies shape global, regional or local division of labour patterns (Spinanger, 1992; Bull et al., 1993; Scheffer, 1992; Appelbaum & Christerson, 1997; Smakman, forthcoming; see also Box 1.3). Individual firm behaviour may be unpredictable and erratic. Therefore, the behaviour of individual firms cannot be predicted on the basis of the observed patterns, a point also made by Scheffer (1995, p. 46):

'Within certain boundaries individual firms do possess a large degree of freedom and it is more often the quality of management, daily practices and opportunistic factors that determine outcomes, rather than deeper rooted structural changes [...] A given firm might opt to change its marketing strategy in order to preserve its production organization, or it might decide to retain its market position but change its allocation of production.'

Thus, relocation of garment production to and between LMICs is growing, but garment buyers have considerable room to manoeuvre. The spatial and organizational constellation of their international production networks do not necessarily always fit the theoretically 'optimal global division of labour' solution. As will be discussed at some length in this study, one of the reasons for the discrepancy between theoretical and actual patterns is the, sometimes overlooked, social, interpersonal aspect of business.

1.3 Summary

The first chapter of this study introduced the main characteristics of and trends and traits in the global garment industry. Since the industrialisation of garment production in the early nineteenth century, some of its basic characteristics have remained largely unchanged. The production process is divided into separate phases or activities, and vertical disintegration is standard practice in the wearing apparel industry. Furthermore, in the manufacturing stages of the production process, automation options are limited and, as a consequence, these are characterized by high labour intensity. The combination of specialization opportunities based on vertical disintegration and low barriers to entry caused by limited automation and low capital intensity, have laid the basis for high levels of fragmentation. Garment firms of many

Box 1.3: Illustrating diversity

In the garment industry, vertical disintegration and international subcontracting are pervasive, but by no means self-evident. The current era of quick response and rapid fashion changes – combined with the continued need to keep production cost low – may call for unorthodox measures, some of which may even go against such established best practices as vertical disintegration and internationalisation. That this applies across the board and not just to insignificant ‘odd ones out’ can be illustrated by a brief outline of the strategies of two highly successful clothing multinationals, Benetton and Zara. Both use technology to reduce design-to-delivery times as well as small workshops (many of which are on the brink of ‘informality’) in Europe and on its periphery, in order to achieve flexible yet affordable manufacturing.

The Italian company Benetton was founded in 1963 and is now a large and successful multinational with a strong global brand image. Design, technology-intensive activities and a limited amount of manufacturing are undertaken by the company itself in Treviso, Italy. In line with general practice in the industry, the company relies heavily on independent subcontractors for the production – especially the assembly, finishing and pressing stages – of its garments. However, contrary to global relocation trends, most of Benetton’s subcontractors are located in Italy, not in LMICs. Its independent small subcontractors work exclusively for Benetton and even though the relations in the networks are mostly informal, production planning and coordination is tight and based on technology and effective information management systems. Sales are organised in a similar way, around a decentralised sales network with sales agents as intermediaries between the independent shops and Benetton. Benetton elaborates marketing strategies and guidelines and controls the critical resources for all the shops. Shops do not pay royalties, are completely independent and bear all the risks, but they sell only garments with the Benetton label. They are expected to forecast 80% of the season’s requirements; the remaining 20% can be requested on urgent order. Benetton’s philosophy is to hold minimal stock. Its automated systems allow the company to pick individual shop orders for over 6,000 shops dispersed across 110 countries. Orders are taken by the companies three times a day and are processed during the night to ensure that they are available for production the day after; all the production processes – from programming, material requirements, etc. to packaging – are managed by computers using highly sophisticated, tailor-made application systems. If they enter an order for restocking, the shops will receive the goods within, on average, eight days in Europe and twelve days in the USA (see also Fornengo Prent, 1992; Dicken, 1998).

The Spanish company Zara – which is part of the holding company Inditex – was established in 1975 and owns well over 500 stores in 30 countries around the globe. One of the reasons for the company’s growing profits is its ability to respond rapidly to fashion trends. Like Benetton, its strategy is unconventional: while a part of its production is outsourced to LMICs, Zara is vertically integrated in order to retain total control of design, production and distribution. A 16-factory production complex in the Spanish town of La Coruña is the heart of Zara’s operation. The company creates, selects and cuts the fabrics treated and finished in its own mills and makes its own patterns, many of which are sewn on-site. The remainder is sewn by small ‘grey-economy’ subcontractors in Spain and Portugal. This organization has brought design-to-delivery lead times down from four to six months to a few days. Also unorthodox and in stark contrast with Benetton, Zara’s higher European labour costs are offset by spending virtually nothing on marketing or advertising (see also

CNN Online, 2001; *Forbes Online*, 2001). Fashion retailers spend on average 3.5% of their revenue on advertising their products, while Zara's parent company, Inditex, spends just 0.3% (*CNN Online*, 2001). Like Benetton, the company decides on the contents of all its shop windows. However, contrary to the general industry trends also outlined in section 1.1.2, Zara believes they are all the advertising it needs and it does not invest in advertising campaigns. Zara shop managers report back every day to designers in La Coruña on what has and has not sold. The information is used to decide which product lines and colours will be kept or altered, and whether new lines should be created. All this happens within just a few days. The efficiency of the system means the company can keep costs down by keeping stocks low. Zara's design team produce 11,000 different designs a year.

different sizes and specialisations exist next to each other. Through subcontracting/contracting relations they form inter-firm production networks, which are the basic vehicles of garment production.

While these basic features have been retained, over the past decades garment production networks have taken on an international or even global dimension. Also, the dynamic of production and the organization thereof has been changing quite dramatically over the past few decades under the influence of shifts in the wearing apparel market and/or the marketing strategies adopted to shape it. Market saturation and stagnant garment prices have led to a greater focus on consumer behaviour and demand in order to make production respond to them as accurately as possible. In fact, accurate response to or prediction of consumer demand (styling, price) has become a prerequisite for sales and success in the main garment markets. Getting a grip on these aspects and manipulating them – through the use of brands and labels and the creation of 'lifestyles' – has led to the growing importance of marketing and retailing and to the concentration of power in the hands of retailers rather than garment manufacturers. Facilitated by recent developments in telecommunications and computer technology, these trends are transforming the structure and organising principles of production networks of wearing apparel. Fashionisation is reflected in a greater number of seasons or collections per year and in the fact that garments, such as jeans and tee-shirts, which traditionally were highly standardized, are no longer excluded from fashion trends and hypes. Great flexibility is needed to respond to rapid and frequent fashion changes.

As a result of the recent changes, and most especially the need for increased flexibility, lead garment firms are seen to forge closer cooperation with a smaller number of, more capable suppliers. These suppliers may be internationally dispersed, but increasingly suppliers on at a shorter distance, on the peripheries of the main markets, appear to be favoured.

With regard to the geography of garment production, the most salient feature of wearing apparel production is its omnipresence. Participation in garment exports (to the main markets in the US and the EU) is spreading to an ever larger number of LMICs. While the garment industries in the US and the EU are shrinking or at best stagnating, the participation of LMICs is both growing and spreading. Two factors explain the industry's global presence. First, trade policy has had a great impact. In response to early internationalisation of garment production, which became visible in the late 1960s, the elaborate MFA trade regulation system was designed to protect Western markets from disruptive imports. With regard to protecting Western markets, it has had mixed results at best. However, MFA has (had) a decisive impact on the current global locational pattern of garment production through stimulating still further

dispersal. Within the global MFA system, trade blocks and a variety of production sharing regulations serve to favour LMICs on the periphery of the large markets.

The second factor is a matching of a country's or region's characteristics and capacities with product requirements. The extent to which LMICs are inserted into garment exporting channels that feed into the Western markets appears to vary, depending on wage, industrial experience and skill levels in the LMIC. The result is a broad strategic localisation pattern that matches product types and market segments to production cost and experience. Within this pattern, few of the world's lowest wage areas achieve significant garment production levels, while several high-wage countries have maintained considerable production levels.

Highly interesting is the development perspective that may be implied by or extrapolated from this pattern; this will be discussed in greater detail in the following chapters as it is an important theme in this study. In broad terms, it is often implicitly assumed that recent LMIC garment exporters should strive to follow the upgrading path blazed by the pioneering NICs.

Mexico is one of the popular subjects for this discussion. Its geographical proximity to the US and, more importantly, its preferential access to the very large US market put it in a position of booming newcomer in garment exports with the (theoretical) potential to use this as a lever for upgrading processes and economic development.

The organizational and geographical dynamism of the garment industry as outlined in this chapter raises the question how effective coordination and control are exercised over the complex garment production system. The following chapter presents some approaches and perspectives, and the debates surrounding them, which can be used to analyse the multifaceted dynamism of a volatile industry such as the garment industry.

Notes

- 1 Most of the developments, especially the changes in the garment market, described in this chapter are based on literature sources dealing with the US or the UK garment industry. In broad terms, many of the noted changes apply to most Western markets, but the timing and pervasiveness may differ considerably from country to country (see Scheffer (1992) and Broer (1977) for detailed comparisons of developments in European countries).
- 2 Well-known NGOs and pressure groups that represent the rights of garment workers and expose exploitation are The Clean Clothes Campaign, the Canadian Maquiladora Solidarity Network, the UK-based Labour Behind the Label and the American Press for Change.
- 3 Two approaches are especially common. Firstly, many studies group textile production and all apparel production (encompassing clothing, sewn household goods and sewn industrial goods) together under the broad denominator 'textiles'. Following Scheffer (1992), here it is proposed that the two industries differ so greatly in organizational structure and dynamics that they are better studied in separation. Secondly, it is also highly common to use apparel and garments as synonyms. Though they overlap greatly in subject matter, it is important to note that the term apparel is broader, and that the apparel industry produces a wider range of sewn products encompassing more than 'just' garments/clothing (see Figure 1.1).
- 4 Flexibility and specialization are the main ingredients of post-Fordist production systems. 'Flexible specialization' is seen as the fundamental alternative to Fordist mass production, i.e. as basic elements of post-Fordist production systems (Storper, 1997; Piore & Sabel, 1984). Piore and Sabel (ibid.) put the combination of flexibility and specialization on the map, but limited it (unnecessarily) to small firm interaction.
- 5 The use of the term 'sourcing' often implies low levels of coordination and control between buyer and subcontractor and relatively great responsibility on the part of the contractor. Another common term for subcontracting in industrial development literature is original equipment manufacturing (OEM), where subcontractors produce products designed and specified by their customers. This is distinguished from original

design manufacturing (ODM) in which subcontractors are responsible for design in addition to manufacturing. Finally, in original brand manufacturing (OBM) LMIC producers export products of own design and manufacturing under their own brand name.

- 6 Speciality subcontracting is the performance of a specialized function by a skilled or specifically equipped subcontractor. Cost-saving subcontracting is employed as a means to lower production cost. Complementary subcontracting is employed as a flexible way to cope with temporary surges in demand (see Dicken, 1998).
- 7 Subcontractors may be referred to in different sources as subcontractors, assemblers, suppliers, manufacturers or producers. The terminology is applied quite loosely, but may indicate the extent of their involvement in the production process. The terms subcontractor and assembler are generally associated with a limited role of the subcontractor. The use of the term suppliers or even manufacturers commonly implies a commercial subcontracting relation, i.e. the production of full packages.
- 8 This is neatly illustrated in the foreword to the analysis of the top-50 apparel manufacturers in 2001 in *Bobbin Magazine* (Speer, 2001a), one of the leading industry magazines in the USA: 'What is the difference between apparel manufacturers and retailers? In a nutshell, much less than there used to be (...) we have now opened up the floodgates to include apparel retailers that essentially function as manufacturers – those 'vertical' retailers that design, market and source the manufacturing and merchandise the majority of products for the retail stores. Likewise, we continue to include those traditional manufacturers that have spread their wings into the retail and direct-to-consumer markets (...). While these companies may have begun at different points along the supply chains spectrum, they now hold responsibilities – and face risks and rewards – both in the manufacture of their products and their sale at retail.'
- 9 It is important to insert a caveat here: although national markets for clothing may be segmented in ways described in this section, the global reach of many of the largest garment buyers means they handle very large volumes. Thus, though less standardized through progressive incorporation of fashion, garment manufacturing is still a matter of mass production.
- 10 Textile companies are an important part of this channel. Like retailing, the textile industry has gone through a phase of concentration. Two decades ago Clairmonte and Cavanagh (1981) already characterized it as the 'world textile oligopoly' (see also Dicken, 1998; Abernathy et al., 1995). Global players in textiles are the British 'Coats Viyella' and the Japanese 'Toray'; in denim the US 'Cone Mills' and 'Burlington Mills' lead the rankings. It is important to note the effect this has on manufacturers: they stand the risk of being sandwiched between large, powerful textile mills on the one hand, and large, oligopolistic retailers on the other.
- 11 In addition there are overarching, industry-wide efforts such as the Worldwide Responsible Apparel Production (WRAP) industry standards, supported by the AAMA. The Dutch NGO Solidaridad is assuming a pioneer position through the development of true fashion jeans with a fair-trade mark. These 'Kuyichi' labelled jeans were launched in the exclusive segment of the Dutch market at premium prices.
- 12 In Taylorist production systems 'time and motion' principles are applied to break down the production process into the simplest possible tasks which can be performed by specialist (but poorly educated) workers. Taylorism is tightly linked to Fordist mass production (Hayter, 1997).
- 13 Production costs in garments are generally calculated on the basis of standard production minutes or standard assembly minutes, which take into account labour productivity as well as cost. Costings per product are then calculated based on the required minutes, also called 'needle-time'. Since the early 1990s, distance to the market or lead times are also included in these calculations (Dickerson, 1995). See Blyth (1996) for a detailed explanation of sourcing decision-making in garments.
- 14 This was so firmly believed to be a trend that authors and experts from different perspectives theorized about the re-location of production from developing to developed countries (Abernathy et al., 1995; Audet; 1996, Malecki, 1997; see also Scheffer, 1992, pp. 14-15, for a discussion of these considerations). Scheffer (1992) has shown that reversal of the NIDL shift back to industrialized countries did not occur in Europe. Relocation back to the USA is not apparent either. The explanation is simple: the market does not reward shorter lead times with higher prices (Scheffer, 1995).

2 A framework for analysis

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

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

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

2.1 A new approach: focusing on firms and networks

Traditionally, the garment industry has been most directly associated with the new international division of labour (NIDL) theory formulated by Fröbel, Heinrichs and Kreye (1980). NIDL and the broad pattern it describes received much attention during the 1980s. It [61]

Box 2.1: The new international division of labour theory

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

Fröbel, Heinrichs and Kreye regarded their NIDL as an inevitable outcome of the capitalist system – independent of the national development strategies of countries or the business strategies of transnational corporations (TNCs) – in which relocation was the best way to increase a firm's profitability. At a practical level, during the 1960s an increased variety of clothes, although based on a more differentiated demand, was hardly or not rewarded with higher prices. Automation applied to increase productivity and maintain domestic production in industrialised countries had largely reached its limits¹. When on top of that the labour cost gap between industrialised countries and LMICs widened, relocation became inevitable and irreversible (Scheffer, 1992, 1995).

Based on its straightforward logic and powerful implications, NIDL theory has left its imprint on writing on international trade and production, especially with regard to the garment industry. At the same time, there was much criticism of the NIDL theory, mostly for its mechanistic character and for presenting a simplified view of both the world and the garment industry (Scheffer, 1992; Elson, 1988). One of the reasons NIDL cannot deal with the complexities of the worldwide trade patterns is its presentation of DCs and LDCs as a dichotomy. NIDL fails to differentiate between, for example, the 'Asian Tigers' and a country such as Cambodia that is just getting involved in the production and export of garments. Furthermore, NIDL pays no more than passing attention to the role of the state. As discussed in the previous chapter, this is an important weakness because regulations have contorted trade flows and forced garment buyers to depart from locating production in what otherwise might be 'ideal' sites (see also Glasmeier et al., 1992). In addition, NIDL is based on a highly simplified view of the garment firm (see Scheffer, 1992) and the entire garment industry: it does not take into account either product differentiation – for example, between standardised and fashion items – or market segmentation. As discussed in Chapter 1, both these aspects play a determining role in strategic localisation in the garment industry.

was also increasingly criticised as mechanistic and simplistic, as explained in Box 2.1. Most importantly, the fact that it leans heavily on a world systems-type use of country groupings renders it incapable of dealing with the complexities of globalisation. This being so, NIDL is still closely associated with the garment industry and its internationalisation. It has influenced

[62] some more modern network-based perspectives on industrial globalisation, most notably the GVC perspective that will be discussed later in this chapter.

Box 2.2: The globalisation debate

Although globalisation may be 'difficult to pin down conceptually and to demonstrate empirically' (Vellinga, 2000, p. 4), since the 1990s it has become a buzzword in both academic and popular literature. Globalisation has been defined, approached and analysed from different angles and in numerous ways, focusing on its economic, political, social or cultural aspects (Ohmae, 1995; Ruigrok & van Tulder, 1995; Castells, 1996; Dicken, 1992, 1998; Hirst & Thompson, 1996; Mittelman, 1996). It is the topic of a heated debate, sweeping generalisations and useful insights. A basic understanding of globalisation as a compression of time and space is now widely accepted.

Focusing on the spatial impact of globalisation, as is done in this study, Dicken (1992, 1998) has contributed significantly to the ongoing debate by arguing that rather than quantitative increases in economic international trade and investment, the distinctive feature of globalisation is a qualitative one. In this view, globalisation is characterised by high and increasing levels of intra-industry trade tying together geographically dispersed production locations (of raw materials, components and finished products) into one 'global assembly line' (Dicken, 1992, 1998; Mittelman, 1996; Kaplinsky, 2000).

Within the globalisation debate, two topics are receiving special attention: the significance and interrelations between various levels of geographical scale, and the role of 'the state'. The basis for the discussion with regards to geographical levels of scale in globalisation is based on the observed tension between 'territorialisation' and 'de-territorialisation' tendencies within the globalisation process (Storper, 1997; Vellinga, 2000; Cox, 1997). On one hand capital is increasingly mobile and production processes are being extended and shifted over large distances across the globe. However, on the other hand, actual production sites are not incidental or insignificant. In fact '...the most dynamic forces in contemporary capitalist development [...] are both localised and territorially specific' (Storper, 1997, p. 6). In other words, the globalised economy is by no means placeless. However, rather than a dichotomy between 'the global' and 'the local', the result may be a highly complex reconstruction of geographical scales or spheres of influence, of which the supra- and sub-national appear to be privileged (Swyngedouw, 1997; Sassen, 1996; Vellinga, 2000). Both Swyngedouw (*ibid.*) and Vellinga (*ibid.*) use the term 'glocalization' to underscore the complex interplay between global, local and intermediate scale levels. The role of the state as an actor in the globalisation process and in a globalised world is another much debated issue. Rather than a general demise of the nation state and the reduction of the state to a powerless and meaningless entity, Dicken (1998) and Vellinga (*ibid.*), amongst others, have argued for a continuing but increasingly more complex role of the state which is more and more directed and played out at the supra-national and sub-state level.

Since the 1990s, globalisation has characterised the world economy. A heated debate surrounds globalisation, its distinctive features and the way the globalisation process may affect and change business, cultural and political relations at various scale levels in the world economy. The garment industry is highly globalised and illustrates the main dilemmas of the globalisation process in general, as is discussed in Box 2.2. The great influence of the state on garment production and trade patterns through regulation at the supra-national and the sub-national levels has been discussed in the previous chapter. In the context of this chapter,

attention is focused on the analytical challenges that stem from the dynamic relationship between global and sub-national levels of scale.

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

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

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

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

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

In the 1990s, networking became akin to a new best business practice in the day-to-day reality of industries and business participation in business or production (Storper, 1997). This is in stark contrast to the network approach as an analytical tool, developed for the research of networks. Networks have become popular research subjects in economic geography and other disciplines. However, the multitude of interpretations has caused networks as academic, analytical concepts to be characterised as 'a chaotic conception instead of a rational abstraction'

[64] (Yeung, 1994). In a valuable attempt to re-focus the network approach Dicken et al. (2001, p. 94) argue the merits of a broad definition of networks:

'Networks are structural, in that the composition and interrelation of various networks constitute structural power relations, and they are relational because they are constituted by the interactions of variously powerful social actors. These relationships can exist in the forms of rules, conventions, values, regulations and so on.' (see also Yeung, 1994, 1998).

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

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

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

In the context of international garment production networks, the roles of positive, trust-based coordination and of power deserve attention. Two network approaches that are compared and contrasted in this chapter stem from different theoretical backgrounds and emphasise different aspects and mechanisms. The global value chain (GVC)² approach is based on a world systems view of the world economy, and places emphasis on vertical intra-chain linkages and governance or on power relations in explaining global divisions of labour. Cluster studies and other perspectives that deal with regional economic agglomerations tend to focus on horizontal, intra-regional linkages of an embedded nature, in which trust, cooperation and shared values play an important role. First, the global value chain perspective will be discussed, after which attention will shift to the analysis of networks from a cluster perspective.

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

General trends towards enhanced flexibility based on, amongst other things, specialisation and vertical disintegration, coupled with the need for effective supply chain management, explain the rise of chain-based network concepts. In search for theoretical concepts that fit the workings of a globalising networked world economy, a number of authors have opted to 'modernise' existing production process-based concepts such as the *filière* and the production column³. The 1990s saw the birth of a number of concepts that use production processes as a basis for the analysis of economic processes at different levels of scale (see Porter, 1990; Dicken

1992, 1998; Boomgard et al., 1992; Gereffi & Korzeniewicz, 1994; Raikes et al., 2000; Ruigrok & van Tulder, 1995). Of all production process-based network concepts, most attention is focused on Gereffi's global commodity chain (GCC).

Not coincidentally, the GCC concept is based primarily on findings related to the most globalised of industries: the garment industry. However, its influence extends beyond the garment industry and it is used to conceptualise the production process and global industry dynamics in various industries. The GCC can be defined as 'a network of labour and production processes whose end result is a finished product' (Gereffi & Korzeniewicz, 1994). As such, commodity chains consist of nodes of operations that together constitute the whole of the production process (supply of raw materials, R&D, design, manufacturing, export and marketing), across the entire spectrum of activities in the world economy (Gereffi, 1992, 1994a). Since the 1990s an avalanche of case studies using the GCC perspective has hit academic journals dedicated to economic and/or industrial development issues. Indeed, a wide variety of products and industrial sectors have been subjected to GCC analyses in just the last few years (see e.g. on horticultural products, Dolan & Humphrey, 2000; on primary commodities, Gibbon, 2001; on timber, Edgington & Hayter, 1997; and on tobacco, Vargas, 2001). The application of the GCC perspective to different industries has led to new insights into the structure and functioning of specific chains.

Though akin to the production column – which assigns a central role to the material aspect of production – the GCC perspective is distinguished by its explicit focus on a number of non-material dimensions of the chain. As part of an ambitious research agenda, Gereffi (1994a) distinguished three basic dimensions of GCCs: an input-output structure, a territoriality and a governance structure. The most basic dimension of GCCs is the input-output structure, from the design and procurement of raw materials, to the distribution and marketing of the finished product. The second dimension – 'territoriality' or geography – identifies the geographical dispersion or concentration of raw materials, production, export and marketing activities⁴. The third dimension – governance structure – is seen as an integral and highly important part of the chain. In fact, based on differences in governance structures, Gereffi (1994a) identified two distinct types of GCCs: 'producer-driven chains' and 'buyer-driven chains'⁵. The former are those dominated by large, vertically integrated TNCs that control the production system. Such governance is characteristic of capital- and technology-intensive industries, such as the automotive and electronics industries. By contrast, buyer-driven chains are typical of labour-intensive, consumer goods industries (such as toys, shoes and garments), in which retailers, brand-name merchandisers and trading companies play the pivotal role. Governance in GCCs entails allocative power and authority based on the ability to coordinate the chain's input-output structure and control the core nodes of the chain. The governance structure determines how financial, material and human resources as well as economic surplus are allocated and flow within the chain (Appelbaum & Gereffi, 1994, p. 43; see also Schmitz & Knorringa, 2000). Attention is focused on vertical linkages mostly between unequal partners. Kaplinsky (1998) has pointed out how a strong position in core nodes of the chain, viz. those with high barriers to entry, allows lead firms to extract different types of rents. In the case of buyer-driven chains, relational rents (which are related primarily to the effective management or governance of inter-firm relationships), trade policy rents and brand-name rents underpin the strong position of buyers. Finally, a few early publications on the GCC concept mention the importance of an institutional framework 'that identifies how local, national and international

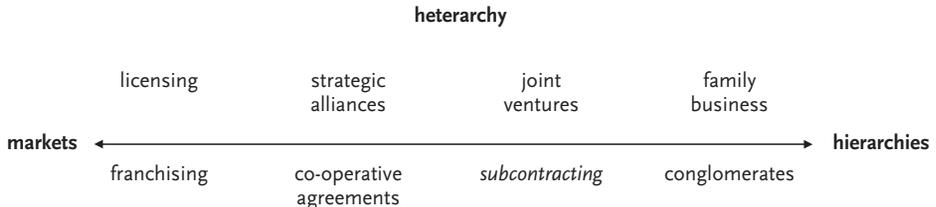
conditions and policies shape the globalisation process at each stage of the chain' (Gereffi, 1994b, p. 97). However, so far most GCC studies have not dealt with the institutional dimension beyond the mere recognition that commodity chains are influenced by state policies in both producing and consuming countries.

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

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

2.2.1 Governance in GVCs

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



Source: Yeung, 1994 669

Figure 2.1: Network spectrum of governance modes in production chains

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

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

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

2.2.2 Governance in global garment value chains

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

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

With regard to production processes, the main reason for governance or specification to occur is risk minimisation on the part of the buyer. The most important risk is that of suppliers not providing products on time or providing bad-quality products. In general, buyers that do not compete on price are vulnerable to delivery and quality risks (Humphrey & Schmitz, 2000). As

loyalty. They risk losing that reputation if shortcomings are found at suppliers. Shortcomings are especially likely to occur when latecomer LMIC suppliers are involved because often there is a large gap between the requirements of their domestic market and those of their export market (Keesing & Lall, 1992; Humphrey & Schmitz, 2000). In the garment industry gaps exist in particular with regard to labour conditions and environmental standards. Increased consumer awareness in Western markets with respect to labour and environmental misconduct has led to a tightening of governance in international subcontracting relations in the garment industry (see Annex 2).

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

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

Table 2.1: US and EU chain governance structures

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

Source: Gibbon, 2000, 2002

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

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

2.2.3 The GVC and upgrading in LMICs

Gereffi's publications on GVCs are optimistic in their discussion of the possibilities for LMICs and LMIC firms to upgrade. Gereffi (1996) asserts the central role of GVCs for upgrading by stating 'participation in global commodity chains is a necessary step for industrial upgrading because it puts firms and economies on potentially dynamic learning curves'. Once incorporated into GVCs, the challenge to (suppliers in) LMICs is to upgrade and improve their position within those chains (ILO, 1998; Gereffi, 1999). Humphrey and Schmitz distinguish three general types of upgrading: product, process and functional upgrading. In short, these refer to a greater sophistication of products, of processes and to an extension of command over new nodes in the value chain, respectively. One of the most salient results of recent studies of upgrading dynamics is an apparently dynamic relationship between governance and upgrading (Fleury & Fleury, 2001; Dolan & Tewari, 2001; Humphrey & Schmitz, 2000). Especially in process and product upgrading, governance by buyers is believed to be highly important. The communication and enforcement of export standards with regard to quality, consistency and response time by buyers to their suppliers is especially important to new suppliers in LMICs (Egan & Mody, 1992; Tewari, 1999; Piore & Ruiz Durán, 1998). For more experienced suppliers that are already incorporated into GVCs, a switch from one buyer to a more demanding, higher end buyer ('organisational succession') is presented as 'one of the critical mechanisms by which firms can improve or consolidate their positions within the value chain' (Gereffi, 1999). For LMIC suppliers it entails switching to a new, more demanding/sophisticated chain. The upgrading that results from organisational succession is mostly product or process upgrading. However, Humphrey and Schmitz (2000) point out how unrecoverable sunk costs may cause buyers to prevent their suppliers from switching to another buyer⁸.

The role of buyers with regard to the functional upgrading of their garment producers is also ambiguous. Gereffi (1999) proposes an evolutionary process through which producers are able to change from 'mere' assemblers into full-package suppliers – or even, as explained in Chapter 1, into a ODM or OBM role. Thereafter, suppliers may develop design capabilities so that they can design products sold under the brand name of their buyer ('original design manufacturing', ODM). Finally, suppliers may be able to market their own branded merchandise⁹. Contrary to Gereffi's optimistic scenario, Schmitz and Knorringa (2000) argue that buyers in the shoe industry discourage or even bar their suppliers from developing the design and marketing capabilities necessary for attaining an ODM or OBM role. Buyers may feel threatened if suppliers encroach on their core competencies and may try to prevent them from doing so.

With such emphasis on the need to engage in upgrading mechanisms and processes, it is surprising to find that in many GVC studies the aim of upgrading remains somewhat obscured. What then is the aim of upgrading processes? According to Gereffi (1999), upgrading 'involves organisational learning to improve the position of firms or nations in international trade networks'. As such, industrial upgrading is seen not only as a process, but also as an aim or a result (Fleury & Fleury, 2001). The latter aspect remains rather implicit because not much attention is paid to the relative nature of upgrading vis-à-vis peers. Fleury and Fleury (*ibid.*) do stress, however, the fact that the resulting enhanced competitive position of the firm implies that it has to learn or improve faster than other competing firms. If there is no improvement of the relative position of a firm vis-à-vis its peers, the firm is in fact 'running to stand still'. Furthermore, the firm's competences have to improve as a result of a self-reliant and purposeful attitude with regards to its upgrading process (*ibid.*), which is a significant departure from the vertical, top-down perspective employed in most GVC studies. Purposeful strategies need to promote competence building, while on the other hand increased competence should support the company's competitive strategy. In this dynamic, bidirectional process, learning is seen as the essential link. Fleury and Fleury's perspective bears some resemblance to Porter's (1990) treatment of operational effectiveness and strategy. According to Porter (*ibid.*) operational effectiveness entails performing similar activities better than peers do. All firms need to achieve operational effectiveness to stay in the market. In striving for operational effectiveness, management tools and techniques such as benchmarking, total quality control and partnering, are applied widely, and the measures applied by one firm are quickly adopted by others. Consequently, companies look more alike, as do their activities. Whereas many authors (*cf.* Lundvall, 1988, 1993; Camagni, 1991; Gereffi, 1999) see in this learning and adopting by interacting an important route to competitiveness, Porter envisages a rat race without winners: 'competition becomes a series of races down identical paths that no-one can win' (Porter, as quoted by Meyer-Stamer, 2002). This competitive trap can be avoided by performing activities that rivals do not perform or by performing the same activities differently; Porter calls this 'strategy'. His focus on strategy thus turns the upgrading discussion away from the 'upward trajectory' or 'linear improvement process' thinking that has become part and parcel of the upgrading debate¹⁰.

Once the overwhelming dominance of intra-chain upgrading stimuli emanating for foreign buyers is put into perspective, this becomes just one (though a highly important one) of the many relevant factors. As mentioned, the significance of the active and independent upgrading strategies of suppliers has received little attention or has been downplayed and deserves

academic attention (see Smakman, forthcoming). Moreover, in a wider approach to upgrading of LMIC suppliers, extra-chain aspects need to be taken into consideration. Relevant here is Dolan and Tewari's (2001, p. 100) observation:

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

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

2.3 Clusters

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

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

Based on slightly different emphases with regards to the origins of economic externalities, two different strands of literature on regional economic development can be distinguished in modern cluster literature. The one represented in new economic geography and endogenous growth theory places great emphasis on static economic externalities and increasing returns to scale that result from spatial clustering and specialisation (Vasquez Barquero, 2002; Krugman, 1995; Porter, 1990). It largely follows the accounts of successful industrial districts in the 'Third Italy', where flexible specialisation allowed clustered small firms to compete successfully in

international markets (Piore & Sabel; 1984; Becattini, 1990). Within a static framework, reduced transaction costs and the benefits of scale and scope economies receive much attention. Also, two types of agglomeration economies are distinguished: localisation economies and urbanisation economies. The former are benefits such as the spatial clustering of economic externalities based on skilled labour, technological know-how and specific (supply) infrastructure, which result from the concentration of enterprises belonging to the same industry (van Dijk & Rabellotti, 1997). Urbanisation economies are more general benefits associated with an urban location, such as generic infrastructure, labour market and information.

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

While the benefits of clustering are widely known and accepted, a variety of cluster definitions have been used in cluster research. So, what constitutes a cluster? The literature includes studies of regions as diverse as Silicon Valley, the City of London, Modena (Italy), Agra (India) and Lima (Peru). The common denominator shared by these regions is the fact that they all house a geographical and sectoral concentration of firms – i.e. the definition of a cluster used in this study. Even though inter-firm linkages clearly need not be a presupposed ingredient of clusters¹¹, in general, different types of interaction and networking, including inter-firm linkages, are common ingredients of clusters. In fact, a comparison of case studies led to the discovery of almost unbounded variety in the internal structures of clusters in developed and developing countries. In response to this variety, several authors have constructed cluster typologies (Storper & Harrison, 1991; Park, 1996; Markusen, 1996). The most well-known cluster types besides the Marshallian district, which is made up of interlinked, specialist small firms, are the hub-and-spoke cluster and the satellite platform (see Figure 2.2 a-c).

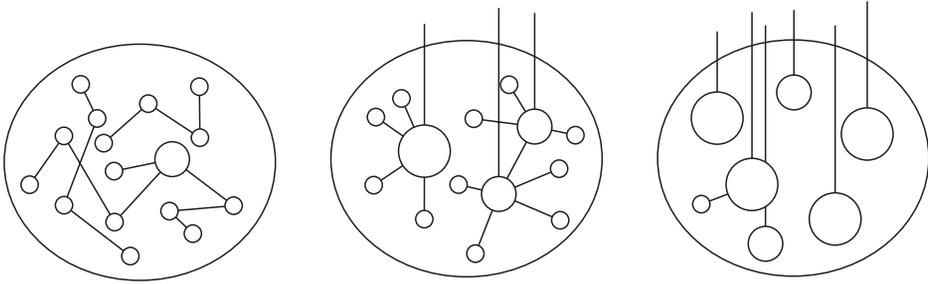
As illustrated in Figure 2.2 b, in hub-and-spoke clusters a large local firm is the central node in the local network as well as its gateway to the outside world. Satellite platforms are made up of branch plants of TNCs that do not or only sporadically maintain productive linkages to each other and the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

In recent years, two new turns have been given to the subject of clustering. First, there is now a body of literature concerned specifically with LMIC clusters. The observed advantages of flexible specialisation within European clusters spurred a whole new research and policy agenda for LMICs (Schmitz & Musyck, 1994). In LMICs there had been considerable concern

A - Marshallian cluster

B - Hub-and-spoke cluster

C - Satellite platform cluster



Source: Markusen (1996), Atzema & Boschma (2002)

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Figure 2.2: Cluster typologies

with the weak competitive position of SMEs¹², and the experiences of SME industrial districts in Europe gave industrial development research in LMICs a new impetus (Schmitz, 1989). Several case studies carried out during the 1990s confirmed both the existence of clustering in LMICs and its significance for enhancing the competitive position of SMEs (Schmitz, 1995; Rabellotti, 1997; Visser, 1996, 1999; Knorringa, 1999). Second, in the LMIC context new benefits of clustering, namely those resulting from collective action, are receiving increasing attention in cluster analysis. Firms in LMIC clusters benefit from what is called collective efficiency, which, as is the case with the Western clusters, is derived from Marshall’s unintentional, or passive, external economies, but they are complemented by purposeful joint action (Schmitz & Nadvi, 1999). Later work on clusters, especially on LMIC clusters, showed the significance of deliberate cooperation of clustered firms. Several forms of joint action within LMIC clusters have been observed:

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

Within LMIC environments, the cluster types illustrated above have been interpreted not as static models, but as phases in trajectories (Schmitz & Nadvi, 1999; Knorringa, 2001). One of the main contentions of the cluster trajectory research is that as the cluster develops – from incipient to a mature cluster – over time, its internal structure as well as its dynamics change¹³. Emerging or incipient clusters are believed to consist primarily of small firms that are seen to benefit from intra-cluster specialisation as it allows them to spread risks and to invest in ‘riskable steps’ (Schmitz, 1997). However, not all participant firms benefit equally. As a consequence, mature clusters may display greater internal differentiation: medium-sized and large firms emerge, grow and come to play a dominant role as clusters mature (Scott, 1992; Schmitz, 1995; Nadvi, 1999; Knorringa, 2001). Thus, over the course of their development trajectory, LMIC clusters evolve from what Markusen has called Marshallian clusters to structures that resemble that of hub-and-spoke clusters.

Several cluster studies note that in the face of new competitive pressures and crises, often closely associated with the ongoing economic globalisation process, the need for cooperation in mature clusters is heightened (Meyer-Stamer, 1998; Schmitz & Nadvi, 1999). In their revision of several case studies, Schmitz and Nadvi (1999) point to the diverging evidence on the type and effectiveness of various types of cooperation. Multilateral horizontal cooperation in institutions such as business associations or other private or public organisations is important in a few clusters. In contrast, vertical cooperation was either high or increasing in all clusters. Visser (1996, p. 55) refers to vertical producer-supplier linkages when he states that 'vertical cooperation thus gives specialists more grip on a complex and changing environment, which is probably the most important 'economy' one can obtain in modern economies'. It is not hard to see that the same applies, possibly even more so, to vertical cooperation with buyers, including those outside the cluster. In fact, the work of Knorringa (1999), Rabellotti (1999, 2001) and Schmitz and Knorringa (2000), amongst others, shows that especially in the more demanding marketing channels close cooperation between buyers and suppliers is important. The most demanding marketing channels are often but not always the export channels that are managed by global buyers. It is this latter insight that led Schmitz and Knorringa (2000) to investigate 'learning from global buyers' issues, and that sparked a general greater emphasis on external linkages of clusters (Varaldo & Ferrucci, 1996; Schmitz & Nadvi, 1999). A better understanding of the nature of these linkages is necessary if one is to address the upgrading potential and stimuli for LMIC garment firms that service global markets. Park (1996) and Weijland (1999) emphasised the fact that strong external linkages have to go hand in hand with collective efficiency based on trust and a positive local institutional environment that pushes the cluster forward.

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

2.3.1 The fuzzy notion of embeddedness

There is a large and growing body of literature on embeddedness¹⁴ as there is little doubt about the economic relevance of the embeddedness of economic actors in their sociocultural environment. Many different interpretations have been given to the meaning of embeddedness with regard to economic relations. One of the most narrow interpretations is commonly used by economic geographers and planners who interpret local embeddedness as the integration of business into the local economy in terms of backward and forward linkages (van Westen, 2001; Boschma et al., 2001). Traditionally, this discussion has focused on the position of FDI facilities in local economies. Recent studies of the embeddedness of TNCs and their networks stress the point that embedding at the local level should not be interpreted as a one-way street, where FDI by TNCs takes root in passive localities. Based on the social process involved in network formation, Dicken and Hassler (2000) envision: 'the precise nature and articulation of such

firm-centred networks are deeply influenced by the concrete socio-political, institutional, and cultural contexts within which they are embedded, produced and reproduced.’

Another approach sees the time-space context of businesses as a determining influence on a firm’s underlying logic or ‘mode of rationality’ (Scheffer 1992; Yeung, 1998; Whitley, 1994, 1996; Ruigrok & van Tulder, 1995; Dicken et al., 2001). Sociocultural aspects have an impact on the way business and the economy are organised. From a development perspective the main preoccupation is not with this link itself, but with the possibility to link the sociocultural environment to economic performance, viz. success or failure. In this context Fukuyama (1995) asserts the importance of trust (see also Schmitz, 1999; Maskell & Malmberg, 1999). Schmitz (1999, p. 141) defines trust as ‘the willingness to expose oneself to the possibility of opportunistic behaviour by others’. Fukuyama (1995) distinguishes between low-trust and high-trust societies. In the former, kinship rather than voluntary association is the backbone of economic organisation. High-trust societies on the other hand build on ‘the ability of people to work together for common purposes in groups and organisations’ outside kinship, an ability which Fukuyama has termed ‘social capital’. Social capital is seen to function as the ‘glue’ for collective action (see section 2.3), and embeddedness in a social capital-rich environment may stimulate success and economic development. The social capital concept is also useful because it bridges the gap between the macro-level sociocultural environment and the social embedding of micro-level relationships (Boschma et al., 2001)¹⁵. With regard to the micro-level economic relations, Granovetter’s (1985) interpretation of embeddedness serves to point out the impact and relevance of the social, interpersonal aspect of business relations (see also Uzzi, 1997).

2.3.2 Clusters, path dependence and lock-in

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

‘Regions are historical constructs, projects arising from interaction and negotiation between the various local actors. In the case of industrial regions, industrialisation will contribute the material base for the interests that struggle and negotiate while establishing the region’s sphere of influence and in the course of these processes forge a regional identity. These identities are strong and persistent and may condition firm decision making beyond the logic of a flow-substitution economy. The various factor complexes involved in the formation of regional production systems – the economic, the social, the political and the cultural – tend to reinforce each other and cast this system in a particular mould that may be hard to change.’

While incremental learning may set a cluster on a highly successful path to competitiveness, path dependence may prevent the path from being changed or adapted to fit new competitive needs. Vellinga's observation also points to the danger of lock-in that has been seen to hamper the dynamic development of some clusters (Meyer-Stamer, 1998; Visser, 1996, 1999; McCormick, 1998; see also Maskell & Malmberg, 1999). To combat inertia or conservatism once a cluster's spontaneous growth phase is over, support from local and regional institutions appears to be required to stimulate innovation and expansion (Brusco, 1990; Schmitz, 1992; Helmsing, 2000). However, evidence concerning the effectiveness of policy networks with regard to upgrading remains scarce (Humphrey & Schmitz, 2000) and even negative (Grabher, 1993; Atzema & Boschma, 2002).

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

2.3.3 Clusters, learning and upgrading

Much of the literature on GVCs, production networks and clusters is concerned with the development and upgrading of business firms, especially those in LMICs. These dynamic improvement processes are presented as competitive alternatives to price- and cost-based competition, also called the 'low-road' competitive strategy (Pyke & Sengenberger, 1990)¹⁶. The 'high-road' alternatives are closely associated with dynamic improvements in products and processes. They are believed to be induced by competitive and changing markets. For example, in the garment industry, which is notorious for cost-based competition, new retailing strategies and faster-paced fashion changes may shift competitive strategies from the low to the high road. In fact, Maskell and Malmberg (1999, p. 167) envision this shift to apply to industrial competitiveness in general.

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

Several authors on learning and innovation systems have stressed the localised nature of learning. Based on industrial and institutional specialisation, geographical and cultural nearness – which facilitates the exchange of both codifiable and especially tacit knowledge – firms in clusters are able to learn better than isolated firms are (Porter, 1990; Atzema &

Boschma, 2002; Maskell & Malmberg, 1999; Helmsing, 2000). Furthermore, globalisation appears to heighten the importance of localised, tacit knowledge. Maskell and Malmberg (1999, p. 172) point out that:

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

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

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

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

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

2.4 Conclusion

This chapter presented a number of different network-based approaches that can be used for the analysis of industrial development processes at various levels of scale. The main concern of the GVC approach is with processes at higher (global or national) levels of scale, and places great emphasis on governance mechanisms transmitted through vertical, inter-firm linkages. Cluster studies, on the other hand, tend to focus on horizontal inter-firm linkages at the local or regional level that are characterized by a beneficial combination of competition and cooperation.

Rather than summarising the main attributes, merits and problems of these approaches, this last section emphasises that both perspectives offer valuable contributions for the study of clustered LMIC firms wanting to operate or already operating in export markets, through their incorporation into GVCs. For an understanding of how clustered firms in GVCs may engage most effectively in upgrading processes in order to enhance their competitive position, insights from both approaches need to be combined. The crux of this type of study appears to lie in achieving a greater understanding of the interplay between intra-chain governance and the local or regional institutional environment's ability to diffuse and generate relevant knowledge. So far, there is limited empirical evidence with regard to the interplay between these processes in exporting LMIC clusters.

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

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

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

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

Notes

- 1 R&D efforts aimed at the further automation of garment production have, however, not been abandoned. On the contrary, Audet (1996) finds that the USA, Japan and the EU are engaged in a competitive race, aimed at developing applied automated assembly systems for the garment industry. He also notes, however, that even if a breakthrough were to be achieved, application of new technologies would most probably be limited, due to the decline in batch sizes and the prevalence of small garment factories.
- 2 Production networks occupy a fairly prominent position in GCC/GVC literature. In fact, GVCs are seen as 'sets of interorganizational networks clustered around one commodity or product...' (Gereffi, 1994, p. 2). The GVC approach can be seen as a network approach (Dicken et al., 2001). However, in the development of the GVC perspective all attention has been focused on governance, and many of the social and spatial embeddedness nuances of the network perspective have remained underdeveloped.
- 3 Essentially these 'new' approaches represent a revival – and adaptation – of the *filière* concept applied by French economists during the 1960s. In the Dutch economic literature of the same era, the *filière* also figured fairly prominently but was referred to as 'produktiekolom'. The concept assigned a central role to the material aspect of production and remained mainly neutral and descriptive. The *filière* was not strictly defined, but *filière* studies share the use of a chain of production activities as a tool and delimitation of the scope of their study (Raikes et al., 2000; Lenz, 1997).
- 4 With regard to the geography of GCCs, criticism has centred on two issues. Firstly, GCC studies focus overwhelmingly on nations within the mental framework of industrialised countries versus LDCs, and pay no or only limited attention to the dynamics at intermediate levels of geographical scale. In most studies, the GCC hardly ever touches down to examine the dynamics in and its interaction with its local footholds. Secondly, the connection between geography and GCCs remains underdeveloped. Lenz (1997, p. 29) aptly explains the complex relationship between geography and the *filière*: 'das Filière-Konzept ist dabei ohne expliziten Raumbezug, d.h. räumlichen Aspekte sind kein ausdrücklicher Gegenstand des Ansatzes...Eine Gleichsetzung der Begriffsinhalte von 'Segment' bzw. 'Standort' ist nicht möglich. Dennoch hat jede Filière gewissermassen 'automatisch' auch eine räumliche Struktur, da die Segmente bzw. die Elemente, die die Segmente ausmachen im Raum, d.h. an einem Standort vorhanden sind.' Similar observations apply to the territoriality of GVCs.
- 5 Several authors resist the presumed dual structure of chain governance consisting of two exhaustive ideal-types, representative of capital- and labour-intensive industries in general and indeed, of all industries (Dicken et al., 2001; Gibbon, 2001; Sverisson, 2001; Raikes et al., 2000). They call for theoretical underpinnings that will help explain the differences more systematically, and point to national variation in governance of the same sector (Smith et al., 2002; Gibbon, 2000) as well as to industries lacking strong control by a dominant firm or for industries with a different governance structure (Gibbon, 2001). Others feel the definition of governance applied in most GCC to be too narrow, as extra-chain governance, or 'regulation', should be taken into consideration in GCC analyses (Smith et al., 2002; Vargas, 2001; Whitley, 1994, 1996; McCormick, 2001).
- 6 Several scholars of economic and industrial development issues have recently joined forces in an attempt to further the theoretical advancement of the GCC (see Gereffi et al., 2001, for their research agenda). Through the use of the new value chain terminology they set themselves apart from the theoretical problems associated with the GCC (see Leslie & Reimer, 1999; Raikes et al., 2000; Dicken et al., 2001) whilst paving the way for its further academic development (Gereffi et al., 2001; see also Smith et al., 2002). Kaplinsky (2000, p. 9) gives another reason for his preference for the term 'value chain' when addressing economic development issues: '... 'global commodity chain' suffers because the word commodity implies the production of undifferentiated products in processes with low barriers to entry. The problem with this [...] is that the search for sustainable income growth requires producers to position themselves precisely in non-commodity, high barriers to entry activities in the value chain.'
- 7 The meaning given to the term governance in this context may cause some confusion. In studies – such as the one at hand here – focusing on industrial economics or industrial development, governance generally refers to the way in which industrial production is organised and controlled. In development studies in general, governance and

- especially 'good governance' are central notions. In the latter strand of literature, they refer more specifically to political processes and the way in which they are organised and carried out (Nijenhuis, 2002).
- 8 In this situation, buyers' segmentation strategies may still give rise to (or allow) upgrading in suppliers, by switching from producing a brand in the lower-end market segments to a higher-end brand or label, owned by the same buyer.
 - 9 Lall (1991) has shown that this upgrading sequence may not be as straightforward as is often believed. LMIC manufacturers encounter great difficulties, especially in marketing.
 - 10 This breakaway is particularly informative in relation to evidence on downgrading processes taking place in clusters that are becoming incorporated into the value chains of global buyers. Amin and Thift first noted the early stages of such a process in the Sta. Croce shoe cluster in Italy. Recently, Rabellotti's study of the Brenta shoe district has also shown that 'side-stepping' or even downgrading may be a viable strategic option (Rabellotti, 2001).
 - 11 This point has been stressed by Visser (1996) as well as Atzema and Boschma (2002), amongst others. As Visser points out, in much of the industrial district literature, the research objects are presupposed from the outset of the research. This appears in some cases to defy the purpose of the research.
 - 12 For decades now, SMEs in developing countries have been recognised as the main employment creators, but oftentimes their competitiveness, especially outside local markets, and growth was observed to be limited. Visser (1996) provides an extensive overview of both internal and external factors that constrain the competitiveness of small firms. He stresses the particularly detrimental impact of external constraints based on, amongst other things, biased policies, limited access to markets and financial resources (*ibid.*, pp. 36-37; see also Verkoren, 1990). As a result of these constraints, SMEs in developing countries appeared stagnant, displaying limited growth potential.
 - 13 It is important to note that advancing from an incipient to a mature cluster status cannot be taken for granted. Not all clusters necessarily progress and enhance their capabilities sufficiently to 'mature'. Altenburg and Meyer-Stamer (1999) point to the large number of stagnant 'survival clusters' of struggling micro- and small-scale firms in LMICs, and Park (1996, p. 487) has pointed to the disappearance or decline of many clusters in traditional industries in LMICs.
 - 14 See van Westen (2001) for an overview of the origin and development of the embeddedness concept.
 - 15 Thus sociocultural environments rich in social capital and concomitant trust, norms and values stimulate the social embedding of inter-firm and other relationships.
 - 16 Low-road strategies are focused on price reductions and based primarily on the squeezing of labour cost. Labour-intensive industries such as the garment industry are particularly notorious for their low-road competitive tendencies, but in other industries in mature stages of the product lifecycle, pressures to lower costs in order to retain market share also commonly culminate in low-road strategies.

3 The US-Mexico garment connection

The discussion of geographical trends in the garment industry in Chapter 1 briefly touched on the unique position of the US and Mexico in global garment trade flows. The US occupies an all-round central position in the global garment arena: it is the largest single-nation market, the largest producer and the largest importer. Mexico is a remarkable rising star in garment exports: from a position in the bottom ranks of LMIC garment exporters, it rose to become the main supplier country for the US market, displacing established suppliers such as Hong Kong and South Korea.

This chapter focuses on the background, main features and integration of the garment industries in the US and Mexico, and sketches the concrete industrial context within which the garment industry in La Laguna operates. After a brief presentation of geographical shifts in garment employment in both nations in section 3.1, section 3.2 presents the historical developments in the US garment industry during the twentieth century. Then, trade regulations – which enhance the competitiveness of US garment manufacturers through the apparently contradictory measure of allowing them to shift manufacturing activities to low-wage locations – are examined. The Texan border city El Paso is also introduced. This city was an important concentration area for garment manufacturing in the southern US and a typical representative of the US manufacturing scene in basic, standardised garment production. Moreover, recently it has become an important connecting hub between garment production in Mexico and the US market and its buyers. Section 3.3 presents the main geographical, historical and regulatory trends in the Mexican garment industry over the past decades. Section 3.4 examines how the North American Free Trade Agreement (NAFTA) liberalisation may impact the US-Mexico division of labour in the garment industry.

3.1 Overture: shifts in garment employment in North America

Over the past decades, Mexico has changed from being an inward-oriented country, to being a hesitant and partial exporter to the US, to becoming a major supplier of the US garment industry under NAFTA. Mexico's current position is built on two pillars. First, it owes its unique position largely to production-sharing arrangements between US and Mexican garment manufacturers. This pattern has been shaped over decades but has intensified dramatically since 1994, when NAFTA granted Mexico preferential status above all other supplier countries with regards to exports to the US. NAFTA liberalisation affected the entire manufacturing sector but its effects were immediate and dramatic in the case of garments: garment exports from Mexico to the US skyrocketed. Because of this, the industry has been presented as a showcase of the impact of NAFTA by its supporters but also by sceptics on both sides of the border. Lending an ear to former presidential candidate Ross Perot's 'sucking sound from the border', US manufacturers, politicians and especially labour representatives have accused NAFTA and its negotiators of allowing Mexico to steal jobs from the US economy. In Mexico, NAFTA is accused of enabling US TNCs to take advantage of the existing wage level differential to pay Mexican workers a fragment of the wages of their US colleagues.

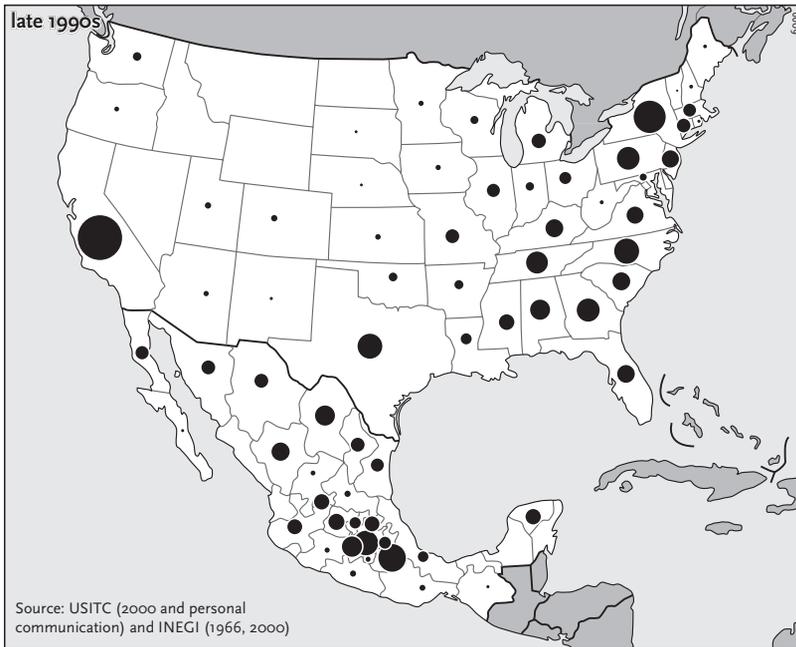
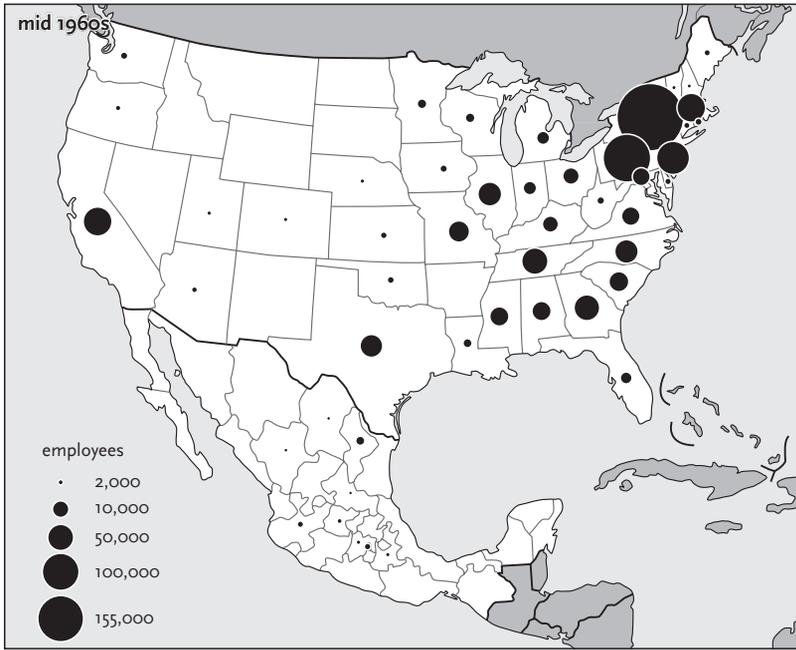


Figure 3.1: Garment employment in the US and Mexico, mid 1960s and late 1990s

Furthermore, the profits made through this arrangement are exported and the impact on local economic development in Mexico is minimal for lack of local linkages of these firms. Ironically, business analysts – especially in the US – side-step such antagonistic accusations and foresee a fruitful ‘Western hemisphere’ partnership that is necessary to curtail or counter the common threat of Asian imports and industrial success.

Second, from an industrial perspective, the global industry trends as outlined in Chapter 1 are also seen to support the strong position of Mexican garment exports. Current market trends and retailing strategies are intended to shorten lead times throughout the supply chain and put a potential premium on geographical proximity. Latin America – most specifically the Caribbean Basin and Mexico – has benefited from this trend and is now the second most important wearing apparel supplier region to the US market.

The materialisation of both pillars relies on and points to a tight functional integration of the US and Mexican garment industries. The dramatic impact of these processes on the geography of the industry in both nations over the last decades of the twentieth century is illustrated in Figure 3.1.

A comparison of both maps in Figure 3.1 provides a dramatic illustration of the contrary developments of the US and Mexican garment industry: overall, garment employment in the US has shrunk while it has boomed in Mexico. Furthermore, the geographical shift of garment employment in the US towards the southern states and a concentration in northern Mexico illustrates the growing importance of a bi-national division of labour between these industries. In the 1960s there was little or no linkage between the industries in the two countries, but in the 1990s this changed. Behind the map image of the situation in the late 1990s lies not only a quantitative increase of garment assembly in Mexico but also – as will be elaborated later in this chapter and in Chapter 7 – a qualitative shift in the bi-national value chain towards greater integration of the production process in Mexico.

Using Figure 3.1 as a pivotal point of reference, the following sections will examine changes in the US and Mexican garment industries.

3.2 Historical developments in the US garment industry

Though recent changes have had a profound impact, the current structure and interrelations between the industries in North America¹ cannot be fully understood in isolation from former structures and trends. In fact in some ways, and certainly with regard to the industry in the US, current patterns appear to be an extension – in intensified form – of pre-existing patterns (Taplin, 1997; Glasmeier et al., 1993). A number of historical trends and traits in US garment production deserve mention here as they appear to still have an impact on organisational and spatial strategies.

Originally, the garment industry in the US was concentrated around the main markets, especially New York. This began to change with the emergence of jobbers. Their emergence at the beginning of the twentieth century (see section 1.1) is significant not only because it initiated a process of vertical disintegration of US garment firms². More important is the fact that when some jobbers replaced their northern-based assembly contractors with cheaper contractors in the South, they initiated a national relocation process that resulted in what could be called a new national division of labour in the US clothing industry. Marketing and design activities remained confined to the head offices of jobbers in the North, and

manufacturing activities were shifted to subcontractors/ contractors in the southern states. The first map of Figure 3.1 illustrates garment employment in the US for the mid 1960s, when the shift of manufacturing to states such as North and South Carolina and Tennessee was already well on its way.

The underlying logic of this geographical shift is rooted in labour cost differences and price competition³. Existing large differences in labour cost and availability within the US made domestic cost-based relocation a viable option for the US garment industry. This appears to have had two important implications. Firstly, the emerging national division of labour between the North and South may have set the tone for the narrow, cost-based competitive strategies the US apparel industry was diagnosed as having several decades later (Bailey, 1993; Glasmeier et al., 1993; Taplin, 1997). Taplin (1997, p. 90) is most explicit with regard to this point:

'Earlier strategies, with a focus on 'cost-driven' competition, led to investment choices (particularly location and the organisation of production) that were predicated on wage lowering principles. The managerial orientation towards workers was to see the labour force as a disposable entity rather than as a resource to be developed. Subsequent strategies were constrained by these earlier structures which limited managerial choice in an industry that was and remains volatile, highly competitive and with short-term profit horizons.'

Extending this line of thought, it could be argued that the low wages and large reserves of immigrant labour in the southern US greatly reduced the incentive for modernisation and technological and managerial innovation, processes that were given much emphasis in other high cost garment producing countries such as Germany and Japan (Bailey, 1993; Glasmeier et al., 1993; Taplin, 1997).

Above all, however, the emergence of jobbers appears to have set in motion a process leading to dualism in the US garment industry. This dualism runs along geographical as well as product specialisation and organisational lines. Over the course of the twentieth century, the US garment industry was increasingly split into a northern, metropolitan and a southern segment, or a modern and a conservative segment, a retail-minded and a manufacturing-minded segment, respectively⁴. The garment industry in the south-eastern states – such as Texas, Georgia, Tennessee and South Carolina – was and still is geared towards the manufacturing of standardised, mass-produced 'commodity' garments, such as jeans and tee-shirts in the 'Men's and Boys' segments' of the market (Taplin, 1997; Green, 1998). The cost efficiencies of most southern factories are based on economies of scale. Most businesses are family-owned and managed, and a conservative business attitude predominates (Bailey, 1993; van Dooren & van der Waerden, 1997; van Dooren & Verkoren, 2003). Also, many southern factories are contractors with only a limited command over the manufacturing process (van Dooren, 2002). Except for a few large branded manufacturers, marketing has become one of the main problems of US apparel manufacturers and contractors in general. This applies especially to southern contractors, as they are both organisationally and geographically divorced from the main markets and marketing channels. Nevertheless, throughout the 1980s and part of the 1990s garment production in the South showed considerable dynamism, when at the national level the industry was shrinking. Especially noteworthy is the growth of apparel complexes along the US-Mexico border, in El Paso and McAllen, Texas for example (van Dooren, 2002). The apparel cities along the border depend heavily on commuters and immigrant labour from

Mexico (Spener, 2002; van Dooren & van der Waerden, 1997). The exception to the noted southern pattern based on the large-scale production of standardised wearing apparel, is the area of Los Angeles. There, small-scale, flexible, sweatshop-like contractors produce mostly California-style sportswear or casual wear, mostly for women or girls (Taplin, 1997; Kessler, 2002).

The current pattern is an extension of these trends. Within the context of national decline, the concentration of garment manufacturing close to the US-Mexico border remained stable or grew until the mid 1990s and garment employment in the traditional north-eastern garment states has shrunk. Meanwhile, globalisation underpins the position of global metropolises such as New York and especially Los Angeles (Sassen, 1991). These metropolises and their immediate surrounding areas still stand firm as fashion centres based on an edge in fashion-oriented women's wear and sportswear (see Figure 3.1; Taplin, 1997; Palpacuer, 2002; Kessler, 2002). However, Palpacuer (*ibid.*) and Kessler (*ibid.*) show that globalisation also poses significant challenges, transforming the structures of the metropolitan garment industries since the 1970s. Casual wear for women has remained the principal niche product of the two areas. Production has always been concentrated in small and labour-intensive factories; owners as well as employees are commonly immigrants (Taplin, 1997; Dicken, 1998). Both cities have also retained strong positions in the core nodes of the GVC, in design, fashion and marketing, but they also – against the national trend – retain a manufacturing base (Palpacuer, 2002; Kessler, 2002). These strengths are based on and reinforced by the presence of the head offices of large retailers and designer label and private label marketers and by smaller independent manufacturers. These buyers are driving the globalisation process in the garment industry by sourcing from contractors and suppliers in numerous countries across the globe. Even as the sourcing networks of US metropolitan-based buyers have expanded to truly global dimensions, many buyers still retain a small, local contracting base (see Figure 3.1). Most of the manufacturing in these areas is based on relatively stable contracting relations with large buyers who place relatively small batch and quick response orders with local contractors (Palpacuer, 2002).

The contrast with Southern contractors is clear. Irrespective of their location, US contractors are captive to the product development and marketing decisions of their larger customers (Glasmeyer et al., 1993). Whereas the metropolitan garment manufacturing bases were able to find stability based on close cooperation between contractors and buyers, high responsiveness and flexibility, large numbers of garment factories in the South found themselves in a hard spot. Decades of relying on low-wage labour and large-scale, standardised mass-production appear to have led to unresponsiveness to buyers' demands, a problem that has become more acute now that fashion trends change more rapidly. Southern strategies have been principally aimed at de-skilling and automation, thus jeopardising flexibility. In recent years, the relationship between US buyers and apparel contractors in the South appears to have become more distant and strained.

Meanwhile, the globalised world economy has opened up numerous options for US buyers to organise and structure their networks in search of the perfect balance of cost, flexibility and turn around times. In global networks, US contractors have become less important: Palpacuer (2002) estimates that on average only 15% of the total production of buyers based in New York is produced in the US, almost entirely by local, New York-based contractors. Thus US contractors

in the South are increasingly excluded from the networks of the major US buyers that prefer the service, flexibility and low prices offered by offshore suppliers.

Rather than accepting the erosion of the domestic garment manufacturing base, the US government devised protectionist (see Chapter 1) as well as restructuring measures. The latter are the most relevant here. Restructuring measures were formulated to allow US manufacturers to counteract the import threat by 'doing battle against Asia' (*Business Week*, 1998; *Twin Plant News*, 1999; López Navarrete, 1997). Based on the doctrine of 'If you can't beat 'em, join 'em', they encouraged the internationalisation of production, mostly through production-sharing arrangements as a means to enhance the cost competitiveness of domestic manufacturers. In practice, these production-sharing arrangements cemented a strong link between the US, Mexico and various Caribbean countries.

3.2.1 Offshore production

Protectionist trade measures were devised soon after the appearance of Japanese garments in US stores in the 1950s set the alarm bells ringing in the domestic garment industry. Then, restructuring of the domestic industry, with the aim of confronting and beating imports, was beginning to be stimulated. The US production-sharing trade regulations designed for this purpose had separate rules for the pre-assembly, assembly and post-assembly manufacturing nodes of the value chain (see Figure 1.2). The most important program of this kind – the 807 Program – shaped the division of labour patterns between the US and Mexico and other nearby LMICs for several decades. The strict rules and limitations on production sharing between the US and Mexico were liberalised by the passage of NAFTA in the mid 1990s.

The 807/807A Program

The most important policy designed to improve the competitive position of US garment manufacturing is the 807 or 'Production Sharing' Program of 1964. It encouraged the relocation of labour-intensive, low-value-added production activities (usually assembly) to low-wage countries, by exempting duty on the value of the US-manufactured components assembled abroad that are part of the imported article. Upon re-entry to the US, duties thus needed to be paid only on the value added abroad in the assembly process. The 807 Program allowed US manufacturers to take advantage of low wages in foreign countries without being subjected to high import duties. Depending on the program used, US or foreign fabric can be used: for the 807 Program fabric has to be formed and cut in the US; for the 807A Program, fabric could be formed elsewhere as long as it was cut in the US. Especially Mexico and the Caribbean countries became involved in production-sharing arrangements with the US (Dussel Peters, 1997a, 1997b; Spener, 2002; Dickerson, 1995; USITC, 1997 Rees et al., 1997; Green, 1998): Mexico mostly used 807, the Caribbean countries – because of the use of large volumes of Asian fabric – mostly 807A.

[88] In order to fully exploit production-sharing opportunities based on the 807 Program or, as it was later known, Harmonized Tariff Schedule (HTS) 9802, most Caribbean and Latin American countries created export processing zones (EPZs) or arrangements similar to EPZs. Arrangements may vary, but usually include total tax exemption for imports of inputs and for exports of final products. As such they serve as the counterpart to HTS 9802. They provide additional incentive for US apparel firms to use assembly operations in Mexico and CBI. In 1996, 59% of garment exports from the Dominican Republic to the US entered under 807, compared to 55% for Honduras and 62% for El Salvador, for example (USITC, 1997). In practical

terms of garment production this means that garment pieces have to be cut in the US, assembled in Mexico or the Caribbean, and finished in either the US or Mexico or the Caribbean country in question. Cutting rooms had to remain in the US, because cutting would disqualify the finished garments from duty exemption upon re-entering the US. For finishing, the situation was a bit more ambiguous. Finishing, when limited to finishing activities that are 'incidental to the assembly process itself' (i.e. re-screening or trimming) could be done 'offshore'. For jeans, for which laundering forms an integral part of the finishing process however, finishing had to be done in the US, because showerproofing, permapressing, sanforizing, dying or bleaching of textiles would disqualify garments from 807 exemption. Thus, for several decades US production-sharing regulations effectively limited the Mexican and Caribbean side of production-sharing to assembly only, and simultaneously kept the higher value-added production activities in the US. For the CBI countries and Mexico, these provisions created employment and attracted foreign investment, but the impact on their local industrialisation process has been limited. In fact, rather than stimulating or deepening a local industrialisation process, they have truncated it (Mortimore, 1999).

NAFTA

Trade liberalisation between Mexico and the US undertaken as part of NAFTA represents a qualitative change in this arrangement. First of all, under NAFTA, the production-sharing arrangement as described above fell under the HTS 9802 provision. Immediately after the passage of NAFTA, products under this provision became completely freed of duties. Thus after

Table 3.1: Shifts in the top-10 garment exporters to the US (in US\$ 1,000)

Country	1996	Country	1998	Country	2000
China	6,770,240	China	7,785,471	Mexico	9,777,083
Mexico	4,670,307	Mexico	7,687,945	China	9,564,344
Hong Kong	4,008,782	Hong Kong	4,497,007	Hong Kong	4,597,523
Taiwan	2,177,001	Taiwan	2,372,313	India	2,504,975
Dominican Republic	1,789,602	Dominican Republic	2,336,316	Honduras	2,406,094

Source: US Major Shippers Report, 2002

Table 3.2: Relative importance HTS 9802 garment imports into the US (customs value, US\$ millions)

	World			Mexico		
	Total apparel import	Total 9802 trade	9802 trade as % total trade	Total apparel import	Total 9802 trade	9802 trade as % total trade
1994	36,878	5,707	15	1,889	1,470	78
1996	41,679	8,719	21	3,850	2,967	77
1998	53,874	12,791	24	6,812	5,102	75
2000	64,181	12,953	20	8,730	5,071	58

Source: USITC, 2002

1994, Mexican garments were allowed into the US without any duties at all (see also Box 3.1). As illustrated in Table 3.1, it caused Mexico's garment exports to the US to soar.

Initially, NAFTA liberalisation provided a strong impetus for the growth of the US-Mexico garment trade based on production-sharing principles. In 1995, a year after the passage of NAFTA, 80% of total garment exports from Mexico to the US were covered by HTS 9802 (Dussel Peters, 1997b). In fact even in 2000, US-Mexican production sharing still accounted for a large share of Mexico's exports to the US, but its relative importance had diminished significantly (see Table 3.2).

Box 3.1: Explaining the dramatic impact of NAFTA on garments in North America

On the surface, NAFTA appears to have been little more than a continuation or intensification of already existing programs. Yet, as shown, since the coming into force of NAFTA garment exports from Mexico to the US have skyrocketed as production formerly undertaken in the southern US, the CBI region and even Asia was relocated to Mexico.

Two aspects of NAFTA help explain the landslide it caused. First, the abolition of duties on garments assembled in Mexico represented a very real and significant change in the cost structure of producing in Mexico. Before NAFTA – when exported garments carried duties on the value added in Mexico – , growth of the industry in Mexico had been hampered by the country's slightly higher wages and lagging efficiency compared to its Caribbean and Central American competitors that competed under the same conditions. When NAFTA came into effect the sudden abolition of duties (which could range between 15% and 20%) on Mexican assembly exports to the US turned the tables as the duty advantages more than offset the slightly higher Mexican labour cost (USITC, 1997). From one day to the other, Mexico became a cheaper production location for garments than other countries in the 'Western Hemisphere'.

Second, NAFTA entailed a phased but complete liberalisation of all hitherto existing rules and regulations that penalized the performance of pre- or post-assembly activities on garments for export in Mexico. In other words, NAFTA paved the road for integration of the garment production process in Mexico. This latter consideration is very important as it attracted new types of buyers to Mexico: the retailers and marketers. Their involvement in Mexico before NAFTA had been minimal due to the fact that these buyers want to buy finished products, or 'full packages'. They could not and would not deal with the logistical and organisational complications of doing just assembly in Mexico, as branded manufacturers and contractors with their Mexican *maquiladoras* had done. Thus, with the prospect of integration of the production process within its borders, Mexico began to attract a large number of new and important buyers and Mexican garment factories could become engaged in new types of export networks (see also section 3.4).

Mexico has the inherent advantage of sharing a long land border with the US. The possibilities this opens up for cheap truck transport, short transportation time and thus quick response and flexible production are important. The increasing importance of these factors is emphasised in much of the literature on the Mexican garment industry that deals with regionalisation of sourcing patterns. However, it is important to emphasise that these advantages were not large enough to cause a relocation to Mexico prior to NAFTA.

This shift is stimulated by the benefits of NAFTA: since 1994 the production-sharing conditions on duty elimination have gradually been lifted. This provides a strong impetus for further integration of the Mexican and US garment industries. For example, soon after the passage of NAFTA the finishing of garments was liberalised, followed by cutting in January 1999 (Spener, 2002). These liberalisation measures have paved the way for increased integration of the garment production process within Mexico⁵. This development is reflected in Table 3.2 in the decreasing relative importance of HTS 9802 trade as part of total Mexican garment exports to the US.

The (potential) integration of the production process in Mexico attracted new types of buyers, most notably retailers and designers, to the country. With regard to US manufacturers and contractors, NAFTA represents both opportunities and threats. HTS 9802 encouraged mostly large, branded manufacturers to set up FDI facilities in Mexico and the CBI. The impact on US garment SMEs remained relatively limited. By comparison, the impact of NAFTA has been more powerful, leaving certain segments – most notably domestic US contractors and SMEs in the mass-standardised garments – with little choice but to participate or to go out of business (van Dooren & van der Waerden, 1997). The southern US states suffered the consequences of relocation under NAFTA. The impact has been especially dramatic on local economies that had specialised in garment production, such as El Paso.

3.2.2 Garment production in El Paso: just a fleeting phase?

El Paso – formerly nicknamed the ‘Jeans Capital of the World’ – is illustrative of the structure, development and recent demise of standardised garment manufacturing in the US. For decades, it was firmly entrenched in the national division of labour as the national stronghold of jeans manufacturing. This narrow product specialisation created a local growth spurt when in the 1980s stone-washing boosted and sustained the sales of jeans (van Dooren & van der Waerden, 1997). However, far-reaching product specialisation also explains the collapse of the local industry in the late 1990s.

El Paso was one of the main domestic destination areas for relocated garment production in the US; the first garment factory in the city dates back to the late nineteenth century. After that, WWII and the concomitant demand for uniforms boosted the local industry, so that by the time the relocation of production from the Northeast to the South accelerated, El Paso was already an attractive destination (McIntyre Mitchel, 1955). The industry could draw from a virtually inexhaustible and low-cost labour force from Cd. Juárez, just across the border. On top of that, part of this labour force had sewing experience and the region had a humble industry-specific infrastructure.

From the early years on, garment factories in El Paso specialised in the mass production of standardised garments (see McIntyre Mitchel (ibid.) for a detailed discussion of the city’s historical development). Jeans, overalls and shirts were the city’s main garment products. Already during the 1950s blue jeans accounted for the major part of total garment production in El Paso (García Fernández, 1995).

Apparel manufacturing was highly important to the local economy: by the early 1960s over 40% of the working population in El Paso worked in the garment industry. A small number of large factories, employing several hundred and sometimes a few thousand persons, dominated the local industry from the early years onwards, and the average size of the factories was far greater

than the national average (van Dooren & van der Waerden, 1997; van Dooren, 2002). Their dominance increased over the course of the decades, when local companies such as Farah and Mann were joined by branch plants of Levi Strauss, Lee and Wrangler. In the heydays of the Jeans Capital, there were eight large Levi Strauss branch plants in the city. El Paso and the mass production of jeans made a near perfect match and the local industry proved resilient and remained largely unaffected by the national downturn in the industry in the second half of the century. Between 1962 and 1989 national garment employment shrunk by over 14% and garment employment in El Paso grew by 202% (Simcox, 1993). El Paso benefited from an increased emphasis on cost competition, caused by cheap imports and from production-sharing provisions stipulated by the US government that stimulated the establishment of cutting rooms and laundries in the border region (van Dooren & Verkoren, 2003). The local industry continued to thrive on the manufacturing of jeans.

Over the course of the decades, however, overall dependency on outside customers increased. Irrespective of their size, almost all local manufacturers served as assembly or cut-and-sew contractors, depending on one or only a few large customers for their orders. Most were medium-sized factories, using standard machinery and production methods, based on sewing lines. In line with the typical pattern of southern contractors outlined above, local factories did not have a say nor, in most cases, capabilities in product development and marketing. In many cases they also did not buy denim or accessories. Essentially a similar pattern applies to the branch plants of the branded manufacturers. They were dedicated to cutting, sewing or finishing, and depended on their headquarters outside El Paso for the shipment of inputs, product development and marketing decisions. Finishers were highly important in the local industry. Although their cooperation with their customers seemed closer and they were highly innovative, their dependency on their clients was as high as was the case for local sewing contractors. Several laundries dedicated all or the majority of their capacity to the laundering and finishing of Levi's jeans. Only very few factories escaped this overall dependency pattern by serving a niche market such as sportswear or original design Western-style clothing (van Dooren & van der Waerden, 1997).

Only twenty years ago, El Paso was seen as 'the cheapest, most efficient place in the world to make blue jeans' (Berman & Mack, 1980). Nowadays little of this fame remains as the city is believed to be one of the US cities most hard hit by NAFTA (*The Economist*, 2001). NAFTA's pull of labour intensive work to the Mexican side of the border has most negatively affected the garment industry in El Paso, effectively leaving it in ruins. The bitter fact is that its narrow product specialisation may have contributed to its fate: the local industry had not diversified out of jeans nor had it claimed independence through own branding or marketing strategies. Over the decades it remained a collection of branch plants and local contractors specialised in the manufacturing of jeans. The continued narrow product focus and cost competition explain why El Paso was also impacted by the sharp decline in demand for basic five-pocket jeans, the speciality of the city. While design efforts were being put into denim products in order to counteract plummeting jeans sales, several of El Paso's major clients, especially the branded manufacturers, were slow to jump on the fashion bandwagon. Levi Strauss is the most notable example of this fact. The sales of this company, which used to rule the jeans segment of the garment market, plummeted between 1996 and 1999. This loss in sales translated almost directly into a sharp reduction in the number of Levi's domestic plants and employees. In El Paso, seven of Levi's eight plants were closed and the number of employees was reduced from

approximately 5,000 in 1996 to 800 in 2000 (van Dooren & Verkoren, 2003). The resulting ripple effect hit laundries, local contractors and cutting rooms, as well as those working in these businesses. The collapse of garment production and employment has had a devastating effect on very particular segment of the local labour market: almost 99% of all manual garment workers in El Paso were Hispanic. In addition, most of these garment workers were women, most had less than high school education and spoke English poorly or not at all (Spener, 2002). Clearly, the garment workers were a very vulnerable part of the economically active population of El Paso with limited prospects for employment in other sectors of the local economy because of their bad command of the English language and their low education levels. Thousands of workers have lost their jobs, and most have not been able to find alternative employment.

3.3 The effects of liberalisation on the Mexican garment industry

Although there may not always be a direct connection between plant closures in El Paso and in other parts of the southern US on the one hand, and successful garment exports from Mexico on the other, in many cases Mexican contractors are replacing their US and possibly also their Asian competitors. This is remarkable, especially given the relatively short history of export-oriented growth and capabilities in the Mexican garment industry.

The first map in Figure 3.1 reflects the situation for the Mexican garment industry at a time when the country's economic development strategies were based on import substitution industrialisation (ISI). Garment production was oriented towards the domestic market and was concentrated in and around the main market in Mexico City, in states such as Guanajuato, Mexico and Puebla. Small factories, 'mom-and-pop' shops and home workers predominated (Peña St. Martin & Gamboa, 1991; Vangstrup, 2002; Benería & Roldán, 1987; Smith, 1988) and half of the factories operated in the informal sector, serving local or regional markets. Overall, the garment industry was not a particularly important industry or employment creator.

Several decades later the pattern has changed completely (see Figure 3.1): the pattern of the small-scale, semi-informal, domestic market segment has been overlaid with a more dynamic, large-scale export segment centred on the *maquiladoras* (export factories commonly run by a foreign company and limited to assembly activities). This shift is largely due to the contrary impact of Mexican liberalisation policy (see section 3.2.1) on both these segments. Firstly, since Mexico joined GATT in 1986, a very large influx of cheap Asian garments has flooded the domestic market, wiping out a large part of the domestic garment industry⁶ (Chinchilla & Hamilton, 1994; Dussel Peters et al., 1997; Dussel Peters, 1997a; Barrón & Hernandez, 1996). Second and more importantly in this context, export-oriented production grew and more than compensated for the losses in the domestic market segment. Export opportunities were opened up by the combination of the US 807 Program and the Mexican *maquiladora* provisions in the 1960s, and such opportunities continue to exist and have in fact expanded over the course of time. In the beginning export production was mostly undertaken by newly established garment *maquiladoras* in the border region, which emerged in isolation from – in terms of geographical location as well as business linkages – the domestic market manufacturers. Despite efforts to stimulate cooperation between domestic market SMEs to jointly engage in export in the form of *empresas integradoras*, only a small part of the domestic-oriented industry switched to export (Barrón & Hernandez, 1996; Ramirez, 1997). Starting in the mid 1980s, new garment *maquiladoras* began to be established also in central and southern Mexican states. Between 1986 and 1991, employment in garment *maquiladoras* grew from 25,300 to 45,000

workers (OTA, 1992). But the real growth spurt came after the passage of NAFTA: in 2000 there were 286,600 apparel workers employed in 1,120 apparel *maquiladoras*, up from 66,000 in 400 in 1993 (INEGI, 2001). Garment employment in domestic factories, not operating under the *maquiladora* program overtook *maquiladora* employment, leading to a impressive overall growth in garment employment in Mexico (see Figure 3.2).

Some of the more dramatic changes to have affected the Mexican garment industry have occurred since 1994. In that year, NAFTA liberalisation and the sharp devaluation of the Mexican peso further benefited the Mexican export sector by liberalising Mexico’s access to the US market and lowering the cost of Mexican export goods. Export-oriented growth of the Mexican manufacturing sector accelerated (see Figure 3.2 and Table 3.3) as both domestic firms and FDI, from within and outside the NAFTA area, expanded.

NAFTA boosted Mexico’s industrial sector, but strictly along the lines of the main features of the export sector and quite separately from domestic market production. FDI remains highly important, and instead of exporting finished goods, Mexico exports remain linked into intra-industry trade flows (Dussel Peters, 1995; WTO, 2000; see also section 1.2). For the garment industry, this is shown in the growth of *maquiladora* production in Table 3.3. Also, the country’s orientation towards the US is great and has remained highly concentrated in only a few sectors, of which garments, electronics and the automotive sectors are the most important ones. The garment industry’s narrow orientation towards the US market has diminished somewhat but remains extremely high – so much so that within a very short period of time Mexico displaced Hong Kong and caught up with China as important supplier to the US (US Major Shippers Report, 2002; see also Table 3.1). This is a remarkable achievement, especially because Mexico only competes in the US market in a narrow range of product segments. Like a few Central American and CBI countries, Mexico chiefly produces garments in the mass-produced, standardised

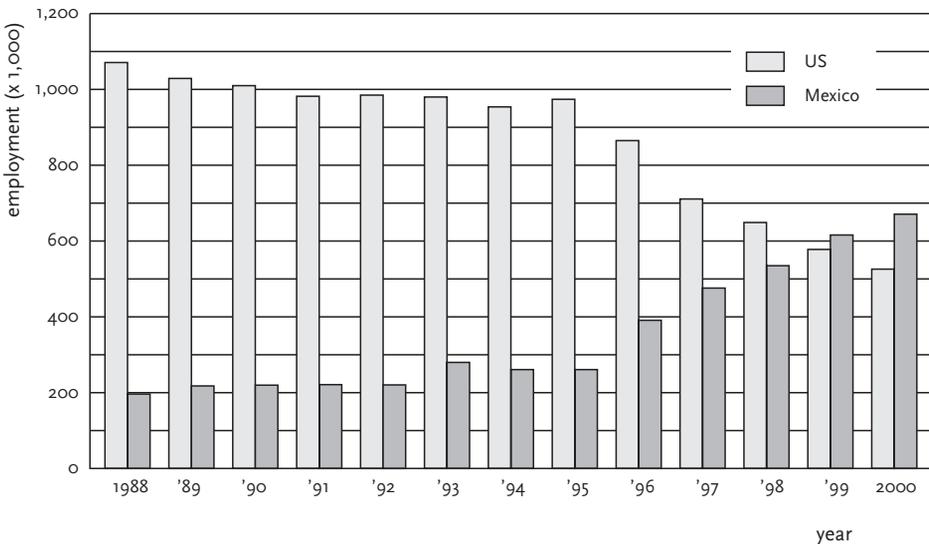


Figure 3.2: Garment employment in the US and Mexico, 1988-2000 (x 1,000)

Table 3.3: Basic indicators of the Mexican garment industry, 1994-2000

	1994	1995	1996	1997	1998	1999	2000	94-00 %
VA 1993*	7,569,954	7,103,426	8,294,690	8,964,343	9,371,015	9,921,480	10,431,389	138
maquila	829,927	1,156,361	1,666,881	2,112,052	2,478,465	2,970,709	3,385,745	408
Output*	20,574,385	20,486,101	24,619,379	27,597,017	30,574,267	33,388,792	35,889,028	174
maquila	3,765,157	5,807,071	8,198,436	10,519,556	13,331,487	15,945,777	18,140,497	482
Export*	3,692,271	10,283,057	17,352,967	26,810,244	36,672,922	42,851,644	48,957,852	1,326
(incl. maquila)								
% total exp.	5.3	6.2	6.6	8.0	8.4	8.2	–	–
% total exp. to US	98.5	98.1	97.5	97.0	97.4	96.9	96.5	–

Source: INEGI, 2000, 2001

* Values are in Mx. Pesos x 1,000 and in constant 1993 prices.

segment of the market, its main export products being cotton trousers, knit tee-shirts and sweaters (Ram Khanna, 1996; Ram Khanna et al., 1997; Dussel Peters, 1997b; US Major Shippers Report, 2002).

The second map in Figure 3.1 illustrates the overall growth of employment in wearing apparel and its locational pattern for the mid 1990s, when export production was on the rise. Domestic market production had declined but what remains was still concentrated in the central states and still revolved largely around *piratería* (cheap brand rip-offs), *tianguis* (street markets) and informal retailing channels. Export production has dispersed from the major border cities in the northern states, where it was concentrated during the 1980s, to more central and even southern locations. The state-level data used in Figure 3.1 obscures the industry's localisation or geographical concentration tendency. Nowadays, several sizeable garment clusters are scattered throughout Mexico and most of these clusters have specialised in one of a few specific types of garments. Examples of large Mexican garment clusters include:

- Aguascalientes, that has a long tradition in sewing apparel. In former days, household linens and embroidered apparel for the domestic market were its main products, but nowadays clothing like uniforms, jeans and tee-shirts is also produced for the domestic as well as the export market.
- The garment cluster in and around Mérida in the state of Yucatán is one of the fastest growing clusters of Mexico. It has attracted much foreign investment of factories that produce a wide variety of garments for export to the US.
- The development of the garment clusters in Puebla/Tehuacan, just south-east of Mexico City, was initially closely linked to the textile industry in Puebla. Most garments were destined for the domestic market. In recent years, nearby Tehuacan has displayed a particularly dynamic development, based on the production of jeans for export to the US.
- The garment cluster in La Laguna, that is object of this study, has a similar orientation: it has produced pants for several decades, but its recent boom is based on the production of jeans for the US. Of all these garment clusters, La Laguna has grown particularly fast; its proximity to the US-Mexico border, among other factors, appears have stimulated its extraordinary growth (see Chapter 4 and onwards).

All the booming garment regions are located in the wage zone C, the lowest wage zone in Mexico⁷ – which demonstrates the continuing relevance of NIDL consideration in the relocation process in garments. Interestingly, the frequent, detailed and direct involvement of the Mexican state in the national wage rate system is an exception in an otherwise largely liberalised policy environment with little or no state interference.

3.3.1 The Mexican liberalisation model

During the second half of the twentieth century, economic policy in Mexico underwent some far-reaching shifts, changing it from one of the most protected into one of the most open economies (Dussel Peters, 2000; Bair & Gereffi, 2002). For three decades, from 1940 to 1970, the Mexican economy achieved high economic growth rates based on import substitution industrialisation (ISI) policies and closing off its large domestic market to imports. Within this ISI policy environment, the initiation in 1964 of the *Programa de Industrialización Fronteriza* (PIF) may appear somewhat odd, as it aimed to stimulate export industrialisation. Through PIF the Mexican government aimed to fight unemployment and stimulate the industrialisation of the northern border region through FDI in the form of the *maquiladoras*. Under this program, *maquiladoras* paid no duties on imported components under the condition that products were exported after assembly and not sold on the Mexican market. As mentioned, PIF tied in directly with the US 807/807A Programs. Within the ISI policy environment the assembly *maquila* plants in the northern Mexican border region were an isolated exception.

While isolated *maquiladoras* thrived on export assembly, the Mexican economy as a whole began to stagnate during the 1970s as the limitations of ISI-based growth were reached (Valdes-Ugalde, 1995; Chinchilla & Hamilton, 1994; Dussel Peters, 1997a, 2000). Under ISI, for decades the private sector had relied heavily on support, subsidies and imported intermediate and capital goods, and this had resulted in large trade deficits. The stagnation of the economy provoked a radical shift in policy perspective and a new period of export-oriented industrialisation (EOI) set in. Notwithstanding the *maquila* experiment with exports, the EOI and liberalisation policies that have taken shape since the second half of the 1980s constitute a near 180 degree policy change. Whereas the export-oriented *maquiladoras* had long operated in isolation from the rest of the economy, they now became the role model for the new liberalised Mexican economy. Pressured by international institutions such as IMF and the World Bank and driven by personal and scholarly conviction⁸, President Miguel de la Madrid (1982-1988) initiated the drastic restructuring of the economy, the final contours of which were drawn by Salinas de Gortari (1988-1994). This model was continued by Zedillo (1994-2000), and still continues today. The success of the East Asian NICs was commonly quoted as evidence for the rationale behind EOI. While, as discussed in Box 1.1, EOI in most East Asian countries involved highly interventionist states (Dussel Peters, 2000; Smakman, forthcoming), its implementation in Latin America prescribed a retreat of the state. The Mexican case is no exception: in Mexico, EOI implied far-reaching liberalisation, calling for a radical remodelling of the relationship between the state and the market. In essence, the role of the Mexican state was to take care of stable and beneficial macro-economic conditions. State interventions through industrial or social policies were abandoned. The traditionally strong position of labour in Mexico has become eroded under liberalisation (Valdes-Ugalde, 1995; Chinchilla & Hamilton, 1994; Dussel Peters, 2000).

In the liberalisation model the world market is taken as a point of reference for firms, industries and other economic units. The main trading partner and market for Mexico was (and still is) the US, which accounted for two-thirds of Mexico's imports and exports. By extension, the foreseen growth in export activities was to be destined to the US. Therefore, President Salinas de Gortari pushed the negotiations for Mexico's participation in NAFTA as a means to consolidate the liberalisation reforms and cement a strong link between the Mexican and the US economy.

The Mexican liberalisation model assumes a causal relationship between macro-economic stability, export growth and economic development (Dussel Peters, 2000). Issues such as employment, real wages, income distribution, savings and investment are placed outside the brackets of this model. With regard to the industrial sector there has been little aid or support for companies or industries that have to compete on the open market. Industrial policy is either non-existent or neutral and horizontal, because perfect competition and market forces are believed to automatically lead to industrial development. Interestingly, in this liberalised environment a few exemption programs for temporary imports and subsequent export remained (see Box 3.1). However, most other firm- and sector-level industrial policies were abolished. The traditional development banks Banco de Comercio Exterior (Bancomext) and Nacional Financiera (NAFIN), that used to finance firm and sector projects according to strategic government plans, started to offer financing under market conditions, viz. commercial interest rates (Dussel Peters, 2000; Bancomext, 1999). By the turn of the century, most remaining federal programs were providing information or matchmaking services to potential foreign investors and aiming at attracting FDI and other business opportunities.

Box 3.2: Export promotion programs

1. The Program of Export Maquilas (*Programa de Maquila de Exportación*) was initiated in 1965. It allowed exporters to temporarily import goods (material inputs, components, machinery) necessary for the alteration or repair of products, as well as for services required for the export process. Such goods could enter free of duty and no value-added taxes were levied. By the end of the 1990s, nearly 50% of all Mexican exports were exported under this program.

In order to allow Mexican companies to compete under the same conditions as the *maquiladoras* – that were mostly foreign-owned – , two additional programs were developed when export oriented industrialisation became the new model for economic growth in Mexico in the late 1980s:

2. The Program for Temporary Imports to Produce Export Products (*Programa de Importación Temporal para Producir Artículos de Exportación*, PITEX) was established in 1985. It allowed the temporary import of different goods, free of tariffs and value-added taxes for the elaboration of exports.
3. The Program for Firms Highly Involved in Exports (*Empresas Altamente Exportadoras*, ALTEX) was established in 1986. It applied to firms that either exported directly \$2 million or 40% of their total sales or indirectly 50% of their total sales of Mexican products. The program provided fiscal and administrative benefits such as the rapid repayment of value-added taxes (Dussel Peters, 2000).

In 2001, all three programs were ended and all Mexican companies now have to compete under the same liberalised conditions.

With regard to the garment industry, the liberalised policy environment in Mexico has generated a large influx of FDI. The largest investor by far is the US, but companies from Hong Kong and especially South Korea also use investments in Mexico as a springboard to the US market (INEGI, 2001; Green, 1998; Mandelbaum, 1992; Rees et al., 1997). Even EU companies that want to secure their position in the US market are locating some production in Mexico (Glasmeier et al., 1993). Others, such as C&A, are moving in to target the Mexican market. Within the Mexican liberalisation model, the bi-national networks centred on these foreign investors and other US buyers have become the main engine for enhancing the international competitiveness of the Mexican garment industry. By extension, the scope for targeted state policies and intervention is greatly reduced as garment buyers and their networks are allowed great freedom of operation in Mexico but are no longer contained within the country. The concrete developmental outcome of Mexico's industrialisation process depends on local, endogenous conditions and capabilities (see Chapter 6), but also – and maybe especially so – on the competitiveness and organisation of bi-national production networks and the position of Mexican firms and workers therein. In fact, as pointed out by Woodruff (1998) for the case of shoe manufacturing, the enhanced power of buyers in the liberalised environment may weaken the position of local Mexican manufacturers. General hypotheses with regard to bi-national networks of buyers and shifts in the bi-national value chain will be discussed in the following sections (see also Gereffi et al., 2002a).

3.4 Towards a US-Mexican division of labour

The development of the garment industry in the US and Mexico over the last decades of the twentieth century shows more than decline in the US and growth in Mexico. Potential complementarities can also be identified, on the basis of which the integration of the two national industries may be shaped. The growth of US-Mexico garment trade flows and the geographical patterns of garment production in both countries are illustrative of a tightening US-Mexico wearing apparel connection. The image that emerges from books and articles in industrial magazines on US-Mexico garment relations is one of a united Western hemisphere front (*Twin Plant News*, 1999; Gereffi et al., 2002a). The pivotal role of Mexico within this Western hemisphere division of labour is hardly contested. As will be shown in this section, through progressive reconfiguration of the US garment value chain, a US-Mexican bi-national division of labour has effectively come into existence (see also van Dooren & Verkoren, 1998). In it, Mexico's role is extending, especially since NAFTA liberalisation set in. In other words, initially Mexico took care of the assembly activities that were also undertaken in the southern US including El Paso, but increasingly it is moving beyond pure assembly to CMT or even more production activities. To a large extent the consecutive reconfiguration phases were based on regulative steering on behalf of US policy makers. However, US buyers in their role as lead firms coordinate and control the value chain, making their strategies of decisive importance for the materialisation of actual patterns. In the last section of this chapter, the structure of their production networks that underpin the bi-national division of labour, and shifts therein, will be examined.

3.4.1 US-Mexican garment networks

[98] NAFTA was designed to create a Western hemisphere garment production front and indeed many US buyers have seized the opportunity to annex their Mexican contractors to their competitive strategies. In doing so they build on the history of US-Mexican intra-industry or

production-sharing trade outlined in sections 3.2 and 3.3, and exploit the complementarities of the two national industries along the value chain.

Table 3.4 provides an overview of the various responsibilities or roles played by different types of actors in garment production networks. In the table, the most important types of firms are linked to the productive activities commonly undertaken by them, in order to position them within the value chain. As the nomenclature used in garment studies varies considerably, other names are included as are concrete examples of the various types of firms relevant to the US-Mexico case. The scale of operation of firms decreases and fragmentation, competition and subordination increase as one moves down Table 3.4. As US buyers manage massive volumes of garments of all sorts, their production networks are very large and often also diverse in structure. They may or may not include all actors in the table. Table 3.4 distinguishes between buyers whose roots and competitive strength lie in retailing and buyers with a manufacturing background, since these roots are thought to still be reflected in the productive role they assume in US-Mexican networks (Gereffi, 1997; see Chapter 7). At the same time, hybridisation (see section 1.1.2) and strategic convergence are recognised. The Arrow indicates the convergence between these two in terms of their roles: manufacturers are becoming more involved in retailing, while many retailers are increasingly engaging themselves with product strategy and definition. Similar processes apply to the other types of garment firms. In general, extending the command over the value chain is commonly seen as a viable way to improve a

Table 3.4: Roles of garment actors in US-Mexican garment production networks

Firm type	Example	Other names	Scope of activities/roles
Buyer-retailer • Department store • Discounter • Marketer • Catalogue	JC Penney Target, WalMart Gap, The Limited Delia	Retailer	Sales Marketing
Buyer-branded manufacturer	Levi Strauss VF Corporation Sara Lee Phillips-van Heusen		Product strategy Product definition Product design Manufacturing (coordination) End user marketing End user sales
Trading agent	Li & Fung Mast Industries Aztex Kellwood	Supply chain integrator Buying office Broker Vendors	Coordination of all supply chain activities Administrative red tape Logistics
Full-package supplier	Flynn Sun Apparel Frederick Atkins Aalfs	Jobber OEM supplier Core supplier Favoured supplier Manufacturer	Product manufacturing (coordination) Process R&D
Subcontractor		Second-tier supplier Assembler	Discrete elements of production process

Source: adapted from Sturgeon (2001, p. 16)

manufacturer's competitive position. As a consequence, productive responsibilities or command over individual nodes of the value chain is not a static given nor can it be taken for granted. For example, highly capable suppliers may want to take logistics and administration into their own hands, trading agents may be tempted to invest in manufacturing capabilities, and assemblers may push to become CMT or even full-package suppliers. Moreover, firms may be incorporated into various production networks at the same time and they can occupy different positions or perform different functions in each network.

The various types of actors as well as their role – or, in other words, their position within the value chain – may affect not only the structure of the production network, but also the nature of the network relations and even the upgrading potential for local manufacturers. In this respect, most recent literature on US-Mexican garment networks has used the Asian success stories of sustained export positions to compare and contrast the insertion of Mexican and Asian suppliers in export networks. A point emphasised in this literature is the fact that for decades Mexican garment exports have been channelled through manufacturer-centred networks, whereas Asian participation in garment export has always been mostly associated with sourcing strategies of Western retailers and marketers. The significance of the distinction between the two is based on the general differences between their networks and the role typically played by LMIC suppliers incorporated in them (Gereffi, 1999; Bair & Gereffi, 2002). In this view, branded manufacturers are associated with production-sharing arrangements in which the Mexican *maquiladoras* play a central, assembly role. Retailers source full packages, mostly from Asia and are only just beginning to become involved in Mexico. A shift from manufacturer-centred to retailer-centred networks may be vital for the upgrading of the Mexican garment industry to upgrade from a pure assembly role to full-package/OEM production (see also Table 3.4 and Chapter 1).

Manufacturer-centred networks

The internationalisation strategies of branded manufacturers may be two-pronged: FDI facilities as well as international sourcing arrangements may play important and complementary roles. In the Mexican context, garment FDI facilities traditionally followed the typical *maquiladora* model: the wholly-owned *maquiladora's* sole responsibility is assembly, it is firmly embedded and subordinated to corporate strategies, and linkages to the local Mexican economy are limited. In these arrangements, manufacturers commonly supply their *maquila* facility with the material inputs – including, in many cases, cut fabric – needed for the assembly of their garments. Global garment manufacturers such as the VF Corporation, Fruit of the Loom and Sara Lee as well as large textile mills including Cone Mills, Guilford and Burlington have built FDI or joint-venture facilities in Mexico.

Alternatively – but in most cases complementary to FDI – Western manufacturers engage in globalisation through sourcing networks based on production-sharing arrangements with contractors in nearby LMICs (Scheffer, 1992; Bair & Gereffi, 2002). In Mexico, local contractors commonly work also under the *maquila* or similar programs and their activities for US manufacturers are limited to assembly. In manufacturer-centred networks, local factories most commonly engage in industrial subcontracting (see section 1.1.2). Large branded manufacturers use industrial subcontracting as a strategy to complement FDI, but smaller manufacturers have also developed industrial subcontracting linkages to contractors in Mexico. Manufacturers require only limited, assembly expertise from their suppliers.

Box 3.3: The strategies of branded manufacturers: the all-American blue jeans

Jeans being 'quintessentially American', it may hardly be a surprise that until recently the bulk of basic 5-pocket jeans were still being produced in the US. Especially traditional branded manufacturers such as Levi Strauss, the former Blue Bell Manufacturing and the VF Corporation had their production base in US states such as Oklahoma, Alabama, Virginia and Texas. Most of these jeans had 'Made in America' labels and this was worth something. It was literally worth something: in certain markets – most notably Japan – 'Made in America' jeans retailed at a higher price than the same jeans manufactured elsewhere. In addition, since the mid 1980s and sparked by Wal-Mart's 'Buy American' program, in the US market 'Made in America' also began to be valued by the public, though it was not rewarded with higher prices.

This trend gave traditional jeans-cities such as El Paso hope for survival (van Dooren & van der Waerden, 1997; Spener, 2002). If nationalist sentiments had an impact on consumption patterns, competition in jeans would not only depend on production cost. A market niche for American jeans could remain and this could be filled by manufacturers in El Paso. However, during the second half of the 1990s an entirely different scenario developed: new players, especially retailers and marketers, were entering the jeans scene and fashion elements were being introduced. As a result, standardised 5-pocket jeans, and the branded manufacturers behind them, lost market share and the latter were forced to reorient their business strategies. Generally, they began to place greater emphasis on retailing rather than on manufacturing. Also, an increase in offshore production is evident in the strategies of jeans firms. The latter happened at the expense of the traditional production locations in the US. For example, in April 2002, Levi Strauss announced the closure of six of its remaining eight US-based production facilities. The company's CEO Philip Marinneau explained the business strategy behind this decision:

'This is a painful but necessary decision. There is no question we must move away from owned-and-operated plants in the US to remain competitive in our industry [...] Outsourcing production supports a more variable cost structure, helps us maintain strong margins and enables us to invest more resources in product, marketing and retail initiatives.' (Company Press Release, April 8, 2002).

Similar considerations may explain the recent announcement by VF Corporation that after a comparatively long and stable presence in El Paso the company is closing several plants in the border city and laying off approximately 1,200 workers (*El Paso Times*, 2002). Rather than shifting production to offshore contractors as Levi Strauss does, VF Corporation has relocated its production to offshore owned-and-operated factories as well as to contractors, many of which are located in Mexico.

These are just two examples of a more general shift of the garment production base of US manufacturers out of the US to offshore production locations. Though a wide range of relocation options exists (see section 1.2), since the passage of NAFTA, relocation – certainly in the jeans segment – is commonly contained within the NAFTA area and entails a build-up of sewing capacity in Mexico. As an illustration of the patterns discussed above, Figure 3 contrasts the North American production base of a large US jeans manufacturer in the early 1990s with the situation after the turn of the century.

The maps clearly provide a dramatic illustration of plant closures in the US and new establishments in Mexico. A more detailed look also reveals the importance of production-sharing arrangements

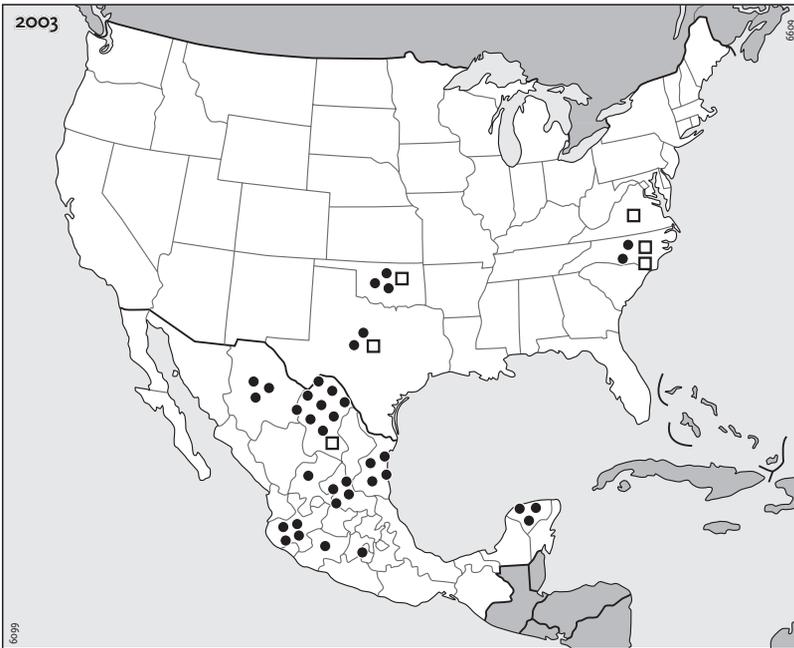
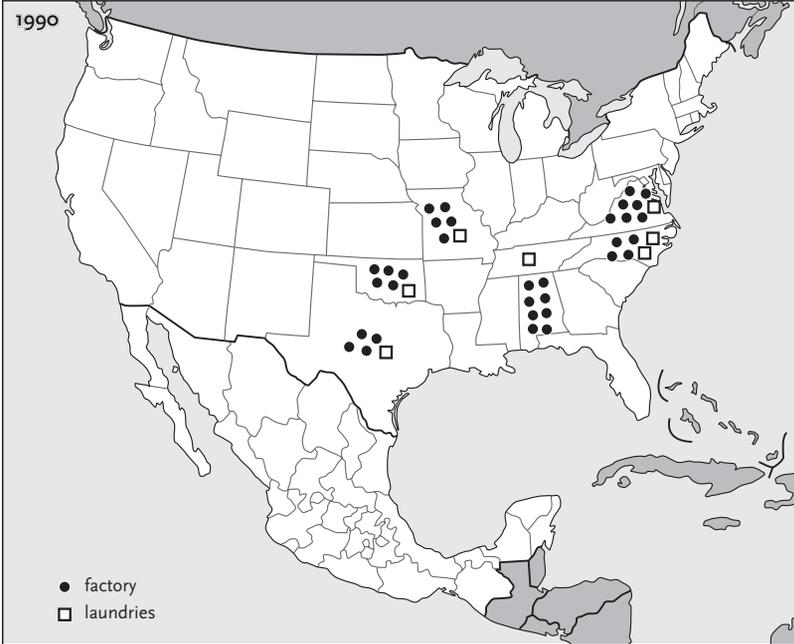


Figure 3.3: The production locations of a branded jeans manufacturer, 1990 and 2003

between Mexico and the US. While many sewing plants in the US were closed down, almost all laundries are still in operation. This appears to indicate that some of the garments sewn in Mexico are being laundered in the US.

Conversely, knowledge transmitted from manufacturers to suppliers is largely limited to manufacturing processes.

Though NAFTA liberalisation has removed all pre-existing disincentives working against integration of the production process in Mexico, production-sharing arrangements remain important. Mexico still is a large CMT base reliant on US and other imported apparel (Speer, 2001b; see also Table 3.2). The continuing importance of production sharing is also illustrated by the rapid growth of garment production on the Yucatán peninsula and in other southern states such as Oaxaca and Campeche. There, garment *maquiladoras* are responsible for a significant share of total garment production. They operate largely in isolation from their local business environments and their success appears primarily based on their low labour costs, and in the case of Yucatán their proximity to the US. The centre of gravity of garment production as well as of *maquiladoras* is shifting to the southern states of Mexico, where labour reserves are larger but above all, cheaper.

As a complement to Box 1.1 on the sales and marketing strategies of blue jeans manufacturers, Box 3.2 deals with the production and relocation strategies of the main blue-jeans manufacturers in the US and Mexico.

Retailer-centred networks

Traditionally, retailers and marketers have sourced full packages – through commercial subcontracting arrangements- from Asian suppliers (Gereffi, 1999), mainly because the cost but also the service suited their needs. With no or only very limited manufacturing capabilities, they relied on suppliers to take care of the entire manufacturing process. Recently, NAFTA paved the way for a more all-round involvement of Mexican manufacturers in the production process of garments for export to the US. As Mexican suppliers are trying to ‘bring the package together’ and are developing the necessary logistical know-how, they are increasingly able to supply retailers. For US retailers, sourcing from Mexico is attractive: it is more expensive than many Asian sources, but lead times can be much shorter – and this is an important consideration in today’s garment market (see Chapter 1).

For Mexican garment contractors it may be of vital importance to be able to supply retailers: not only has the retailing revolution made them very powerful lead firms, they also put particular emphasis on streamlining and shortening the supply chain through the application of electronic data interchange (EDI) technology as well as relocating production in an effort to reduce transportation time. The shift from manufacturer-centred to retailer-centred networks is thought to provide a strong and essential upgrading stimulus for the Mexican garment industry. Mexican manufacturers need to develop strong capabilities in non-assembly nodes of the garment value chain; they also need to develop the logistical know-how to fully exploit their geographical proximity to the US by guaranteeing flexibility and short lead times.

The power of US retailers over Mexican manufacturers reaches beyond their dominant position on the US market: US buyers are also getting involved in the development of marketing channels to market their products in Mexico. The Mexican domestic market remains highly fragmented and the purchasing power of large parts of the populations is limited. The retail channels catering to middle and higher incomes were for a long time underdeveloped, but are now being strengthened by US chains and strategic alliances with US retailers and US-Mexican joint ventures (Harris, 1995; Mendoza et al., 2002). Many flourishing large-scale retail chains in Mexico have a US component. The strong position of Wal-Mart in Mexico is a clear example of this trend: it has over 600 stores in Mexico. Many Dillards and JC Penney stores are also being opened. Consequently, Mexican manufacturers wanting to sell quality garments on the Mexican markets may also increasingly have to deal with US retailers and their standards.

Figure 3.4 provides a schematic illustration of US-Mexican garment production networks, centred on branded manufacturers and retailers.

Upgrading

In GVC terms, industrial upgrading in local or national economies requires a shift from the simple assembly of imported inputs to full-package production. In fact, based primarily on developments in the Asian electronics and automotive industries, Gereffi (1999) suggests that upgrading in the garment industry may even lead to original brand production (OBM) by LMIC firms.

Currently, Mexico is in a unique position in the early stages of the upgrading pathway that was all of a sudden opened by NAFTA. Also, this process is sparked and driven by the involvement of new types of lead firms in the Mexican garment scene. Thus, full-package production in Mexico is seen as an almost inevitable outcome of the combination of trade liberalisation under NAFTA and the rise of US retailer-centred production networks.

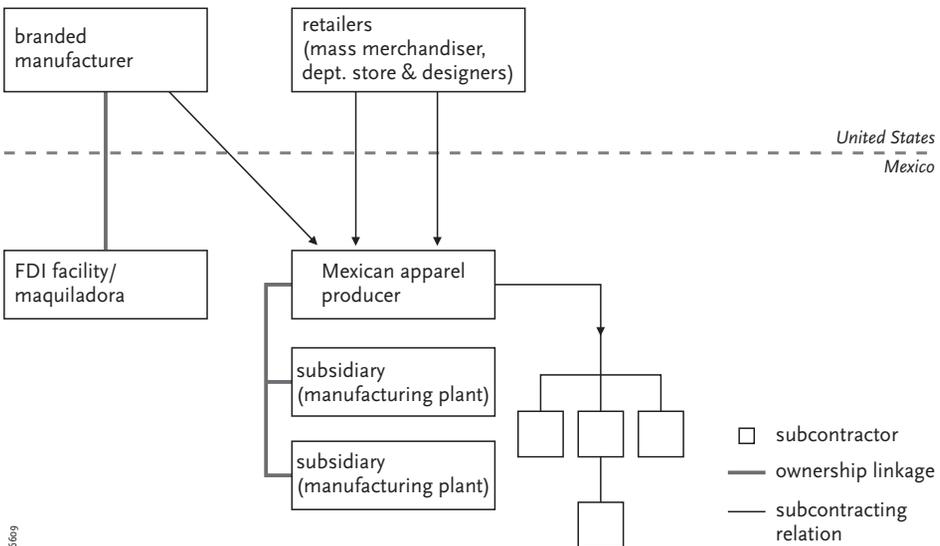


Figure 3.4: US-Mexican garment production networks

According to Gereffi (2000):

'In this buyer-driven commodity chain, local firms develop the commercial ties with foreign buyers needed to move from the maquiladora system of low-wage assembly based in imported inputs to the 'package supplier', specification contracting role typical of the East Asian apparel exporters.'

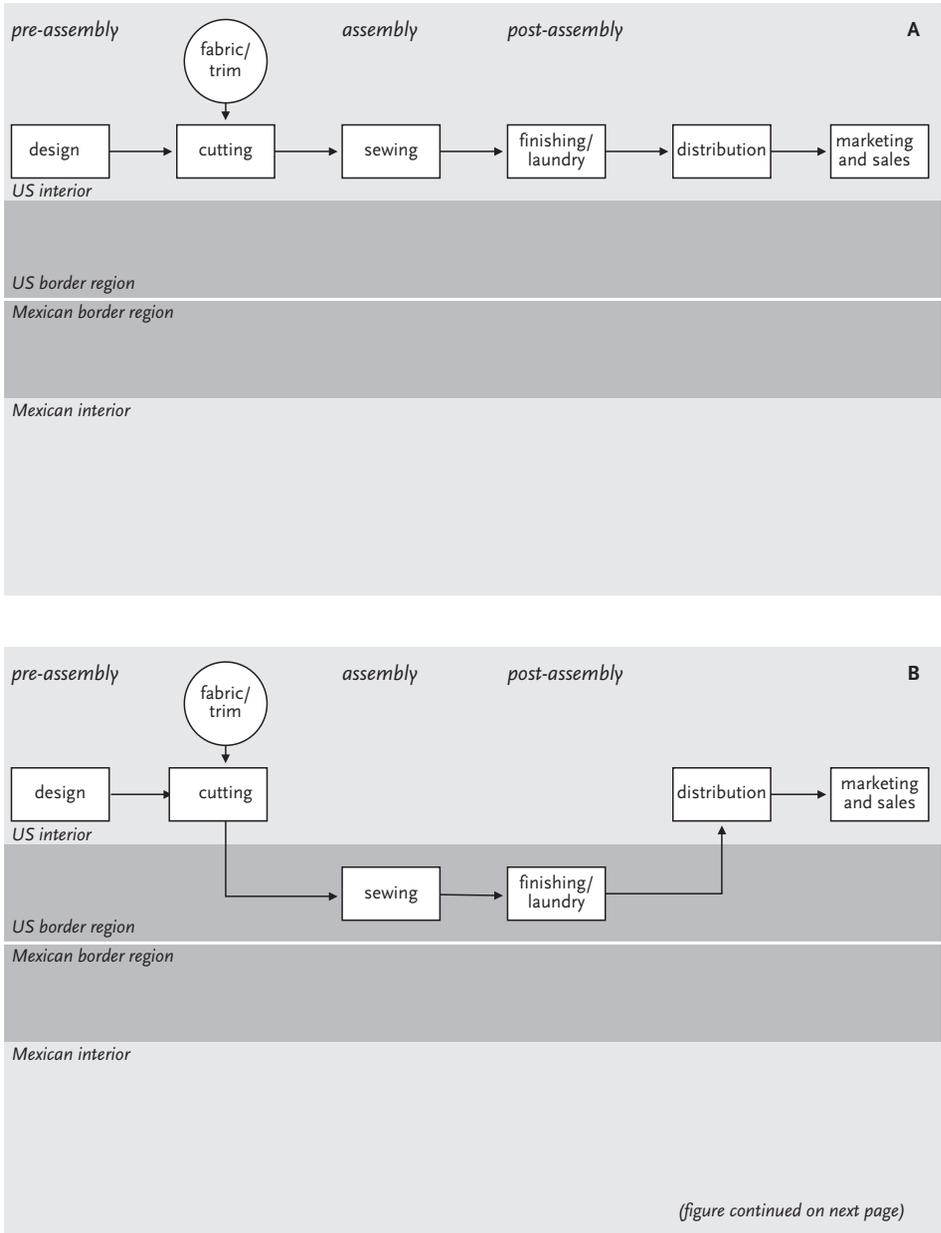
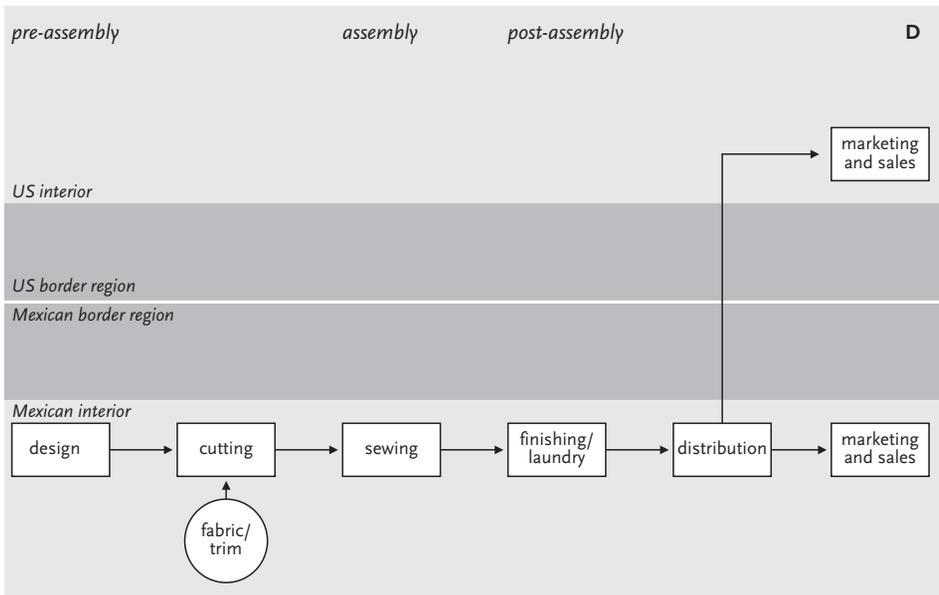
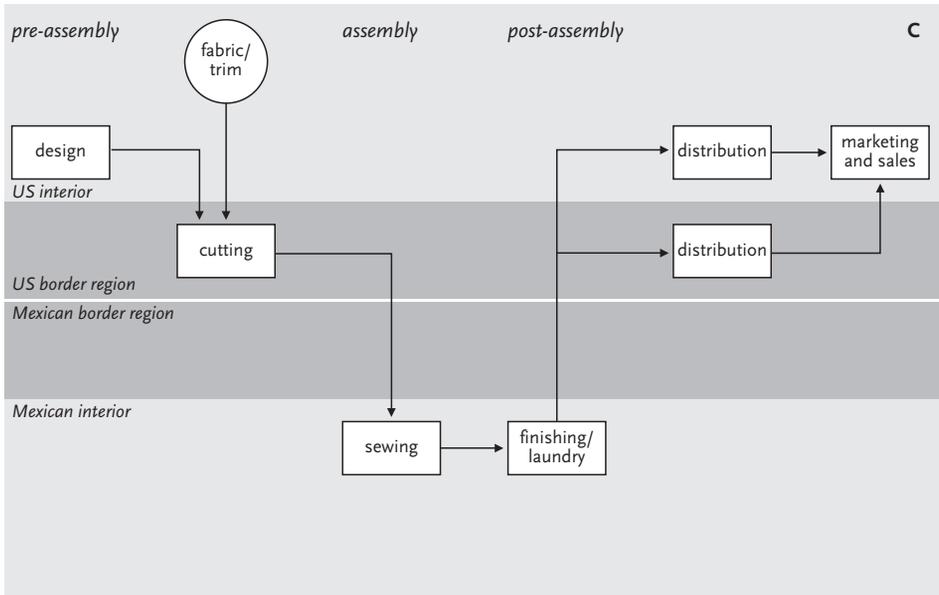


Figure 3.5: Reconfiguration phases in the US-Mexico garment value chain

In assigning a determinant role to vertical linkages with foreign buyers and the strategies of these buyers, the GVC perspective appears to downplay the role of local contractors and the local business environment in the upgrading process. This appears to be a somewhat simplified picture of a one-way, top-down process, an issue that will be further examined in Chapter 8.



(Figure 3.5 continued)

Many questions with regard to the incentives, driving forces and dynamics behind this transition as well as the underlying upgrading process remain unanswered. One of the most interesting questions is related to the origins and aim of the transition: is the upgrading process part of the strategic vision of Mexican entrepreneurs, or is it steered or even forced by US buyers? Especially issues with regard to the interplay between local industry dynamics and industrial trends at higher levels of scale need to be investigated.

3.4.2 Reconfiguring the bi-national value chain

NAFTA phased out pre-existing trade restrictions and first eliminated penalties on finishing and later also on cutting in Mexico. For the garment industry NAFTA gradually opened up opportunities for more all-round and even full-package apparel production in Mexico for the US market. This has created opportunities for a step-by-step reconfiguration of the bi-national value chain, broadly along the lines as proposed by van Dooren and Verkoren (1998; see Figures 3.5). Alternatively, Gereffi and Martínez (2000) have argued that the shifting bi-national division of labour in garment production is largely based on the different competences of the two nations in the garment value chain⁹. Figures 3.5a-d combines a simplified version of the production column as introduced in Chapter 1 and projects it on the US and Mexico in order to sketch the gradual geographical reconfiguring process of the value chain. Figure 3.5a depicts the situation in the early twentieth century, when garment manufacturing was still concentrated in the Northeast of the US. In Figure 3.5b shows the national division of labour in the mid twentieth century, when in jeans production the assembly and finishing/laundry had been shifted to the southern states. The shift to Mexico at the time of the passage of NAFTA to illustrated in 3.5c. With the complete liberalisation of US-Mexican garment trade, the entire manufacturing process may be shifted from the US to Mexico, as depicted in Figure 3.5d.

There is much recent literature on Mexico's potential to produce full packages for the US market. This development is widely applauded because the potential benefits of full-package production may include a higher degree of integration between production activities within the local economies of the Mexican production clusters, an increase in the local value added and potentially a more potent lever for further economic development (Gereffi & Bair, 1998, 2001; Gereffi & Martínez, 2000).

3.5 Conclusion

There is an increasingly strong link between the US and the Mexican garment industries. This link and its impact on the Mexican garment industry cannot be understood in isolation from policy changes – most notably those in the direction of free trade between the two countries as well as the so-called liberalisation of the Mexican economy – that have taken effect since the late 1980s. This chapter considered the development of both industries and the way they have become functionally linked. This conclusion concentrates primarily on the Mexican side of the bi-national linkages between the two industries.

Until a decade ago, linkages between the US and Mexican garment industries were built on production sharing principles, as regulated by the 807 Program. Within this framework, the historically grown national division of labour in the standardised mass-produced segment of the US garment industry internationalised by shifting assembly activities to Mexico and the CBI. Production sharing gave the standardised segment of the US industry breathing space by allowing it to capitalise on the low wages in the CBI and Mexico to improve the efficiency of its

international system of integrated production. For Mexico and the Caribbean countries, where garment assembly was carried out, the arrangement had the effect of truncating the industrialisation process. The assembly factories in these countries were firmly embedded in the corporate competitive strategies of US garment firms, but did not have linkages to the local industry nor did they otherwise stimulate the local industrialisation process. This is also noted by Chinchilla and Hamilton (1994, p. 293):

'... global changes in the garment industry, economic crisis and restructuring have combined to increase the international integration of Mexico's garment industry, to weaken its domestic integration, and to deepen the division between those sectors linked to international markets and inputs and those dependent on domestic textiles and consumers.'

While this pattern remains unchanged for the US-CBI connection – until now they have only obtained a weak version of NAFTA-like trade liberalisation (see also Mortimore, 1999, 2002; Mathews, 2002) – the tables have turned for the US and Mexican garment industries with the passage of NAFTA.

As NAFTA eliminated all pre-existing trade limitations, a dramatic boom in Mexican garment production for export was matched by a collapse of the US manufacturing base, especially in the southern US. The impact of NAFTA was all the more dramatic because it was paralleled by far-reaching liberalisation of the Mexican economy, aimed at optimizing growth through export-oriented industrialisation. Initially, the opening up of the Mexican economy and the subsequent sudden confrontation with highly competitive Asian imports during the late 1980s largely reduced domestic market production to counterfeits and cheap, low-quality garments. It almost completely eliminated domestic market production as a viable alternative to export production. On the other hand, trade liberalisation did have the hoped for effect of attracting FDI and bringing new buyers and their networks to Mexico, which caused a huge export-based boom in the industry.

What does this mean for Mexico in terms of development and strategies? Undoubtedly, NAFTA represents a significant improvement over the former pure-assembly-based pattern by paving the road for local integration of the manufacturing process. This is necessary for the development of full-package capabilities. However, the severing of the link with the traditional domestic market and its producers have made Mexican exporters highly dependent on US buyers for practical and strategic know-how. Instead of the external projection of a successful bottom-up industrialisation process Mexico's current development is an extension and broadening of the externally driven production-sharing model. Evidence for this is that the garment export sector in Mexico displays many of the characteristics of the southern US standardised, mass-production model.

Gaps in the Mexican garment value chain – especially in high value-added, capital-intensive retailing and textiles, the filling of which was discouraged in the production-sharing era – are now being filled by US TNCs. Such complementarity in the US and Mexican value chains may be a solid basis for the formation of a competitive front against Asian import penetration. However, the terms for this development are set by US TNCs and the effects on the Mexican garment industry are unclear. It may cause, as is suggested by some strands of literature on economic integration and trade blocks (Cable & Henderson, 1994), a lock-in, in a subordinate position, of Mexican producers, industries and the Mexican economy in general. In the context

of the liberalised Mexican economy the course of the industry is now being shaped by US buyers and their bi-national networks. As there is minimal or no strategic steering or other direct involvement of the Mexican government through industrial policy, such potentially unwanted developmental outcomes are not being corrected.

On the other hand, linkages to new types of US buyers introduce important upgrading stimuli and learning opportunities, knowledge and information. These opportunities need to be seized in order to avoid a fate such as that encountered by El Pasoan manufacturers. El Paso and the dramatic crumbling of its status as Jeans Capital of the World illustrate the potential detrimental effects of depending on the vicissitudes of the global strategies of US buyers. It also shows the problems of predicting the outcomes of industrial processes. Not long ago, the southern US and northern Mexico were predicted to benefit from a tightening garment connection based on Mexican full-package production under NAFTA. Southern Mexico was though to be left out (Gereffi, 2000, 1997). In actual fact, a large part of the southern manufacturing base in the US has disappeared, while Yucatán and Campeche are amongst the most dynamic states in terms of employment creation in garment production. The fact that the latter is largely based on pure assembly within production-sharing arrangements illustrates that upgrading and full-package production in Mexico is not inevitable, certainly not in the short term. Also, in the NAFTA area, part of the industry is taking the low road to competitiveness based on lowering labour cost.

Recent analyses of the US-Mexican garment connection and bi-national production networks have departed mostly from a GVC perspective, emphasising the vertical linkages between US buyers and Mexican garment contractors and the upgrading impetus that emanates from such linkages. Ultimately the results of the tightening garment connection between the US and Mexico will also depend on the business climate and attitude and on the local economy of the regions in Mexico where garment production is concentrated. Chapter 6 will deal with these aspects for the Laguna region.

Notes

- 1 Canada is also part of NAFTA. The Canadian garment industry will not be analysed in detail here. Canada exports apparel and especially textiles (for household and industrial products) to the US, but is not in direct competition with Mexico as its exports are not concentrated in the product niche 'basic wearing apparel', as is the case for Mexico.
- 2 Early disintegration is reflected in a predominance of small- and medium-sized enterprises (SMEs) in apparel manufacturing in the US. The relatively small size of US apparel firms has hampered their modernisation (Glasmeier et al., 1993). This has come clearly to the fore in recent years as innovations in the apparel industry are increasingly high tech and capital-intensive and beyond the reach of US apparel SMEs.
- 3 Not only low cost, non-unionised female labour in the South, but also pro-business state government attitudes – and thus favourable tax conditions, an improved transportation system, cheap land and the southward shift of the textile industry – exerted a southward pull on garment production during the mid twentieth century (Taplin, 1997; see also Wheeler, 1998).
- 4 Glasmeier et al. (1992) and Taplin (1997) note this dichotomy for the garment industry in the US. Massey (1984) points to a similar pattern in the UK, where family-owned and managed, conservative firms, often with strong local roots exist next to new and often larger garment businesses under modern management that operate unhindered by national borders, driving the globalisation of the industry. She appears to find this pattern characteristic of the garment industry in Europe and the US.

- 5 In all these measures, the 'fibre-forward' and 'yarn-forward' considerations apply. The main aim behind these measures is to prevent transshipment of Asian garments to the US through Mexico.
- 6 The Asian flood wave of cheap imports hit the Mexican market through direct imports from the Asian region but also through unexpected channels. For example, some of the clothing imports from the US were first imported from Asia, especially China, to be subsequently shipped to Mexico. In addition, traders in the informal market channels of *tianquis* and street vendors began to distribute Asian clothing bought principally in Los Angeles (Chinchilla & Hamilton, 1994).
- 7 The Mexican wage system stipulates the legal minimum wages per occupation for three geographically defined wage zones – A, B and C. The highest wages rates are set for zone A and the lowest for C. For example, in 2001 the minimum wage for a sewing operator was set at 52.05 pesos in zone A, compared to 46.30 pesos in zone C (INEGI, 2001).
- 8 Since the end of the 1960s the number of politicians with a background in economics has increased. For example, in the Salinas de Gortari government, the president himself and nine out of nineteen secretaries were economists; five of the latter had earned their degree in US institutions where export-orientated industrialisation was the conceptual mainstream (Dussel Peters, 2000).
- 9 Mexico's competences are seen to be concentrated in the production of man-made fibres and in apparel manufacturing. The country's retail sector is relatively weak and splintered, and the production of high-quality textiles in Mexico leaves much to be desired (Gereffi, 2000). By contrast, the US is believed to have competences all along the chain, but specifically in textiles and retailing. Thus the competence of the US and Mexico garment industries are complementary.

4 La Laguna: from growing cotton to producing jeans

The Laguna region¹ – which is commonly referred to as La Comarca Lagunera or simply La Laguna – is widely known throughout Mexico. Historically, La Laguna has served an important role: the approach to land reform developed there in 1936 under President Cardenas served as a model for land reform in other parts of Mexico (Mazcorro Velarde et al., 1991). However, the region's fame is largely based on its agricultural importance. For most of its history the regional economy was centred on agriculture. La Laguna was even nicknamed the 'breadbasket of Mexico' (Dunigan, 1969) in honour of its sizeable wheat production. Subsequently, it gained the position of national cotton producer, producing up to 90% of the cotton input for the national textile industry – some of which was then used in the first garment factories in the region. Nowadays agriculture is less important. In fact, employment in the agricultural sector has plummeted, especially since the collapse of the predominant crop – cotton – in the late 1980s. Although the region is now associated with dairy products, it is especially known for its garment production for export.

Most rural aspects of the history of La Laguna are well documented (see Dunigan, 1969; Marroni de Velázquez, 1992; Rello, 1987; Puig, 1992; Parra, 1996; Ahlers & Fortis, 1999; Steffen Riedeman, 1996; Mazcorro Velarde et al., 1991; Meyers, 1998; Plana, 1991). However, the regional transformation in the late twentieth century from an agricultural region to an industrial export centre has not been the subject of much academic research. This chapter examines this recent economic transformation and its geographical characteristics and reflections. Within the study at large, this chapter serves to root the various aspects of the development of the local garment industry – the subject of following chapters – within the concrete regional context of La Laguna. More importantly, it uncovers those aspects of the region and its economy that laid the basis for La Laguna's rise as jeans export centre.

Section 4.1 introduces the region, its geographical location, delimitation, main characteristics and recent historical development. This first section provides the geographical and historical background for the more recent changes that will be discussed in the following sections. Section 4.2 examines the regional economy and recent shifts and changes therein. The image that emerges is of a booming industrial urban area surrounded by an impoverished rural hinterland. Section 4.3 deals with the regional population and demographic trends over the last decades of the twentieth century. The final section examines the potential of the garment industry to serve as a bridge between the urban node and the surrounding rural area.

4.1 The setting

The Laguna region is situated in North-Central Mexico and straddles the two states of Durango and Coahuila (see Figure 4.1). The region extends over an area of roughly of 4,800,000 ha (Mazcorro Velarde et al., 1996, p. 2). It is situated on the northern Mexican plateau that lies at an average elevation of 1,100 metres, but is broken by numerous hills and mountains. One of the

most characteristic features of the urban landscape is the statue of Cristo Rey that looks out over the area from a top of the Sierra de las Noas. From Cristo Rey's viewpoint, what does one see? What does the Laguna region look like?

First of all, standing on the edge of Torreón, a very large urban area stretches out in front. A few broad boulevards can be discerned, as can the dry riverbed that runs right through the urban area (see Figure 4.2). There are only a few high-rise buildings in the cities, along with some hotels and some very large silos of industrial companies in Gómez Palacio. The few green patches in the conurbation are concentrated in Cd. Lerdo. Beyond the city limits a rather monotonous desert landscape begins, hot and very dry, filled with dust, yellow desert soils and mostly dried-out, brown mesquite plants. Mountains are also part of the desert scenery and are in view in almost all directions in the region. As in New Mexico, Arizona and most regions along the US-Mexican border, they are barren and reflect against the desert in a characteristic

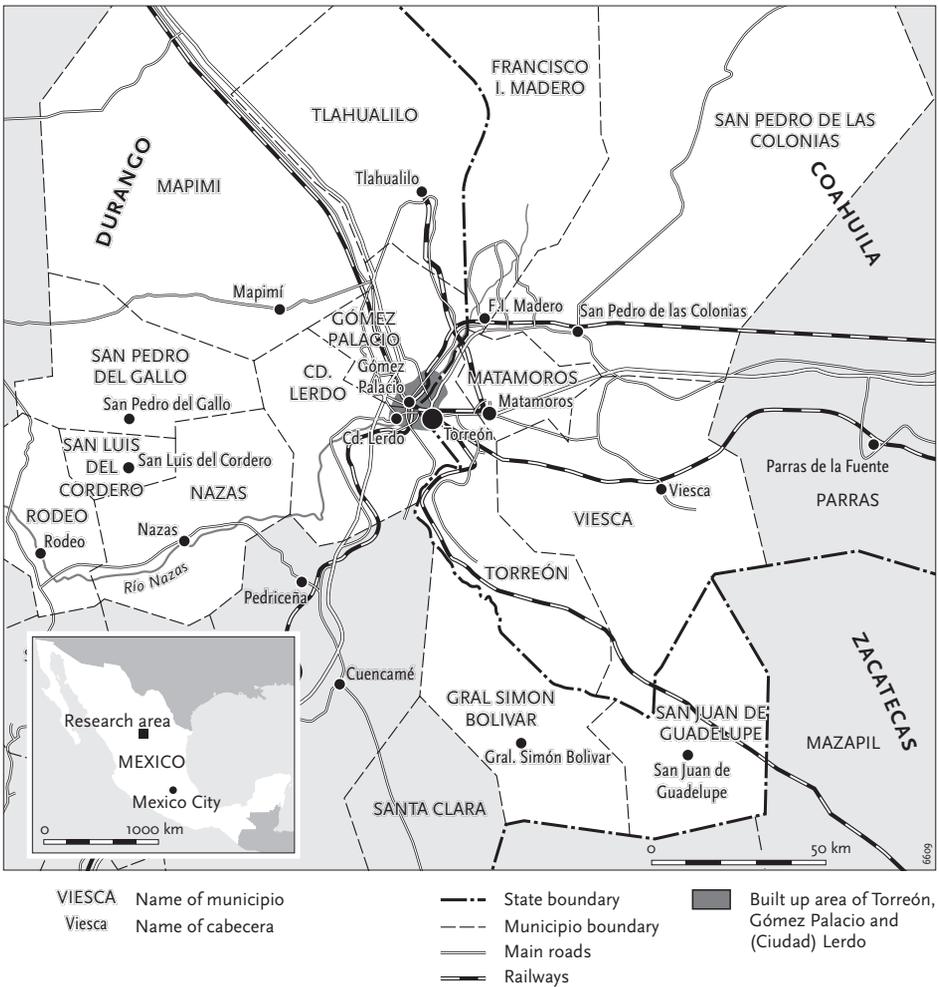


Figure 4.1: The Laguna region, infrastructure and administrative structure

shade of purplish blue. Within this dusty landscape it is surprising to see patches of green agricultural land. Though most of the region appears to be very dry and unfit for agricultural purposes, irrigated, green fields of cotton, alfalfa and sorghum dot the landscape. These patches, and the pecan orchards spread over the region, stand out in stark contrast to the surrounding area.

Just beyond the limits of the region lies Cuatrociénegas, a green oasis surrounding a number of ancient, clear, freshwater lakes. In the region itself, arroyos, dry riverbeds and lakeshores are reminders of the natural water that used to flow in La Laguna but has largely dried up. For many years now, La Laguna has lacked natural surface water during most of the year. Only in March when the water reservoir is opened and water flows through the web of irrigation canals for a few weeks, does water become a visible part of the region's landscape.

There are various definitions of the Laguna region. Since irrigated agriculture was and still is so important to the region, the definition most commonly used – including in this study² – is based on the delimitation of irrigation district number 17, as defined by the Mexican agricultural ministry. As such, the region encompasses the fifteen *municipios* (municipalities) that made use of the water of the Rio Nazas or Aguanaval. The focus on the functional integration of constituent *municipios* means that the region's delimitations have been drawn irrespective of state lines and other administrative inconveniences. Hence the fact that the Laguna region straddles two neighbouring states.

The administrative structure that divides the region over the two states of Durango and Coahuila and both state-sides into the previously mentioned *municipios* is illustrated in Figure 4.1. In the figure, the most important cities and towns in the region are named. The *cabeceras municipales* are the municipal towns that serve as political and administrative centres for the *municipios*. They generally also give the *municipios* their name and in most cases concentrate a large percentage of the municipal population within their confines. Naturally, smaller villages and settlements are also part of the region; however, they are not illustrated on the map. La Laguna's *municipios* are highly differentiated: Torreón, Gómez Palacio and Cd. Lerdo have a large concentration of population and effectively form a single urban node or *conurbación*. The contrast with the surrounding *municipios* and their *cabeceras* is dramatic: the rural towns, especially those further removed from the urban node, are much smaller.

The conurbation of Torreón (Coahuila), Gómez Palacio (Durango) and Cd. Lerdo (Durango) forms the urban core of the Laguna region (see Figure 4.2). Almost all economic and social activity in the region is concentrated in this urban node.

Significant differences exist between the three cities. Torreón occupies a dominant position within the urban core and the region as a whole. It is a relatively modern city with a number of wide boulevards and some modern buildings. The old city centre is somewhat chaotic and bustles with life, thanks to the presence of innumerable small independent merchants and service agencies. The more modern, large-scale retail sector – including the two modern malls completed in 2001 – is located along the main infrastructure axes and on the outskirts of town. A similar locational pattern is displayed by the industrial sector, which is concentrated in industrial parks away from the city centre (see Figure 4.2). In the last decade of the twentieth century, the city landscape was impacted by the establishment of US multinationals such as WalMart, Office Depot, Burger King, McDonald's, Appelbee's and Chili's at prominent locations – and with prominent signs – throughout the city.

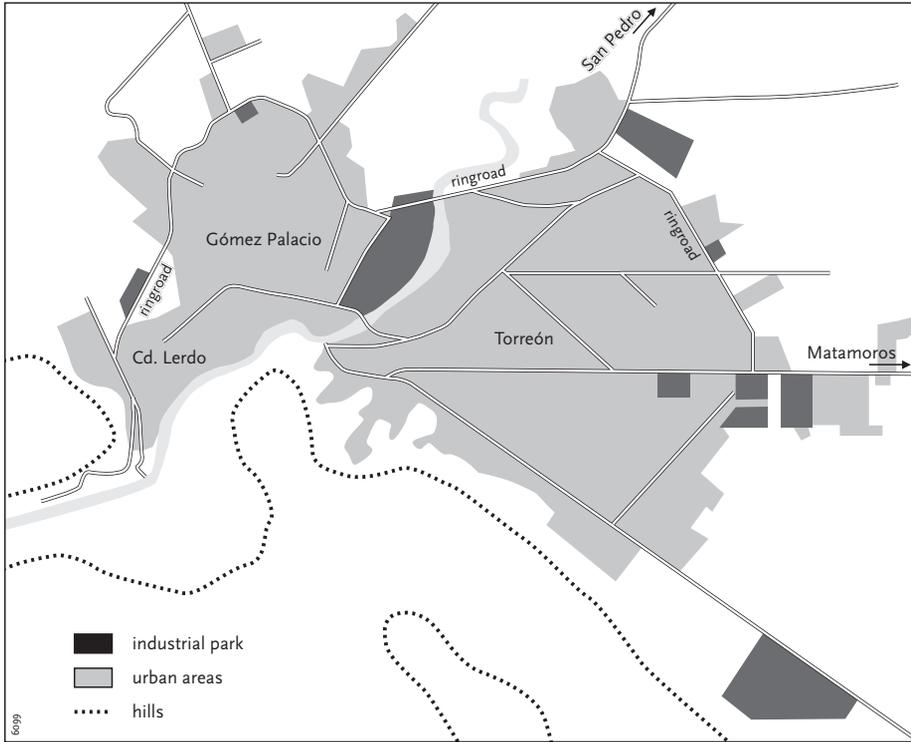


Figure 4.2: La Laguna: the conurbation

Gómez Palacio is much smaller and does not have such a modern appearance: it lacks high-rise buildings and a large, modern service sector. Gómez Palacio has the appearance of a typical medium-sized northern Mexican industrial city, with a rather disorganised city centre and a clear separation of high-income residential areas and low-income areas. A vast and rather cramped industrial park is located on the outskirts of the city, between the city centre and the riverbank. The state border that divides Durango and Coahuila runs through the centre of the urban node and separates Gómez Palacio from Torreón. Since the border is formed by the dry riverbed of the Rio Nazas, the division is clearly visible and in fact accentuates the differences between the two cities. The differences between Gómez Palacio and Torreón are further emphasised by the fact that middle- to high-income residential areas and the city centre of Torreón border on the industrial park of Gómez Palacio, providing a stark contrast between the two.

The third of the three cities, Cd. Lerdo, is a green and quiet garden city – a characterisation which is the pride of its inhabitants, as evidenced by the inscription on the arches at the entrance of the city ('Cd. Lerdo. Ciudad Jardin'). The city is small and peaceful; most industrial activity is located outside the centre, along the ring-road. Small independent retailers and many market gardens are located in the centre, but for large retailing as well as services, the cities' inhabitants rely mostly on Torreón.

Despite the fact that the cities are different in character, physically separated by the riverbed and administratively separated by a state border, to most intents and purposes they function as one urban node. The fact that they are largely complementary in character and the limited travelling distances involved in going from one to the other, appear to be the basic factors behind this functional unison that is expressed in constant flows of goods and people within the node. Physically, the smooth integration is facilitated by the *periférico*, the ring-road that circles the urban node.

Figure 4.1 illustrates the function of the urban node as a hub in the transportation system in northern Mexico. First of all, at the end of the nineteenth century Torreón became an important node in the railway system (Reza Garcia, 1998) and nowadays the region still has one of the few railway stations in northern Mexico. The arrival of the railway – *El Ferrocarril* – in 1883 served as a powerful impetus for the development of Torreón, and indirectly for the attainment of its city status in 1907 (Puig, 1992)³. This early connection to modern transport infrastructure turned Torreón into the symbol of modernity for the state of Coahuila and led to the substantial demographic and economic growth of the city. It is no coincidence that in this same period the first signs of industrialisation in the region – through the establishment of yarn, textile, soaps, flour and metal processing plants – occurred. The railway connection facilitated and stimulated the early development and industrialisation of the Laguna region and also underpinned an early urban-rural division of labour within the region: the rural areas were geared to agricultural production and served as a hinterland for the urban core where industrial production was concentrated, agricultural produce was processed and sold or shipped.

Although the railway station has always been very important, nowadays its significance is surpassed by La Laguna's central position within the highway system of northern Mexico. On the north-south axis, the region is situated halfway between El Paso/Cd. Juárez on the US-Mexican border (825 kilometres) and Mexico City, on the Pan-American Highway (*Panamericana*). Furthermore, it lies about 360 kilometres west of Monterrey, the biggest industrial city in northern Mexico, and is centrally located on the federal Inter-oceanic Highway (*Interoceánica*), connecting the Pacific Ocean (Mazatlan) to the Gulf of Mexico (Matamoros, Tamps.).

The connection to multiple transportation systems was an important basis for the early industrial development of the region and its acceleration since the mid 1960s (Wenzens, 1974; Twin Plant News, 1999). Unsurprisingly, infrastructure and central location are stressed in almost every recent source of information, especially those aimed at attracting potential investors to the region (Twin Plant News, *ibid.*). The modern infrastructure in the region is extensive, encompassing various modes of transportation and routes, and connecting the main towns in the rural hinterland to the cities (see Figure 4.1).

Besides the extension of highways into or through the rural area, the most dramatic changes in the rural *municipios* during the twentieth century concerned shifts in land ownership and production structures. Traditionally, dating back to the midst of the nineteenth century, the region was characterised by the presence of a few very large estates (*haciendas*), many of them owned by foreign, mainly Spanish, *hacendados*. This ownership structure changed radically with the social movement at the beginning of the twentieth century, which resulted in the land reform of 1936. In this process, *haciendas* were expropriated, turning *hacendados* into *pequeños*

propietarios⁴, and redistributed, turning landless day labourers and farmers into small-holders, the *ejidatarios* (Friedrich, 1969; Wenzens, 1974). These *ejidatarios* became members of one of the *ejidos* in the region. Generally, *ejido* land in the Laguna region has been divided into small, individually exploited plots, in some cases complemented by a larger communal plot (Steffen Riedemann, 1996). Until the reform of Article 27 of the Constitution in 1992⁵, *ejidatarios* had ‘*usus fructus*’ based on a combination of common property and private appropriation (Gordillo et al., 1998). The *ejido* was the physical resource that people had access to and the organisation of rights-holders, but not the property of the *ejidatarios* (Goldring, 1996). Since the reform, the sale of *ejido* land has become legalised and pressures on the smallholders have mounted. As smallholder agriculture became increasingly less viable, the rural population was faced with un- and underemployment and the need to search for work and income outside the countryside and sometimes even the region.

As a result, during the 1990s demographic census data for La Laguna show for the first time an absolute decline in the rural population. Rural depopulation generally occurs during the transition from an agricultural to urban-industrial economy; this is also the case in La Laguna. The following sections discuss the main features and recent trends in the regional economy, followed by a presentation of basic demographic data. They will demonstrate that industrialisation and urbanisation (and rural depopulation) have been parallel processes in La Laguna.

4.2 The regional economy

Economic development over the past four decades in La Laguna has been marked by a decreasing importance of the primary sector and an increasing importance of the secondary and tertiary sectors (see Table 4.1). There have been important shifts in the production profile of the region, both through the diversification of agricultural production and through the increasing importance of urban and – to a limited extent – rural, industrial activities. Notwithstanding its lingering agricultural image, the regional economy of La Laguna is increasingly built on manufacturing. A shift from the rural to a growing importance of the urban areas matches this sectoral shift: industrial activity has been concentrated in the cities and industrialisation and urbanisation have gone hand in hand in the region. In November 1999, 42% of employees in the formal sector, as registered by the Instituto Mexicano del Seguro Social (IMSS), were employed in the *Industria de la Transformación* (manufacturing industries of which the export-oriented *maquiladoras* form an important subgroup), followed at some distance by *Comercio* (14%). The *Industria de la Transformación* is also one of the fastest growing sectors. The same statistics also show the diminishing importance of the agricultural sector: though still the fifth most important employer in the region, the sector is shrinking and the number of people formally employed in it is diminishing.

No separate employment data are available for the urban and the rural area: data are published either for Torreón and Gómez Palacio separately or for the region as a whole. However, from observation in the region it is clear that with the obvious exception of agricultural employment, employment in most sectors is concentrated in the conurbation.

[116] 4.2.1 The urban economy

The data in Table 4.1 show a vigorous growth of the number of formally employed people in the urban node between 1994 and 1999. Most new employment was generated by the

Table 4.1: The regional economy: employment structure and changes, 1994-1999

Sector	No. employees, 1994	No. employees, 1999	% change, 1994-1999	% La Laguna, 1999
Manufacturing industry	55,569	114,890	106	42
Commerce	31,292	36,199	16	14
Domestic services	22,177	29,220	32	13
Construction/building	7,375	18,605	152	7
Agricultural sector	18,907	16,759	-11	6
Other services	23,948	16,353	-32	6
Social & community services	13,191	14,960	13	6
Transportation & communication	8,064	9,425	17	3
Mining	4,085	4,867	19	2
Electric industry	2,393	1,305	-45	1
Total	187,001	264,397	41	100

Source: IMSS, subdelegacias Torreón and Gómez Palacio, as published in Siglo de Torreón, 1 January 2000

manufacturing industries: almost half of the formal, urban workforce in 1999 was employed in the industrial sector. The industrial sector is highly diverse in nature and is largely confined to Torreón and Gómez Palacio; Cd. Lerdo accommodates few industrial enterprises. The first industrial companies in the area were established at the beginning of the twentieth century. The industrialisation process received impetus during the mid 1970s but accelerated significantly in the 1990s after the passage of NAFTA. Especially since this last period the region has been transformed from an agricultural into an industrialised region, shifting the economic basis from the rural to the urban area. The extensive infrastructure of toll roads, highways and secondary roads and the railway, coupled with the international airport and the intermodal cargo handling, storage and customs inspection facilities at the *Ferropuerto*, has facilitated the region's transformation. Another important factor in the industrial development of the cities and of the region in general is specific policy formulated by the governments of Durango and especially Coahuila (see Box 4.1).

Most urban industrial development is concentrated in vast industrial parks (see Table 4.2 and Figure 4.2). There are eight industrial parks in Torreón, scattered over the city. Gómez Palacio has only two industrial parks, but they are very large; one of them, the *Parque Industrial (P.I.) Lagunero*, is the fourth largest in Mexico. Cd. Lerdo will have two industrial parks, which are to be located on a strip alongside the *periférico*. Companies in many different sectors are located in the parks; most of them are large-scale facilities and many are oriented towards export. The recent growth of the industrial sector is spurred by and has given rise to the preparation of large areas of new industrial park space. Six of the industrial parks in the conurbation (La Laguna Amistad, *Ferropuerto Laguna*, Jumbo Plaza, Lajat Industrial, Las Americas, P.I. 4a Etapa) were built in 1994-1997. Occupation levels and industrial growth projections were such that a number of new parks were under construction in 2000.

One of the industries the region is known for nationally, and which is clearly rooted in the agricultural history of the region, is food processing. The main food products processed in the region are poultry, beef, milk and dairy products, and beer. Especially the dairy industry –

Box 4.1: State government industrial policy: the case of Coahuila

In Mexico, the responsibility local and regional economic development, within the liberalised framework set by the federal government, has been decentralized to state and local governments. During the last three decades of the twentieth century, the insertion of regions into the global economy was increasingly seen as a necessary condition for their (further) development. The importance of being connected to the global economy has also been recognised by state governments in Mexico. Many have sought to build such a connection by stimulation export activities and/or by attracting FDI.

The state of Coahuila has been a forerunner in Mexico: the attraction of FDI to the state has been high on its government's agenda for several decades. Governor Flores Tapia was the one to initiate the attraction of FDI and the promotion of export production in Coahuila during the 1970s. This policy was continued and applied to the entire state – rather than merely Saltillo, as was the case under Flores Tapia – by his successors. A slight shift in perspective was introduced by Rogelio Montemayor, the 1993-1999 governor of Coahuila. His economic development strategy was to make use of the opportunities provided by NAFTA. It built on the state's strategic location in relation to the national as well as the US market, on its abundant skilled labour reserves and industrial competence, and stepped up efforts to attract FDI and thus generate employment opportunities. Inspired by cluster theory, he also steered state policy so as to aim for greater specialisation of the state's subregions. 'His' *Secretaría de Fomento Económico del Estado de Coahuila* (SEFOMEC) identified four separate subregions in the state, and developed a slightly differentiated policy for each one. While initially state policy targeted investments in the garment, electronics and automobile industries, over time the emphasis on specific sectors varied according to the opportunities offered by and the specific needs of the subregion in question.

Throughout most of the 1990s, industrial policy for La Laguna-Coahuila targeted the garment industry. In the early years, no or only a very slight distinction was made between investment in urban and in rural areas. However since 1997 the focus of state industrial policy has shifted away from the urban area towards rural locations in La Laguna-Coahuila. The garment industry plays a pivotal role in the rural industrialisation efforts of the state of Coahuila. The industry is considered especially suitable for rural locations, because of its minimal infrastructural requirements, the non-polluting nature of the garment production process and its intensive use of non- or low-skilled female labour. The state actively pursues the mostly foreign-owned 'big players' in the industry, since many of these companies invest large sums of money in modern large-scale facilities that provide a great number of people with employment. Examples of foreign-owned companies that have rural factories in Coahuila are Red Kap Industries and Wrangler (both of which are part of VF Corporation) and Hanes (a Sara Lee division). Besides promotional activities, the state offers full compensation for the training of personnel, as well as fiscal and other incentives to investors on a case-to-case basis. The state provides basic infrastructure 'from the nearest main road up to the factory gate' for investors in the rural areas, where infrastructure is either lacking or of inferior quality.

During the 1990s and especially since the passage of NAFTA, FDI in Coahuila has soared and the state has been earmarked as a success-story state. Within Coahuila, La Laguna is one of the most successful subregions. Industrial employment and foreign investment have been booming – local investment in the rural areas has also grown, but mostly without support from the state government.

Policy as developed by the state secretariat is mirrored by the municipal industrial development programs. Besides state government and the separate municipalities, the tripartite *Fomento Económico Laguna Coahuila* (FOMEC) is also involved in the economic development of La Laguna-Coahuila. In many respects FOMEC's activities mirror those undertaken by SEFOMEC at the state level. FOMEC, however, is uniquely concerned with the development of La Laguna and not with the rest of the state. Also, its tripartite structure allows it to maintain closer contact with the local business community.

The industrial policy for the development of La Laguna-Coahuila has a facilitating character. Its priority is to attract industrial investment and to create more employment opportunities in the region. Less attention is paid to the kind of investment and the quality of jobs created in the new factories. Though aware of the potential risks of a one-sided structure of the local economy, long-term strategic planning is piecemeal. Overall, industrial policy does not appear to be backed up by an overarching, strategic master plan. In part this is due to the large number of parties involved and to the limited cooperation between them (see Chapter 6).

Table 4.2: Industrial parks in La Laguna, 2000

Park	No. of firms	Total surface area (m ²)	Occupation level (%)
<i>P.I. Laguna Gómez Palacio</i>	588	4,213,842	100%
<i>P.I. Ferropuerto Laguna</i>	17	1,710,600	45%
<i>Ciudad Industrial Torreón</i>	167	1,201,939	100%
<i>P.I. Lajat</i>	40	450,000	64%
<i>P.I. Amistad Torreón</i>	1	438,000	11%
<i>P.I. Las Americas Torreón</i>	5	400,000	71%
<i>P.I. Oriente</i>	31	381,549	100%
<i>P.I. Matamoros</i>	1	328,600	41%
<i>P.I. San Pedro</i>	3	225,000	69%
<i>P.I. Las Americas Gómez Palacio</i>	1	170,000	24%
<i>P.I. Jumbo Plaza</i>	4	165,000	66%
<i>P.I. Nueva Laguna</i>	12	116,200	N/A
Park under construction/just completed			
<i>P.I. Lerdo II</i>	N/A	2,400,000	90%
<i>P.I. Lerdo I</i>	0	1,000,000	0%
<i>P.I. Amistad F.I. Madero</i>	0	221,900	0%
<i>P.I. Amistad San Pedro</i>	0	108,100	0%
<i>P.I. Bugambilias</i>	0	0	0%
<i>P.I. Vergel</i>	0	0	0%
Total	848	11,170,730	76%

N.B. Parks in italic are located in the urban core of La Laguna.

Source: El Siglo de Torreón, 1 January 2001

mainly through the cooperative giant 'LaLa', but also through large producers such as Chilchota and La Risueña – is an important factor in the urban economy. Its importance is fittingly symbolised by the prominent presence of the LaLa towers in the skyline of the Gómez Palacio industrial park. The main poultry processor is the large plant of Tyson located in the industrial park of Gómez Palacio. Coca-Cola has three bottling plants in the region; in 1999, it employed just over 1,700 persons. Another well-known name with a large presence in the region is the Corona beer brewery. It has a few bottling plants in Torreón and Gómez Palacio which employ a total of 1,400 employees for the production of both Corona and Modelo beer in the area. Metal processing is another important industrial activity: Torreón accommodates one of the largest metal smelting operations in Latin America, Met-Mex Peñoles. The plant's main products are silver, zinc, gold and lead, which are sold on the national market, but are mostly exported to the US and Latin America. A relatively new industry in the urban economy is the automotive industry. The best known presence in this sector is that of Delphi and Linamar/Renault. The latter did not stay long in La Laguna; its facilities are now being used by a LG-Philips tube factory. There is also a large plant of tractor producer John Deere and an assembly plant of Caterpillar in Torreón.

Within the large and relatively modern industrial sector, the garment industry occupies an exceptional position. It is not as modern as some of the other industries but in terms of employment creation it is one of the most important, if not the most important industry in the region. According to local estimates, more than half of the industrial workforce are sewing operators or other garment industry personnel. A few large international TNCs (e.g. VF Corporation and Sara Lee) have established factories in La Laguna. However, local ownership in the industry is dominant and numerous locally-owned factories of various sizes are responsible for the bulk of local garment production.

The industrial sector is the main source of employment for the urban area by a narrow margin: the tertiary sector is almost equally important. Commercial services form the biggest subsector of the services. Retailing – ranging from very large supermarkets (e.g. Gigante, WalMart, Soriana) that sell food, clothing, electronic equipment, medicines, etc. to small, pavement shops – is the most important commercial service activity. Within the urban node, retailing is more important for Torreón than for the other cities: a great number of large retail chains are concentrated in Torreón. Other important service activities are health care and education. All hospitals and most institutions of higher education are located in the urban node and serve both the urban and the rural population of the region.

Especially in the services sector, many activities are of an informal or semi-informal nature, leading to likely sizeable underestimate of urban employment. The *Alianza* – a large daily market located on the outskirts of the old city centre of Torreón, where food stuffs, toys, clothing and many other types of product are sold – illustrates the significance of informal and semi-informal urban activities, as does the *Pulga* in Gómez Palacio. Many stalls in these markets sell cheap and mediocre consumer goods – many of which are counterfeits of global brands, such as Nike, Reebok and Tommy Hilfiger – to the low-income strata of the market. Another clear example of informality is provided by the innumerable street-corner food stalls selling hamburgers, hotdogs, fish cocktails and tacos. The sheer number and variety of these stalls suggest that the official estimates of the service sector underestimate actual employment

4.2.2 The rural economy

The rural economy is much more limited than the urban economy. Especially in the smaller villages the economic basis is very narrow: industries are lacking and the service sector does not extend far beyond the village limits and the local grocery shop. The rural economy centres on agriculture. This is somewhat surprising because already by the early 1970s four serious problems had arisen in agriculture in the region (Wenzens, 1974).

Firstly, agriculture in La Laguna was in large part monoculture, dedicated overwhelmingly to the growing of cotton. Unstable world market prices and national and international competition in the production of cotton posed a serious threat to the La Laguna rural areas (Wenzens, 1974; see also Box 4.2). Another problem was the fact that the small parcels assigned to each *ejidatario* were an insufficient basis for the generation of family income. Thirdly, the large group of landless rural dwellers – the *avecindados* (by that time estimated to have reached a total number of 50,000) – could only be employed seasonally in agriculture during the harvesting of the cotton. Fourth, the resulting over-supply of agricultural labour had pushed the minimum wage in the region to the lowest level in the country. All these problems were especially serious because of the lack of non-agricultural employment alternatives in the rural area: neither forestry nor mining offered any viable economic perspectives.

During the second half of the twentieth century, two policy efforts were made to revitalise agriculture and thus the rural areas of La Laguna. The first intervention in the rural areas of La Laguna was the rehabilitation plan for the region articulated in the early 1970s (Amaya Brondo, 1970; Arvizu, 1996a). Its main aim was to diversify agricultural production in the Laguna region. On its own terms it has been fairly successful: the production of wheat and especially cotton has declined (see Box 4.2), a larger number of crops – including fodder crops and fruits and vegetables for human consumption – are now grown and distribution is much less lopsided in favour of a single or a limited number of crops. Within the agricultural sector, cattle farming (especially dairy cattle farming) is becoming more important and has surpassed agriculture in terms of the income generated (Mazcorro Velarde et al., 1991; *El Siglo*, 2001). The importance of cattle farming is also reflected in the large and growing acreage of fodder crops. High profit rates – based on large local demand and high yields per acre – are the reasons for cultivating the crops (Jiménez et al., 1996; Ahlers & Fortis, 1999), despite their high demand for expensive and scarce irrigation water (*El Siglo*, 2003).

A second, radical attempt to modernise the Mexican agricultural sector came in the form of the Reform of Article 27 of the Constitution in 1992. Mexico's economic liberalisation policies (see section 3.3.1) extended into the agricultural sector with the express aim of restructuring it and making it more economically viable. The general aim of the reform was to stimulate market-oriented agricultural production, free of state regulation⁶ (Gordillo et al., 1998; Salinas de Gortari & Solís González, 1994). By reforming Article 27, which regulated the traditional *ejido* smallholder sector, it has had a notable impact on the agricultural sector and the rural economy in general in La Laguna. The practical result appears to be a renewed concentration of access to land and water in the hands of a smaller number of larger farms (Ahlers & Fortis, 1999; Jiménez et al., 1996; see also Gordillo et al., 1998). Marginalisation of the smallholder sector and rural unemployment appear to have intensified as a result of these policy measures.

Parallel to the profound impact of plans, reforms and government policies, the soil, water and climatic conditions also impose serious constraints on agriculture in La Laguna. The interplay of these natural factors means that only a very small part of the land (a little over 5%) of the

Box 4.2: Cotton in La Laguna

For a long time cotton was the main product of the region. At the beginning of the twentieth century, the region produced up to 90% of the national cotton consumption (Marroni de Velazquez, 1992). Cotton production in the region was characterised by high yields per acre, and the cotton produced was of good quality. However, over the course of time and especially during the last two decades of the twentieth century, cotton production began to be associated with a number of different problems and controversies.

Some of the problems concern state agricultural policy, specifically the state controlled credit institution (the later Banrural), which proved a dubious factor in the development of the *ejido* sector, due to the bureaucracy involved, its politicised operations and the nature of the credit system itself (see Rello (1987) for a detailed account of the role of credit institutions in cotton production in La Laguna). For decades, the bank stimulated the cultivation of cotton and controlled the crop's entire production and marketing process.

Also, over the past decades the prices of cotton on the world market have gone down. For the producers in La Laguna the low price their cotton earns on the world market has become a serious problem. For years in a row, local newspapers report full cotton warehouses, where stacks of cotton are waiting for prices to go up. Better or more efficient or subsidised producers, such as Egypt and the US, have squeezed the market share and price of Mexican cotton (Mandelbaum, 1992).

Meanwhile, Banrural – because of its interest in foreign currency generating export products – ignored these problems and continued to stimulate the single-crop system. The single-crop system was based on advances, which were paid per unit of agricultural work required by the product concerned irrespective of profits earned. This system perverted the *ejidatarios* in the sense that it became economically logical to cultivate highly labour intensive crops, such as cotton, even if these are not profitable overall. As a consequence, despite limited profitability as well as quality and subsequent marketing problems, cotton remained the dominant crop in the *ejidos* of La Laguna until the late 1980s (Rello, 1987).

Besides ineffective management of the cotton credits, the quality of the cotton from La Laguna and the reliability of its supply appear to have deteriorated over the past years. The textile companies in Parras that use cotton as their main input complain about a presumed high sugar content of the cotton (which damages the machines), short staple and undependable sorting of quality. Especially the availability of better quality, long-staple import cotton has harmed the market position of La Laguna's cotton.

Finally, the supply has also been erratic and unreliable, displaying large shifts in volumes harvested from year to year (Mandelbaum, 1992). After a dramatic decrease in cultivation of the crop – which reached an historic low in 1992 following the virtual abolishment of credit programs – cotton cultivation was again actively stimulated by the state government of Coahuila (Montemayor, 1996). Once again the warehouses are filled and the nearby denim mills still do not buy local cotton.

[122] region is effectively used for agricultural purposes. This tendency was aggravated during the 1990s as agricultural activity was increasingly confined to compact areas (*areas compactadas*), which were most efficient for agricultural production due to their soil fertility and especially access to the irrigation infrastructure. The water situation in the region has always been precarious; however, the situation has recently worsened as a result of a serious drought that

began in the early 1990s. As a consequence, the surface of rain-fed land has decreased dramatically. Subterranean water reservoir wells in the region are another important source of water, but over the past decade these have increasingly been associated with overexploitation and subsequent salination and even arsenic contamination (Jiménez et al., 1996; Ahlers & Fortis, 1999; Mazcorro Velarde et al., 1991). Moreover, wells are relatively expensive sources of irrigation water – especially with rising electricity charges and the costs associated with the use of the pumps.

Agriculture in La Laguna is very different from what it used to be. Cultivation and land ownership patterns, agricultural productivity and access to water are inseparable in the region. The mentioned changes have important consequences in the area of employment opportunities. One of the most prominent changes since the late 1980s is that *ejidatarios* have had little choice but to change their cultivation pattern – from cotton to beans and maize for auto-consumption or sale at guaranteed prices (Gordillo et al., 1998) – but also to complement agricultural production for auto-consumption with alternative sources of income (Steffen Riedemann, 1996). This used to be at least partially solved through (seasonal) employment of *ejidatarios* and the rural population on the larger farms. However, larger farms have become more mechanised and now require less labour input. Whereas initially *ejidatarios* and *avecindados* worked as agricultural day-labourers, now only a small number of them find agricultural sources of income. Overall, employment in the agricultural sector is shrinking (see Table 4.1) and under- or effective unemployment in the countryside has grown, depressing the wage level in the rural areas.

Thus, since the late 1980s there has been a growing need for non-agricultural sources of income. In the rural areas, certainly outside the larger towns, industries and services are of limited importance. There were two industrial parks in operation in 2000 in the rural area of La Laguna-Coahuila and a few other rural parks were under construction or being planned (see Table 4.2). Nevertheless, most rural inhabitants still had to leave the rural areas of La Laguna to find non-agricultural sources of income. As will be shown in the following sections, daily commuting or permanent migration to the urban node or to the border region have become an integral part of life in the region.

4.3 Population and demographics

As mentioned, La Laguna is an important region in Mexico, and this is also reflected in the size of the regional population: the Laguna region had over 1.2 million inhabitants in 2000 and the urban *municipios* together housed over 70% of the regional population (see Table 4.3). The conurbation as a whole ranks amongst the largest urban areas of Mexico. Within the urban node, Torreón is the largest city by far: 42% of all *laguneros* live in Torreón. By contrast, some of the *cabeceras municipales* in Durango accommodate much less than 1% of the total regional population. In general the rural population is thinly scattered over the rural *municipios*. In fact this is more dramatically so than the mentioned figure suggest: in many rural *municipios*, large parts of the population live in the *cabeceras*, leaving the remainder largely unpopulated. Concentration of population in the municipal *cabeceras* may be as high as 51% in F.I. Madero and 73.3% in San Luis del Cordero (INEGI, 1990).

As can be expected based on the contrary urban-rural economic developments discussed above, in the 1990s the relative demographic importance of Torreón and the conurbation as a whole

Box 4.3: Demographic changes in F.I. Madero

The *municipio* F.I. Madero is situated in the north of La Laguna-Coahuila and borders the Torreón *municipio*. Over half of its population is concentrated in the *cabecera municipal*, which is a fairly spread out, dusty town filled with small shops, street vendors and houses built of cement blocks or adobe. While the town is a regional service centre, the economy of the *municipio* is very much centred on agriculture, especially on the production of cotton and on cattle farming. Though the *municipio* is

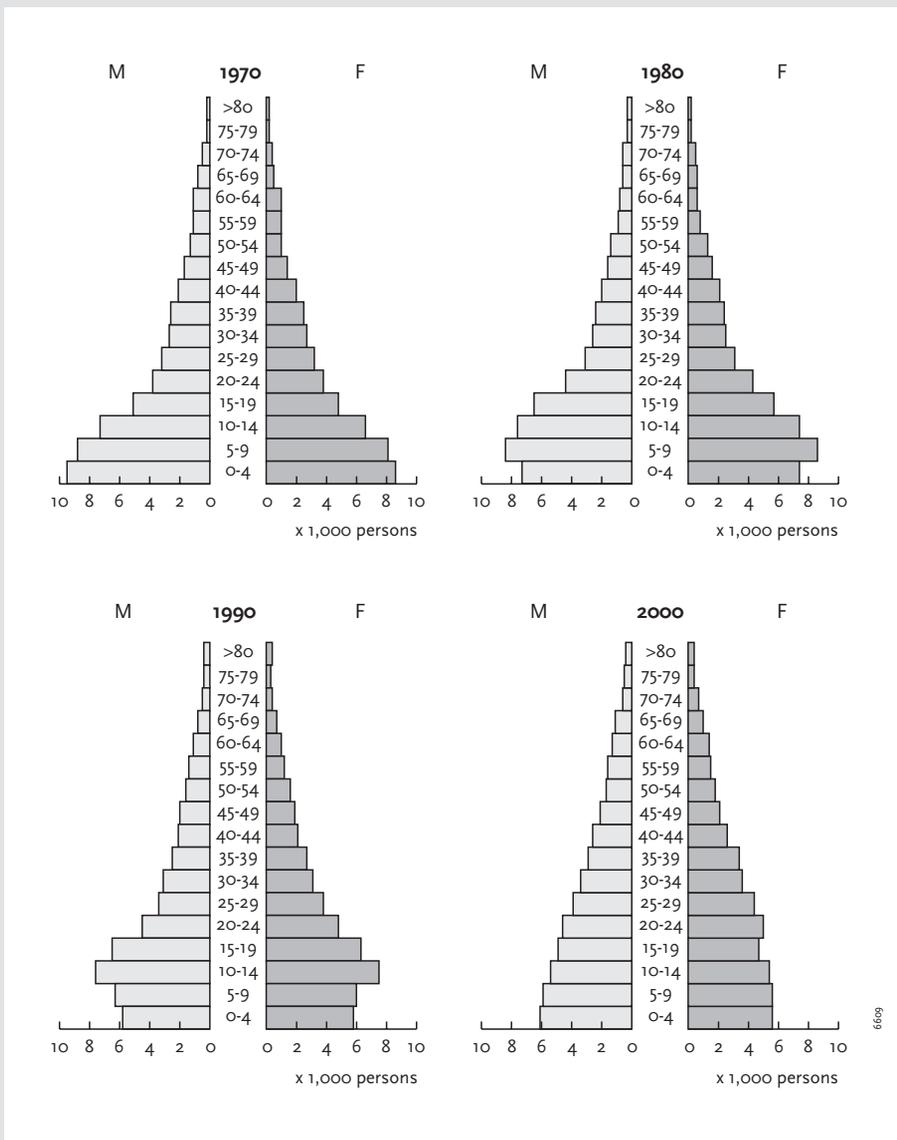


Figure 4.3: Population pyramids F.I. Madero, 1970-2000

not far away from the large conurbation of La Laguna, F.I. Madero is very much part of the rural area of the region; its population dynamics are highly characteristic of rural *municipios* in the region. Figure 4.3 illustrates the population pyramids of F.I. Madero for the last three decades of the twentieth century.

The first pyramid (1970) has a broad base and narrow top. This is the shape typical of populations in the early stages of development. Life expectancy at birth was still not very high (at that time it was 59 years for the state of Coahuila), although it had increased dramatically over the previous decade with the decrease of the death rate. The birth rate was still high; consequently the population was growing quickly with a large share of the population below the age of 15. In the 1970s, agriculture was still a good source of income and there was no strong migration push. Migration appears to have been limited and mainly seasonal and it has no visible impact on the pyramid.

The second pyramid (1980) clearly shows the impact of demographic modernisation in F.I. Madero. The decline of the death rate continued and at the same time fertility, or the birth rate, went down, diminishing the number of newborns. These trends continue in the following decades – though it becomes less visible in the 2000 pyramid. Few permanent migrants left F.I. Madero and migration is barely visible in the pyramid.

In the third pyramid (1990), the demographic modernisation process continued. At the same time, prompted by the downturn in agriculture in the region, the population was beginning to be impacted by out-migration. Sex ratio calculations show that for the age group 20-54 there were more women than men in the *municipio*. This points to a sex-specific labour migration pattern: slightly more men than women left F.I. Madero.

In the 1990-2000 period out migration continued forcefully. So much so, that the 2000 pyramid is 'flattened' as large shares of both men and women at working ages leave the *municipio*. On the whole, outmigration is eating away an ever-growing part of natural population growth, in fact leading to net decline of the population as illustrated in Table 4.3.

increased. Torreón and the conurbation have consolidated their dominant position within the region. On closer inspection, Table 4.3 reveals that the dynamic development of Torreón and the rest of the conurbation carries such weight in the regional data as to mask a deep urban-rural division that runs through the Laguna region. On the one hand there is a fairly dynamic urban core, displaying moderate population growth; on the other hand, almost all rural *municipios* show absolute and significant population decline. After decades of 'merely' declining population growth in rural *municipios*, this is a noteworthy phenomenon. Various demographic dynamics, shaped over decades, coincide to result in the observed pattern. Box 4.3 presents an overview of the population development of a rural *municipio* over the past decades and describes the changes.

Migration plays an important role in the demographic patterns in La Laguna. The state of Durango has a history wrought by migration; in 1990-2000, it had an overwhelmingly negative migration balance of -19.8%. Inhabitants of the state traditionally make up a large share of migrants on and just across the US-Mexican border. Coahuila also has a negative, but smaller, migration balance of -4.7%. Little information is available with regard to the destination of out-migration from the region. However, local sources in the Laguna as well as in Cd. Juárez concur

on the existence and importance of migration from the Laguna region to Cd. Juárez on the US-Mexican border. Many inhabitants of the conurbation, and especially of the poorer rural areas, opt to migrate to – and in numerous cases, eventually cross – the border. A small survey held in a village in Durango confirmed the importance of migration to the North. Several respondents had one or more family members who lived in the US, or on the Mexican side of the US-Mexican border. The rural areas of the region have become expulsion areas of migrants going to Cd. Juárez or the US, or to the urban area of the region (Arvizu 1996b; Ahlers & Fortis, 1999). No data are available on intra-regional migratory flows. Local media point to sizeable rural to urban migration (Arvizu, 1996b; Ahlers & Fortis, 1999). However, these flows are not recorded in official INEGI data and cannot accurately be inferred from data on the population growth rates. However, as a result of varied migration flows and changes in the economic structure of the region, the rural areas of La Laguna have been impacted by depopulation and detachment

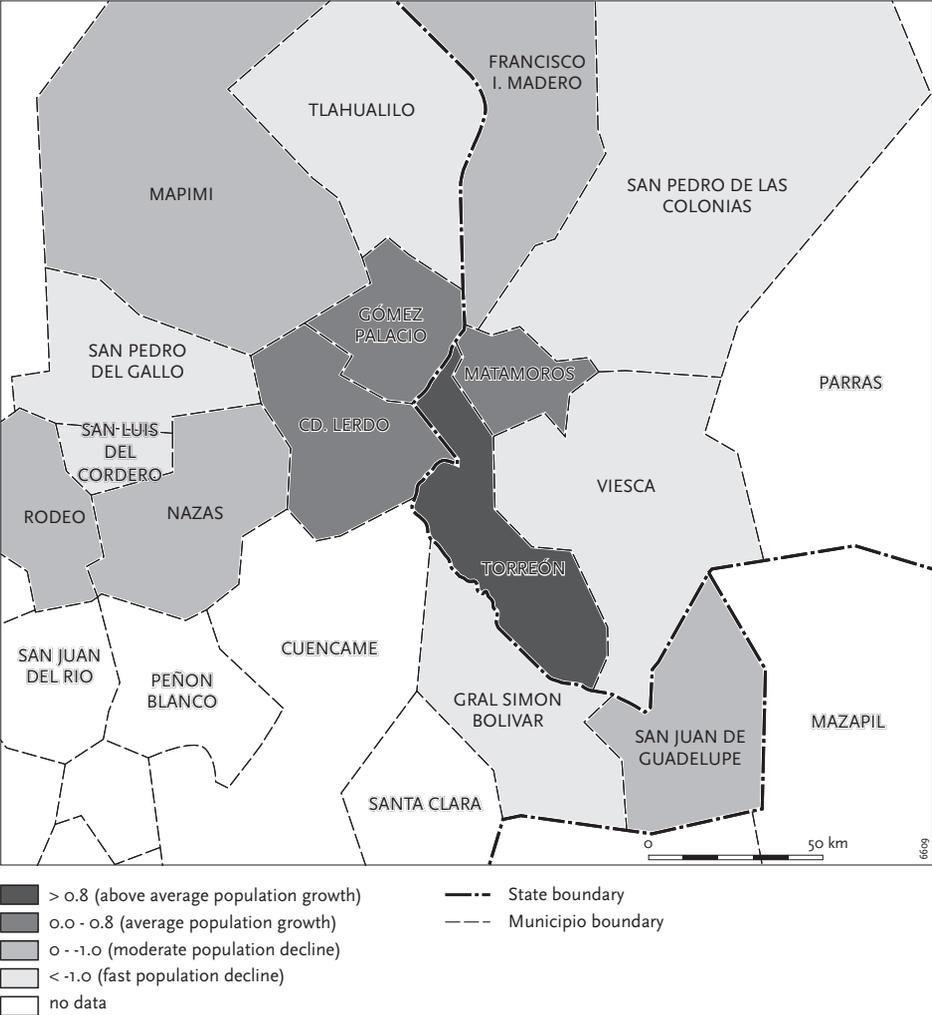


Figure 4.4: The Laguna region, population growth and decline

of the rural population from the land (Arvizu 1996a, 1996b). These processes show parallels to the 'de-agrarianisation' process in sub-Saharan Africa described by Bryceson (1993). In La Laguna, the general effect has been termed *descampesinización*. The significance and geographical pattern of *descampesinización* processes for La Laguna's rural area is shown in Figure 4.4.

In light of the rural exodus as illustrated in Figure 4.4 and the importance of intra-regional migration flows, the growth in urban population is unsurprising. The urban core as a whole grew by 11% in 1990-2000, and growth was especially concentrated in Torreón. The interplay of complex and differentiated demographic developments across the region evens out to an average annual population growth for the region as a whole of 0.6% (see Table 4.3). This growth is significantly below the national average of 1.9% and the 1.4% yearly average of Coahuila, but above the 0.3% annual population increase for Durango. This confirms La Laguna's status as a net out-migration region⁷.

Table 4.3: Population data La Laguna, 1990-2000

Municipio	Population			Regional	Participation	Illiteracy
	1990	2000	1990-2000 Var. %	population 2000 (%)	in labour force 2000 (%)	rate 2000 (%)
Urban area						
Torreón (C)	464,825	529,512	14	42	53	3.7
Gómez Palacio	256,983	273,315	6	21	51	4.6
Cd. Lerdo	105,372	112,435	7	9	48	6.1
Total conurbation	827,180	915,262	11			
Rural area						
F.I. Madero (C)	50,981	46,452	-9	4	45	8.9
Matamoros (C)	86,398	92,029	7	7	49	9.0
San Pedro (C)	99,165	88,343	-11	7	41	9.9
Viesca (C)	21,238	18,969	-11	2	41	11.9
Mapimi	24,006	22,367	-7	2	40	9.5
Tlahualilo	22,877	19,918	-13	2	41	7.1
Rodeo	13,555	12,497	-8	1	34	7.8
Nazas	12,834	12,467	-3	1	36	8.1
Simón Bolívar	12,415	10,644	-14	1	33	9.0
Sn. Juan de Guadalupe	7,267	6,548	-10	1	33	10.9
Sn. Luis del Cordero	2,364	2,070	-12	-	28	9.4
Sn. Pedro del Gallo	2,143	1,876	-12	-	36	6.4
Total La Laguna-Coahuila	722,607	775,305	7.3	62	-	5.5
Total La Laguna-Durango	459,816	474,137	3.1	38	-	7.0
Total La Laguna	1,182,423	1,249,442	5.4	100	-	-
Total/Average Mexico	81.2 million	97.5 million	20.0	-	-	9.5

N.B. Shaded municipios belong to the urban core of La Laguna. (C) indicates the municipios of La Laguna-Coahuila; all others are located in Durango.

Source: INEGI: Resultados Definitivos de Censo de Población y Vivienda (1990, 2000); INEGI Perfil Sociodemográfico Coahuila & Durango (1991)

Table 4.3 also illustrates the differences between Coahuila and Durango: in general, rural towns are larger and better off, economic participation overall is larger and education levels are higher on the Coahuila-side compared to La Laguna-Durango. This difference is not confined to the Laguna region: overall, the standard of living in the state of Coahuila lies somewhat above that of Durango.

The table indicates the reasons behind the scarce population of the rural area: educational opportunities and economic participation are limited in the rural areas. In only a few rural *municipios* does the illiteracy rate exceed the national average: the very basics are taken care of throughout the region. However, rural *municipios* lag behind the conurbation with respect to higher education. La Laguna boasts educational levels and opportunities above the national average, but the seventeen institutions of higher education, universities and *tecnológicos* are concentrated in the cities. Unbalanced educational opportunities are matched by the earlier mentioned lopsided distribution of economic opportunities in the region, leading to both rural un- and underemployment. Economic participation rates for the rural *municipios* are very low, certainly when one bears in mind that any economic activity for even the most minimal amount of time is counted and included in the figures. Within the rural area, the situation differs considerably: not only are the economic participation levels of the *municipios* in Coahuila higher than those in Durango, but the smallest and most remote *municipios* are the worst off. The narrow economic basis and changes in the agricultural sector discussed in the previous section have had a negative impact on employment in the rural areas, while Torreón, Gómez Palacio and to a lesser extent Cd. Lerdo are booming industrial cities. The high economic participation in Torreón – and in the urban core in general – is also reflected in a low open unemployment rate of 2.6% for 1999⁸.

The disparity in economic opportunities between the urban node and the rural hinterland caused sizeable rural-to-urban migration and commuter flows. Many urban to rural commuters and migrants have been absorbed by the garment industry in the cities. In fact, for the garment industry, the presence of the large, relatively low-cost labour reserve was one of the region's main assets. Starting in the early 1990s the labour reserve and the presence of some industrial bases, including in garments, were important impetuses for the growth of the industry. Until almost a decade later, employment in the garment industry was concentrated in the cities. Commuting and urbanisation continued unfettered, but this did not prevent the urban labour supply from becoming exhausted. Companies began to engage in competition for labour and a few firms began to build factories in the rural areas.

For the rural areas, the recent dispersal of garment factories into the countryside may offer some relief. It creates employment opportunities in the towns, villages and even *ejidos*, and it is hoped that it may spark a rural industrialisation process. Rural industrialisation as a potential way to revitalise La Laguna's rural areas is discussed in the following section.

4.4 Booming garment production: bridging the urban-rural divide?

The previous sections have made it clear that the Laguna region in fact consists of two very different regions – the conurbation and the rural hinterland – that are experiencing (and have experienced) not 'only' different transformations, but also to a large extent contrary developments. The urban core has been and is booming and the rural areas have remained dependent on an ailing agricultural sector. The results for the rural areas have been an expulsion of rural workers from the agricultural sector, unemployment as well as rural

depopulation. Though industrial activity in the rural area is minimal, a few industrial parks are under construction in the towns of three rural *municipios* in La Laguna-Coahuila (see Table 4.2). The first factories have already moved in. Most of them are garment factories. After decades of concentration in the cities, the garment industry has recently accelerated its dispersal to the rural *municipios*. The rural garment factories represent a completely novel development in these areas, which for a long time had been geared exclusively towards agriculture (van Dooren & Verkoren, 2002; van Dooren & Zarate Hoyos, 2003; see Chapter 7 for a more detailed analysis of the process of rural transformation). The boom of the local garment industry and its dispersal into the rural areas appear to offer some relief for the rural population.

The garment industry is one of the oldest local industries and has its roots in the last decades of the nineteenth century, when the first cotton textile company (*Fabrica de Hilados y Tejidos La Constancia*) was opened alongside the railway in Torreón (Reza Garcia, 1998; Puig, 1996). The more modern garment industry began in the mid twentieth century. The industry developed steadily until the early 1990s, when a remarkable growth spurt began. Since the passage of NAFTA, the growth of the industry has accelerated enormously. As a result, by the late 1990s the region was believed to be the largest garment export cluster for jeans in Mexico and, somewhat boastfully, even in the world. Employment creation in the industry has been large and rapid: from just over 16,000 employees in 1993 (INEGI, 1994), the industry was estimated to employ around 75,000 people in 1999 and close to 80,000 a year later⁹. These garment workers are employed by over 200 garment companies owning a total of over 450 plants in the region (*El Siglo*, 1998). Towards the turn of the century, total maximum production capacity of the regional cluster was estimated to lie around 6.5 million garments a week.

The very large employment creation in the garment industry was and still is mostly concentrated in factories in the cities. The resulting large demand for factory workers could not

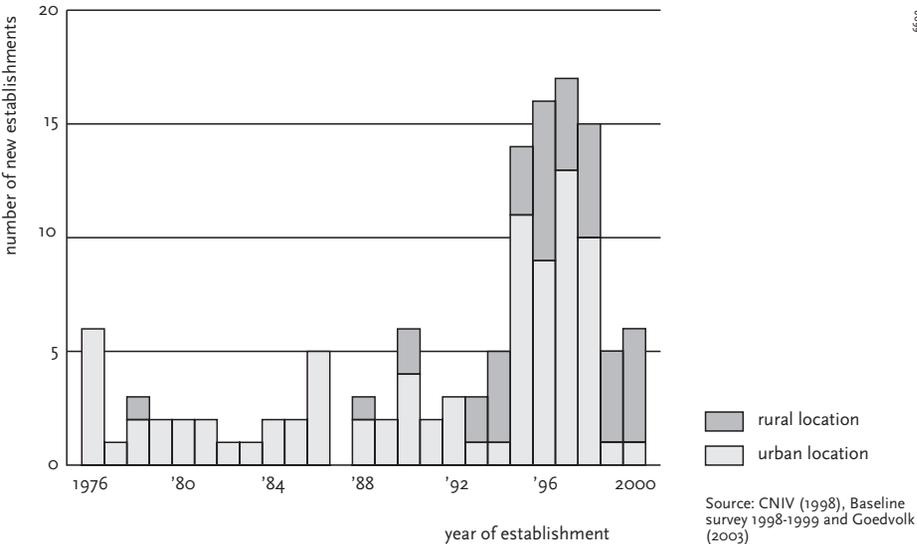


Figure 4.5: The establishment of urban and rural garment factories in La Laguna

be satisfied by the urban labour force alone, a problem that was soon reflected in a tightening urban labour market and high turnover rates of personnel. Meanwhile, some rural *laguneros* migrated to Torreón, Gómez Palacio or Cd. Lerdo in search of jobs; many more have opted to commute daily between their village and the city. Commuting has become a common and almost institutionalised feature of urban life. Some commuters provide their own transportation, but most of the daily in- and outflow is coordinated by the companies that employ workers from outside the city. Buses formerly used as school buses in the US are now used for the daily transportation of personnel. Since many of the urban factories employ great numbers of rural *laguneros*, most factories rely on a large number of buses that cover very extensive routes. Evidence of the prevalence of rural-urban commuting is the geographically concentrated traffic congestion in and around the industrial parks early in the morning and late in the afternoon. The large commuter flows connect rural inhabitants faced with limited employment opportunities in their rural communities to the urban industrialists that have to deal with a tight urban labour market. In the context of an immense and continuous growth of the industry, however, commuting has not solved the problems of tightness in the urban labour market, rising turnover rates and wages.

Therefore, a de-concentration of garment production out of the cities became almost inevitable. Rural garment factories did not have to deal with the labour problems associated with an urban location and were also seen as a potential way to begin to close the urban-rural divide in La Laguna. Some garment factories already existed in the rural municipios, but since the late 1980s and especially the 1990s a few urban garment companies have been especially proactive in the establishment of rural factories at various locations in the region. As a consequence, the number of garment factories in the rural towns, villages and ejidos grew rapidly in the 1990s and spread over large parts of the region (see Figures 4.5 and 4.7).

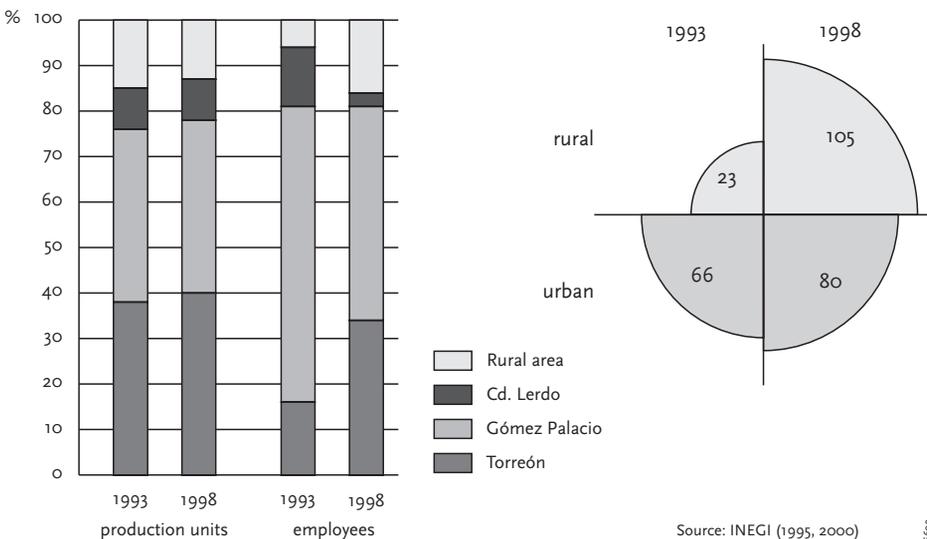


Figure 4.6: Growth in urban and rural garment employment and changes in average factory size

Figure 4.5 illustrates the establishment of rural and urban factories over time in La Laguna. The majority of the rural factories were built during the late 1990s when the industry in the urban area was booming and pressures on the urban labour market were driving up wages and turnover rates in the cities. At that point, the interests of garment entrepreneurs (a stable labour force for the factories) coincided with those of both the rural population (employment in the rural areas) and the state governments (solving rural unemployment and dampening migration flows) to create a fruitful base for the dispersal of the industry. Figure 4.6 illustrates the geographical patterns in establishment of new factories as well as in employment creation. While there were no dramatic shifts between the cities and the countryside with regard to the establishment of new garment factories, a notable large share of employment creation was

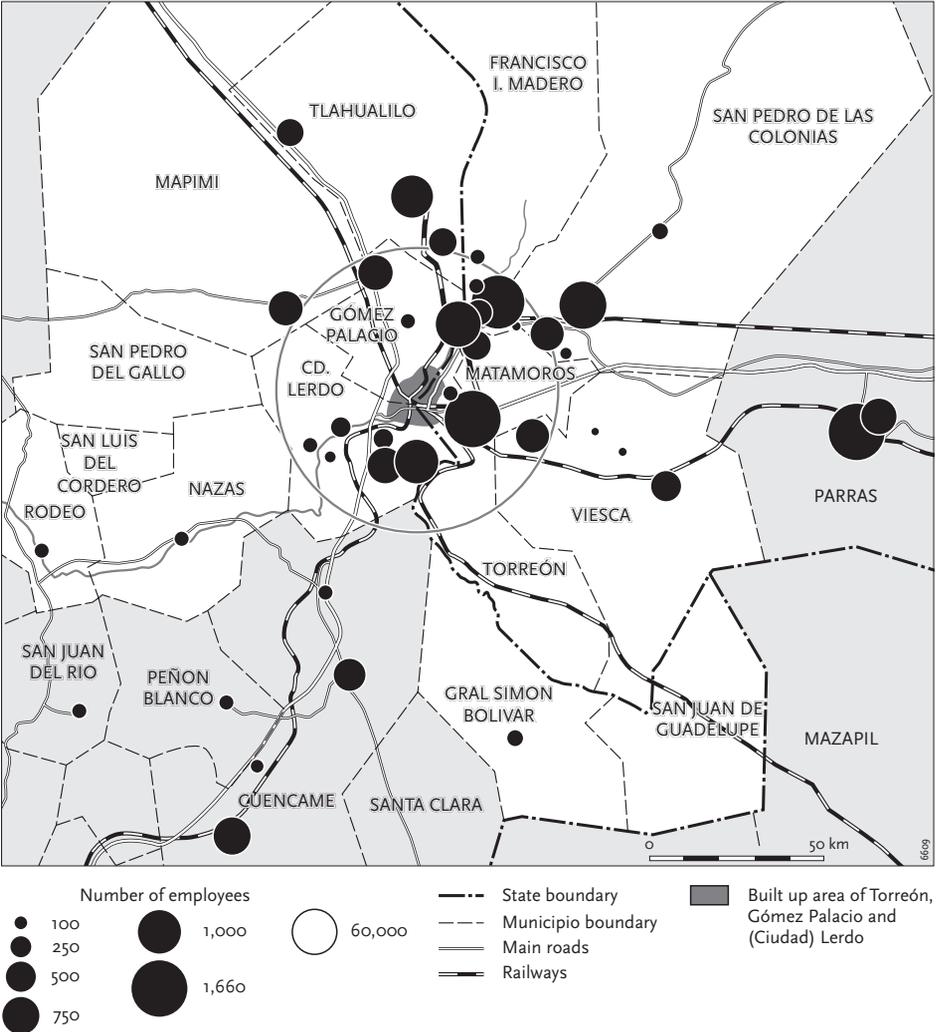


Figure 4.7: Employment in rural garment factories, 1999

located in the rural area in the late 1990s. This points to the large scale of operation of several newly established rural factories – many of which are FDI facilities.

The resulting dramatic effect on the average factory size is also illustrated; in 1998 rural garment factories were on average larger than the urban factories (while they had been much smaller only a few years before). This is not to say that by the end of the 1990s all rural factories were large; besides the relatively large FDI facilities and subsidiaries of urban-based garment companies, there were also small cooperative factories. Promotional activities undertaken by the state government of Coahuila have been instrumental in the establishment of large-scale FDI facilities, while several local companies have independently set up much smaller rural factories on both state sides of La Laguna.

Most large-scale FDI facilities are located in or close to the larger rural towns with a reasonably large labour force and a good connection to the main roads. Figure 4.7 illustrates that employment in rural garment factories is concentrated in these towns. Rural garment employment is a significant factor in the rural economy that otherwise remains dependent on a shrinking agricultural sector; by the late 1990s approximately 10,000 rural *laguneros* in Durango and Coahuila were estimated to work in close to eighty rural factories (see Figure 4.7).

The establishment of a large and steadily increasing number of factories in the rural area appears to have strengthened intra-regional linkages as the rural area is being drawn into the regional garment production system. Moreover, the state government of Coahuila hopes that the rural garment factories will spark a rural industrialisation process. However, so far there is little evidence pointing to the materialisation of a wider rural industrialisation process.

4.5 Conclusion

This chapter has introduced the Laguna region in northern Mexico as a dynamic region that has undergone a number of significant changes in both its recent and less recent history. The region, which straddles the two states of Coahuila and Durango and whose traditional economy was built on agriculture, is now marked by a deep development differential between a successful, industrial urban area – consisting of three cities – and a poor, stagnant rural hinterland dependent on dwindling agriculture. The development of the regional economy over the past decades and its current structure appear to lie at the base of this dichotomy.

The urban core of La Laguna was one of the first medium-sized urban areas in Mexico to begin to industrialise in the 1970s. Since then, the industrial sector in the cities has expanded and diversified. Various food processing industries with a domestic market orientation are present in the region, while manufacturing for export is also highly important. In the latter activity, the garment industry is one of the largest and most dynamic industries and employment creators. However, other industrial sectors such as the automotive and electronics industries are present as well. A large and diversified service sector is another important part of the urban economy. This concentration of economic activity and wealth in the urban node has made it the regional centre of gravitation.

In contrast to the dynamic and diversified development of the urban economy, the rural economy is characterised by its narrow agricultural base which, to make matters worse, has

underemployment and effective expulsion of the rural labour force was aggravated when neo-liberal reform (Article 27 of the Constitution) of the agricultural sector took effect in the early 1990s. This reform put pressure on the smallholder segment and resulted in a concentration of access to land and to water in large farms. Because of the lack of non-agricultural employment and income alternatives in the rural areas, the rural population has become increasingly oriented towards the urban node for jobs.

The most recent demographic figures reflect this dichotomy in economic opportunities between the urban and rural areas. While the urban population is growing modestly, the rural population is marked by absolute decline. The result is a progressive urbanisation process, as the population concentrates in the cities, where higher economic participation rates indicate better job opportunities and where educational opportunities as well as wealth and health care are concentrated.

The examination of the Laguna region, its development and main features sheds light on its recent boom as the 'New Jeans Capital'. La Laguna unites some of the most basic requirements for such a development: a strategic geographical location with regard to the US market and its Jeans Capital predecessor El Paso, good quality and a quite extensive though basic physical infrastructure, as well as a relatively large young and well-educated population, part of which is under- or unemployed. On top of that, the industrialisation process that transformed it from an agricultural into an industrial region set in several decades ago. This industrialisation process included a garment industry that was humble, mostly small-scale and oriented on the domestic market. This modest local garment industry transformed during the 1990s, when the region experienced a post-NAFTA garment boom.

In a recent response to the urban-rural gap in employment opportunities and labour market conditions, the post-NAFTA expansion of the garment industry may spark a transformation process based on rural industrialisation. Garment factories have been established in towns, small villages and *ejidos* of La Laguna. The establishment of rural garment factories provides the local population with a much needed source of employment and income alternative to dwindling agricultural activities. Supported and even stimulated by state governments, the garment entrepreneurs who invest in the rural areas find an almost ideal labour supply situation there. Rural labour reserves are large and – in the absence of local economic alternatives to agriculture – in dire need of employment opportunities.

Notes

- 1 The literal meaning of *laguna* is lake. This refers to the playa lakes, such as *laguna Mayran*, which occurred until irrigation systems – and in particular the large dam and reservoir about 150 miles upstream on the Rio Nazas – were developed and the water was diverted away from these lakes (Dunigan, 1969).
- 2 The use of various definitions gives rise to confusion. A common definition (Dunigan, 1969; Wenzens, 1974, p. 13) encompasses 'only' ten *municipios*: Torreón, Matamoros, San Pedro, F.I. Madero, Viesca, Parras, Gómez Palacio, Cd. Lerdo, Mapimi and Tlahualilo. The term La Laguna is also employed when just referring to the urban node and both state-sides of La Laguna also sometimes refer to 'their' side as La Laguna. The definition adhered to in this study is the one used by *Secretaría de Agricultura, Ganadería y Desarrollo Rural, SAGAR*. In it, the Laguna region consists of fifteen *municipios* – five in Coahuila and ten in Durango (see Figure 4.1).
- 3 Torreón forms the hub between the *Central Mexicano* and the *Ferrocarril Internacional*. The fact that a positive spin-off would result from this position was clear even at the time of construction, as evidenced by a conflict between

Coahuila and Durango over the location of the railway (Puig, 1992). Eventually, the international investors in the railway gave preference to Torreón, because the route through that city was the most direct one between the border and Mexico City.

- 4 The literal translation of this term is 'small owners'. This is a rather cynical choice of words, especially in light of the fact that they were and still are the farms with the largest land holdings in the region and generally also with the most fertile lands.
- 5 Salinas de Gortari and Solis Gonzalez (1994) performed a case study of the background and impact of the Reform in La Laguna. Unsurprisingly – bearing in mind the family tie between one of the authors and the then Mexican President Salinas de Gortari – they viewed the reforms favourably. They explain the background and aims of the Reform as follows (ibid., p. 6): 'Faced with the acute and chronic crisis of Mexican agriculture and the need to revive it in the current context of globalization and regional integration, the reform aims to achieve higher levels of production and productivity, to open the countryside to domestic and foreign private investment, to orient the agricultural productive apparatus towards the open and competitive markets to raise income and welfare levels of the rural society, and to reduce and make more selective the intervention by state agencies in rural development'.
- 6 Three key changes related to small-scale land ownership were devised to achieve this goal (Goldring, 1996; Gordillo et al., 1998). Firstly, certification and thus the potential privatisation of *ejido* land was started. Even though the reform entailed a formalisation of existing practises (Steffen Riedemann, 1996; see also Goldring, 1996), more *ejidatarios* in La Laguna have opted to rent out their land and water rights, and some have even decided to sell. Since the buyers – commercial farms and *pequeños propietarios* – are mostly interested in the water, this sometimes leads to the abandonment of the land. Secondly, *ejidos* are allowed to enter into joint ventures with larger farms or companies. These joint ventures were promoted by the state governments of both Coahuila and Durango (Parra, 1996, p. 9), but had limited success due to an unequal distribution of benefits in favour of the large farms. Finally, further land distribution is ended to put an end to 'excessive growth of small-sized farms' (Salinas de Gortari & Solis Gonzalez, 1994).
- 7 There are no other data that point to other circumstances that might explain the figures. The fertility rate in the region is not significantly below the national average and no disasters have taken place in the region.
- 8 These data are difficult to interpret, due to the very broad and constantly changing definitions used by INEGI. Rather than slack in the labour market which can be solved through continued growth of the industrial sector, the hovering of unemployment around the 2–3% mark appears to indicate the presence of a stable, persistent mismatch in the local employment opportunities and the labour market: an oversupply of well-educated *laguneros* combined with a large demand on the labour market – coming from, for example, garment factories – for people with low educational levels and industrial skills.
- 9 There is some confusion about the total number of garment workers in La Laguna. INEGI counted 'only' 36,000 garment workers in 1998. Local representatives of the *Camera Nacional de la Industria del Vestido* (CNIV) believe the official figures to be a gross underestimate. Their estimate of total employment in the garment industry was 70,000 employees for 1997 and over 80,000 by the year 2000. A calculation on the basis of firm employment figures as retrieved from the baseline survey for this study, suggest that the CNIV estimates are more accurate than the INEGI data (the 73 companies included in the baseline survey alone employed already around 42,000 employees), and will therefore be used in this study.

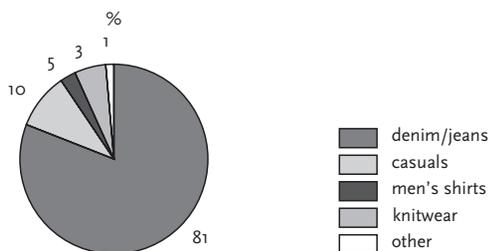
5 Overview of the Laguna garment cluster

In the previous chapter, the garment industry in La Laguna was introduced as an important industry and local employment creator, initially in the urban core but increasingly also in the region's rural *municipios*. This chapter builds on that introduction and examines in greater detail the structural characteristics of the garment industry in the region. Data obtained through the baseline survey, complemented by observation and interviews, is used to present a factual outline of the structure of the garment cluster and its individual firms. This is done from a comparative perspective so as to be able to position the Laguna cluster in relation to other garment clusters, and to see whether and – if so – in which ways La Laguna is a typical garment cluster. Also, some basic insights are provided with regard to its approximate position within the post-NAFTA US-Mexico context.

Section 5.1 starts off the examination of the Laguna cluster by scrutinising its self-proclaimed 'Jeans Capital' status through a focus on the cluster's product orientation. Section 5.2 investigates the cluster's market orientation and sheds light on the relative importance of the export and the domestic market as destinations for the garments produced in the region. The attention will then be turned to the cluster's key players. Section 5.3 deals with the structure of the regional industry in terms of company characteristics such as size, ownership and location. Section 5.4 digs further into the garment firms and deals with their single- versus multi-plant company structure, dissecting them to the level of individual factories or production units. Section 5.5 explores the position of labour within the garment industry in the Laguna region, followed by a brief overview of garment clusters in India, Peru and Mexico in Section 5.6. The insight into the characteristics of comparable clusters will show whether it is possible to distil the structural elements of a 'typical' garment cluster and whether La Laguna contains these elements. The conclusion at the end of the chapter summarises the main findings and seeks the essential connections to the literature on garment clusters.

5.1 Introducing the new 'Jeans Capital'

How new is the 'new' Jeans Capital of northern Mexico? The first textile and apparel-related industrial activity in the region can be traced back to the late nineteenth century. However, modern, factory-based apparel production in the region has its roots in the late 1940s. At that time, the first apparel factory started to produce jeans under its own brand (*El Venado*) for sale in northern Mexico and later the US. Within a couple of years a few other local factories were established, and they too specialised in the production of what in the industry is referred to as 'bottoms' (i.e. various types of pants, dress slacks and especially jeans) for the market in northern Mexico. Several garment pioneers in the region are Lebanese immigrants; many are still in the business or have been succeeded by their children.



Source: Baseline survey, 1998-1999

Figure 5.1: Product composition of the Laguna garment cluster

During those early days, the jeans industry was directly linked to the cotton produced in the region. Local garment factories used primarily local cotton. In fact, some of the industrial pioneers in the region started their business as a means of adding value to the cotton produced on their own land¹. From then on, the local industry expanded steadily. By the early 1990s the local production base was considerable and according to official data local garment factories employed over 16,000 employees (INEGI, 1995; see also Chapter 4). The bulk of garments produced in La Laguna was sold in the local or regional market. When Mexico joined GATT in 1986 and the Mexican market opened up to imports, La Laguna suffered, as did other garment producing regions in Mexico (see Chapter 3). The domestic market was swamped with cheap imports from Asia and the sales of La Laguna's companies in the domestic market plummeted. As a consequence many local garment factories went out of business. In search of an alternative, some local companies sought and found entrance into the US export market. This shift in market orientation also entailed a conversion from integrated garment manufacturers to pure assembly *maquiladoras*². Export to the US essentially meant entering into production-sharing arrangements in which La Laguna garment companies assembled pre-cut fabric and used trim items shipped from the US. What remained was the region's product specialisation: blue jeans. The connection with locally produced cotton was severed, as the use of imported denim from US denim mills was imperative due to the duties levied on the use of Mexican fabric. The disconnection between local cotton and locally produced denim trousers still exists today (see also Box 4.2).

Since then, and based on the assembly of jeans for export, La Laguna's garment industry has boomed: in the early 1990s 'only' 500,000 garments were produced each week, whereas at the end of the decade production capacity had reached 6.5 million a week. Especially since the coming into effect of NAFTA, production volumes have grown very rapidly. Throughout this dramatic expansion the original product orientation has been retained. Hence the region's self-proclaimed status of 'New Jeans Capital of the World'. In adopting this title, the local industry assumed the status that, as mentioned in Chapter 3, until recently had belonged to El Paso, Texas. 'Jeans Capital' may sound overly boastful, but almost all companies in the region dedicate part if not all of their production capacity to the production of blue jeans. Among garment companies in the region, 81% cite a denim garment as its main product³. Figure 5.1 illustrates the dominant position of jeans as the main product of the Laguna garment cluster.

[136] Only a few companies produce casual pants, and men's shirts and knitwear (tee-shirts, jogging slacks or sweatshirts) are also produced. Interestingly, most knitwear is produced by a few foreign-owned production facilities, making these facilities exceptions within La Laguna's jeans

bulwark. Other exceptional cases are a specialist contractor that produced backpacks and another that produced only men's dress shirts.

Complete specialisation in non-denim garments is rare. It is slightly more common to combine jeans with other types of garments. The most common combination is jeans and casual pants. Other secondary products are men's shirts, jackets, sports shorts, sweaters and hospital garments. These products generally make up only a small percentage of total production. Clearly, even the complementary garments produced in La Laguna are mostly basic, standardised garments. The Laguna cluster is firmly positioned in the mass-produced, standardised segment of the market. By the end of the 1990s overall product diversification out of the jeans segment was very limited. However, some shifts within the denim segment can be noted, as will be discussed further in Chapter 7.

Production in the Laguna region also illustrates the pervasiveness of segmentation based on price and quality and of branding. At the end of the 1990s, locally produced jeans ranged from cheap, relatively standard and low quality to more sophisticated and high quality: clients ranged from Kmart and Wal-Mart to Tommy Hilfiger and The Limited. However, the centre of gravity of local production lies in the low- to mid-market range. In relation to the general sourcing and upgrading pattern outlined in Chapter 2 this confirms La Laguna position as a newcomer exporter that starts in the low-quality, low-price ranges of the market and may gradually shift to higher-end products and market ranges. Chapters 7 and 8 will deal with upgrading and buyer succession in La Laguna in greater detail.

5.2 Market orientation

The conversion from locally integrated domestic market production to production sharing for export discussed above has been almost complete: virtually all jeans produced in La Laguna are destined for markets outside Mexico. Moreover, export from La Laguna is almost a synonym for export to the US: an estimated 90-95% of local production is destined for the US market. With the exception of one company that occasionally exports small volumes to Europe and Japan, all export production is destined for the US market. Thus, the Laguna cluster reflects the patterns outlined for the Mexican garment industry in general in Chapter 3 (see Table 3.3). Within the national boom in garment production for export to the US, La Laguna is one of the concentration areas in Mexico. The expansion and conversion of existing companies as well as the establishment of many new firms characterise the development of the cluster throughout the 1990s. The sudden and vigorous growth is the result of the very large demand coming from the US; it also explains the cluster's narrow orientation towards the US market. Between the passage of NAFTA and 2001, demand mostly exceeded local production capacity and as a consequence garment exports to the US expanded almost effortlessly. The market orientation of the cluster appears to be not so much a result of strategic decisions taken by individual firms as the logical and comfortable outcome of an overwhelming, geographically concentrated demand surge. This market orientation and particular growth pattern is reflected in the position of the Laguna cluster as a contracting cluster. Most companies function as contractors for US buyers and produce exclusively for export. Many do so through a direct sourcing relation with a global buyer, while others are subcontractors that export indirectly and rely on the mediation of another firm. La Laguna is best characterised as an export bulwark.

The narrow focus on contracting for the US market can partly be explained by the nature of the domestic market. The dual structure of Mexico's domestic market plays a role in pushing local producers to engage in exports. As the high-end Mexican market is served by large, mainly US-based buyers while the much larger but unstable low-end segment is flooded with cheap Asian goods and domestic counterfeits, it offers limited opportunities for domestic companies. Positioning a company on this market is a difficult and risky task. This, combined with the huge pull exerted by US garment buyers, has led to the virtual abandonment of the domestic market.

Still, some domestic production does take place and, though it is of limited importance, it can not be ignored. A few export companies in the region also serve the domestic market and most leave only a small part (2-10%) of total production in Mexico. In these cases domestic market production is generally seen as a way of balancing the ups and downs in the export market or as a means to gain experience in the management of full-package production. For efficiency reasons, the type(s) of products produced for the domestic market often are the same as those produced for export⁴. In fact many companies used to use the inputs provided by their US clients for their own brand production, since clients often make overgenerous estimates of necessary amounts of trim items as well as fabric. Domestic market garments often bear the label of the local company. Only one company in the region attaches its own label to a specific and separate product type, namely children's wear.

Not only is the combination of export with domestic market rare in La Laguna, but domestic market production in general is of limited importance. Only two sample companies dedicate all of their production to the domestic market. Both companies produce a wider array of products, including not only men's and women's denim bottoms, but also men's shirts and women's blouses. In general, domestic market production is of a more run-down, small-scale sweatshop nature, but it is registered: close scrutiny and digging beyond the official industry listings revealed only a few hidden, semi-clandestine domestic market factories. As will be discussed in Chapter 7, some linkages may occasionally exist between the export factories and the domestic market sweatshops. In general however linkages between formal and informal companies are limited, not in the least because informality in this industry in La Laguna is limited. This may be due to crowding out by the export factories.

5.3 Firm characteristics

How is the cluster's specialisation in the production of mass-produced, basic garments for the US market reflected in the structure of the industry and the characteristics of local firms? Though local export production for the US market pre-dates NAFTA, the cluster's export orientation became much more pronounced after the trade agreement came into effect. Similarly, NAFTA and the post-NAFTA growth spurt have underscored the region's specialisation in jeans. What are the most important changes to have affected the structure of the local industry over the last decade? With regard to the composition of the cluster, it is no exaggeration to say that the passage of NAFTA has had a dramatic impact. For example, the number of garment export firms in the cluster more than doubled in just four years following the passage of NAFTA.

In this section, three firm characteristics will be further looked into: ownership, firm size and locational patterns.

Ownership

During the second half of the 1990s foreign garment firms began to invest in the region⁵. Most of the FDI in the region comes from the US; only one Asian garment firm has established a factory in the region. Some foreign-owned factories are facilities of US TNCs, such as VF Corporation and Sara Lee; others belong to large US contractors or intermediaries. Most FDI facilities are 100% foreign-owned. Mexican-foreign joint ventures are rare in the Laguna cluster. Though the arrival of FDI facilities and their increasing numbers in the years following NAFTA constitute a significant change, overall FDI is of comparatively limited importance in the region. At the end of the 1990s the vast majority of garment companies in the Laguna is in full local ownership and is owned and managed by *laguneros*.

Firm size

The significance of FDI facilities in the Laguna region lies in their very large scale of operation, rather than in their numerical importance. The number of employees of most FDI facilities exceeds a few hundred; spread over several factories, some even employ a few thousand operators. With the size of their factories, they underscore the on average large-scale nature of garment production in La Laguna. Several locally owned firms also have a production capacity of over 100,000 pairs of jeans a week and a workforce of over 1,000. Some of these locally owned giants were amongst the region's pioneers. Most started out as small- or medium-sized factories and expanded little during much of their existence. This changed in the 1990s when these traditional garment producers went through an impressive growth spurt. Some more than quadrupled their production volumes in 1994-1999. Together with the newly established FDI facilities and a few successful local newcomers⁶, they increase the average scale of operation of garment companies in the region. The mean size of the garment companies in the region is very large: 578 employees per firm (see Table 5.1). This scale of operation is much larger than one would expect in a generally fragmented industry of small-scale factories (see Chapter 1). The cluster's specialisation in mass-produced garments and its narrow orientation towards the US market help explain this extraordinary size structure. Mass-produced garments are generally produced in comparatively large factories, and the US market is the largest garment importer in the world. Furthermore, the volume requirements of US buyers are generally very large (cf. Gibbon, 2002; see Chapter 8).

Table 5.1 gives an overview of the firm size structure of the cluster. It shows considerable variance in size. There are hardly any micro-enterprises, and even small companies are of

Table 5.1: Firm size distribution, La Laguna

Company size	Absolute number	%	Size class mean (no. employees)	Statistics
Micro (1-15)	1	1	13	<i>Minimum firm size: 13</i>
Small (16-100)	12	16	63.4	<i>Maximum firm size: 5,680</i>
Medium (101-250)	32	44	144.2	<i>Skewness: 3.2</i>
Large (251-500)	8	11	400.1	
Very large (over 500)	20	28	1,751.6	
Total	73	100	578.0	

Source: Baseline survey, 1998-1999

comparatively limited importance in La Laguna. Few companies fall into these categories and the ones that do are, on average, on the upper side of their category⁷. Most companies in the region are medium sized and have 101-250 employees. Most of the micro, small and medium-sized companies in La Laguna were set up after the passage of NAFTA; those that did not start out as medium sized, have rapidly become such. By comparison, the group of large companies is surprisingly small.

The most notable phenomenon revealed by the table is the overshadowing of the cluster by a number of local industrial giants. There is an enormous gap between these giants and the other firms in the cluster. In fact, the true scale of operation of these giants is obscured in the classification, but clear from their mean size of over 1,750 employees. Also the skewness measure indicates a large number of large-scale outliers – for all classes, but also for the very large companies.

Locational patterns

Urbanisation benefits and the size of the workforce of many companies explain the locational preference for the cities and the resulting urban concentration of the garment industry, as discussed in Chapter 4. The dominance of the urban core and especially Torreón is such that US garment buyers, as well as journalists and academics, commonly refer to the garment cluster in La Laguna as ‘Torreón’. Strictly speaking they are selling the garment cluster short. Durango and especially Gómez Palacio play a leading role in the industry. Just over half (54%) of the total number of urban companies are located in Gómez Palacio. Torreón and Cd. Lerdo accommodate 40% and 6% of the urban companies, respectively. The structure of the industries in Torreón and in Gómez Palacio in terms of company size is similar. In both cities, the medium-sized companies make up the bulk of the businesses. Cd. Lerdo’s garment industry is not only more humble in size but its structure is somewhat off-balance. It accommodates many comparatively small factories, many of which have a domestic market orientation, but these are overshadowed by the large factories of two very large garment companies.

The development of the industry over time differs somewhat between the cities. For several decades Torreón and Gómez Palacio experienced an equally slow growth of their garment industries. But during the 1980s, it became more pronounced in Gómez Palacio than in Torreón. By 1993, approximately two-thirds of the garment producers in the region were located in Gómez Palacio. The post-NAFTA demand surge and differences in industrial and regional development and tax policies of the state governments of Durango and Coahuila, appear to have shifted the balance. In the second half of the 1990s, the growth dynamics within the urban core changed. A roughly equal number of producers established themselves in Torreón and in Gómez Palacio. However, the sizes of the new companies in both cities differ considerably, a fact confirmed by the difference in employment creation. In Torreón in 1994-1998, just fewer than 4,200 jobs were created, which means that the new companies averaged 244 employees each. In Gómez Palacio ‘only’ about 2,700 jobs were created, an average of 156 employees per establishment. Some new companies were established in Cd. Lerdo in the post-NAFTA period as well, but recent growth there is mostly due to the sizeable expansion of the two largest companies there.

[140] The noted shift can to some extent be attributed to the establishment of FDI facilities in La Laguna-Coahuila. Most large-scale, foreign-owned subsidiaries are located in La Laguna-Coahuila, divided about equally between Torreón and the rural areas. This positions Torreón

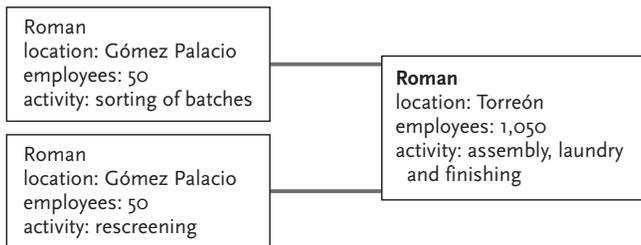
way ahead of Gómez Palacio and Cd. Lerdo in terms of foreign investment and average plant size. In fact, the difference applies to La Laguna-Coahuila and La Laguna-Durango: FDI in the rural areas of Durango has remained scarce over the past years certainly in comparison to investment growth in the Coahuila side of the region (see also Figure 8.6). Though the pattern is no doubt a result of many coinciding factors, differences in the effectiveness of state government efforts to attract foreign investment, and to promote the regional development of their part of the Comarca, appear to play a role. The preference of FDI investments for Coahuila may well be closely linked to the effective promotional activities performed by the state government of Coahuila, as discussed in Box 4.1.

5.4 Company structure

The previous section indicated the wide variety in company sizes and pointed out the importance of exceptionally large garment companies in La Laguna. The large scale of operation of local companies is reflected in the prevalence of multi-plant companies. Companies in the Laguna garment cluster are split almost equally into single-plant versus multi-plant companies; single-plant companies are only slightly more common. These companies have concentrated all their business functions in one production facility. Most consist primarily of a shop floor with one or more sewing lines and only one small office for administrative purposes. Some do not have an office. Many single-plant companies are medium sized and the majority are Mexican-owned. It will be no surprise that micro companies and almost all small garment producers in the region are single-plant companies.

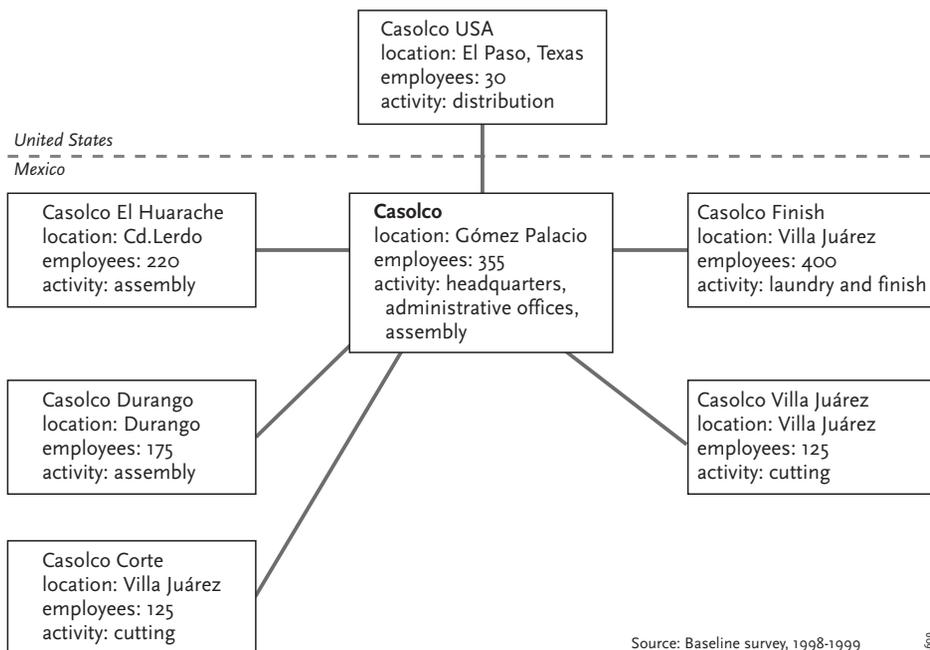
Multi-plant companies are an important group in the local garment cluster. Most of these companies have 200 or more employees. Overall they form a multifaceted group. For example, a company with a relatively small sewing facility and equally humble laundry falls into this category. So does a locally owned giant that has five sewing factories, a laundry and cutting room in the region. Finally, a subsidiary of a TNC with two factories in the region and a great number of subsidiaries in other regions or countries also falls into this category.

A subdivision of the multi-plant group into 'simple multi-plant companies' and corporate companies (see Table 5.2) renders a more detailed understanding of prevalent company structures in La Laguna. Simple multi-plant companies are the most common type in La Laguna. They have various production units, which in most cases are used as a way of physically separating the various stages of the production process. New plants have usually been added over time, as expansion was needed but impossible within the existing production facilities. Most commonly, offices of management and administration are integrated into one of the production facilities. Many of these companies are family businesses. None is embedded in a hierarchical, corporate structure, with headquarters, formal divisions and several management layers. Most simple multi-plant companies are locally owned; the majority are large and very large companies. A large number of the medium-sized companies and a few foreign-owned businesses also fall into this category. The FDI facilities that are part of a simple multi-plant company are US-based contractors that may have one or two production facilities and their headquarters in the US. The prevalence of the simple multi-plant structure in the region appears to be the result of the rapid and unplanned or 'organic' growth of garment firms trying to fully exploit the large and growing demand by adding new sewing lines, factories and more personnel. Figures 5.2 and 5.3 illustrate the structure of two very different simple multi-plant garment companies in the region.



Source: Baseline survey, 1998-1999

Figure 5.2: Roman: a simple multi-plant company in La Laguna



Source: Baseline survey, 1998-1999

Figure 5.3: Casolco: a simple multi-plant company in La Laguna

Table 5.2: Company structure of garment companies in La Laguna

	Ownership			Total
	Mexican	Foreign	Joint venture	
Single plant	39	1	–	40
Multi plant	21	3	–	24
Corporate multi-plant	2	6	1	9
Total	62	10	1	73

Source: Baseline survey, 1998-1999

Multi-plant company Roman (see Figure 5.2) has concentrated almost all production activities in one large facility beside the ring-road in Torreón. Even though everything could be concentrated in this one facility, this is not done because, as the owner says ‘we already owned the other two properties’.

At the time of the survey, Casolco (see Figure 5.3) still had its headquarters in Gómez Palacio, but was in the process of moving it out of the urban area to Villa Juárez – a small village just outside Cd. Lerdo – where it already had several factories, including the cutting room and finishing facility.

By comparison, the structure of corporate companies is more complex. It commonly incorporates several business or product departments in a strictly defined, hierarchical business structure. Generally, local FDI facilities of brand-name TNCs are part of such a structure, in which they are subordinated to corporate headquarters outside the region. Six such facilities are present in La Laguna sample (see Table 5.2). Besides these foreign-owned subsidiaries of branded US manufacturers, a US-Mexican joint venture and two large locally owned companies can be classified as corporate multi-plant companies.

The two corporate locally owned companies are exceptional in the region. Not insignificantly, they are subsidiaries of locally owned, diversified companies for which apparel production is but one of their many activities. In both cases apparel is a relatively recent diversification outside the main activity of the group. One is the apparel division of a nation-wide supermarket chain, the other is the apparel division of a company that also produces food products and natural gas, and has a transportation division and several other divisions.

Figure 5.4 illustrates the structure of this latter locally owned corporate company, called Lajat, for whom apparel (and later textile production) were completely new activities when its first factory was opened in the late 1980s. After a few years the company gave up its ambitions to be vertically integrated and sold its textile division, but in apparel it had become one of the largest companies in the region by the end of the 1990s.

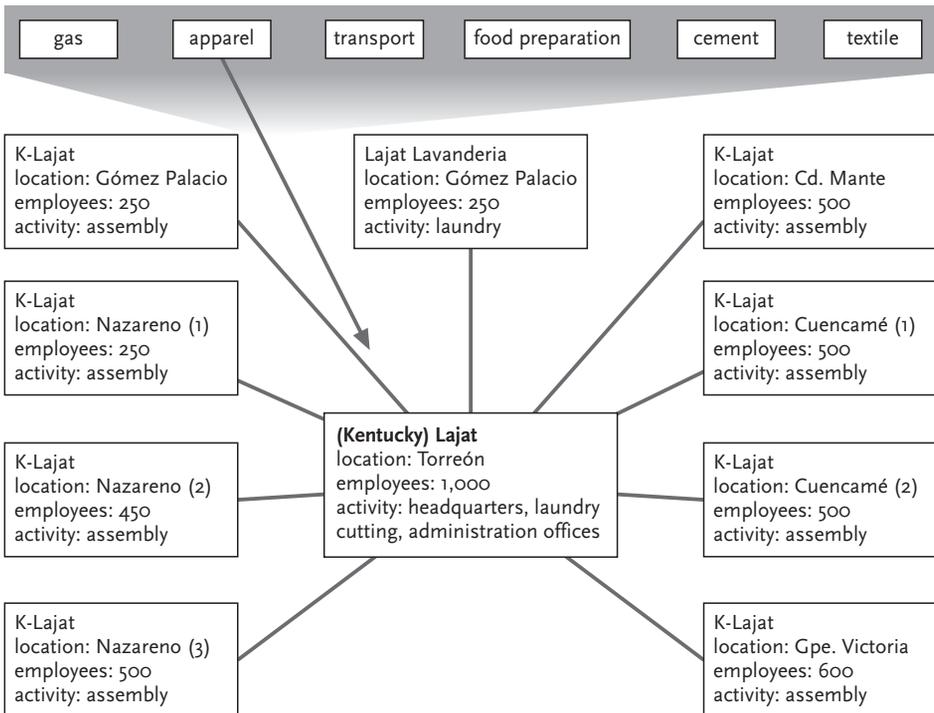
Many garment companies in the region consist of several production facilities. Disentangling firm-level data to arrive at the factory level provides valuable and more detailed information on the structure of the cluster. To this effect, the location of all production plants that form part of the sample will be briefly examined (see Table 5.3)⁸. This will give an indication of the true sphere of influence of garment companies in La Laguna.

The plant-level data confirm the central position of the urban area within the garment cluster: 78% of the garment factories in the region are located in Torreón, Gómez Palacio or Cd. Lerdo. On the other hand, the rural area of La Laguna is clearly a popular site for the establishment of garment factories as well. A total of 31 plants are located in the rural areas. Five of these plants are foreign-owned subsidiaries of US manufacturers; the others are recently established factories owned by companies based in the urban node of La Laguna.

Site selection for factories seems to depend on both the size and the ownership of the company. Plants belonging to smaller companies are generally located in the vicinity of the other plant(s), often in the same city and sometimes even in the same neighbourhood or street. Similarly, several foreign-owned multi-plant companies in La Laguna also selected a location in the region, either urban or rural, for the establishment of various plants. Cd. Lerdo is a case in

point: five of the largest factories located in this city are owned by one very large US-owned company. Wrangler can serve as an example of company strategy in this respect; it has chosen to concentrate the laundry, cutting room and small parts assembly within one industrial park in Torreón. In addition, two of Wrangler's assembly plants are located at a short distance from each other in the *municipio* of San Pedro.

The local giants mentioned in the previous section have many production facilities. In addition, they are the only ones to spread their plants over different locations in the urban and rural areas of La Laguna. Several have even invested in factories outside the Laguna, in other parts of Mexico or in the US border region. Some of their factories are located in the rural area surrounding the Laguna region, viz. in the states of Durango and Coahuila or in the neighbouring states, Tamaulipas and Zacatecas. An equal number of plants have been established in locations further away from La Laguna, in San Luis Potosí and even as far away as Michoacan and Oaxaca. The result is a scattering of factories over sometimes quite extensive geographical areas. All the factories in Mexico outside La Laguna included in Table 5.4 are owned by just six large, locally owned garment producers in La Laguna. Not only are they more active in terms of the number of new factories they have established, but they also invest in places far away from their region and their other factories. The number of garment factories outside La Laguna is quite impressive, especially bearing in mind that most of these facilities started operations during the late 1990s. All have been set up within a short time span as a way



[144] Source: Baseline survey, 1998-1999

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Figure 5.4: Lajat: a corporate multi-plant company in La Laguna

Table 5.3: Number and location of production facilities directly linked to companies in La Laguna

	Torreón	Gómez Palacio	Cd. Lerdo	Rural L-Dgo.	Rural L-Coah.	Vicinity Laguna (rural)	Mex. elsew.	El Paso	US elsew.	Total
Production facilities owned by companies in La Laguna	42	59	10	15	16	8	8	9	5	200

Source: Baseline survey, 1998-1999

to avoid the tightening urban labour market by tapping into captive, cheaper rural labour reserves. This behaviour distinguishes the local giants from other more conservative companies in the region and explains why they are locally referred to as 'leaders'. The apparent low-road component or focus of their labour strategy will be discussed in Chapter 8.

Several of these large Mexican companies as well as a few other, smaller companies own production facilities in the US, most notably in the border city of El Paso. The facilities in El Paso are mostly offices dedicated to buyer service, logistics and customs procedures. Some are warehouses and a few have a cutting room. Through production facilities in El Paso, companies in La Laguna can tap into the remnants of local expertise and industry-specific infrastructure. The facilities elsewhere in the US are not concentrated in a particular city, but are scattered throughout the Northeast. Most are headquarters of the FDI factories in the region; only one is a sales office of a very large Mexican-owned garment company in La Laguna.

5.5 Factory labour force

The tremendous growth of the garment industry and individual garment companies in La Laguna has been paralleled by a possibly even more impressive growth in the garment labour force. As mentioned, in the early 1990s the garment industry in the region is estimated to have employed just over 16,000 people. The years after NAFTA are marked by accelerated job creation in the garment industry so that by the end of the 1990s, garment employment was close to 80,000 people. The vast majority of garment employees are factory workers, mostly sewing operators or *costureras*, as well as supervisors, bundle boys, cutting room and laundry personnel. No evidence was found of the involvement of homeworkers in export production, nor in the domestic market segment of the industry⁹.

In the local companies over 90% of employees are shop-floor operators. This ties in with expectations based on the labour-intensive nature of the garment production process as discussed in Chapter 1 and with the national pattern (INEGI, 2000). The remaining percentage can be subdivided into administrative personnel and technicians (8%) and management (2%).

Traditionally, the garment industry in the region employed a very high percentage of women. The reason for this was women's perceived dexterity and home-experience with sewing, as well as a culture that made it hard for men to sit at a sewing machine without being the laughing stock of their macho peers. Many female garment workers are young, unmarried and have no children, but *madres solteras* (single mothers) also work in the factories.

Following a pattern noted for the Mexican *maquiladora* sector at large (van Dooren & Verkoren, 2000; MacLachlan & Aguilar, 1993), by the end of the 1990s the employment pattern

in the region had changed significantly. Women were still in the majority in many of the local garment factories, but as rapid growth of the industry increased the demand for sewing operators, many local factories started to hire men. The share of male garment operators has risen considerably. By the end of the 1990s, on average 36% of the factory workers are men and in some factories male operators constitute the majority. This is a break from the pattern typically associated with the garment industry and from the status of the Mexican export sector as an employer of women.

However, these data hide considerable stratification by gender at the shop-floor level (see also Bair & Gereffi, 2001). Generally, the better paying jobs in the sewing lines are held by men. The more sophisticated machines are operated by men, and laundries and cutting rooms are also dominated by men. In some cases this is validated by the strenuous nature of the jobs – viz. sewing inseams, handling large volumes of wet jeans – while in others it seems to have become an undisputed fact of factory life¹⁰. From the perspective of the factories the expectation that women will leave after a couple of years, when they get married or have children, justifies their reluctance to invest in their training – which is necessary to get a better job¹¹. Gender stratification extends also into higher levels in the employment hierarchy, into the offices of the factories. At the intermediate level of administrative and technical personnel, shares of males and females are roughly equal. However, offices are almost uniformly the domain of women, while technicians are men. Also in management, traditional gender stratifications seem hardly to have changed: 78% of the managers are male. Women commonly head the human resources or sometimes the financial departments, while almost all general managers are men.

A significant shift in the age of factory workers has been reported by many local manufacturers. No accurate information on the ages of employees could be collected from the factories, but observation on the shop floor quickly reveals the young age of many garment workers. Most companies in La Laguna appear to honour the legal minimum age: no children were seen in the factories. However, a high percentage of shop-floor workers are aged between sixteen and eighteen. Local manufacturers estimate the average age of garment employees in the cities to have come down over the past years to an average of just below twenty years. For many of the younger employees, work in the garment factory is their first job. Some consider it a good alternative to schooling and have left middle-school (*prepa*) to earn money in the garment industry.

In line with general practice in the garment industry, wages in the Laguna region are generally based on the piece-rate system. They consist of a base wage, which is determined by the type of operation. This base rate is commonly supplemented by a certain payment per garment or a productivity bonus. Added to the wages are a number of legally set benefits, including contributions to Mexico's social security system (IMSS) and a minimum number of official holidays. In La Laguna the base rate paid in most garment factories (i.e. around 200 pesos a week) is somewhat higher than the legal minimum wage. When the piece rates are added, garment workers in the region in 1998 earned on average 409 pesos a week. This average conceals considerable disparities, however: a few companies reported an average wage of just above 200 pesos, while others paid an average of 750 pesos. Wage differences may be large also between operators of the same company, depending on the operation and productivity. During the late 1990s the urban labour market for sewing operators tightened due to the explosive

Table 5.4: Labour force characteristics and wage levels per company size

Size	Mean % production workers	Mean % male production workers	Mean wage (Mex. pesos)	
Micro	92.3	16.7	400	
Small	88.8	32.6	423	S.D. 69.9
Medium	90.4	36.8	383	S.D. 64.7
Large	93.0	49.8	365	S.D. 105.9
Very large	89.8	32.4	464	S.D. 126.2
Total	90.2	36.0	409	

N.B. The legal minimal daily wage in 1999 for the region was 38.35 pesos (INEGI, 2000c); the working week generally is 6 days. On average the wages paid in La Laguna are significantly above the legal minimum.

Source: Baseline survey, 1998-1999

growth of the industry, and upward pressures on wages were evident. In response to these pressures many companies in the region began to offer additional benefits or services. A company canteen that sells food at subsidised prices, and the provision of free transportation, sports activities, etc. are commonly found in La Laguna, certainly in the larger companies. These types of benefits may differ greatly from one company to another, and are used as a means to compete for labour (see section 8.5.1).

When relating types of companies to intra-company labour patterns in general as discussed above no overall clear patterns emerge. The patterns sketched above apply in general terms to the local industry as a whole. Significant differences between companies may exist, but cannot be generalised for types of companies.

As indicated in Table 5.4, weekly salaries vary with company size. The figures indicate no linear connection between company size and wage level. Somewhat surprisingly, medium- and large-sized companies pay below average wages, lower even than the micro and small companies. The observed wage pattern may be explained by relating it to the provision of fringe benefits. On the whole, many of the smaller companies are unable to provide a wide array of fringe benefits. For example, the provision of transportation and a canteen is not common for these smaller companies, which do not have sufficiently large workforces to justify the required expenses. Within the tight urban labour market, these companies appear to compensate for their minimal fringe benefits by paying relatively high wages. In the medium- and large-sized companies, the balance between fringe benefits and wages is the opposite: the range of benefits offered is extensive, alleviating the wage-increase pressures. On average the very large companies in the region offer the highest wages as well as an extensive package of benefits. However, as indicated by the standard deviation (S.D.) value, considerable differences do exist between these companies.

5.6 La Laguna: typical garment cluster or a deviant case?

The previous sections sketched the basic outlines of the Laguna garment cluster. Though La Laguna has been involved in garment production for the domestic market for several decades, its current structure reflects its recent rise as an export cluster. The Laguna cluster is narrowly specialised in the production of blue jeans for export to the US. The average scale of production

of local factories is large and the cluster is dominated by a few giant companies. Most garment companies are located in the urban area. However, as a way to avoid the tight urban labour market and the upward pressure on wages, garment factories are also being established in the rural areas of the region. On the whole, wages and conditions in the local industry are above those legally required in Mexico. Sweatshops were not encountered in the export segment and informality is limited. Rapid growth in export opportunities has led to a partial crowding out of domestic market production.

Compared to the discussion of the garment industry in Chapter 1, certain elements of the Laguna cluster appear to deviate from general patterns in the industry and well from patterns typically associated with clusters. This prompts a comparison of Laguna with other garment clusters recently discussed in the literature. This section presents a brief overview of a few of such garment clusters. It examines the structure and characteristics of these clusters, including cluster size and firm size, product and market orientation and workforce, so that these can be compared to the characteristics of the Laguna cluster that were described in the previous sections.

A recent *World Development Special Issue* on industrial clusters in LMICs presents the case of the Ludhiana knitwear cluster in India (Tewari, 1999). Ludhiana has a very long history in knitwear production, and over the course of several decades has developed backward linkages to local yarn production as well as the machinery producing sector. It is the main source for woollen and acrylic knitwear and hosiery for India, but it also has a strong exporting position. For a long time the Soviet Union was the main export market for Ludhiana's garments. After the collapse of the Soviet economy, the industry in Ludhiana recovered relatively quickly and managed to penetrate the US and European markets. Locally produced garments include scarves, sweaters, slacks, vests and socks. There are companies of all sizes in Ludhiana, but the majority fall into the SME category. Most companies are in local ownership, though immigrants play an active role in the industry.

Cawthorne (1995) recorded the case of another very large garment cluster in India: Tiruppur. The Tiruppur cluster produces a diversified range of cotton knitwear products for markets in India, and increasingly also for Western Europe and the US. Originally made up of very small-scale enterprises, the cluster now includes medium- and large-sized companies and is an important element in the local economy. Furthermore, the cluster maintains backward linkages to local weavers and spinning mills. A dense web of local inter-firm linkages based on tightly organised divisions of labour supports the competitive position of Tiruppur. After a long history as a domestic market cluster, export production is now providing a strong impetus for dynamic growth and upgrading, especially for the larger factories in the cluster. However, the 'sweating' of labour (including young children) remains an important pillar of Tiruppur's success.

Another garment cluster in the *World Development* issue on clusters is that of Gamarra, in Lima, Peru (Visser, 1999; see also Visser, 1996). In fact, the garment industry in Lima has been studied by Visser (ibid.) and Ypeij (1995). Though each study has its own focus, they concur on the structural characteristics of the local garment industry. With some variation between different parts of the city (Visser, 1996), small-scale clothing firms make up the lion's share of Lima's garment industry – so much so that the majority of Lima's garment companies have fewer than

ten employees. Many firms are home based and rely extensively on family labour. The Gamarra cluster studied by Visser accommodates a very large number of small garment firms. Most of the clothing produced in Lima is destined for the Peruvian market. Local firms are actively engaged in the marketing of their products and often have a booth or small shop where traders and wholesalers can buy the clothing directly. Different types of cheap fashion garments are produced, including shirts, children's wear and sportswear.

Several other garment producing regions in Latin America are located in Mexico. Peña St.Martin (1994) studied the garment industry in Yucatán, a state in the south-east of Mexico widely known for the production of *guayaberas* (traditional, embroidered men's shirts). *Guayaberas* were still an important local product during the late 1980s when Peña St.Martin carried out her research. But the industry had diversified and was producing casual wear – mostly pants and shirts – for the south-east of Mexico; some local garment companies were also exploring export opportunities. Concentrating on the state capital, Mérida, and its immediate surroundings, Peña St.Martin found that in the context of product diversification and changes in market orientation, the traditional organisation of production based on an extensive system of subcontracting relations persisted. Mérida's garment industry includes companies of all sizes but consists for the most part of small factories. Local garment production was found to rely extensively on linkages between formal and informal segments of the industry. Peña St.Martin describes the 'diffuse factory' system, predominant in the local industry, which allows formal garment factories to maintain flexibility through subcontracting linkages to clandestine factories and sweatshops. This system is so pervasive that Peña St.Martin concurs with the estimate of local experts that in the area there are three clandestine garment workers for every formal factory employee. Furthermore, the tentacles of the diffuse factory system reach directly into local households, through the widespread and institutionalised incorporation of homeworkers in the rural areas into the production process. All homeworkers and most factory garment workers in Mérida are women. Middlemen serve as intermediaries between urban factories and homeworkers; they distribute the materials, collect the garments and pay the homeworkers.

Smith (1988) and Vangstrup (2002) both studied garment clusters in Central Mexico that specialise in the production of knitwear. Smith's very detailed study deals with a cluster in Aguascalientes that is known nationally for intricate embroidery and other artisanal textile work (*deshilados*). However, the local garment industry produces a much wider range of garments, mostly outerwear, including jeans and other types of pants, women's blouses, skirts, dresses, sports caps and even household goods such as bedcovers. The garments made in Aguascalientes are sold on the national market, principally in surrounding states and in Mexico City. Export was found to be virtually negligible. The Aguascalientes cluster consists overwhelmingly of small-scale factories: more than 45% of the local factories had five or fewer employees, while fewer than 7% had more than 100. Similar to Peña St. Martin's findings in Mérida, Smith's study points to a direct link between the garment industry and local households in Aguascalientes. Homeworkers are incorporated into the local production system, though apparently in a less extensive and institutionalised manner than they are in Yucatán. Furthermore, small garment producers in this city were mostly family businesses where the most important labour input was provided by family members.

Table 5.5: Basic characteristics of La Laguna and other garment clusters

	Ludhiana	Tiruppur	Gamarra (Lima)	Yucatán	Aguascalientes	La Laguna
Cluster size	Firms: 10,000 Employment: 200,000	Firms: 1,750 Employment: 43,000	Firms: 8,000 Employment: N/A	Firms (formal): 129 Employment: 9,000	Firms: n/a Employment: 42,000	Firms: 200-250 Employment: 75,000
Firm size	Diverse (ranging from large firms to homeworkers); mainly SMEs	Diverse, predominantly small	Predominantly small (87% < 15 employees)	Diverse, predominantly SMEs, plus homeworkers	Small	Diverse, though comparatively large; dominated by a few very large companies
Products	Diversified: acrylic and woollen knitwear, hosiery	Diversified: primarily cotton knitwear	Diversified: cheap fashion goods; shirts, pants	Guayaberas and cheap casual wear (shirts and pants)	Diversified: artisanal textile work; jeans, shirts, dresses, bed linen etc.	Highly specialised in jeans and a few other standardised 'pants'
Markets	Domestic and export	Domestic and, increasingly, export	Domestic	Domestic	Domestic	Export
Labour force	Local and migrant workers	Local; women, men and children	N/A	Predominantly women	90% women	Local, women and men
Location	Urban	Urban	Urban	Urban and rural	Urban: some rural prod. units	Urban: some rural prod. units

Table 5.5 summarises the basic characteristics of the above-mentioned Indian and Latin American garment clusters as well as those of the Laguna cluster.

The table shows the Laguna cluster to be a deviant case and confirms the idea that Laguna's distinctive features are indeed distinctive. The other garment clusters consist of a large number of small production units, including in several cases, homeworkers. Most produce a relatively broad range of garments for the domestic market. Clearly, La Laguna is different. More interesting than this observation in itself, are the questions regarding how this may affect intra-cluster (inter-firm) competition and cooperation dynamics (see Chapter 6). Similarly it raises questions on the functioning of the cluster within international value chains and networks (subjects of Chapter 7).

5.7 Summary and conclusion

Though the Laguna region has a history in garment manufacturing, the post-NAFTA boom has been very impressive and has profoundly transformed the local industry. From a humble, locally integrated industry, it became one of the largest export bulwarks in Mexico that produces jeans for the US. Based on the findings in this chapter and in reference to the title of Chapter 4, it is important to emphasise that the recent export orientation has entailed a severing of the link between the jeans produced locally and local cotton production.

Based on the export-induced demand growth, the number of garment factories has more than doubled and garment employment grew even more vigorously in the four years following the passage of NAFTA. The post-NAFTA upsurge is a decisive factor in the current structure and characteristics of the Laguna garment cluster. This chapter has shown that the garment industry in La Laguna is characterised by a very narrow product and market orientation: it overwhelmingly produces jeans – typically classified as basic, commodity garments – for export to the US. Production for the domestic market is largely neglected, as a result of the crowding out by and the subordination to export opportunities. A number of large FDI facilities have been established in the post-NAFTA period, but local-ownership predominates in the local garment industry. The scale of operation of garment firms in the region varies from small to very large, but the average size is large – larger than expected on the basis of the literature. Important in this respect is the presence of a number of very large or giant firms that employ several thousand workers. Business structures are fairly rudimentary: even many of the very large companies in the region can be characterised as simple multi-plant companies that do not have a well-developed corporate structure. Garment production is concentrated in the urban area, but some FDI facilities as well as a number of production units of urban-based firms have been established in the rural area. Though fairly evenly distributed over the states of Coahuila and Durango, recently growth in Coahuila – actively stimulated by the state government – has been more dynamic. Finally, the rapid growth of the industry and the great demand for sewing operators has, despite the incorporation of more men, youngsters and rural-urban commuters, resulted in a tight labour market and rising labour cost. Based on these characteristics and compared to other garment clusters, La Laguna can be seen as a deviant case.

How can the distinguishing features of the Laguna cluster be understood, or indeed explained? What are their implications? To a large extent the differences illustrated in Table 5.5 may be explained by differences between the other clusters and La Laguna with regard to their entry

(point) into the globalisation process. The clusters presented in the table were either still shielded or excluded from globalisation or – in the case of Ludhiana – were able to build on steady endogenous growth, local know-how and extensive experience in the domestic market to participate in global garment markets. By contrast, this chapter has confirmed that the recent passage of NAFTA has played a determinant role in making garment production in the Laguna region a ‘booming business’. In fact, it has done more than that: when the NAFTA liberalisation took effect, the then humble local garment industry was faced with a huge, in fact virtually indefinite demand surge from the US. The disproportionate relation between demand and supply and the business opportunities this represented caused a tremendous growth spurt of the industry in La Laguna, especially because the generally low barriers to entry in garment production were lowered further in La Laguna by the fact that production was limited to the assembly of provided fabric and trim items. Hence, people with little or no previous experience in garment production opened garment factories. It would not be too far-fetched to believe that in this spurt, exogenous demand – rather than endogenous capabilities, know-how and strategies – played a determining role. The homogeneity with regard to products, labour and markets found in this chapter indirectly confirms this idea. Rather than the result of a high degree of unison in business orientations and strategies, it points to the fact that the large demand for blue jeans from US buyers may have taken away any incentives for local entrepreneurs to consider alternative products or markets.

Empirical findings with regard to the structure of the Laguna cluster raise questions concerning both extra-regional and intra-regional linkages and their relative importance for the functioning of the cluster. Does the apparent importance of exogenous forces in the recent shaping of the Laguna cluster mean that in the day-to-day functioning of the cluster and its individual firms, vertical network relations with buyers prevail over horizontal cluster relations?

It has been shown that the industry consists overwhelmingly of local contractors and subcontractors, complemented by a limited number of very large-scale production facilities of US-owned branded manufacturers. This raises questions about the position of an export cluster such as La Laguna vis-à-vis its US buyers. The narrow focus on blue jeans for export to the US underlines this important question of dependency and vulnerability. Therefore, extra-regional buyers, network relations with such buyers and different strategies for management of such relations will be the focus of Chapter 7.

First however, intra-regional linkages need to be examined, as will be done in Chapter 6. The structure of La Laguna, with a few dominant, large firms as outlined in this chapter, has traits of mature clusters in LMICs (see Chapter 2). The question to be answered is whether intra-cluster linkages display a hub-and-spoke pattern. In other words, do large local companies function as a spider in a web of local linkages and as a link to the market and its buyers? The following chapter focuses on the prevalence and strength of local linkages, the influence of local embeddedness of such linkages, and other cluster dynamics in the Laguna garment industry.

Notes

- 1 Interviews with Sr. José Iza (sr.) and Sr. Roberto Tohmé (sr.) in 1999.
- 2 Various forms of domestic market production appear to have been effectively displaced by export production. This may have entailed the abolition of the production of garments under own design and brand for the local, regional and national markets because ‘export production is more profitable and easier’ (cf. Rabellotti, 2001 for a similar downgrading process in Brenta, Italy).

- 3 This serves as a conservative estimate of the relative share of denim products within the total production volume. For a more accurate estimate, a correction would need to be made for the relative importance of the main product as well as for the relative importance of the sample companies within the industry in the region. This would probably lead to higher estimates: up to 90% of the total garment production volume for La Laguna consists of denim garments.
- 4 In fact some companies use the inputs provided by their US clients for their own brand production, since clients often make overgenerous estimates of necessary amounts of trim items as well as fabric.
- 5 Preceding the passage of NAFTA, one US garment firm had already established factories in the region. However, the remaining FDI facilities in the region are the result of post-NAFTA investment.
- 6 Some of these new local giants, have expanded their businesses exceptionally fast, apparently without doing anything extraordinary at all. All throughout the fieldworks, the researcher was told there was 'something fishy' about these companies, that – it was felt – made the other companies look like fools for not growing so fast and effortlessly. Though this talk could be discarded as jealousy and gossip (see also Chapter 6), it is not unlikely money laundering played a role in certain companies (see also *Proceso*, 2003).
- 7 The size classes used here are adapted to fit the research population and are larger than in most other studies. For example, the largest size class in Visser's (1996) study of the Gamarra cluster was 20–99 employees.
- 8 Those plants that are indirectly linked to companies in the region will not be taken into consideration. Production facilities of TNCs that do not maintain linkages to local facilities are not included. Rural cooperatives are also not included.
- 9 Homeworkers are not incorporated into the production process. The nature of the dominant product and process almost prohibits the use of homeworkers. Moreover, the quest of most of the cluster's US buyers for more control over their networks has in many cases led to the formal prohibition of the incorporation of homeworkers. According to sources in the region, the involvement of homeworkers was quite common until the 1960s. Then, the volumes involved were still much smaller and homeworkers mostly did pressing of the pants.
- 10 There is considerable sex-related tension in many factories in the region. Not only does an obvious *macho* atmosphere dominate certain departments of some local garment companies, but the researcher has witnessed several cases of sexual harassment (and allegations thereof) and has heard several complaints about the impact of gender tensions on the working atmosphere. This has caused some companies in the region to take strict measures such as prohibiting 'flirtatious behaviour' and holding hands on the factory premises. Others maintain existing gender divisions within the factories.
- 11 In an industrial environment plagued by very high turnover rates for the overall labour force (see Chapters 6 and 7), this argument may no longer be very convincing.

6 Intra-cluster linkages and embeddedness in La Laguna

The previous chapter examined the structure and characteristics of the Laguna garment cluster and found, amongst other things, an exceptionally strong orientation towards producing jeans for export to the US. It also showed a generally large scale of operation and the presence of very large garment companies in the cluster. These unique features of the Laguna cluster and its explosive growth during the late 1990s prompt questions regarding the significance of intra-cluster linkages, localisation economies and local embeddedness for the competitiveness of individual firms and the cluster. These questions are the subject of this chapter.

The aim of this chapter is two-pronged. First, the prevalence and role of intra-cluster linkages in supporting the position of local companies is discussed. Second, the nature of the economic and sociocultural environment will be examined in order to shed light on their potential contribution to the competitive position of local garment companies. In other words, are the cluster, its firms and linkages embedded in an environment conducive to the construction of trust-based social capital, which – along the lines proposed by Fukuyama (1995) and Schmitz (1999) – may stimulate local development?

This chapter begins by examining intra-cluster relationships between different types of companies, and between companies, public and private meso-level organisations and labour. The final section explores the embeddedness of the cluster. The economic and sociocultural environment in which La Laguna's cluster is embedded will be examined, as will the way it may impact intra-cluster linkages and ties¹, the competitive position of the cluster and its individual firms.

6.1 Supply linkages: subcontracting

Many studies of industrial districts and clusters, including those of garment clusters, note the presence and benefits of dense, localised supply linkages in regional agglomerations of industrial activity (cf. Visser, 1996; Cawthorne, 1995). In this section, linkages with suppliers of material inputs (mainly fabric and trim items) and intra-chain supply linkages with other producers or manufacturers (in a subcontractor's role) will be discussed separately. Intra-chain supply linkages with subcontractors will be discussed first.

Subcontracting is common practice in the Laguna region: 40% of the garment manufacturers in the region indicate the use of subcontractors. Insufficient production capacity to deal with large orders in the high seasons is the main reason to contract out work: 60% of local manufacturers that put out work to subcontractors indicated this as the reason for doing so (see Figure 6.1). Other and less important reasons cited were: increase of production flexibility (20%), tapping into specialised skills of the subcontractor (14%) and lowering of production cost (3%). In other words, subcontracting in La Laguna is overwhelmingly of the complementary industrial type; speciality and cost-saving subcontracting are of limited importance.

Table 6.1: Features of subcontracting relations, La Laguna

Company size	% companies that use subcontractors	Mean % of total production capacity subcontracted	Average no. of subcontractors
Micro	0	0	0
Small	17	55	3
Medium	27	21	5
Large	29	7	2
Very large	75	24	15

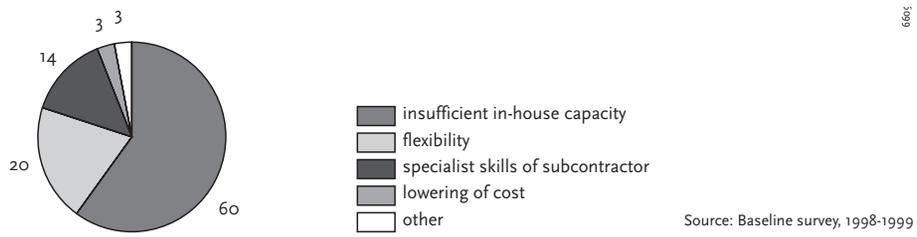
Source: Baseline survey, 1998-1999

Subcontracting arrangements in La Laguna are also highly localised. Based on the ease of control and logistics that comes with short distances between contractor and subcontractor, subcontracting is primarily a local affair.

With the exception of a few specialised embroiderers, subcontractors in La Laguna are responsible for at least one entire stage or node of the value chain, such as assembly, laundry or transportation. By far most common is the subcontracting of pure assembly work (65% of the cases). The assembly process sub-phases or sub-activities – such as the insertion of buttonholes and the attachment of waistbands and belt loops – are not spread over various subcontractors, but are automated by the contractor or performed in-house by one single subcontractor.

While insufficient in-house production capacity is the main motivation for the contracting out of work, the very largest companies with the largest production capacities are the most extensively involved in subcontracting: 75% of these companies use subcontractors. Fewer large, medium and small companies contract out work, and subcontracting becomes increasingly less common the smaller the size of the company. Table 6.1 illustrates some basic patterns in subcontracting in La Laguna.

For smaller companies that use subcontractors, a large share of their total production is produced through subcontracting linkages². In general, as in-house capacity increases, the relative importance of subcontracting decreases. Again, however, the very large companies deviate from the pattern. They contract out a large share (almost a quarter) of their total production. They also maintain links with a large number of subcontractors.



Source: Baseline survey, 1998-1999

Figure 6.1: Subcontracting motivations, La Laguna

Emerging pattern

Most subcontractors in La Laguna are SMEs. Overall, subcontracting in La Laguna occurs predominantly between very large contracting companies and small- or medium-sized subcontractors. This pattern is typical of Markusen's (1996) 'hub-and-spoke' cluster model as discussed in Chapter 2. Many very large companies have integrated vertically and have cutting and laundry facilities that are highly modern, automated and large: capacity in these activities generally exceeds their in-house assembly capacity. Thus when Christmas and 'back-to-school' orders flood these factories with work, their cutting room and laundry are used to their full capacity and subcontractors are hired to do some of the assembly work. Subcontracting is embedded in the structure of the local giants through a structural mismatch between maximum in-house assembly capacity and cutting and laundry capacities.

This mismatch concerns large volumes: even when on average 'only' 24% of their total production capacity is subcontracted, this may still be more than 50,000 garments on a weekly basis. In the management of their local subcontracting network, very large companies spread their risk and limit their dependence on individual subcontractors. Subcontractors seldom carry a responsibility for more than 5% of the total production capacity of their client, which means that contracting firms rely on a large number of mostly SME subcontractors. On average, fifteen subcontractors work for one very large company, but several very large companies have much larger subcontracting networks (the largest at the time of the survey had fifty-eight subcontractors).

Conversely, many subcontractors rely on only one local client. Only a small minority are able to work for various local clients at the same time. It is even rarer for subcontractors to be able to combine subcontracting with working for US buyers. This is because local contractors often monopolise the limited production capacity of their subcontractors. Only in some cases is this a matter of strategy; it usually reflects the wide gap in production capacity between local principal firms (i.e. local giants) and their subcontractors. This general pattern is also followed by large- and medium-sized contracting companies: they assign small orders to each of their individual subcontractors. However, the subcontracting strategies of large companies are different in that they only subcontract a very small part of their total production (see Table 6.1). While network linkages with buyers will be further discussed in Chapter 8, suffice it to note here that inspection of the survey data reveals that most large firms produce directly for a comparatively small US buyer, and that often their entire production capacity is dedicated to just this one buyer. Even though they are not formally captive in the relationship, they have comparatively limited room to manoeuvre. The buyers generally do not issue orders that exceed the production capacities of large companies.

Not immediately evident, but to some extent indirectly deducible from Table 6.1 and illustrated in Figures I.1 to I.3 (Appendix I), is that in general subcontracting within the cluster is confined to one single tier of subcontractors³. The limited degree of specialisation in the cluster is one obvious reason for limited tiering. Also, the Laguna cluster is small enough for local contractors to be aware of the production capacity of subcontractors. They distribute production accordingly and avoid contracting out volumes that exceed the production capacity of a subcontractor at any given time. This allows more control and limits non-compliance risks with regard to delivery time and quality. The limited depth of the subcontracting networks results from the nature of the product (which leaves little room for advanced specialisation) and

from the increasing concern of US buyers and their local contractors with control over the subcontractors in their networks.

Local subcontracting patterns have been stable in recent years: fewer than 25% of the subcontracting companies indicated that they had changed their subcontracting strategies. A few companies noted a slight increase in both the number of subcontractors used and the production volumes contracted out. This is hardly surprising bearing in mind the post-NAFTA production boom. In general, however, production growth has been achieved through company expansion, rather than an explosive growth of local subcontracting.

Implications

What are the implications of the above-mentioned features of subcontracting in La Laguna? What may the consequences be of observed local interdependency patterns for the various types of local companies, their competitive position and development or growth potential?

The pattern that emerges is one of a largely dual structure of the local industry, in line with findings in the previous chapter. A relatively small group of principally large and very large manufacturers effectively controls local subcontracting networks. The large army of local subcontracting SMEs functions primarily as a permanent pool of reserve labour for the local giants and is engaged and disengaged as needed. Subcontracting is standard practice but fluctuates with ups and downs in predicted sales in the US. In the slow season, when there is less work, these companies are the ones that may be subject to a shake-out. As a consequence of fluctuations and the absence of formal contracts, subcontracting relationships are insecure and short term, though such relationships are frequently renewed.

Until the turn of the century growth was large and continuous and no massive closure of subcontractors had occurred, but the general vulnerable position of smaller companies is clear. It is also clear that the bargaining position of local subcontractors vis-à-vis the large contracting companies is relatively weak. Thus, rather than interdependent network relations between more or less equal partners, quasi-hierarchical features predominate in local subcontracting in La Laguna. La Laguna's specialisation in relatively standardised products and the large number of fiercely competing non-specialist subcontractors in the region are reflected in a bias of power relations in favour of the larger contracting companies. No widespread pattern of exploitation through subcontracting linkages has been observed, though. Price differences between assembly contracting and subcontracting are not very large and most subcontractors seem to be doing reasonably well. A cause for concern however, is the apparent lack of investment in subcontracting relationships. As will be examined in greater detail in Chapter 8, subcontracting relations may contribute very little to the upgrading of garment SMEs in La Laguna.

Not all garment SMEs rely fully on subcontracting. A few SMEs combine subcontracting with direct contract work for US buyers or domestic market production. However as will be further discussed in the following chapter, it appears to be increasingly difficult for SMEs to work directly for a buyer outside the region or to otherwise escape the pure subcontractor's role.

Appendix I illustrates the local subcontracting linkage patterns of the companies introduced in the previous chapter.

6.2 Material inputs

The linkages between producers and suppliers of material inputs receive much attention in the cluster literature. The presence of suppliers within the cluster is seen to contribute to the cementing of the cluster, while a tightening of supplier-producer relations at the cluster level is common in maturing clusters and in clusters facing a crisis (Visser, 1999; Knorringa, 1999; Schmitz & Nadvi, 1999). In La Laguna, supply linkages with suppliers of material inputs have been restricted by production sharing arrangements for decades, but were rapidly built up in the late 1990s.

By contrast, in most GVC-based studies on the garment industry (including those on the Mexican garment industry), no or only limited attention is paid to trim items, shifting procurement patterns or producer-material input supplier linkages.

In La Laguna, these issues have been at the forefront of local developments. To a large extent this initial local preoccupation with the shift of material input procurement patterns results from the restrictive trade regulations that used to govern the US-Mexican garment trade. These regulations meant that for several decades export garment companies in La Laguna had to rely fully on imported trim and fabric from the US. At the time, the local supply infrastructure was limited, of inferior quality and largely isolated from the exporting garment producers. The liberalisation of input procurement under NAFTA led to an improvement of this lagging supply infrastructure, and it rapidly caught up with both the capacity and the quality requirements of the export sector. Since then, the number of garment suppliers located in the region has grown rapidly, as has their diversity in terms of the types of goods, trim and/or services they supply. Virtually all necessary inputs and services can now be obtained locally, and suppliers range from thread and trim to machines and machine part suppliers. Currently, the region accommodates sales offices of a large number of global players in the garment supply business, such as Coats Timón (the local branch of the Coats Viyella thread company), American & Efird (thread), Callaway (laundry chemicals), Groz Beckert (needles) and Scovill (accessories). Besides these large global players there are numerous Mexican-owned sewing supply stores of varying size. They range from very large machinery stores (e.g. Indire and Pafer Huichita), which have licences to sell or are formal representatives of global machine producers, to small stores with an almost informal appearance. Textile production in and close to the region also received a significant boost. The company *Fabrica La Estrella S.A.* (also known as FLESA), which has a long history in nearby Parras de la Fuente, expanded production and improved quality to export standards. In addition, a joint venture mill between *Compania Industrial Parras S.A.* (the mother company of FLESA) and US-based Cone Mills opened there in 1994. One of the largest garment manufacturers in Torreón (depicted in Figure 5.4) also opened a textile mill, *Lajat-Textil*, which became part of the Parras textile group in 1999.

With greater local supply availability, the procurement pattern – especially with regard to trim items – became more localised. This trend is very pronounced, especially in thread, where by the end of the 1990s most ordering was done locally. Intra-cluster supplier-producers linkages in La Laguna have been rapidly built up since the cluster's boom in the 1990s. Non-critical supplies – viz. supply goods that do not go directly or visibly into garments, such as office supplies – have always been procured locally. Likewise, producer services, including catering and security guards are also contracted within the region.

There are two exceptions to this general pattern: fabric and, to a lesser extent, machinery. In fabric (a garment's principal and most expensive material input), the shift of responsibility

from buyer to manufacturer is progressing slowly and is still not so pronounced. Many local companies still receive fabric from their US buyers or, in the case of subcontractors, from their local client (see also Chapter 7). Many local contractors do not have a sufficient cash flow to pre-finance fabric.

Other exceptions, also because of the high cost involved, are machinery and machine parts. Because of the fiscal benefits under the *maquiladora* program (as well as PITEX and ALTEX), it used to be common for local export companies to buy machinery in the US⁴. Now, however, there is no longer a clear pattern to the buying of machinery: machines are bought mostly on a case-to-case basis and decisions are based on prices, special offers, credit facilities, urgency and transportation possibilities. The main consideration in the purchasing of machinery and parts is the price and credit differential that exists between the US and Mexico. Generally, machines are somewhat cheaper in the US, but credit facilities are limited. In Mexico credit facilities are more readily available. Over all, many informants report a slight tendency towards the increased use of local machinery suppliers.

Emerging pattern

Since the late 1990s, most companies engaged in a direct exporting relationship with US buyers have started to buy their trim for the majority of their export production, some also buy the fabric. Most of the procurement of these items is concentrated within the cluster; only fabric is also commonly bought at denim mills in the US.

The procurement of material inputs is concentrated in the hands of locally owned companies that maintain a direct export linkage with US buyers. These companies place bulk orders with suppliers and then distribute apportioned amounts of trim items and fabric to their subcontractors. Therefore, subcontractors in the SME sector generally do not buy trim or fabric. Also, few FDI facilities in the region carry direct responsibility for the acquisition of inputs. Several foreign-owned companies receive fabric, sometimes already cut, and all the necessary trim from other facilities in the US. Others receive trim from suppliers in the region, according to orders issued by their US headquarters.

A caveat needs to be inserted here: the localisation of the procurement pattern should not be interpreted as a sign of limited buyer governance and true local decision-making in this area. Local decision-making in the choice of suppliers and supplies is limited. Almost all buyers specify which types of trim are to be used and from which suppliers these can be bought. In thread, for example, the local producer generally receives details from the buyer concerning the type and colour of thread to be used. Often the brand of thread is also specified, or a choice between a limited number of suppliers is given. Producers then order directly from one of the specified suppliers and payments are made directly between producer and supplier. In other cases the procurement is dealt with through the headquarters of the US clients and the headquarters of the global supplier in the US. If the procurement is handled through the headquarters, usually the financial transactions involved are also handled at the headquarter level; all the local manufacturer does is pick up the trim items earmarked for him. In still fewer cases, the producers in La Laguna buy as needed and specified by the clients, while the US customers receive the bill. Over the past years there has been a clear trend towards shifting practical responsibility for procurement of the right types, brand, colour and quantity of inputs to the contractor, including the financial negotiations and administration. Noted trends are similar for other types of trim, where developments may be a little slower but are

headed in the same direction⁵. Only the shift of responsibility for fabric procurement is progressing more slowly than that for trim items, and is also more problematic. Over all, local input procurement by producers in La Laguna is on the rise, but is driven and specified by their clients outside the cluster.

6.3 Meso-level (support) organisations

The presence of effective support organisations may be highly important to the functioning of a cluster or a region, and especially to the improvement or upgrading of its competitive position (Helmsing, 2001; Park, 1996; Weijland, 1999). Here, the presence and functioning of the various meso-level organisations involved in industrial and regional development in La Laguna or specifically with the garment industry are discussed. The institutional context in its broad, sociocultural sense (see Chapter 2) will be examined in the last part of this chapter.

As illustrated in Table 6.2, and in line with the situation for Mexico as a whole, a considerable number of institutions and organisations are concerned with regional and industrial development issues, especially because many of the public, federal government institutions are present on both state-sides of the region. For example, both Torreón and Gómez Palacio accommodate offices of the secretariat for commercial and economic development (*Secretaría de Comercio y Fomento Económico* (SECOFI)) and the industrialists' chamber CANACINTRA. Government institutions predominate but there are also two public-private institutions that are relevant in this context.

The public-private organisation most directly concerned with local garment companies is the national chamber for the garment industry, *la Cámara Nacional de la Industria del Vestido* (CNIV or CANAIVE). This organisation of employers in the garment business has branches in various cities in Mexico. One of these branches was established on the outskirts of the industrial park in Gómez Palacio in 1994 and serves the garment industry in the entire Laguna region. CNIV is run by a board composed of elected local entrepreneurs. Membership of the chamber is voluntary and requires a yearly contribution based on the number of employees. Approximately 60% of all garment companies in the region are a member of the chamber. Mexican-owned companies that work directly for US buyers are especially well represented.

In general, the presence of a CNIV in itself is important: it serves as a first point of contact for foreign buyers and underscores La Laguna's export cluster status. The main function of the chamber is to promote the local garment cluster both within and outside Mexico. Most notable in this respect is the 'Expo Laguna 807/Private Label'-fair that the chamber organises every October. At this three-day trade fair, every company in the region has the opportunity to present itself and its work to buyers and potential clients. The Expo was most effective in the early days of the cluster, when few US buyers had knowledge of the region, its companies and their capabilities. During the 1990s buyers became more and more familiar with the companies in La Laguna, and the companies in the region found out to whom to turn in search of work. By the end of the 1990s, the Expo had largely outlived much of its original purpose.

Besides promotional activities, CNIV provides training and courses for personnel and organises specialist lectures or social events for its members. It also publishes a small monthly newsletter (*Entre Puntadas*), which contains announcements and the *bolsa de trabajo*, which

Table 6.2: Organisations involved in industrial/regional economic development, La Laguna

Organisation	Location	Main function(s)	Relationship with garment companies
CNIV	• Gómez Palacio	Representing and defending the interests of local garment entrepreneurs.	Often one-sided, though comparatively frequent, involving a large share of local garment companies.
CANACINTRA	• Torreón • Gómez Palacio	Representation of and meeting grounds for the entire local industrial sector.	Minimal; most garment companies are a member of CNIV.
SECOFI/SE	• Torreón • Gómez Palacio	Registration of companies in the region and of their activities. Communication and implementation of legislation formulated by federal government.	Minimal; generally unilaterally initiated by SECOFI.
IMSS	• Torreón • Gómez Palacio	Collection of employers' share of contribution to social security per worker; IMSS collects and publishes employment data.	Antagonistic but frequent. Payments to IMSS are compulsory for all companies; changes in workforce need to be communicated to IMSS.
Bancomext	• Gómez Palacio	Facilitation of credits to export companies (at commercial rates), promotion of the region and its firms and general support for export sector.	Provision of credit limited to already successful, large and very large companies. Relations between Bancomext and the garment industry are largely limited to this group.
Local economic development secretariats	• Torreón • Gómez Palacio • Cd. Lerdo	Monitoring, promoting and supporting local economic development and industrial investment.	Minimal; main focus is on monitoring and public relations.
FOMECA	• Torreón	Promotion of La Laguna-Coahuila.	Minimal; mostly limited to foreign investors in La Laguna-Coahuila.

Source: Interviews, 1998-2000

policy changes to its members. CNIV also actively lobbies on behalf of local manufacturers vis-à-vis government institutions and policymakers. While generally the interest and the participation in CNIVs activities are limited, in this latter role, as a forum through which local garment exporters express their common interests with regard to industrial policy or regional development policy, it appears most effective. Overall, the chamber is highly focused on defending the interests of its members. The relatively high membership reflects general support of many local companies for this role of the CNIV. On the other hand, the lobbyist nature and overall defensive attitude of the chamber has not always promoted good relations

[162] CNIV and other local government organisations. For some companies this is reason not to join the chamber. As one manager of a very large foreign-owned company in the region explained:

'We are not a member. We choose not to be because we don't believe we will benefit from it. All they [at CNIV – its members] do is nag and complain. There is no positive, proactive attitude there... instead of developing strategies and looking for opportunities, they just feel threatened all the time.'

The dissatisfaction expressed by the manager quoted above indicates the limited effectiveness of CNIV as a platform for inter-firm cooperation, or for stimulating strategic thinking and action. One of the clearest examples of this is the anti-poaching agreement initiated by CNIV and ratified by a large number of its members in 1997. Basically, the agreement formalised the intention expressed by companies in the region to no longer engage in labour poaching. Despite general consensus on the detrimental effects of poaching and the bidding up of wages, the agreement was not respected; in fact, it was broken just a few weeks after it was signed. This failure points to one of the main weaknesses of CNIV: it has no power to enforce measures or codes of conduct at the cluster level. Another problem is that not all companies are members of the chamber and non-member companies are not bound by any CNIV agreements. At the same time, the chamber can only be as strong and proactive as its members want it to be. The ineffectiveness of the chamber with regard to stimulating cooperation within the cluster also reflects the non-cooperative spirit of its members – an issue to be further discussed later in this chapter. Despite the fact that CNIV does not serve as a proactive, strategic think-tank, a large share of the local garment companies are a member of the chamber. Only FDI facilities appear to be under represented⁶.

CANACINTRA has a similar position and function, although it has a broader base that encompasses the entire industrial sector. Except for a few foreign or very large companies, few garment companies are a member of CANACINTRA. Most garment companies do not see any additional advantages in membership of this larger industrial chamber.

FOMEC, which was briefly introduced in Chapter 4, is a uniquely local, public-private partnership aimed at the development of the Coahuila side of the Laguna region. It focuses specifically on the promotion of La Laguna-Coahuila as a place for foreign investment. It has aided the establishment of several of the foreign-owned companies in the region, by finding a suitable location and getting through the administrative red tape. Many local garment companies regard FOMEC as somewhat of a mixed blessing, since local manufacturers would prefer it to effectively support existing companies rather than attract new companies⁷. Only garment companies that came to La Laguna with help from FOMEC maintain relations to it; most local garment companies do not.

SECOFI (now *Secretaría de Economía (SE)*) has local branches in many cities throughout Mexico, including Torreón and Gómez Palacio. These local branches are in charge of the official registration of all commercial and industrial activity undertaken on their side of the region and serve to implement policies designed at the national level. Registration with SECOFI is obligatory for all companies in the region. The relations between garment companies and SECOFI seem to be largely limited to the required official legal registration and other paperwork. Any additional government information that is of interest to specific groups of companies or specific industrial sectors is often communicated through the branch institutions. In the case of the garment industry, specific policies, programs and opportunities are communicated through CNIV. SECOFI places great emphasis on registration, monitoring and the communication of regulations, though it also plays a role in support programs such as

the much publicised COMPITE program, which is aimed at increasing the competitiveness of Mexican industrial SMEs (see also Chapter 8).

The other public institution that is important to exporting garment companies in La Laguna is the nation-wide credit institution Bancomext, which was briefly introduced in Chapter 3. Within the liberalised Mexican economy it now operates under commercial conditions. Its main aim continues to be to support and stimulate industrial export activity. It does so through promotional activities, specific publications on export opportunities and courses aimed at improving marketing strategies. According to the director, the interest of garment companies in these activities is minimal, in spite of the fact that Bancomext widely publicises the possibilities offered. In line with the adaptation of the role of Bancomext to liberalisation of the Mexican economy mentioned in Chapter 3, the position of Bancomext in relation to the Laguna garment cluster has changed. The bank supports local export companies through the granting of credits for investments less than it did in the past. Most specifically, during the late 1990s the local Bancomext branch had to write off a considerable fraction of its loans to the local garment industry as *carta vencida* (unrecoverable). In order to avoid problems in the future, in La Laguna over the course of the 1990s Bancomext increasingly confined its credits to the larger, already successful and thus creditworthy companies, in most cases the local giants.

Clearly, local bureaucracy is extensive: there are many organisations in La Laguna that local garment companies have to deal with or can recur to. While they appear to have had a more active role in industrial policy-making and support in the pre-liberalisation years, nowadays few of these organisations directly support local garment companies. No organisations resembling the ‘policy and planning’ institutions found elsewhere (see Helmsing, 2001) are present in the region. Policy-making and planning are carried out by the state governments of Durango and Coahuila (see also Box 4.1). Only in the case of FOMEC is there a linkage between the state, a local organisation and local entrepreneurs. On the whole, there does not appear to be a clear, direct connection between state government planning and local organisations. The limited strategic vision and lack of communication of a clear policy direction to the region’s inhabitants and entrepreneurs – as well as the lack of involvement of entrepreneurs – appears to have harmed the relations between them and the local organisations.

On the whole, linkages between garment entrepreneurs and local organisations are both minimal and frictional (see Table 6.2). In fact, many local entrepreneurs have a low opinion of government institutions; some even see a direct threat in their policies. The most frequently heard complaint concerns ‘excessive’ taxes and payments made to IMSS. However, the adverse attitude extends beyond IMSS to include all government organisations. The owner of one of the garment giants was especially clear on his view of the government:

‘El gobierno no está para ayudar a las empresas’: they [the government] don’t support us. They never have – not in good times, not in bad times. Do you know how much we have to pay to the IMSS? It’s outrageous. And it wouldn’t be so bad if it was worth it. But have you been to an IMSS clinic? Go! So you can see the lines, the lack of good doctors and medicines [...] And what if things go wrong? We will have to pay our workers immense compensations. In fact, the workers are more protected than we are. I tell you: el gobierno está contra nosotros

[164] *[the government is against us].’*

Most local entrepreneurs are not so outspoken as that, but there is a general negative opinion of ‘the government’ that is projected onto local organisations. This worsened when around the turn of the century the peso increased in value against the dollar. Most local garment entrepreneurs felt the peso was maintained at an overvalue for political reasons despite the fact that this posed a direct threat to the position of the Mexican export sector.

The position of local government organisations is a reflection of the liberalisation of the Mexican economy carried out in the 1990s (see Chapter 3), and the frustration of local entrepreneurs needs to be placed in this general context. Most organisations in the cluster are not or are no longer directly involved in policy-making or support for local businesses, and have seen their task reduced to administration and/or attracting and facilitating investment in the region. This has resulted in many officials of several organisations focusing on the same or similar activities. New investors are brought into the region and new employment opportunities are created to benefit the development of the region, but this does not benefit the local entrepreneurs, nor does it support local industrial development or upgrading.

6.4 The position of labour

In many studies of industrial regions and districts, the important and positive role of skilled labour is stressed. In fact, skilled labour in such districts is seen to be appreciated and rewarded accordingly. In contrast, in industrial clusters in LMIC environments, while the presence and important role of skilled labour has been noted, rewards do not always reflect its importance (Tewari, 1999; Cawthorne, 1995). Experienced or skilled personnel occupy centre stage of the development of the Laguna cluster, but – in extension of the pattern discussed in Chapter 3 with regard to the US – are generally regarded as a troublesome production factor.

Over the course of the years, job creation and training have resulted in a large army of skilled sewing-operators in the Laguna cluster. Whereas in the early years companies were able to restrict hiring policies to operators with sewing skills acquired at home or in other factories, in later years in-house training became a must. Most sewing operators need specific skills for the operation they perform. Currently, with the exception of the ‘bundle boys’, who take care of the physical flow of carts with bundles of trousers from one worker to the next, all beginning operators need and receive on-the-job training. Generally, operators start producing soon after they have been hired, but it may take anywhere from three to eight weeks of training, depending on the operation, before a new operator achieves full efficiency. Operators receive a basic wage of around 200 pesos per week during the training period, which is complemented through piece rates as soon as a satisfactory efficiency level is achieved. Training represents an expense to companies and they try to limit it as much as possible. A garment worker performs one specific operation and, to avoid bottlenecks in the production flow due to the absence of individual workers, some workers are trained to perform a task normally performed by a colleague. This cross-training is commonly done for key operations in the sewing lines.

What are the prospects for garment workers in La Laguna? As mentioned in the previous chapter, on average sewing wages in the region are around 410 pesos, with significant differentiation based on the type of operation and between companies. For individual operators, however, the wage depends exclusively on their own efficiency. As soon as an operator reaches full efficiency, she or he also earns the maximum wage attainable for that operation in that particular company.

Legal increases in the minimum wage are set by the central government, but hardly affect garment workers in La Laguna who are already earning above minimum wage. There is no effective system of collective wage bargaining. Garment workers in La Laguna lack meaningful, formal representation of their rights through unions. Mirroring the situation at the national level (Carrillo, 1994; Williams & Passé Smith, 1992), companies in the region maintain collective contracts with pro-industry and pro-government unions. In the Laguna region, most companies have a contract with the *Confederación de Trabajadores Mexicanos* (CTM). The collective protection contracts between garment companies and the CTM prevent genuine unions from coming in. Operators' attempts to organise themselves and form a company or local union have so far been frustrated⁸. The current arrangement allows the region to present itself as having a friendly investment climate, free of labour union trouble and effectively bars collective bargaining by operators. All in all, intra-firm upward mobility of garment workers in La Laguna is limited to the small number of operators who become supervisors and a few workers who can shift to better paying operations for which they have been cross-trained.

Despite the fact that specialisation on assembly activities has lowered barriers to entry with regard to expertise (see Chapter 5) upward mobility opportunities through the establishment of own businesses appear equally limited. The large scale of operation in the local garment industry limits opportunities for garment employees to start their own garment business, as they would need a minimum of twenty to thirty sewing machines. Many new garment businesses were established during the late 1990s, but few are owned by former garment workers. Instead, owners of new businesses in the region are related to garment entrepreneurs, or their families have been in businesses other than garments for a long time. In other words, they already belonged to the middle or entrepreneurial class. Employees typically do not have the capital, access to credit facilities or the contacts required to start a garment business in La Laguna.

The absence of collective bargaining power, limited upward mobility and highly monotonous job routines, frustrate individual operators who want to improve their situation and/or maximise their earning capacity. In this situation, factory workers themselves must capitalise on their skills, for which there is a large demand in the cluster. For skilled operators in La Laguna, it is not hard to find a job. Rather than waiting for minimal raises within their company, they may take advantage of the current market forces to change employers in order to obtain a higher wage or improved fringe benefits. Approximately 25% of the local garment workers regularly switch jobs. This causes unrest in the industry. Most companies in La Laguna report that their turnover is caused by a small share of their operators that constantly rotates, while the remaining share remains comparatively stable. Nevertheless, the average weekly turnover rate for the industry is 14%, and gives cause for great concern.

Frustration and limited job satisfaction are also reflected in the generally high rates of absenteeism in the region. It is quite common for operators not to go to work for a day or even a couple of days. Throughout the cluster, Monday is an especially notorious day for empty seats in the factory sewing lines. The average weekly absenteeism rate in La Laguna is 9% and appears to be caused by a constant weighing of work and its rewards against other responsibilities or opportunities.

By the end of the 1990s, the tight urban labour market, which is seen as the cause of high absenteeism and turnover rates, was the main preoccupation amongst manufacturers in the region. Even some of the buyers outside the region mention it as one of their main doubts regarding the future development of the region. Indeed, the relationship between the garment companies in La Laguna and the regional labour force has been a much debated issue for the past couple of years and especially so in the cities. The labour market dynamic as sketched above has harmed company-labour relations in the region. When discussing absenteeism and turnover rate problems, manufacturers frequently refer to a general *falta de cultura* or *falta de disciplina* (lack of moral values/ethics or a lack of discipline) amongst operators as the cause of the troubles. The general attitude can be characterised as slightly condescending, departing from the premise ‘these employees do not appreciate how well off they are’. This attitude is reflected in the strategies of individual companies aimed at retaining their personnel and disciplining it. More than 50% of the garment companies in La Laguna indicate that over the past years they have started to pay higher wages and to offer better benefits in an effort to gain employees’ loyalty. Several managers indicated that in their view local wages no longer reflect the value of workers to the company, but are based purely on intra-cluster competition for labour. They shift the emphasis to inventive but largely insignificant fringe benefits – such as televisions and stereos being raffled among loyal employees – and bonuses for punctual operators. On the other hand, many companies still accept skilled operators trained by other companies in the region, thereby stimulating the inter-company mobility of operators⁹. Urban manufacturers constantly stress the need to formulate more effective reactions in order to curb turnover rates; some of their strategies will be discussed in Chapter 8.

6.5 Embeddedness and its impact on local business

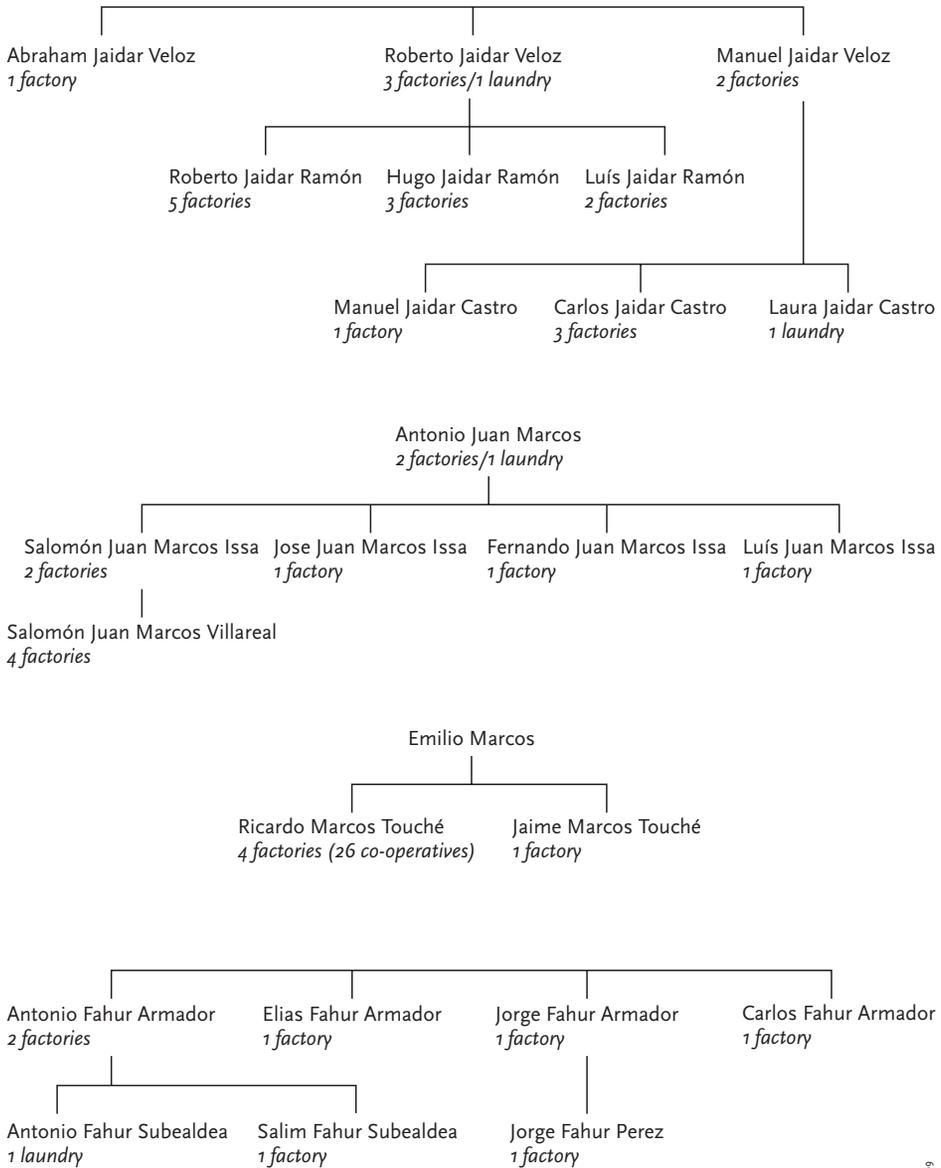
Spatial but also social and cultural proximity within the cluster has resulted in a strong identification of most companies with La Laguna, especially with its status as the ‘New Jeans Capital’¹⁰. Above, various types of actors, including firms, organisations and labour, have been introduced. The presence and nature of network relations between them have also been examined. This last section sheds light on the broad institutional environment or regional identity of the Laguna region and the way embeddedness in it may affect the functioning of the garment cluster and its participants. Finally, the cooperation or competition impetuses that may emanate from the economic environment are briefly explored.

Firms and entrepreneurs: are they locally embedded?

Most garment firms and suppliers in La Laguna are owned and/or managed by entrepreneurs who were born and bred in the Laguna region. Few have been educated outside the region or have left the region for other reasons. They have a common history through attending the same schools, sport clubs and social gatherings. Even now, many local entrepreneurs, especially those running larger firms, move in relatively small circles and meet each other regularly at social and business events¹¹. Many manufacturers maintain social and personal linkages with a number of their local peers, resulting in a close-knit garment circle.

Within the Laguna cluster as a whole, it is not hard to identify subgroups with especially dense social networks. Notable in this respect are the influential companies owned by Mexicans of Lebanese descent (see also Figure 6.2). But other subgroups are based on long-lasting friendships or membership of the same *campesre* (country club) or business association. Many of these groups are horizontal in structure: the managers of large local firms are linked to each

other, while foreign-owned companies and SMEs have local linkage networks confined to their own groups. In this respect, the density of family links between leaders within the regional industry is especially noteworthy (see Figure 6.2). The owners of several of the region's largest and leading garment companies are brothers or first cousins and descendants of pioneers in the local garment industry. Owners of other large companies are related to them through marriage.



Source: Baseline survey, 1998-1999
 N.B. All families included in the figure are of Lebanese descent.

6609

Figure 6.2: Family ties in the garment industry, La Laguna

Most garment families in the region operate medium to very large companies. They are in a unique position since they control the first-hand knowledge and information obtained from their buyers. Furthermore, in a few cases the sphere of influence of this business elite is not confined to industry but extends into the sphere of local and regional politics and policy-making¹².

The individual embeddedness of a firm's key-decision makers in the cluster is a determinant factor in the embeddedness of the firm (see Oinas, 1997; Boschma et al., 2001). One does not need to spend much time in La Laguna to notice that social, interpersonal aspects of business relations carry great weight. This stimulates localisation of business relations within the cluster, because such relations are facilitated by short distance, face-to-face contact and the shared history and values of entrepreneurs. The importance of social relations is revealed by the way the cluster functions: many of the intra-cluster productive arrangements are arranged through word of mouth and personal recommendation. For example, subcontracting arrangements – and sometimes the sale of second-hand machinery – help in filling rush orders, and recommending local companies to clients is often dealt with on the basis of such informally gathered information. The reputation of almost every company, including the smaller ones, in La Laguna is common knowledge or is easily verified. On the whole, most firms are well connected within the cluster and firmly embedded through the local roots of their management as well as through intra-cluster linkages.

Embedded in what? The local sociocultural environment

The Laguna region is recognised as a region with its own character by its inhabitants as well as by outsiders. The precise nature of the local sociocultural environment and its impact on the way business is conducted in La Laguna is not so clear and is hard to uncover. While it would be going beyond the scope of this study to look at these issues in great depth, a number of general observations and characteristics stand out and are relevant here.

As mentioned in Chapter 4, history marks La Laguna as a comparatively prosperous and dynamic region: it had a head start in the industrialisation process and is amongst the largest metropolitan areas in Mexico with a relatively broad industrial base. Local sources attribute this dynamism to the prevailing social values that are conducive to entrepreneurial spirit, hard work and perseverance. Indeed, most entrepreneurs in the region exhibit a dynamic entrepreneurial attitude built on such values. In La Laguna, the 'selection environment' – which selects which initiatives, new ideas or new firms will be sustained (Boschma et al., 2001) – is a liberal one. This is also illustrated by the rapid expansion of the garment industry in the post-NAFTA years and the readiness of people with no or only limited prior experience in the industry to start garment factories. In La Laguna, business initiatives are broadly appreciated.

On the other hand, the social culture in the region is not perceived to facilitate trust and cooperation. In fact, it could be argued that it promotes widespread mistrust, suspicion and secrecy. In reference to their sewing operators, local garment entrepreneurs often characterised their culture as 'prohibitive to teamwork'. These cultural values affect business linkages and interpersonal relationships throughout the industry. Highly illustrative is the tale that several respondents, independent of each other, offered as an illustration of the local business culture:

'Once there was a fisherman fishing for crabs in Mexico. He'd been at it for quite a while and had caught a great number of crabs, which he'd put in an uncovered bucket. A passer-by looked at the man and his bucket for a while, and then said to the fisherman: 'Why don't you put a lid on your bucket? If you don't, the crabs will escape and your work will have been for nothing.' The fisherman smiled vaguely and said: 'Well, you see, these are Mexican crabs.' The passer-by didn't understand, so the fisherman continued: 'You see, anywhere else, in Japan for example, you'd be right: I'd need to put a heavy lid on the bucket. Otherwise the crabs would team up and they'd climb on top of each other until one reached the edge of the bucket, and that one would help pull the other crabs out, and soon they'd all be gone. But with Mexican crabs I don't need a lid to prevent them from climbing out. You see, even if one crab were able to climb on top of the others, as soon as he approached the edge, all the other crabs would pull him back in.'

While it is hard to put one's finger on the day-to-day cluster reality that most likely also includes interpersonal relations, cooperation initiatives and information sharing, it is clear how local entrepreneurs perceive these issues. For example, one local entrepreneur explained:

'One of the most serious defects of Mexican society is that we're not united but we are very envious. Everyone wants to copy the business tactics and strategies of the one who's doing well, but in a destructive way, not in a healthy manner. Here, in our industry, we started to grow too fast, we became too large and we lack a vision.'

It is hard to determine precisely how these perceptions of the local sociocultural environment affect the reality of competition and cooperation within the cluster. However, the following section will show that formal cooperation between garment firms or entrepreneurs is uncommon in La Laguna. The general attitude towards cooperation is negative. This is further underscored by the tremendous amount of gossip. There is a lot of jealousy and there are a lot of misgivings, and many industrialists eagerly report another's supposed misfortune, flaws and mistakes. Local entrepreneurs often spontaneously engage in this type of gossip¹³, while they are much more reluctant to discuss their own alliances, friendship or cooperation with other local manufacturers. Though innocent in itself, the amount of gossip is an indication of the general atmosphere of mistrust and animosity that predominates in La Laguna. When asked for an explanation for this apparent general attitude, most entrepreneurs point to their cultural background: 'That's just how we Mexicans are' was the most commonly offered explanation.

The result: embedded local supply linkages and cooperation?

Despite the local embeddedness of entrepreneurs and firms in La Laguna, quasi-hierarchical aspects dominate in local subcontracting networks centred on very large local companies. True interdependence is limited and there is little evidence of trust and reciprocity in subcontracting relations. Several respondents who worked as subcontractors for one of the local giants, complained that it was very hard to discuss, let alone solve, their problems with their clients. One subcontractor complained about his relationship with his local client:

'Whenever I phone, he's never there, or he's in a meeting. I get put on hold and when I leave a message he never calls back. I don't like that. It's not polite. I just want to talk and all I get is a formal, impersonal fax message.'

The general managers or owners of the local giants are largely inaccessible to their smaller subcontractors, who deal primarily with production managers. Also, the presence of many subcontractors with similar capabilities within the cluster makes it easy for local contracting firms to discontinue the subcontracting relationship. Although this mainly happens when work is slow, it also happens when a relationship is unsatisfactory.

In general, cooperative linkages¹⁴ between garment firms are limited: only 15% of the sample firms maintain such linkages with other firms in the cluster. Bilateral cooperation within the cluster is not common; the sociocultural environment as outlined above, does not facilitate trust or positive cooperation. So much so that, akin to Fukuyama's (1995) 'low-trust societies', in La Laguna the mutual trust required for structural cooperative arrangements is confined to family ties. Even then, the nature and extent of cooperation varies widely: in a few cases, formally independent companies owned by family members are run as though they were a family-owned industrial group. More commonly, family ties provide an apparently normal subcontracting relationship with stability. On the whole, and even in the case of family members, true cooperation between garment firms in La Laguna is limited.

Also with regard to information sharing or strategic consulting, both bilateral and multilateral cooperation appear limited. The trust, confidence, solidarity and trustworthy behaviour often associated with network relations in clusters are not characteristic of communication within informal subgroups in La Laguna. Even amongst good friends, information exchange does not generally extend beyond general indications of the state of the business, company and clients. Truly strategic decisions are often not discussed or disclosed until they have become definite. Even family ties do not generally appear to translate into strategic cooperation. On the contrary, rather than a collaborative attitude there appears to be a certain level of competition or even animosity between family members in the business (certainly between owners of very large companies).

Thus the depth of the feedback network amongst peers in the local industry is more restricted than one would expect based on the local embeddedness of most entrepreneurs. The role of local embeddedness with regard to cooperative behaviour is largely limited to the solving of practical matters. For example, a broken-down machine can be temporarily replaced easily and rapidly through favours based on social relations within the cluster, as family, friends and acquaintances are commonly willing to lend a hand. While this certainly helps, such supportive behaviour is hardly ever structural in nature. The limited impact of embeddedness on local supply linkages may in part be caused by the horizontal character of social subgroups within the cluster, where contractors belong to a different group than their subcontractors. However, on the whole the nature of the local sociocultural environment in La Laguna appears to hamper the translation of local embeddedness into social capital that may support local business. A shared inclination towards secrecy and mistrust has not supported the creation of stable, trust-based, embedded local linkages in La Laguna.

Economic environment

The sociocultural environment appears to limit the role of cooperation in enhancing the position of firms in the cluster. However, the role of the economic environment within which the cluster operates should not be overlooked. In general, complexity and dynamism in the economic environment are believed to stimulate trust-based, embedded linkages (Boschma et al., 2001). Chapter 1 discussed the main features and trends in the global garment industry and showed it to be highly dynamic and complex. This was certainly the case during the early export years when local garment companies were unfamiliar with their market, its standards, trends and main buyers. It has hardly diminished in recent years because jeans producers have been increasingly impacted by fashionisation and retailing strategies based on flexibility and rapid response (see also Chapter 7). In order to operate in such an environment, local garment firms can be expected to rely on embedded, trust-based relations.

In La Laguna, increased embeddedness is sought in vertical linkages with buyers, rather than in horizontal intra-cluster linkages. The interplay, or indeed mismatch, between a complex and dynamic, far-away market and the strong local orientation and frame of reference of local entrepreneurs appears to have caused local producers to focus primarily on linkages with their buyers. Strengthening their vertical linkages with buyers gives producers a better grip on the trends and demands of their export markets (see also Chapter 7). Horizontal intra-cluster linkages receive little attention and have not become closer or more embedded. An important reason for this is the narrow orientation of the cluster as a whole, as outlined in Chapter 5. Cooperation is hampered by the fact that garment producers in La Laguna operate in the same market segment and compete for work from buyers that may not always be loyal. The fact that they are direct competitors explains their drive to secure a close linkage with their buyer. It appears also to cause reluctance to cooperate with other local producers (that are seen primarily as competitors) and even hostility between local producers.

6.6 Conclusion

This chapter examined the internal relationship structure of the Laguna cluster. The first important observation was that the localisation of network linkages is strong: the local supply infrastructure is extensive and subcontracting and material input linkages are concentrated within the cluster. There is a dense local bureaucracy allowing firms to maintain the necessary linkages with government institutions and other organisations within the cluster. The region also has a skilled workforce that companies, though with some difficulty, can tap into. The regional agglomeration of an extensive industry-specific infrastructure allows local firms, through the localisation of network linkages, to benefit from localisation economies along the lines as suggested by van Dijk and Rabellotti (1997).

With regard to the various types of intra-cluster linkages a number of aspects are noteworthy. First of all, in local supply linkages very large local companies hold a dominant position. So much so that the intra-cluster linkage pattern in La Laguna is best typified in terms of Markusen's hub-and-spoke structure. Local giants, in their position as the hubs in the hub-and-spoke linkage pattern, coordinate and control the production undertaken by their subcontractors. Commonly, their local subcontracting networks comprise a comparatively large number of small- and medium-sized subcontractors, each of which takes care of a minimal share of the total production of the principal firm. For the local giants in general, subcontracting allows for the flexible expansion of production capacity necessary in peak seasons and represents only a small percentage of total production. While not exploitative in terms of payments, subcontracting linkages are unstable and function for the local giants as buffers against market fluctuations. The resulting pattern is highly biased in favour of the local giants, and the existing power imbalance characterises local subcontracting as quasi-hierarchical. Interdependent network relations, described in both the business network and the cluster literature, were not found in local supply linkages in La Laguna. Instead, similar to the pattern found by Kragten (2000) in rural Java, relations are skewed in favour of the contracting firm, and while both contractor and subcontractor benefit from the arrangement, the former benefits more.

[172] During the 1990s an extensive local supply infrastructure was built up. By the turn of the century, trim items were predominantly being procured locally. Subcontractors generally receive trim from their local principal firm but most other firms are now directly responsible

for supply procurement. This represents a significant break from pre-NAFTA times, when US buyers shipped in all material inputs from the US. At the same time, tight governance exercised by buyers limits true responsibility of local firms, as detailed buyers' specifications with regard to exact items and their suppliers need to be adhered to.

Local garment firms maintain relations with a number of local organisations. Several government or semi-government organisations are concerned with the economic development of the region in general and focus primarily on the attraction of foreign investment and employment creation, while others regulate or support local businesses selectively. In general, the relations between local garment entrepreneurs and these organisations are kept to the minimum required, and are distant and sometimes tense as they appear to do little to support the local industry. The garment industry chamber represents and defends the interests of the cluster's garment entrepreneurs vis-à-vis these organisations. While it is the only platform for multilateral cooperation, it has remained ineffective as a platform for cluster-wide consultation, cooperation, strategic planning and other ways of pushing the cluster forward.

Intra-cluster labour relations are a hot issue on the agenda of local entrepreneurs. With the growth of the cluster, the tightening of the local labour market and high labour turnover rates, labour is increasingly viewed as a subordinate, troublesome factor rather than as a valuable resource – mirroring a pattern noted for the US garment industry in Chapter 3. The build-up of expertise in the local labour force was not reflected in a high incidence of small garment business start-ups by former factory workers. Limited opportunities in this respect coupled with the high demand for skilled garment operators is causing some workers to move from one company to another in order to improve their wages and benefits. The resulting intra-cluster competition for labour not only puts upward pressure on wages and fringe benefits, but it also pitches garment companies against each other.

In several ways the local embeddedness of garment entrepreneurs and firms is strong. Most local entrepreneurs are embedded socially and culturally in the region and in the cluster, and this facilitates the flow of information as well as incidental practical support amongst industrialists. However, local firms reap few direct benefits beyond passive external economies from being part of the New Jeans Capital.

In general, the local sociocultural environment is marked by a pronounced go-getters', entrepreneurial mentality as well as by suspicion, mistrust and secrecy. Intra-cluster linkages appear to mirror the local culture. Local social capital based on embedded relations characterised by trust and cooperation was not found to support the Laguna cluster. In fact, La Laguna displays features of the low-trust societies discussed by Fukuyama (1995), most notably a reliance on family ties in cooperative business relations. As a consequence, despite the common cultural background of entrepreneurs, subcontracting relations, for example, are not characterised by stability, cooperation or the open sharing of knowledge and information. Instead they predominantly take the shape of traditional subcontracting linkages: governance is highly formalised and relations are dependent, unstable and relatively distant. Local embeddedness has also not contributed to the development of joint, proactive action or cooperation between firms in the cluster.

On the whole therefore, while few cooperative linkages within the cluster exist in La Laguna, [173] more emphasis has been placed on the embedding and tightening of vertical, intra-chain relations with buyers. These findings stand in contrast to a large part of the local

embeddedness literature. However, some parallels may be drawn with the situation in Fiji, where Taylor (2002) found garment companies to be socially and culturally embedded in their local environment, but structurally embedded in the highly competitive GVC.

The previous chapter already marked La Laguna as a deviant garment cluster and this chapter underlines that characterisation. Unlike in many other clusters that thrive on a positive mix of competition and cooperation between local firms, in La Laguna, competitive forces between local firms far outweigh cooperation impetuses. As a result garment firms in the region benefit from external economies, but not from collective efficiency, that also requires proactive joint action on the part of local firms. These findings need to be related to the structure and the history of the Laguna cluster. La Laguna displays the physiological hub-and-spoke characteristics of the late, mature stages of LMIC cluster trajectories. However, the relatively short history of the cluster casts doubt on the maturation process that lead to this structure. In La Laguna the endogenous base of this development was relatively small: while a large part of the cluster, most notably the SMEs, were just being established, the existing large companies were already supplying the US market. The cluster largely appears to have come into existence based on the achievements of the first successful pioneers. The success of these pioneers was built on their incorporation into the production networks of US buyers and not so much on the collective efficiency of intra-cluster linkages. This contrasts with the traditional cluster development path that deals primarily with SME clusters within which some firms have exploited the years of collective efficiency more successfully than others and have grown and acquired a lead position.

This peculiar and short history of the Laguna cluster and the dramatic impact of its insertion into the GVC appear to have contributed to the direct competition between local firms and their focus on vertical extra-regional linkages rather than intra-cluster linkages. As such, La Laguna may be illustrative of current and future LMIC clusters that grow out of the interaction between globalisation processes and industrialising regions in ever-new tiers of LMICs.

Notes

- 1 This research focuses on the economic geography interpretation of local embeddedness (see Chapter 2), viz. the presence and nature of backward and forward linkages. The nature of the research and its methodology do not allow for a detailed, systematic analysis of the sociological or 'ties' aspects of networking in the (local) garment industry. However, the significance of these aspects is recognized and therefore the general issues that affect network ties (such as the socio-cultural environment, a reliance on family ties and existing prejudices) are discussed in section 6.5 of this chapter and are briefly revisited in section 7.3 of the following chapter.
- 2 The pattern of a small number of subcontractors that take care of a large share of total production of small principal firms in La Laguna may give the impression of a more equal, interdependent subcontracting relation. This, however, is not the case. Smaller companies that subcontract out the work maintain distant and formal client-contractor relationships.
- 3 Personal observation in the region established that sub-subcontracting, although not reflected in the survey data and not at all common in the region, does happen but is a largely secret matter. The two cases found of subcontractors who in turn contracted out serve to illustrate the fact that it is generally 'not done'. In both cases, the managers were unwilling to provide the name of or any other information about their subcontractors and the work contracted out to them. This may be evidence of very tight governance by buyers with respect to the subcontracting of their work.
- 4 The *maquiladora* and PITEX/ALTEX regulations allowed for the duty-free import of machinery used for the production of goods destined for export markets. Since there were still only a few sewing machine suppliers in

Mexico and prices were generally somewhat higher, many producers bought their machines at one of the numerous suppliers in El Paso. However, as the availability of machinery in La Laguna increased, the number of suppliers in El Paso declined due to the collapse of the garment industry in that city. Stimulated by the peso devaluation of 1994, investment in machinery has increased. The extra profits accruing to local companies as a result of the devaluation, and the need to invest them (for tax reasons) greatly stimulated investment in the industry.

- 5 The most important exception in this respect is the printing of labels. The caution on the part of buyers is related to the fact that the label can be seen as the embodiment of the brand and brand reputation: faulty labels directly affect the sales of the garments. Furthermore, the label is so tightly connected with the brand that on the basis of good label copies counterfeits would hardly be recognisable. High levels of trust need to exist between buyers and producers for producers to be allowed to produce labels to the exact standard specified by the buyer. Commonly, therefore, labels are shipped from the US or even attached in the US.
- 6 Since many of the services rendered by the chamber are not directly relevant to the foreign-owned companies, they see little benefit in membership. Indirectly, the limited presence of foreigners in the chamber affirms their isolated position within the local garment industry which in some cases is also caused by their physical isolation through their rural locations. It is quite common to hear a Mexican industrialist complain about the business tactics of 'those Americans' and, vice versa, to hear foreign representatives of foreign-owned companies complain about the conditions at and practises of some local companies.
- 7 An example is the conflict of interest between CNIV and FOMECA, as voiced by a number of the chamber's prominent members. In a protest letter, they expressed their concern about the further tightening of the local labour market as a consequence of FOMECA's promotional activities and success in attracting new industrial investors.
- 8 A recent example of employees insisting on their rights is the hunger strike organised by eleven employees of a very large company in the region. The hunger strikers were part of a larger group of employees who were fired after attempting to organise an independent labour union. The direct reason for the strike, however, was the fact that they were not given the minimal legal compensation (*El Siglo de Torreón*, 2000) after they were fired.
- 9 There is a general atmosphere of secrecy surrounding the solution to turnover and absenteeism within La Laguna. The researcher at one point was shown a report based on inter-company espionage aimed specifically at wages and benefits offered by the largest companies in the region.
- 10 This status has aided in the construction of a certain level of common identity, especially since in 1999 it was advertised nation-wide as 'the garment exporting cluster in Mexico'. To the outside world, industrialists in La Laguna clearly project a strong sense of what Crewe (1996) has called 'shared identity based on collective association'.
- 11 Linkages are not limited to business owners or managers. In La Laguna, linkages and their impact cut through the business hierarchy as, especially in the case of the large companies, not only do owners know each other, but so do management, administrative and especially the human resources personnel. Also at these levels information regarding wages, systems/administrative systems, clients, the general state of affairs in the company, etc., are exchanged (see also Box 8.4).
- 12 For example, one of the owners of a very large garment company became mayor of Torreón in 1999, his son became president of the garment chamber in 2002 and other family members have been involved in state politics.
- 13 The researcher was often, and without asking, updated on the 'local news'. During the survey, when asking for general opinions about the local business environment and climate, it was quite common to be given a rather detailed expose of the 'bad and evil' aspects of certain companies or types of companies in the region. Amongst manufacturers such novelties are also readily exchanged as the talk of the town.
- 14 In the present examination, bilateral, cooperative linkages are broadly defined as those relationships that lack a contractual basis, but are relatively stable and long term and work to smoothen the workings of the local cluster and participating firms. Cooperative linkages may take the form of the joint exploitation of facilities or a stable or preferential subcontractor status, in which cases it is tangible. Alternatively, cooperation may be more informal and intangible, for example when it concentrates on the exchange of information or of knowledge.

Appendix I

Illustrations of local production networks

In this appendix the local multi-plant companies introduced in Chapter 5 are used to illustrate the structure of the local production networks centred on very large garment companies in La Laguna.

Roman produces primarily casual pants and occasionally small volumes of jeans. The company doubled its production capacity in 1996-1997. In 1998 its main factory moved to a large and new facility that has room for further expansion (approximately 30%). Even when expansion will be completed, Roman wants to continue to work with subcontractors for flexibility reasons.

The total volume of subcontracted work generally does not exceed 20% of the company’s total production capacity and is spread evenly over five to six subcontractors. Only pure assembly work is subcontracted. Its subcontracting linkages change with fluctuations in demand and are temporarily suspended in times of low demand. The majority of its subcontractors are small factories that dedicated 100% of their capacity to Roman; they are so called ‘captive’ subcontractors.

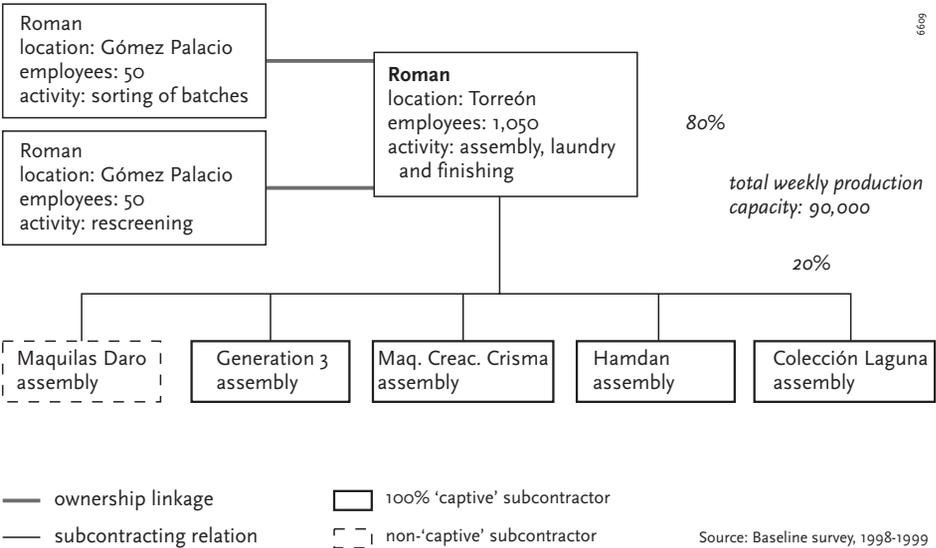


Figure I.1: Local production network, Roman

Casolco produces jeans, primarily basic 5-pocket models but also increasingly large volumes of more fashionable styles. The company was established in 1986 and remained comparatively small until the coming into effect of NAFTA after which it expanded rapidly. Since 1994 four new facilities have been opened, including the distribution centre in El Paso and the cutting room in Villa Juárez. In time, the urban factories will also be moved to Villa Juárez – a village just outside Cd. Lerdo where the labour force is more stable and wages and benefits are slightly lower.

Despite its expansion, demand often exceeds Casolco’s in-house production capacity and therefore Casolco engages subcontractors. The total volume of subcontracted work is approximately 15% of the company’s total production capacity and is spread over six or seven subcontractors. The owner of Basic Jeans is related to the owner of Casolco: Basic Jeans does up

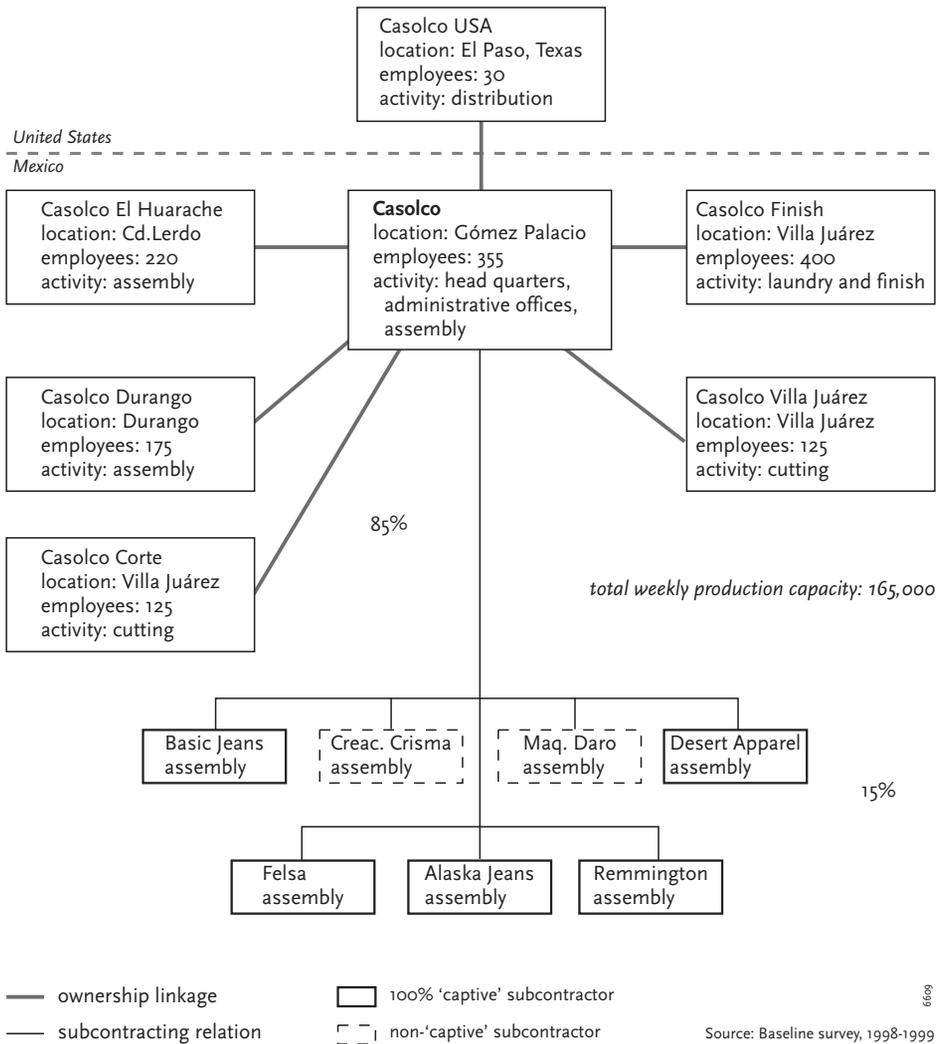


Figure I.2: Local production network, Casolco

to 4% of Casolco’s production volume, other subcontractors do slightly less. Only pure assembly work – preferably of the more difficult fashion styles – is subcontracted. Though the relationships with Basic Jeans and Alaska Jeans (whose owner is also related to the owner of Casolco) are fairly stable, subcontracting linkages do fluctuate and may be temporarily suspended in times of low demand. Casolco has worked with a large number of subcontractors over the course of the years and tries to work with those subcontractors it has had the best experiences with. The majority of its subcontractors are ‘captive’ subcontractors.

Grupo Lajat started to produce jeans in 1988. As it was an entirely new activity for the diversified Grupo Lajat, the garment division was a joint venture with US-owned Kentucky Apparel. Lajat learned and expanded very fast, a process that led to the acquisition (and closure) of Kentucky Apparel by Lajat. Before the turn of the century Lajat was already leading the ranks of the local garment giants.

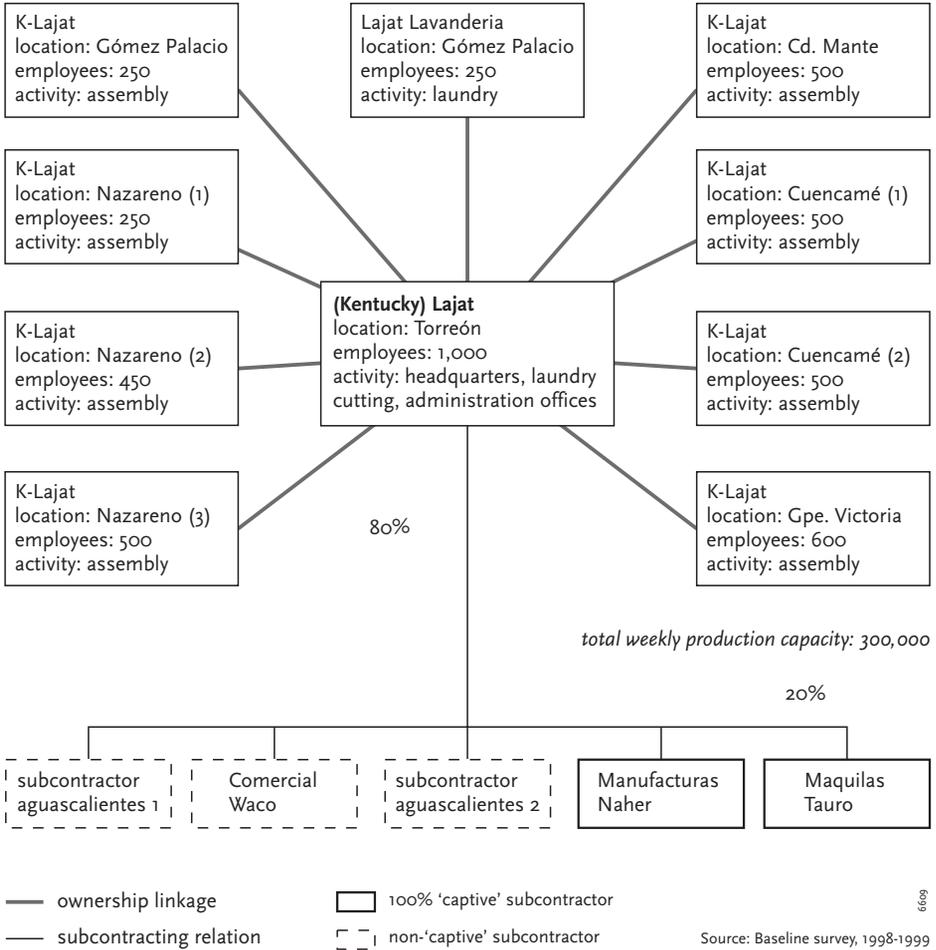


Figure I.3: Local production network, Lajat

To avoid tightening of and rising wages in the urban labour market, Lajat has located its assembly facilities in the rural areas of La Laguna and even outside the region. It was one of the first companies to invest in rural factories. Its very large cutting room and laundry facility are located in the industrial park Lajat – built and owned by Grupo Lajat.

Together, Lajat's subcontractors take care of approximately 20% of its total production volume. In peak seasons, Lajat has had to work with subcontractors outside the region because many of the local subcontractors were already filled with work of others. Lajat has worked with a very large number of subcontractors over the course of the years. The precise configuration of its network depends on volume requirements and availability of (preferred) subcontractors. Somewhat surprising is the engagement of Comercial Waco as Lajat's subcontractor; it belongs to a very large garment company, that generally do not rely on subcontracting work, certainly not in peak season.

7 La Laguna and the ‘outside world’: bi-national export production networks and the domestic market alternative

The preceding chapters have pointed to the exceptionally strong export orientation of the local garment industry in La Laguna. During the 1990s the Laguna became a major foothold in US-Mexican production networks of blue jeans, orchestrated by US buyers.

In La Laguna there is cluster-wide resignation to the limited depth, stability and cooperation in local intra-cluster linkages (see Chapter 6). By contrast, there is much more attention for the linkages between local producers and US buyers. Garment producers in La Laguna emphasise the importance of vertical linkages with their buyers and stress the need to cooperate more closely with these buyers. Chapter 3 discussed how US branded manufacturers and retailers, and the differences between their sourcing strategies and networks, occupy centre stage in the current literature on the Mexican garment export industry. Basically, the succession of branded manufacturers by US retailers as main buyers of Mexican garment producers is thought to reflect and/or stimulate the upgrading of these producers in the direction of full-package production.

This chapter deals with the network links between garment firms in La Laguna and US branded manufacturers, designers/marketers and retailers in the US. The aim is to uncover the structure of different networks, the governance exercised through network links and the way a position in these networks may influence the development of local firms. In export networks, SMEs run the risk of becoming locked into the role of assembly subcontractor. Therefore, the opportunities offered by the domestic market for SMEs are also briefly explored.

This chapter is divided into five sections. The first introduces the most important buyers for the Laguna region. It sketches the expansion of the region’s buyers base over the 1990s. The next section discusses the various types of buyers – branded manufacturers, designers/marketers and retailers – and their sourcing and networking strategies in greater detail. Differences in emphases and network structures are discussed; the most notable is the role played by intermediary firms in retailer-centred networks. Attention will also be paid to the contrasting perceptions local contractors and their buyers have of each other and their business relationship. Though subjective in nature, these opinions are informative and may affect the configuration of networks as well as the content of the sourcing linkages. The position of local SMEs is discussed in section 7.4. As shown in the previous chapters, most SMEs depend on subcontracting work. Only a few work directly for small US buyers, brokers or a combination of both. The position of SME subcontractors is examined to see how local subcontracting relations differ from the relations between buyers and local manufacturers. The final section of this chapter shifts the attention to domestic market networks as a SME alternative to exporting and contrasts their structure and governance with those of export networks.

7.1 General trends with regard to La Laguna's buyers

NAFTA has impacted the geography of global garment trade and production as it caused many US buyers to shift their attention from the East Asian apparel industry to Mexico as a nearby and relatively cheap sourcing country. More than attention alone was shifted: the impact of NAFTA is reflected in the increasing prominence of Mexico in the strategies of US fibre and textile producers, apparel firms and retailers. The number of US-Mexican alliances in apparel production has grown, a larger and increasing number of Mexican apparel producers are incorporated into the production networks of US buyers and some of these Mexican producers have replaced Asian or Caribbean producers (Gereffi & Bair, 1998; Gereffi, 1997; see Chapter 2).

From the perspective of La Laguna, the most notable changes since the passages of NAFTA are the quantitative boom in production, an incremental change in the organisation of production in the direction of full-package production (see Chapter 8) and the arrival of new US buyers. To

Table 7.1: Main US clients of the Laguna garment cluster¹

	La Laguna early 1990s	La Laguna 2000
<i>Main clients</i>	<p><i>Marketers/designers</i> Old Navy/Gap</p> <p><i>Branded manufacturers</i> VF** Levi Strauss Savane</p> <p><i>Retailers</i> Kmart Wal-Mart Target</p> <p><i>Intermediaries (brokers/vendors)</i> Sun Apparel 807</p>	<p><i>Marketers/designers</i> Old Navy/Gap Liz Claiborne Tommy Hilfiger Eddie Bauer The Limited Polo Jeans Mudd</p> <p><i>Branded manufacturers</i> VF** Levi Strauss Savane Sara Lee/Hanes**</p> <p><i>Retailers</i> Kmart Wal-Mart Target JC Penney Sears</p> <p><i>Intermediaries (vendors/hybrid)</i> Sun Apparel*/*** 807*/** Kellwood Aalfs** W. Stevens* Easy Wear Group A & A Consultants</p>

* These US intermediaries are also involved in retailing through licensing or own brand production.

** These US companies have FDI production facilities in the region.

start with the latter development, Table 7.1 gives an overview of the main clients of the Laguna garment cluster in the early 1990s and in 2000. During and before the early 1990s, La Laguna was producing primarily standardised blue jeans for the low-end segment of the market through mass merchandisers such as Kmart, Wal-Mart and Target, but also better positioned branded manufacturers such as VF Corporation and Levi Strauss. A few intermediaries also played a role; they channelled mostly work for department stores to the region. Over the course of the 1990s new buyers entered the Laguna apparel arena, especially since the passage of NAFTA (see also Gereffi & Martínez, 2000; Bair & Gereffi, 2001). The table also shows that the new buyers have joined rather than replaced the cluster's former buyers. As a consequence, the buyer base of the region has expanded quite dramatically to include clients new to garment production in the region, and even in Mexico.

Table 7.1 shows that on the whole, the cluster served the lower segments of the US market and works for many lower-mid end clients. Illustrative is the sourcing pattern of Gap Inc., a highly important buyer in La Laguna. Gap Inc. primarily sources garments under its Old Navy brand, which is positioned in the low-end segment of the market, from La Laguna. Much smaller volumes of the higher quality Gap-branded jeans are sourced from the region. Banana Republic – Gap Inc.'s best positioned brand, in the mid- to high-market segment – is not sourced from La Laguna at all.

The table also illustrates not only the growth in the number of clients of the cluster, but also that new and different types of buyers have begun to source from La Laguna. A comparison of the clients in Table 7.1 with the listing of garment buyers in Table 1.3 reveals that during the 1990s La Laguna's production began to penetrate the mid- and the upper-mid-end market segments. This is indicated by the increase in the number of designers at the top of Table 7.1. In general, these new buyers are more demanding than clients such as Wal-Mart, Kmart and – in some ways – Levi Strauss, which traditionally produced in the region. On the whole, however, these designers still manage small volumes in La Laguna and deal with a more selective group of local manufacturers than do the other buyers in the list. As will be further discussed later in this chapter, designers deal only with the most capable, full-package local giants. The increase in number and importance of higher-end retailers and designers causes a diminishing relative importance of branded manufacturers. Though in itself hardly a surprising shift (see also the discussion of industry trends in Chapter 1), this is thought to have great implications for the development dynamic of the cluster (see Gereffi et al., 2002b). Also noteworthy is the importance of intermediary firms, many of which channel the work of the lower-end retailers to the cluster². In most of the literature, limited attention is paid to intermediary firms in US-Mexican garment production networks.

7.2 Buyers: sourcing and networking strategies

This section sets out to examine the bi-national production networks between La Laguna and the US market in greater detail. As mentioned in Chapter 1, the garment industry has gone through a process of hybridisation: retailers have gone vertical, manufacturers have diversified into retailing, and some are even retreating from manufacturing in order to focus on marketing. The different types of clients are becoming more and more alike, so much so that the literature tends to group them together under the common denominator 'buyers'. But are they really so alike? Are their production networks and sourcing strategies identical? In some ways they are: all types of buyers mention product quality, acceptable cost and punctual delivery as prerequisites for a good sourcing relationship and most have codes of conduct or a

contract of compliance specifying the minimal labour and facility conditions local contractors have to provide (see Annex 2). On the other hand, recent literature on the development of the Mexican garment industry also stresses the differences in sourcing strategies between branded manufacturers and retailers and their impact on local upgrading processes (see Chapter 3). To a large extent this was confirmed by interviews with different buyers which showed that their practical involvement with these aspects as well as the structure of their networks can be markedly different. Even if many buyers are doing something of everything, their background as manufacturer or retailer appears to work through in the expertise and focus they bring into their current network linkages, as well as in the structure of their networks. For this reason, this section focuses on manufacturers, designers, retailers and intermediaries separately. It aims to shed light on the structures of the production networks as shaped by the various types of extra-regional buyers. Moreover, it seeks to highlight the varying strategies of these clients with regard to their local manufacturers and contractors through a focus on the information and knowledge content of production linkages.

7.2.1 Branded manufacturers

The main concern of many branded manufacturers in the face of the general shift of power to retailers (see Chapter 1), is to maintain their market share. To do so, most have complemented their traditional product lines of commodity jeans, tee-shirts or other basic garments, which traditionally were the backbone of their business, with higher fashion content product lines. Examples of such new product lines in pants/bottoms are the 'Engineered Jeans' and 'Dockers' by Levi's, and Timbercreek casuals and camouflage combat-pants by Wrangler. This product duality is also reflected in the production networks of these companies, in which FDI, traditionally the main production vehicle for these companies, is now flanked by extensive international sourcing. The production of basic commodity garments occurs in very large volumes, is relatively stable and predictable, and can be highly automated. It is in this segment where, through decades of production experience, specialisation and technological innovation, branded manufacturers have built a competitive advantage. The FDI facilities of branded manufacturers generally manufacture precisely these traditional, basic product lines. The more changeable, fashion-sensitive and new product lines are primarily produced through sourcing linkages. Sourcing is generally coordinated and controlled by a separate sourcing division integrated into the corporate structure. Even though sourcing is becoming an integral part of the production strategies and networks of branded manufacturers, their tradition of manufacturing is still reflected in both the structure and the content of sourcing network linkages.

Thus in relation to the Laguna region, branded manufacturers as a group play a double role: as buyers they are external actors exercising control over local contractors through their sourcing linkages, and as manufacturers they have a local presence through their FDI facilities. In general the impact of their presence on the region should not be underestimated. Together they are estimated to absorb approximately 15% of those employed in the industry in their FDI factories; a further large number are indirectly employed through sourcing relationships with local contractors. A few branded manufacturers combine both these functions in the region: Wrangler and uniform manufacturers RKI and Aramark have contracting linkages and FDI facilities in La Laguna. By contrast, Hanes, for example, has FDI facilities but no local contractors, while Levi Strauss works with a few local contractors but does not have own facilities in the region. Both the FDI and the sourcing sides of the production networks of

branded manufacturers will be examined here, starting with strategies with regard to FDI facilities in the region.

Intra-firm network linkages/strategies with regard to FDI facilities

In line with the general patterns described above, the FDI facilities of branded manufacturers in La Laguna generally produce basic, standardised products that are produced in predictable, large batches. In this way, applied technology developed in-house can be fully exploited to reach very high production efficiencies.

In general, local subsidiaries are relatively tightly leashed to their US headquarters, where the business strategies are formulated. Subsidiary guidelines and objectives are rooted in a strict corporate framework. The overall corporate strategy of branded manufacturers with regards to their FDI facilities is very much focused on production efficiency. Many cite 'control' – with regard to quality but also production planning – as the reason for channelling a large part of total production through FDI facilities. These considerations are reflected in the content of linkages between US headquarters and FDI facilities in the region. Headquarters do not get involved in local matters beyond the level of general guidelines, but are very much involved in production planning and organisation. Local production has to fit within the overall corporate production aims based on sales and market projections.

The management of several foreign-owned subsidiaries in La Laguna had been directly responsible for the precise site selection within the region, and sometimes even for the selection of the region as production location within Mexico. This great strategic involvement in the pre-production stage stands in contrast to more limited local decision-making once local subsidiaries were up and running (see also Figure 7.1). Essentially, the only area in which subsidiaries are largely autonomous is the recruitment of personnel. Beyond that, decision-making in most areas is concentrated in the hands of either divisional or corporate headquarters.

However, there is more nuance to the actual situation than this short introduction suggests. There are grey areas in decision-making – and shifts in and stretching of these areas. Also, the sharing of responsibility and information differs from case to case and from company to company, and even between divisions of the same corporate company. In many companies there appears to be room for some strategic manoeuvring at the local level, certainly if a factory has been running successfully for some time. Whether grey areas in decision-making are exploited by local FDI subsidiaries depends on the local management of the facilities. Local managers are the company's experts on the local business environment and the business opportunities embodied in it. For instance, investment and expansion decisions are ultimately taken at the US headquarters, but information, advice and ideas are mostly provided by subsidiary managers in the field. Several managers of FDI facilities in La Laguna indicated they had been involved in the further expansion of their company's interests in the region. Several local managers also felt they were in a position to make recommendations in areas such as domestic suppliers, while admitting little progress had been made in this field. Few had successfully pushed for changes in the organisation of production or existing linkage patterns. This may be explained by the fact that the development of productive linkages to the surrounding cluster and local manufacturers or suppliers does not form part of the tasks of FDI facilities: contracting as well as supply relations are controlled at higher levels of the corporate hierarchy (see Figure 7.1).

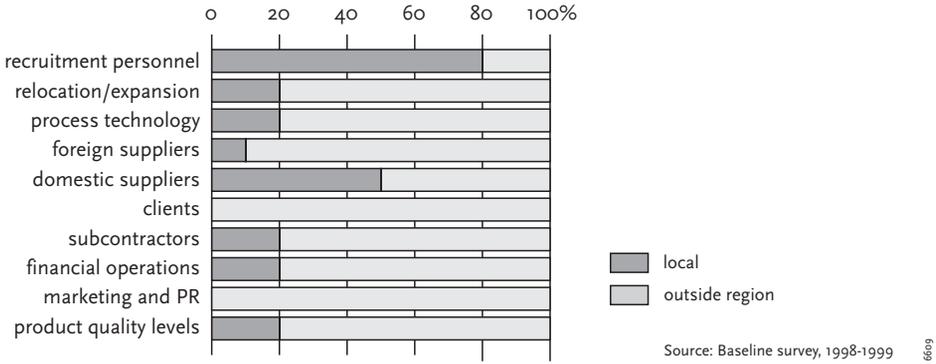


Figure 7.1: Decision-making responsibilities for FDI facilities

Formally, local decision-making is only significant with regard to purely local matters. Informally decisions are ultimately taken at headquarters outside the region, but the decisions can to a greater or lesser extent be ‘pre-cooked’ by local management.

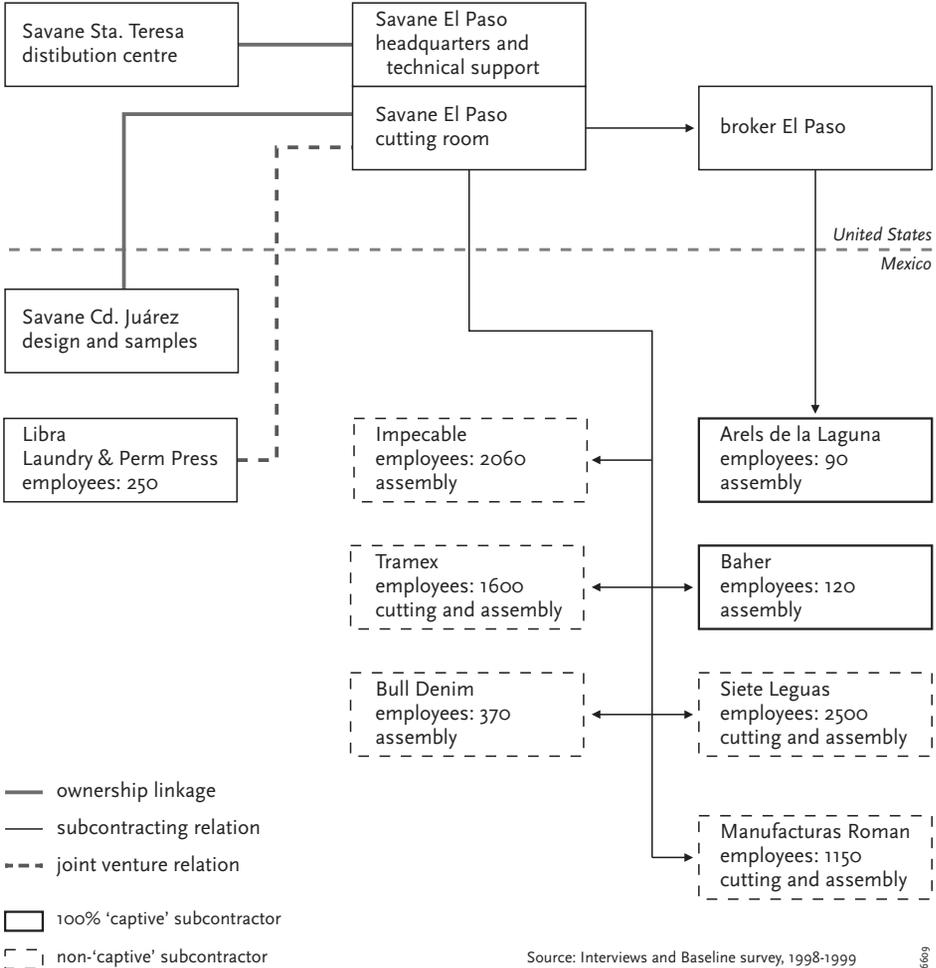
In short: production linkages of FDI facilities are bi-directional and dense in information: information on local business matters and opportunities is communicated from the region to the headquarters, while information on business strategies, market developments, etc. is communicated to the offshore FDI facilities. In addition, technological advances are communicated to and implemented at the local level by (divisional) headquarters. Linkages between the local subsidiaries and headquarters in the US are mostly of an immaterial nature. As mentioned in the previous chapter, material flows to and from local FDI facilities are mostly extra-regional and maintained with production facilities and distribution centres in the US.

Sourcing by branded manufacturers

How are the sourcing linkages between US branded manufacturers and local contractors in La Laguna shaped? And, more importantly, what is the content of these linkages? Are they mere flows of orders, material and finished garments, or is knowledge exchange and learning also part of these sourcing networks, as is asserted by the literature?

Many branded manufacturers in the region still obtain a relatively small part of total production through sourcing linkages. Sourcing networks for these companies may be relatively small, not only in relation to total volume but also because of a preference for a small number of contractors with relatively large capacities. Traditionally, as explained in Chapter 3, branded manufacturers sourced mostly pure assembly work under production-sharing provisions such as the 807/HTS 9802 Program. Their concern is principally with quality rather than with factory size (see Figure 7.2). Currently, most branded manufacturers that source from the Laguna region prefer to work with medium or large contractors who can do more than pure assembly – preferably ‘CMT+laundry’ (cutting, assembly, finishing and laundry) – so that any confusion about responsibility for mistakes or non-compliance can be avoided. For the same reasons and as part of a general quest for greater control, branded manufacturers do not allow subcontracting by local contractors. As the contractors of branded manufacturers become more capable, they assume responsibility for the procurement of material inputs.

Several branded manufacturers indicated their general intention to have a long-term working relationship with contractors because such a commitment is seen as a win-win situation, as it leads to stability, mutual familiarity and trust. In effect, in La Laguna most branded manufacturers have worked with the same contractors for a couple of years. Branded manufacturers engage a large share of the production capacity of their local contractors. Many are quite protective of their good contractors: if they are producing a style that is not selling as projected, it may be replaced by basic garments. The focus on product quality and efficiency evident in their FDI facilities is also reflected in their sourcing linkages: branded manufacturers share knowledge that can lead to reductions in cost or increases in efficiency in their contractors with these contractors. In most cases this concerns general adjustments to the organisation of production on the shop floor, which can lead to considerable cost reductions in plants in the region. In addition, some branded manufacturers apply their knowledge by teaching contractors hands-on about the construction of new styles and the efficient and



Source: Interviews and Baseline survey, 1998-1999

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Figure 7.2: Production network of a branded manufacturer, Savane

proper performance of certain operations. Sharing knowledge about technology and machinery is much more restricted. Especially branded manufacturers with a R&D centre to develop new production technology for their own plants are protective of their in-house technological knowledge, which is the basis for their competitive advantage.

Information regarding market developments and business strategies, if shared with contractors, is shared informally. There is no formalised, regular medium for the sharing of such information, and it appears largely dependent on the interpersonal relationship between sourcing managers and contractors.

7.2.2 Retailers

The general shift in market share and power from manufacturers to retailers in the garment industry is reflected at the local level in an increasing importance of retailer-centred networks. Many of them, especially the department stores, have a relatively short history of sourcing from the Laguna region when compared to branded manufacturers. Yet they are rapidly gaining ground on the manufacturers.

Mass merchandisers (e.g. Kmart, Wal-Mart, Target) and department stores (e.g. JC Penney, Sears) are producing large volumes of their private label jeans in La Laguna. Mass merchandisers were amongst the first retailers to source from the region and are still sourcing large volumes there. The sourcing networks that connect these buyers to suppliers in La Laguna appear to be two-pronged. On one hand, the bulk of their sourcing is carried out, coordinated and controlled by US-based intermediary firms, such as Kellwood, W. Stevens, Flynn and Sun Apparel. These firms bear full responsibility for all the planning, coordination and logistics of the sourcing network, and network relations are centred around these intermediaries. To most intents and purposes they function as the clients or buyers of local suppliers. On the other hand, especially in the case of basic commodity items or collections, retailers may work directly with very large local suppliers of full packages. In most cases local suppliers are allowed to subcontract work to local subcontractors. This practice turns them into the central point of local production networks and may be the first step in the direction of becoming a key or core supplier.

It may hardly be a surprise that, compared to branded manufacturers and designers, retailers have a more distant relationship with both their products and the firms that produce them. Many do not have their own design department but rely on vendors or other types of intermediary firms, to whom they also assign the responsibility for the actual production or the coordination thereof. It is rare to find representatives of retailers in La Laguna. Thus hardly any direct links of primary importance exist between department stores or mass merchandisers and local contractors. In contrast to branded manufacturers and designers, retailers do not maintain links with all their subcontractors/contractors. Instead, governance concerning codes of conduct, specification of trim items and quality, cost and delivery is formalised and communicated through the intermediaries or core suppliers. These intermediaries or core suppliers bear responsibility for the structuring, control and coordination of the lower tier of the production network and the network-wide implementation of the retailer's code of conduct.

The role of intermediaries in retailer-centred networks

Importers, vendors, brokers, supply chain managers – the diversity in nomenclature reflects the diversity in the roles played by intermediary firms. Intermediary firms occupy a pivotal position in the sourcing networks that connect many US garment retailers to producers in Mexico. However, their position and responsibilities vary widely and may be contested by different firms in the networks. One of the most obvious changes with regard to the position of intermediaries in the 1990s was the virtual disappearance of the traditional brokers, many of which were located in the US border region. Brokers owed their position to their extensive knowledge of and connections with garment manufacturers (with access to quotas) in Mexico. Their business was built on the ability to connect demand for garment production capacity to available and suitable supply sources in Mexico. This was a unique and highly important asset, certainly in the times when Mexican production capacity for export was tied to quota bureaucracy. The opening up of Mexico has eroded the position of such traditional brokers, so much so that brokers have been forced to consider a strategic reorientation of their business in order to validate their continuing position within the bi-national production networks. Now that bi-national trade is liberalised and the most competitive Mexican manufacturers are striving to extend their command over the production chain (and are succeeding in doing so), the functionality of brokers and other intermediaries in the bi-national production networks is no longer a given. Many intermediary firms see themselves forced to secure their position by either assuming the more strategic role of supply chain manager or by becoming a core supplier through investing in in-house production capacity. The first option is relatively less viable in Mexico than in Asia because of geographical proximity and the liberalisation under NAFTA, which simplify logistics and administrative or customs management. The direct involvement in garment manufacturing with the aim to become a core supplier with local facilities has been a more common response, despite some hesitance and resistance on the part of vendors. The increasing direct involvement of intermediary firms in production appears in many cases to be the result of pressure to this effect from buyers. Behind this pressure lies the need to justify the value added of intermediaries, as well as a search for increased and direct control over delivery and quality.

Meanwhile, many intermediaries have acquired licenses for existing brands or have developed own brands in an effort to also develop the retailing end of their business³. This allows intermediaries to differentiate themselves from new core suppliers in LMICs and reduces their dependency on their buyers. Repositioning and reorientation in this segment of the production network has contributed to the general hybridisation trend noted in Chapter 1. The number of intermediaries performing different combinations of activities in the logistics, service, management, design and production segments of the production chain has grown. Within different production networks, they may assume different roles.

Thus, even within the context of NAFTA liberalisation and the development of full-package capabilities in the region, intermediary firms play a central role in retailer export networks in La Laguna. Focus is on strong intermediaries that organise the entire production process/supply chain.

Three configurations appear to be common. One is where US intermediaries coordinate the supply chain without being directly involved in manufacturing. Local manufacturers are usually involved on a CMT+laundry basis, while production planning, procurement of fabric, import and distribution and sometimes design are done by the intermediary. On the other

Box 7.1: El Paso and La Laguna: predecessor and heir?

Apart from New York, Los Angeles and San Francisco, where many buyers have headquarters or sales offices, El Paso figures quite prominently in the production networks that connect La Laguna to the US market. La Laguna can be seen as the inheritor of El Paso's former position as 'Jeans Capital of the World', and in many ways the existing links between El Paso and La Laguna appear to affirm this status. El Pasoan garment entrepreneurs and other experts play varied and important roles in the local garment industry in La Laguna and in the production networks that connect it to the US market. This has especially been the case since the demise of the El Paso garment industry in the mid to late 1990s. Some of the city's garment entrepreneurs still cling to their shrinking factories in El Paso hoping to stay in business until retirement, but many have flocked out of El Paso in the footsteps of 'their' industry. As the garment industry boomed in Mexico, many went across the border to Mexico. In doing so, they cemented a tight link between El Paso and Mexico, and especially with the Laguna region – El Paso's successor as Jeans Capital.

The El Paso-La Laguna link is based on a number of different strategies. Several of La Laguna's large and very large factories are owned by companies based in El Paso. Such companies as Border Apparel, Onsite and Sun Apparel have shifted their entire production base from El Paso to La Laguna. Other El Pasoan companies are sourcing from La Laguna, in a few cases as buyers, but most commonly they have found a niche in the intermediary role. Especially in the early to mid 1990s a disproportionate number of brokers from El Paso channelled work for US buyers to La Laguna. Though in general the growth of El Paso-based brokers may have been short lived, a few built a steady business on connecting mostly smaller buyers in the US to SME contractors in La Laguna.

Furthermore, companies in La Laguna have also built a direct link in the other direction, viz. from La Laguna to El Paso (see also Chapter 5); this mainly occurred in the pre-NAFTA period. Many of the large exporting companies have an office and a warehouse in El Paso. Finally, industry-specific suppliers also downscaled their El Paso offices and complemented their El Paso business by opening new offices and warehouses in La Laguna or by cementing supply linkages to La Laguna from El Paso.

Clearly, many garment companies in El Paso have seized the new business opportunities in La Laguna, and vice versa. Many El Paso industry experts have found their way into La Laguna, either by moving with their company or independently. Consequently, several managers of the foreign-owned and locally owned companies in La Laguna, as well as sourcing directors and managers of intermediaries or buyers sourcing in La Laguna, have previously worked in El Paso. The local expertise in El Paso with regard to jeans production is applied in Mexico through independent consultants and individual entrepreneurs who are no longer directly involved in production, but have built a business on the wheeling and dealing surrounding it.

Especially at the time of the explosion of garment capacity in La Laguna during the mid 1990s, the expertise coming from El Paso was highly valuable to the local industry. Many of the garment entrepreneurs in El Paso grew up in the 'needle trade' and have extensive hands-on experience. They started out as employees of one of the larger companies and pride themselves in the fact that the garment industry is in their blood. They have the technical experience and know the US garment industry and its key players. This is exactly the kind of experience that was needed in La Laguna,

where few industrialists with limited experience in garment assembly for export were facing a large demand surge and many new challenges (see Chapter 8). Certainly, in the initial stage of its development, the infusion of the Laguna cluster with expertise from El Paso experts appears to have been vital to its development.

By the turn of the century, El Paso's expertise was proving footloose again or possibly even outdated. First, as soon as the ice between US buyers and intermediaries and Mexican producers was broken, a large part of the El Paso-based brokers disappeared. Later, many managers, consultants and other experts from El Paso also moved away. This is not surprising: though numerous parallels between the former and the current Jeans Capital can be drawn (see also Chapter 3), the market and the industry as a whole have changed dramatically over recent decades. El Paso was able to build a large industry on contracting work of standardised, mass production for mostly branded manufacturers (van Dooren & van der Waerden, 1997, van Dooren & Verkoren, forthcoming). La Laguna faces a changed business environment of different types of buyers with new strategies, and the concomitant challenges and opportunities. Recent dynamics may create new and great opportunities for local manufacturers. The most urgent question now concerns the local response needed to reap the full benefits of these opportunities. The El Paso garment industry and its experts have provided La Laguna with valuable practical expertise in the area of production. They may be less able to serve as an example or guide for the increasingly urgent strategic response, especially with regard to increased flexibility, local companies need to make to changes in market and industry.

Table 7.2: Mapping linkages between El Paso and La Laguna

Ownership linkages	7	Several of these companies are large or very large and have large facilities in La Laguna. They are generally manufacturers that have positioned themselves as intermediaries or core suppliers in the networks of US buyers; they form the local hub of their subcontracting network.
Managers	5	Most El Pasoan managers work in the FDI facilities of US branded manufacturers; a few work for local giants.
Intermediaries/Brokers	6	El Paso-based intermediaries are involved with production in La Laguna. In most cases they coordinate the production in Mexico for smaller US buyers; in La Laguna they generally work with SMEs.
Local companies with offices in El Paso	14%	Most offices in El Paso take care of customer relations and shipping of material inputs to factories in La Laguna, as well as border-crossing procedures of finished garments into the US; some also have/had a cutting room.

Source: Estimates based on interviews and Baseline survey, 1998-1999

hand, it is very common for the central intermediary to have established production facilities of its own (in the Laguna region, the US or elsewhere), in which it occupies a position similar to what in Chapter 1 was called a 'key supplier'. In La Laguna, approximately half of the FDI facilities belong to such US intermediaries. In these cases, part of the production is carried out in its own facilities, but the intermediary is also responsible for the contracting out of work to a sourcing network. Local examples of such arrangements are the production of jeans for JC Penney through the US-Mexican joint venture Aalfs-OMJJC, and the production of Wal-Mart

jeans by and through US-owned Sun Apparel, which has several production facilities in La Laguna under the name of Pami. Finally, part of the local Old Navy/Gap production, mostly children's wear, is produced by and through the 807 Company, which is based in El Paso and has a factory in Gómez Palacio.

Finally, direct sourcing linkages have developed between mass merchandisers and a few department stores and very large, capable, locally-owned producers in La Laguna. However, by the turn of the century very few local contractors had acquired a position of core supplier: most still worked through US intermediaries. This limited direct involvement appears less a matter of lagging capabilities of local producers as of the still limited ability of the US retailers to deal directly with local suppliers. Especially department stores still have little know-how and an infrastructure that is not well adapted to dealing directly with Mexican contractors.

Most intermediary firms active in La Laguna in retailer-centred networks are US owned and US based. Many are based in or connected to traditional garment production regions in the South and Northeast of the US and on the US-Mexico border. Though not a location for headquarters of US buyers, many garment companies are in one way or another connected to El Paso. This is partly based on the concentration of small intermediaries in that city. However, Box 7.1 shows that building on El Paso's unique position as former Jeans Capital, there are multiple linkages between that city and La Laguna.

7.2.3 Marketers/designers

The newest buyers in La Laguna are the buyers/marketers of designer labels. In some ways, the network strategies of designers and marketers are a mix of those of branded manufacturers and retailers. Like branded manufacturers, they have direct and exclusive involvement with the product at the pre-assembly stage of production. However, unlike branded manufacturers but akin to retailers, their direct involvement stops after the design of the garment and specification of trim and fabric: all productive activities beyond designing are sourced out. In other words, designers and marketers depend fully on their sourcing network for actual production as they have no production capacity of their own.

Designers such as Tommy Hilfiger, The Limited, Liz Claiborne and Eddie Bauer have a short local sourcing history and maintain sourcing relationships with a few very large, full-package suppliers. They generally do not work with less all-round, assembly or CMT contractors. Besides (the potential to supply) large volumes and established full-package capabilities, designers demand high quality from their suppliers⁴. The direct preoccupation of designers with the final product, its appearance and quality and with corporate images comes to the fore in overall tight governance of sourcing linkages. An example is the fact that all types of trim items as well as their certified suppliers are specified, a practice also noted in relation to the strategies of branded manufacturers. Designers source their basic bottoms from La Laguna. Yet, on the whole these are more sophisticated than the bulk of other products produced locally as more emphasis is placed on product quality. Emphasis on fashion also applies to their basics: regular changes in styles are common. Like branded manufacturers, several designers have a staff of industrial engineers who visit contractors' factories to evaluate and improve production efficiency and quality. Especially at the beginning of the relationship, links are dense with information on production techniques and -organisation and a marketer's engineers commonly work with supervisors, auditors and shop-floor personnel. A technical director of one of the designers that works in La Laguna observed:

'They [producers in La Laguna] are proud and tell us they've worked for Gap for a long time. To us that just means there's a lot of work to be done. We need to tell them Gap is not the best and that their standards may not be not good enough for us. We need to work with them to make them lose their bad habits and teach them about our demands and our ways.'

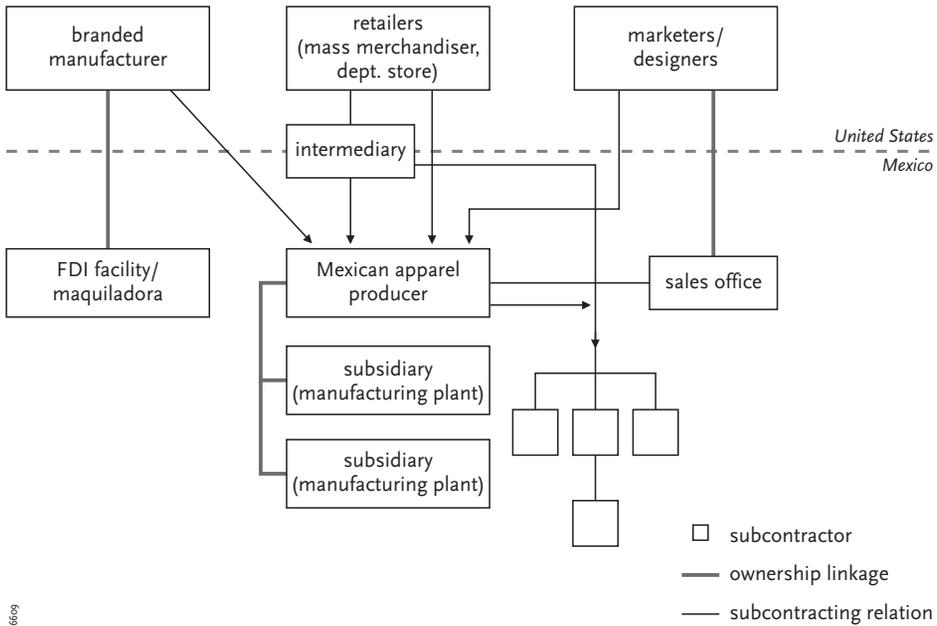
Furthermore, many designers are trying to streamline communication and data exchange so as to have production respond to sales as closely as possible. Flexibility on their contractors' shop floors (in adapting sewing lines to shorter runs of garments with a higher fashion content) is highly important. But this is not all: flexible management and an emphasis on service to the buyers is of increasing importance. Many designers are quite vocal about the need for local manufacturers to provide full packages and to improve their services if they want to secure a future position within their international garment networks. Most designers involved in the cluster have truly global sourcing networks and are constantly weighing the advantages and disadvantages of sourcing locations. Benchmarking between their producers is sometimes communicated to the local manufacturers in La Laguna, possibly to pressure them into a certain direction. Information about market and industry trends appears to be shared quite extensively. According to one designer, this was done to make local suppliers understand the system they were feeding into and 'to make them understand what they're up against'. Network relations between designers and local suppliers in Mexico are generally direct. Rather than using an intermediary firm, several designers have a buying or support office in Mexico to take care of emergencies, quality control, administration and logistics.

Buyer succession (see Chapter 2) and the active involvement of new, higher-end buyers with new demands may be a highly important motor behind the upgrading of the cluster. Designers may indeed push the cluster to close the gap between local capabilities in the mass production of basic jeans and the new demands for smaller runs of more sophisticated jeans. This would align the cluster with the general trends in the industry. However, while the involvement of these new buyers is significant and challenging, it has been neither fast paced nor cluster-wide.

The volumes sourced by designers in La Laguna are considerably smaller than those sourced by mass merchandisers and branded manufacturers. Most designers have only initiated small pilot programs with local manufacturers and appeared to be testing the water. Over all, very few local full-package giants had secured a stable relationship with designers: most designers discontinued their sourcing from certain suppliers or from the entire region.

This may well be due to the immaterial demands of designers. Few problems appeared to arise with regard to product quality. However, business mentality, service-mindedness and management appear to be the main trouble areas, and the main upgrading challenges for local entrepreneurs wanting to improve and deal with higher-end buyers appears to lie in these areas. What is more, their higher demands are an important reason why work for designers is only sparingly subcontracted in La Laguna. When it is, it is reserved for the best subcontractors. The quality risks are higher and very few subcontractors live up to the standards of designers. Most local giants are unable or unwilling to pass on the necessary know-how and skills. This is significant because it means that the upgrading impetus that originates from the recent involvement of designers benefits the cluster to a limited degree and in a highly selective manner.

Figure 7.3 is a schematic representation of the network structures La Laguna is engaged in: it is an adaptation of Figure 3.3 based on the findings outlined above. Figure 7.3 distinguishes not



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Figure 7.3: The structure of US-Mexico garment production networks, La Laguna

only between branded manufacturers and retailers but also presents marketers as a separate group. Branded manufacturers work through FDI facilities as well as sourcing linkages. Several branded manufacturers increasingly demand CMT or even full-package capabilities of their contractors and as a consequence work with or are working with larger (and more capable) contractors than before. In relation to retailers it is important to note the role of intermediaries, which in La Laguna take much of the upgrading along the chain (in the direction of full-package production) incentive away from local producers. The sourcing linkages of marketers, especially designer label marketers closely resemble those of branded manufacturers. Designers appear more demanding: they want full packages but also flexibility and service, which so far few local manufacturers offer.

Appendix II provides illustrations of the position of local companies in bi-national production networks.

7.3 Buyers and producers: contrasting perceptions

As mentioned in the introduction, most garment entrepreneurs assert the need for close cooperation with their buyers. In general, strategic partnerships or joint ventures with US buyers or branded manufacturers are seen as better options than local cooperation. Some form of integration with US buyers is believed to help secure a future position within their production networks. In the face of volatile markets and international competition, and bearing in mind the important role of buyers noted in the previous chapter, this focus is understandable. As noted in Chapter 1 and 2, from the perspective of buyers this may also be desirable: the forging of tight links with a select group of large and capable 'core suppliers' is a common element in buyers' strategies. This is confirmed by several of La Laguna's buyers who

express an interest in maintaining long-term linkages with their most capable core suppliers. In practice, however, joint ventures and/or other types of formalised partnerships between local producers and US partners are rare in the Laguna region. Buyers prefer and are able to exert governance through subcontracting links. Diverging and sometimes conflicting interests and even mutual antagonism appear to be the main reasons for the lack of formal cooperation. From interviews with local contractors and US buyers it is clear that the expectations and opinions that the two sides have of their sourcing relationship and their respective roles within it often do not coincide. As a consequence, a fair amount of tension and friction may be part of these relations.

Local producers most commonly complain about the prices they are being paid. Buyers tried to maintain prices for particular products at 'price point' during the late 1990s. Worse than virtually stagnant prices may be the buyers' underlying attitude that the local manufacturers perceived behind it. In reference to this, several local respondents mentioned how a number of the cluster's main buyers had teamed up just after a peso devaluation to apply downward pressure on the prices. In doing so, they were able to appropriate the windfall profits that resulted from exchange rate change, something that local manufacturers felt they had a right to. From the local perspective, contractor's margins were being squeezed by 'inconsiderate, greedy clients'. Worse still, local manufacturers felt they were being sandwiched as the tight labour market, high turnover rates and inter-firm labour poaching exerted upward pressure on wages throughout the late 1990s. In addition, there were sharp increases in electricity and telecommunication costs. Thus, costs rose but as buyers were insensitive to the problems of their suppliers, prices remained stagnant.

Also, initially the increasing fashion content of garments caused some tension in the buyer-supplier relationship (see also Chapter 8). Many local producers have only limited awareness of the features of and changes in the US market. This made it difficult for them to relate their clients' demands to larger trends in the market and hampered mutual understanding. While limited market awareness persists in local subcontractors, it has diminished over time.

Buyers' perceptions of their sourcing linkages to La Laguna vary somewhat according to the type of buyer, but fall into a few general categories. Buyers complain about unsatisfactory production planning and punctuality on the part of their contractors in La Laguna. Especially for designers, for whom, based on the paramount importance of lead time considerations in the configuration of their networks, the geographical proximity of the Laguna region constitutes its main attraction. It is hardly surprising, therefore, that the unnecessary lengthening of lead times through the bad planning of and late deliveries by local contractors is an important aggravation. Buyers commonly also point to the inefficiency of many local suppliers. According to them, increasing production efficiency would allow contractors to deal with cost pressures.

More importantly, local business mentality in La Laguna is perceived as passive and unresponsive to market changes and buyers' demands. Related to this, many buyers condemn the lack of service offered by their contractors. In comparison to, for example, Asian manufacturers, contractors in La Laguna are characterised as 'arrogant' and unwilling to think with their clients or to see things from their clients' perspective. Several buyers acknowledged they might be spoilt by their Asian suppliers; indeed their opinions do appear slightly prejudicial (see Egan & Mody (1992) for a discussion of opinion-making amongst buyers). In reference to differences between Asia and Mexico, one buyer made the following observation:

'If, for example, you tell an Asian supplier he has to sew a pant, put on the button, dye the pant, take off the button, wash it and then put the button back on, he will do as specified without questions or comments. The contractors in Mexico will protest, will try to convince you that taking the button off makes no difference. Some may simply not do it.'

A manager of a high-end buyer with recent contracting experience in various parts of Mexico, including La Laguna, stated that the company was determined to take advantage of the opportunities – of NAFTA, geographical proximity and potential reductions of turn-around times – of sourcing in Mexico. Without going into great detail, he said:

'We will work in a different way from what we had planned. After trying a great number of Mexican garment firms, and asking for help and advice from institutions, agencies and consultants, we just had to give that up. Recently we ended up asking one of our main Asian suppliers to come to Mexico and do it for us. He's now in Yucatán, but we're trying to persuade some others to establish a factory in Mexico. It will allow them to continue to work for us and we will benefit from the short distance and flexibility...'

A final concern for buyers with regard to the Laguna cluster, is one they share with their local contractors. They are worried about the developments in the local labour market, turnover rates, labour poaching and wage cost. Especially smaller buyers that have a direct relationship with local producers and travel to the region expressed worries in this regard. A few buyers and brokers in El Paso even mentioned these problems as the main reason for moving their production from La Laguna to other regions in Mexico. Instead of blaming workers, most buyers place the fault with local industrialists. In the words of an El Paso-based intermediary:

'They [local industrialists and the chamber] need to get a handle on labour poaching. It has to stop. I know that the chamber has tried but has been unsuccessful. Business will be hurt if prices go up and productivity and quality suffer.'

A sourcing director of a large manufacturer drew his conclusions in late 1999. The company pulled all its work out of La Laguna and he explained the decision as follows:

'We do not see any future in La Laguna anymore. We don't think they can solve the labour market problems, and ultimately prices will go up and quality is jeopardised. Central Mexico offers better opportunities, large firms are not all packed together there.'

Table 7.3: Insertion of local SMEs in export networks

	Small	Medium
Direct exports	1	6
Export through local intermediary	8	13
Export through non-local intermediary	0	6
Export through intermediary + direct exporting	1	5
Total	10	30
Purely domestic market	2	2

Source: Baseline survey, 1998-1999

This latter observation points to one of the potential downsides of clustering that is a real threat to the development of La Laguna where the disadvantages of an excessively tight labour market outweigh the clustering advantages.

Despite their ultimately subjective nature, these general perceptions can be assumed to affect business relations and the content of individual sourcing linkages. At a higher level of scale, even the configuration of production networks may be impacted as perceptions of business in La Laguna are juxtaposed with perceptions of other Mexican regions or even other countries.

7.4 Export networks and the insertion of SMEs

Notwithstanding their structural differences, the various types of networks discussed above have one thing in common: buyer-producer linkages are concentrated in the large and very large and only sometimes – in the case of branded manufacturers – medium-sized garment companies in the region.

How and where do local SMEs fit into these export networks? Most networks outlined above appear to offer limited (if any) opportunities for SMEs: the work of branded manufacturers and designers, for example, is either not at all or only to a very limited extent subcontracted. Through subcontracting linkages, retailer centred-networks do extend to include medium-sized and small subcontractors in La Laguna. Does this mean SMEs rely fully on retailer-centred networks and the intermediaries through which their work is distributed and controlled? Or do SMEs also produce for smaller buyers in the US? Table 7.3 illustrates the insertion of local SMEs into the export networks.

At first glance the table confirms the image created by the first sections of this chapter and by previous chapters: very few SME have a direct link to the export market. Those that do export directly, commonly work for branded manufacturers such as Savane and JanSport (part of the VF Corp.) but also for smaller buyers. Generally in these networks SMEs perform a limited role (assembly or CMT), while other production activities are subcontracted locally or performed or coordinated by the buyer. The large majority of the local SMEs export indirectly; their connection to US buyers is mediated through local contractors or non-local intermediaries. In line with findings in the previous sections, most work that is channelled through intermediaries to SMEs bears the private labels of large retailers. Route 66 and High Sierra by Kmart, Faded Glory by Wal-Mart and Chic by His are examples of the labels produced in local SMEs. These are the lower-end, bulk produced garments at the bottom of the local product range. However, Table 7.3 also shows that some SMEs have room to manoeuvre in choosing export channels and positioning themselves in the export networks. Several companies combine a subcontracting role in retailer-centred networks with direct exports. Typically, direct exports are for smaller, less well-known buyers such as Motherhood, which specialises in maternity clothing, or Cavaritzi, a Los Angeles-based fashion buyer.

Over all, medium-sized firms are in a better position to develop a direct exporting relationship. Larger company size is an explanatory factor in itself, but machinery and facility conditions may also play a role. Large production capacity allows some of the medium-sized companies to work for up to three customers at one time. Small companies are unable to do that, as their entire capacity is usually filled by one local client. In fact, small company size is a severe barrier to direct export production, because the minimal production capacity that even smaller US

buyers require often exceed the capacity of small firms in the region. In addition, the facilities of many small companies do not meet the standards of most buyers, who in turn do not want to invest in upgrading these small companies. Finally, the perspective of most small companies in the garment industry does not extend beyond the local cluster boundaries. In other words, they work for one of the local giants and have little notion of the US or the domestic market, the main buyers and their market position, how and where to contact them or the standards they require from their contractors.

The companies in Table 7.3 that export directly stand out from the other SMEs in the region. While many SMEs are managed on a day-to-day basis and appear to lack a well-defined, articulated business strategy, these few more diversified companies are exceptional. Their position is in most cases the result of a proactive attitude. Some of them have spread their risks by broadening their buyer base and by producing for the domestic market as well. Others have put particular emphasis on the quality of their products and/or the conditions of their facilities. In general, the managers or owners of all of these more all-round companies have a better understanding of their industrial environment and its trends than their local peers do. In some cases they, or their family, have been in the business for a relatively long time.

Most but not all local SMEs function as subcontractors and depend on local contractors for their insertion into export networks. The critical question with regard to local SMEs concerns the differences and advantages/disadvantages of direct exporting compared to indirect exporting, and vice versa. If, as is the case for several of the more diversified SMEs, their position is the result of strategic decisions, what is the aim of such strategies? Diversification of the buyer base or diminishing the dependence on one single client may be an aim in itself. However, when asked to elaborate on any differences between local contractors and US buyers as clients, a more subtle difference was also revealed. One respondent explained the difference between the relationship with his US intermediary and that with his local contractor (through both of which he worked for the same buyer):

'After six years of working for our client, we had a relationship built on trust. Our factory was treated as a socio, a partner. We were more strategically involved and we knew what was going on – with the intermediary, its clients and in the market. On several issues, the buyer and our factory communicated directly, without interference from the intermediary. We had our own responsibilities, including practical responsibilities; we bought all the trim and printed the barcodes, for example. We did not have an auditor from the intermediary or buyer in our factory.'

This contrasts with the company's relationship with a local contractor through which it exports indirectly, which was described as follows:

'[the local contractor] ... treats us like an employee. We are not involved, consulted or even informed on matters of planning or organisation. We are like a babysitter; everything [trim and fabric] is delivered to us, we assemble and deliver when we are told to. All contact with the buyer is through the local contractor, but all responsibility is also theirs. Procedures and products are checked strictly by their auditors.'

[198] Interviews suggest that this pattern can be generalised to a difference between a direct and an indirect export position. Respondents indicated that when working for local intermediaries or contractors, prices were reasonable and the products largely the same, but the responsibilities of the subcontractor were very limited. Fluctuations in work were fairly frequent so it was hard

to build up a long-term relationship, especially because the business relationship in many cases was rather distant and dispersed over several departments and personnel. This system of fluctuating, unstable sourcing relationships requires tight governance but little investment in the relationship and limited transfer of knowledge and information (see Chapter 8). This is facilitated by subcontracting work of the lower-end buyers, who first of all, allow subcontracting but also generally have lower quality standards. In the relationship with US buyers the physical distance often meant more responsibility for the local firm and also more learning because the responsibilities were broader and not always clearly defined.

For many local SMEs, positioning themselves in a direct exporting position may be complicated and difficult because of the minimal capacity requirements and limited knowledge of potential buyers. Furthermore, if standards and requirements increase, as is suggested by the literature (see Chapter 1), then the window of opportunity for SMEs wanting to break out of a pure subcontracting role is closing. On the other hand, the majority of local SMEs appeared to be fairly content with their indirect insertion into export networks, which implies a limited but straightforward, surveyable role as subcontractors. Only a few companies broke away from the subcontractor role, by seeking access to direct export channels or by getting more deeply or structurally involved in the domestic market.

7.5 Domestic market networks: an alternative for SMEs?

For a local garment SME that wants to break away from its pure subcontractor’s role, production for the domestic market may be an easier option than entering into a direct exporting relationship with a US buyer. As mentioned in Chapter 2, generally there is a large capability gap between standards in domestic markets of LMICs and those in export markets. By contrast, barriers to penetration of the Mexican domestic market are so low that some companies occasionally do some domestic market work ‘on the side’ (see Chapter 4). This ease of entry and exit is due to the fragmented nature of the Mexican domestic market (Mendoza et al., 2002; see also Chapter 3). First, it is fragmented geographically: many domestic market producers sell their products on the regional market. More importantly, the retailing of clothing is fragmented organisationally, as formal large-scale, formal small-scale and informal small-scale distribution channels each account for about one-third of total clothing sales in Mexico (Mendoza et al., 2002). This contrasts with the situation in many Western countries, where formal large-scale channels, most notably department stores, take up a relatively larger share, while informal small-scale retailing is of more limited and declining importance. Other

Table 7.4: Domestic market distribution channels of garment companies in La Laguna

Distribution channel	No. of companies
Nation-wide department stores/ tiendas de autoservicio	6
Formal small shops:	
• Own shops	3
• Wholesale	2
Informal: tianguis/aboneros	2
Total	13

Source: Baseline survey, 1998-1999

key characteristics are of domestic production networks (formal as well as informal) are variation and opportunities.

This section examines whether and if so how local producers in La Laguna feed into the various domestic market distribution channels and how these channels are structured. Table 7.4 shows which distribution channels garment firms in La Laguna use to sell their garments on the Mexican market.

Possibly the most surprising feature of Table 7.4 is the fact that few local producers sell their products through informal channels of *tianguis* or street vendors who use vouchers, the *aboneros*. One might expect such local markets to sell local products, but in La Laguna *tianguis* and informal markets sell primarily garments from places in the centre of Mexico, such as León and Irapuato, as well as cheap imports bought in the US. Although informal, small-scale channels are of limited importance to local producers, the limited occurrence in the table may also partially be due to the clandestine, hidden and/or possibly incidental nature of these activities. However, as mentioned in Chapter 5, no evidence was found of sizeable underground garment trade and production in the region, and therefore the general trend in the table seems fairly accurate.

Thus, generally domestic market garment producers in La Laguna feed into formal distribution channels. Their garments are sold through nation-wide buyers with stores throughout the country or in small shops, in most cases in the region. In a few cases these shops are owned by the producers; often, however, they are independent. The connection between local producers and formal marketing differs in two ways from those in the export chains. First, garments are designed and owned by the manufacturers and the relationship with buyers is mostly a market or arms-length relationship. Generally, buyers, including the *tiendas de autoservicio*, are not involved with product development or with production organisation. Most of these stores do not have a focused private label line; in fact, in many cases the garments sold bear the label of the producer, even if it is a small producer and the business relationship is temporary. Governance is not part of domestic retailer-producer linkages and producers are the pivotal point of the production network. In some cases, especially for companies that are predominantly oriented towards the domestic market, fairly large numbers of subcontractors are engaged. Since the retailer's interference in and governance of product and production matters is limited, facility and labour conditions are hardly a matter of their concern. Commonly, conditions found in subcontractors of manufacturers that supply domestic large-scale retailers approach sweatshop standards.

Secondly, the chain feeding into the formal channels is short. In the Laguna region most producers produce autonomously and sell directly to the retailer or are themselves responsible for retailing. Most export companies that produce for the domestic market sell their garments through small shops. Their production is carried out in-house as a complement to or back-up for export production (see Chapter 4). Though some have their own shops, only a few companies in the region use domestic-market production to create a focused brand or label image. The latter is a reflection of the Mexican market, where very few Mexican brands or labels have established a strong market position for themselves.

[200] In general the Mexican domestic/regional market is marked by instability and it offers plenty of opportunities to adventurers, opportunists and fly-by-nights. The fairly large number of small, specialists cutters, laundries, etc. in the region (see Box 7.2) are both evidence and

Box 7.2: Bits and pieces of domestic market production

In La Laguna, domestic market garment production is dwarfed by the export-oriented segment. Yet it can not be ignored. Within the region, the entire domestic market value chain is represented mostly by comparatively small-scale, often somewhat run-down facilities with basic and sometimes truly outdated technology. Barriers to entry are low and the presence of specialist cutters and laundries allows for the occasional production of small batches, especially since fabric and trim leftovers of the export segment may be obtained at much reduced prices. A number of representatives of this domestic market chain are introduced below.

A shadow economy in fabric and trim supplies

Between calls on his cellphone – from managers who urgently need a certain type of thread or who want to sell elastic or another kind of leftover – in his small ‘warehouse’ of which every millimetre seems to be occupied by one type of trim or another, Sr. Pedro Gonzales explained his business. Gonzales has made the trade in leftover trim and thread of the garment companies in the region his main source of income.

After many years of performing different jobs in the garment industry, both on the border as well as in the Laguna region, Gonzales set up shop in Torreón in 1998 and bought a small house in a hidden corner in the centre of the city to serve as a warehouse. At that time, his business was relatively straightforward and local: it consisted of the buying and selling of thread and trim leftovers of the companies in the region. In the days when US buyers still sent the necessary trim for their garments to their manufacturers, over-estimation of trim was such as to give rise to fairly extensive tradable volumes of leftover zippers, thread, elastic, pocketing and buttons, et cetera. Since these leftovers were a burden on the limited storage space of most of the companies and their future use mostly a matter of coincidence, Gonzales could buy them at relatively low prices. On the other hand, there was always a demand for these goods in the cluster (from exporting as well as domestic market producers) and since Gonzales was a known figure in the business, he had no problem selling his goods.

Recently, however, since the establishment of a very wide array of suppliers in the region and the increasing responsibility of local manufacturers for supply procurement, the amount of leftovers in the factories has been pushed down to a bare minimum, forcing intermediate traders such as Gonzales to travel extensively in search for cheap tradables. He now regularly travels throughout the North of Mexico, covering the states of Chihuahua, Durango and Sonora. Local demand, as evidenced by his constantly ringing phone, is still very high. Especially the domestic market producers are good clients. Gonzales: ‘...*acceptan todo, especialmente lo barato*’ (... they’ll accept anything, especially the cheap stuff). Indeed, the warehouse did not show serious signs of a slowing supply: there was barely any room to move between the ceiling-high piles of boxes of thread, elastic, zippers and buttons.

While Gonzales’ business is well-known and formal, informal, underground trade often of stolen fabric, trim items and other goods, has grown over the past years. Local sources reported informal traders who turned up at factory gates trying to sell different sorts of trim and fabric at very low prices. Generally the origin of these goods is ‘unknown’ and the sale is unregistered.

Second-hand machinery and parts

In the region is a lively business between local companies in second-hand supplies of machinery and parts, as well as in machinery coming from auctions of closed down companies in the US. The latter

may appear to be of a more ad hoc nature, though some people have made the contrary development in the garment business between the US and Mexico their core business by trucking second-hand machinery from the US to Mexico. This is Mr. Jones' business: he buys equipment at auctions throughout the US, loads it onto his truck and drives it to and through Mexico, where he sells equipment to Mexican garment manufacturers. Generally, the Laguna region is his first stop in Mexico.

Besides these specialist traders, local industrialists in La Laguna may from time to time also visit auctions – which are advertised widely – in the US in search for good, cheap equipment. This applies especially to automated or highly specialised sewing machines or cutting room or laundry equipment. More ordinary second-hand machinery can quite readily be found in the region. Many machines are 'handed down' – at a fair price – from contractors to their subcontractors. This type of recycling of machinery within the cluster is quite extensive and facilitates the establishment of small companies. On the other hand, as noted by some US clients, quality may well be less consistent in companies using what sometimes appears to be 'pre-colonial' machinery.

The cutting edge

A garage-type space, just outside the centre of Gómez Palacio, houses the cutting room of Sr. Palma: on one side there are endless heaps of cut fabric and rolls of fabric, and on the other are Palma's cutting tables. The cutting room was established in 1996; until that time Sr. Palma had worked in many different garment factories from Tijuana to La Laguna. Most importantly, he helped set up the cutting room of a very large garment company in La Laguna in 1993. This cutting room was closed soon after it was opened due to a lack of demand based on trade regulations that imposed duties on garment cutting in Mexico. However, his involvement in the project gave Sr. Palma the necessary skill, experience and contacts for the establishment of his own cutting business. Moreover, in the peak export season, Sr. Palma is hired to cut all the domestic market production for this very large company (that re-opened its cutting room as soon as duties on cutting were lifted). For this task, which is an important (up to 70%) but fluctuating part of his business, he temporarily hires extra personnel to work in the cutting room of his client.

Meanwhile, in his own cutting room he currently has several manual cutting machines and besides Sr. Palma there are five full-time employees. In 1999 the cutting room had a maximum capacity of 15,000 garments a week, up from 5,000 three years earlier. It does work for various local companies that find him through word of mouth. The lion's share of his work is for the domestic market. The domestic market business is informal in character: clients come and deliver the fabric and a pattern, and arrange an approximate date for collection of the cut pieces. Generally, for domestic market garments, markers are made in the cutting room on the basis of provided patterns and the specification of the numbers and sized to be produced. Sr. Palma occasionally also has larger clients that produce for export.

Ivan's sewing shop

Ivan's sewing business is located on the third floor of a five-storey building in the commercial centre of Gómez Palacio; the business is unidentifiable from the street, other than from the small '*Se solicita costureras*' sign on the wall. These all but modern surroundings contrast sharply with the working environment found in the better exporting companies: there is no marble and mirror covered entrance hall, and the shop floor has few of the amenities commonly found in the export sector. There is no air-conditioning – 'fresh' air enters through the windows on the street side of the building – or

canteen, and the toilets are two floors down, but the music is loud and thirty sewing machines are buzzing away.

The sewing business has a weekly production of 1,500-1,800 jeans or carpenter trousers, which are destined for the local market. Ivan works for two large local-market clients and fills seasonal gaps in demand with his own products – which just happen to be exactly the same models as the ones his clients use. He intends to increase the volumes of his own products.

The business employs 35 people, most of whom are from the neighbourhood and who prefer to work in this business because of the higher flexibility, more relaxed and less demanding atmosphere compared to conditions in the exporting companies. However, just like the exporting companies, Ivan has problems with high labour turnover and absenteeism rates.

A laundry in a garage

Laísa – a small industrial laundry working for both the export and the domestic market – is located behind the petrol station at the entrance of Cd. Lerdo. Between one- and two-thirds of the 30,000 weekly capacity is destined for export (through an assembly factory owned by a family member of the laundry-owners); the rest is filled with domestic-market production. Laísa has approximately seven domestic-market clients, who deliver their orders (500-5,000 garments each) to the laundry during the second half of the week and pick them up the following week.

The building is a large garage with hardly any laundry-specific infrastructure. Most of the very old, and sometimes wooden, machinery is placed almost randomly in the space and in some cases the discharge is an virtually ad-hoc arrangement of hoses and flumes. Containers filled with chlorine and other chemicals are placed close to the equipment and the floor is wet with a blue liquid (the discharge from the washing machines).

On one side of the existing laundry a new and more modern laundry building is being constructed. As in the case of the existing laundry, most of the equipment for the new laundry has been bought second-hand in the US or in the region. The new building will include a recycling installation – which is now obligatory in Cd. Lerdo – and a finishing department. The present facility has neither of these.

Domestic 'marketing'

Umberto Jaidar has an oversized and apparently luxurious factory in Gómez Palacio, in the vicinity of a number of large exporting factories. This is Jaidar's only production facility, although he controls a fair share of the domestic market production of *piratería* jeans in the northern states of Mexico through his subcontracting network. All Jaidar's jeans bear the 'Rancho' label, while the models bear a striking resemblance to the basic models of VF's Wrangler jeans. The labels, tags, buttons and even rivets are attached in his own factory, all other production activities are organised through subcontracting arrangements within the region. Jaidar works with a large number of subcontractors, many of which are small sweatshops producing volumes from a few hundred to a few thousand jeans a week. Many of his contractors are located in the small villages surrounding Cd. Lerdo.

Jaidar distributes his garments widely in North and Central Mexico and has managed to consolidate his position over the years through a number of devaluations that put his less cash-rich competitors out of business. The Rancho jeans are sold through wholesalers, at '*tianguis*' and in small independent shops in cities in the north of the country. As the model is recognisable, cheap and popular in this part of the country, no active promotion or marketing is required.

facilitative of it. Their presence makes it possible for small producers to occasionally produce small batches of own 'private label' garments, or counterfeits for the domestic market.

No data could be obtained on the financial situation of domestic market production, but with the exception of subcontractors working for the large-scale *tiendas de autoservicio*, many domestic market entrepreneurs were quick to state that they were doing well. This may well be the case: Mendoza et al. (2002) for example, estimate the average mark-up over the entire chain feeding into Guadalajara's garment market at over 100%. In the short supply chains feeding into the small shops that the local producers in La Laguna are involved in, much of this mark-up may accrue to them. It is therefore somewhat surprising that so few export companies see in the domestic market a worthwhile alternative to export. The limited interest in the domestic market is surprising for a number of reasons: the production of finished products for the domestic market can be done in small volumes against limited risk and with comparatively large profits, involvement in the domestic market spreads risk as it diminishes the dependency on the US market and, finally, it allows exporters to experiment with full package production⁵.

Similarly, there is little enthusiasm for export production amongst domestic market producers. There have been attempts to incorporate domestic market producers as subcontractors into export production networks. However, few domestic market manufacturers are willing to accept export work. Prices for assembly differ little from one sector to the other; however, timeliness and quality demands are much higher and stricter in the export sector. Several domestic market assemblers reported that they do not believe they could live up to export standards and that they know they would be penalised severely if they failed. This can be understood in the light of the general capability gap between the Mexican domestic market producers and export standards. Moreover, it confirms the limited role local subcontracting linkages play in closing that gap. Since generally local export firms looking for new subcontractors do not, or only to a limited degree, get involved in the upgrading of domestic market producers to export standards, many domestic market manufacturers consider export production too risky.

Nevertheless, some often somewhat hidden interrelations were found. As mentioned, prices paid by US buyers have been stagnant and the profit margins of manufacturers in the region have been negatively affected. Exporting companies are trying to bring down costs and some do so by contracting domestic market cutting rooms and laundries, which charge rates significantly below those of the export cutting rooms and laundries that are certified. In both the cutting room and the laundry presented in the box in the previous section, export work was being done for a local export company.

7.6 Conclusion

Over the past few years the buyer base of the Laguna garment cluster has broadened: besides the branded manufacturers, which used to dominate the local industry, the number of retailers and designers that source from La Laguna has increased since the passage of NAFTA. Different types of buyers not only structure their networks differently, but their expectations of participants and governance exercised over the network linkages may also differ.

[204] One important observation in this regard is the fact that generally retailers are not replacing branded manufacturers but are joining them: branded manufacturers have not left La Laguna and their networks and strategies remain important elements in the cluster. Several US branded manufacturers are directly involved in the cluster through local FDI facilities, which

have limited linkages to the rest of the cluster. These and other branded manufacturers also source from contractors in La Laguna; sourcing linkages run through international sourcing departments in the US and operate largely in isolation from local FDI facilities of the same companies. In La Laguna, several branded manufacturers have worked with a stable group of contractors for several years. Most of their contractors are large- and medium-sized companies that dedicate a large share of their total production to branded manufacturers. Much emphasis is placed on product quality and production efficiency. Most branded manufacturers do not allow the subcontracting of their work.

Mass merchandisers also have worked in La Laguna for a long time. They have been joined more recently by department stores. Both types of retailers have started to develop direct linkages to local giants, but the bulk of their work is still channelled to La Laguna through US-based intermediaries. Several intermediaries have factories in the region. In most cases the intermediaries supply their buyers with full packages by relying on a local subcontractor network of mostly pure assemblers and by centralising either cutting, laundry, finishing and/or other more specialist, higher value-added activities in their own production facilities. In other words, the intermediaries orchestrate and govern the entire production process and are headed for direct competition with local producers. In general, linkages between them and local subcontractors appear distant and formal and transmit limited learning opportunities, certainly with regard to extending capabilities along the chain. Upgrading of subcontractors by extending their capabilities along the chain is not in the interest of intermediaries as it would create competitors. Only a few local producers have bypassed intermediaries and established a direct relationship with a retailer. The few local companies with a direct link to a retailer are very large full-package suppliers.

Finally, marketers of designer labels have recently also started to source from the local full-package giants in the region. So far, they are only working with a select group of the largest local companies that can deliver high-quality full packages, potentially in large volumes. Especially in the early stages of the sourcing relationship they are directly involved with their suppliers and with communicating, teaching and enforcing their upgrading to the demanded quality levels. They require flexibility and service from their suppliers. Designers have not become firmly embedded in the cluster, but are still working with small volumes and pilot programs and a select group of local giants. Several have already discontinued their sourcing from their local suppliers or even the cluster at large, apparently because they were not satisfied with the service and flexibility on offer.

In line with observations in the literature with regard to the role of buyers in upgrading LMIC suppliers, buyers have played an important role in setting and improving the standards of local contractors in La Laguna (Egan & Mody, 1992; Gereffi, 1999; see Chapter 2). In the case of La Laguna it appears especially important because local experience with jeans production, especially amongst the new companies, was limited and their frame of reference to the US garment market was either very limited or non-existent. In this light, the assistance, interference, support and other forms of involvement of US branded manufacturers and of jeans manufacturing experts, many of which are from El Paso, have been very important. By the end of the 1990s, the Laguna cluster was a firmly established source for large volumes of good quality jeans sold by US branded manufacturers and retailers in the low and mid segments of the US market. Upgrading impetuses appear to emanate from the arrival of new buyers to the

cluster; the following chapter will examine whether this has resulted in an upgrading process, which companies are engaged and with which aim.

One observation with regard to upgrading can already be made here: the findings presented in this chapter suggest that the dependence on buyers for upgrading stimuli may be cause for concern with regard to local SMEs. The large majority of SMEs does not maintain direct network linkages with buyers. While in general subcontracting linkages have been found to facilitate learning in SMEs (CEPAL, 1998), in La Laguna there are clear limits to learning through subcontracting. The unstable nature of local subcontracting linkages based on pure assembly may limit the knowledge and information transmitted down the subcontracting networks and this in turn may hamper the upgrading of local SMEs. All the more so because SMEs are mostly incorporated in the networks of mass merchandisers and department stores, while the more sophisticated products of designers are only rarely subcontracted out.

The dependence or narrow focus on buyers as the main and often single source of market information is also somewhat worrisome. Information on the market and on market conditions is principally obtained through buyers: it is rare to see industry magazines in the offices of local factories and few local entrepreneurs appeared to have a well-informed, broad outlook on the industry or the US wearing apparel market and its principal buyers. At the turn of the century, new challenges were facing the Laguna cluster. Increasingly, enhanced market awareness, service, flexibility and a proactive business attitude are needed if local producers want to be able to respond adequately to new challenges. In order for them to secure a future for themselves, local producers will need to develop these qualities/attitudes independent of their buyers and will need to base them on a solid understanding of the global garment market and industry.

In this light, the virtual neglect of the domestic, regional market can be considered a missed opportunity that represents valuable upgrading opportunities. Product quality may not be so high on the agenda of the domestic market, but involvement in the domestic market may allow exporters to spread risk while teaching them how to take risks and act on opportunities. In short, the domestic market appears to be better at fostering entrepreneurial qualities than the export market.

Notes

- 1 It is difficult to compile a detailed list of final clients of the complex for the beginning of the 1990s, because of the dominance at the time of brokers and other types of intermediary firms. In many cases, there was no direct contact between the final client and the local contractor, and in some cases this may have obscured the identity of the final client.
- 2 In studying the impact of US buyer strategies and power shifts in retailing on manufacturers in Mexico, business relationships are often simplified by putting aside the role played by intermediary companies. As will be discussed in this chapter, this remains far removed from the experiences of garment producers in Mexico. The impact of shifts in retailing are in practice often still indirectly passed on to them through intermediary firms. This chapter departs from a functional division of downstream actors: branded manufacturers, retailers – including mass merchandisers, department stores and designers – and intermediary firms.
- 3 A number of intermediaries involved in production in La Laguna have followed this strategy by either developing or buying (a licence to) an existing label or brand. For example, the 807 Company based in El Paso has acquired the Long Horn brand, W. Stevens has its Zena Di label and Sun Apparel (now part of the Jones Apparel Group) has the exclusive rights to the Polo Jeans label.

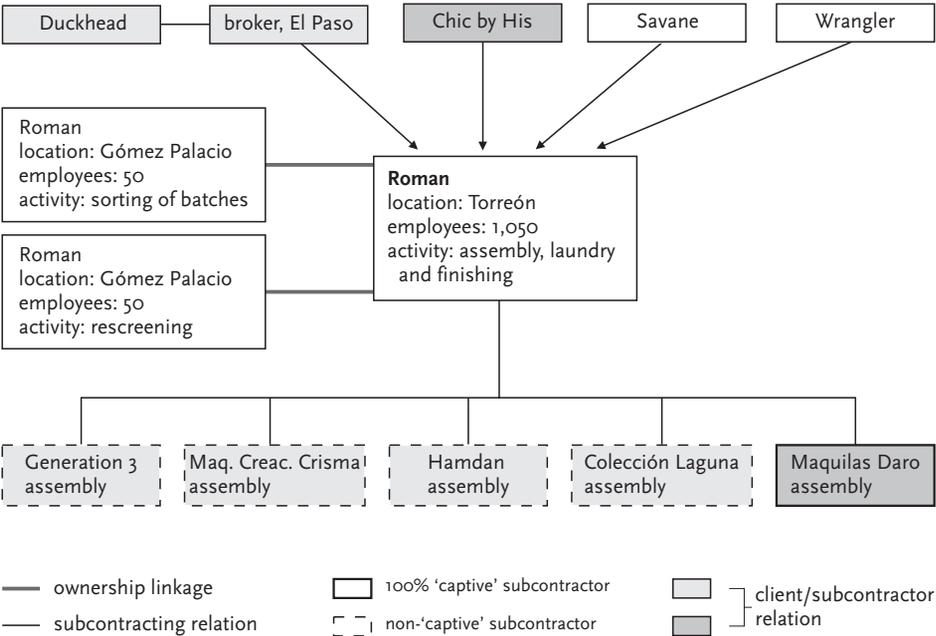
- 4 The most important marketer for La Laguna is Gap Inc., which has a sourcing strategy that differs from other designers. Gap started sourcing in the region several years ago and mixes different kinds of sourcing strategies: part of its production is channelled through intermediaries, and part is direct and in the form of full packages.
- 5 When asked about the opportunities in the domestic market, export producers in La Laguna mentioned a number of problems. The comparatively large investment in fabric and the ownership of the garments is seen as both a risk and a barrier. The instability of the market and the underground nature of parts of it were also mentioned. In general, risk avoidance is highly prevalent among exporters. In contrast, many domestic market subcontractors indicate their interests in operating directly (i.e. with full packages) on the domestic market. In many cases they are barred from doing so on a structural basis by insufficient cash flow and access to credit, but may be quick to take advantage of occasional opportunities.

Appendix II

Illustrations of bi-national production networks

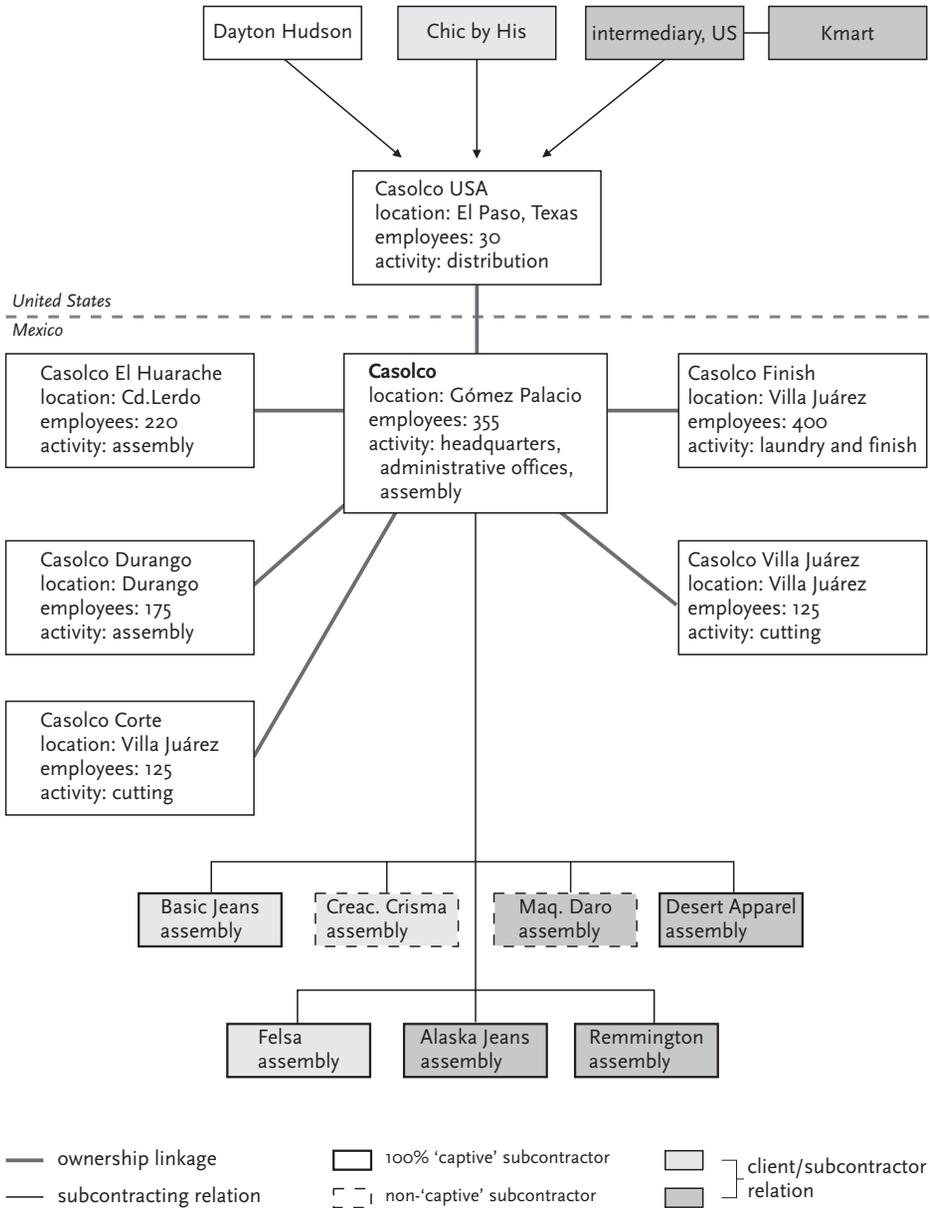
In this appendix the structure of the local production networks of local multi-plant companies that were illustrated in Appendix I are extended to show how the work of different US buyers is contracted out to local subcontractors (through mediation of local contractors).

Roman works for four different clients: Duckhead, Chic by His, Savane and Wrangler. With the exception of the relationship with Duckhead, that goes through a broker in El Paso, all relationships with clients are direct. For Wrangler, Roman does only the laundering and perm pressing of Wrangler’s Timbercreek casuals, for the other clients it does assembly and laundering. The work for both Savane and Wrangler is done in Roman’s own facility; nothing is subcontracted as Savane nor Wrangler allow subcontracting of their work.



Source: Baseline survey, 1998-1999

Figure II.1: The structure of the bi-national production network, Roman



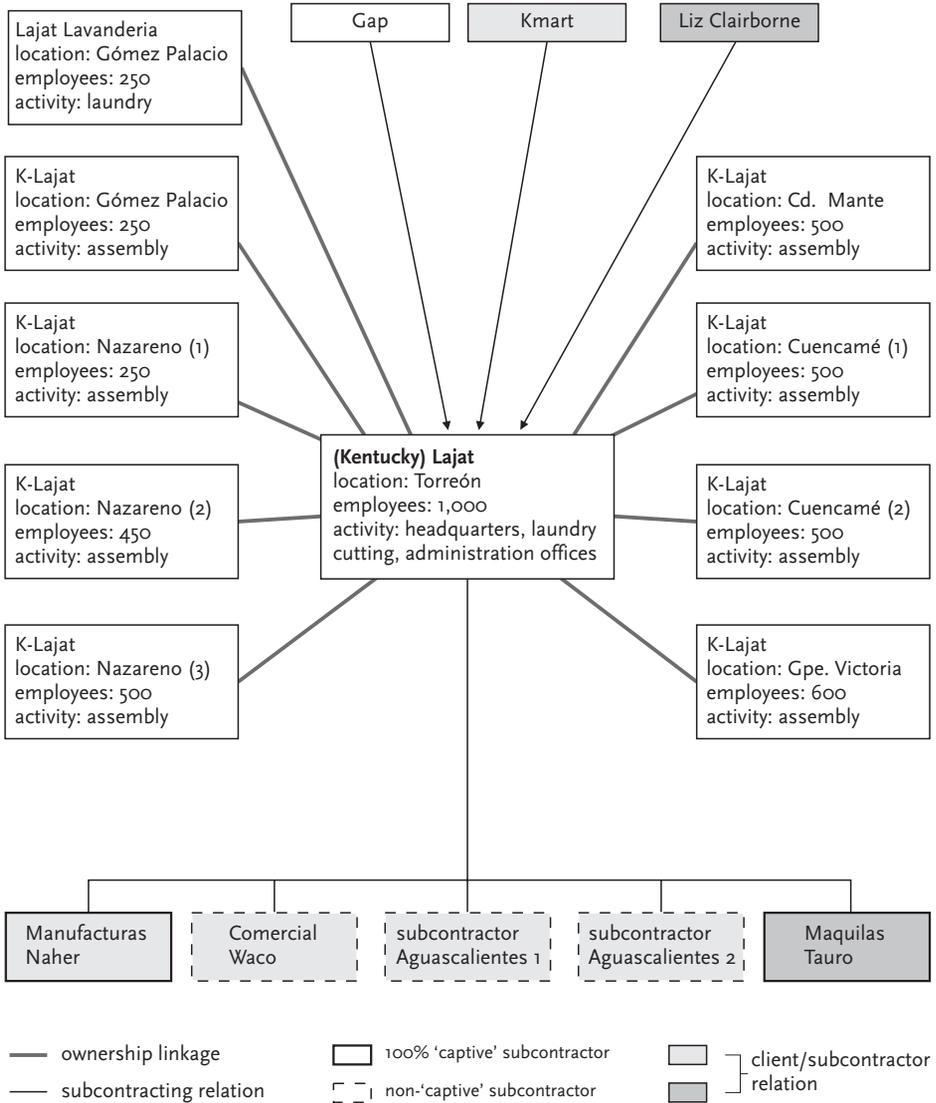
Source: Baseline survey, 1998-1999

669

Figure II.2: The structure of the bi-national production network, Casolco

By contrast, a large share of the casuals for Chic by His – which are sold in US mass merchandisers such as Wal-Mart, Kmart and Target, under the Chic by His brand or the store’s private label – are assembled by Roman’s subcontractors. Also, one subcontractor assembles Duckhead casuals.

At the time of the survey, Casolco worked for three different clients; all three serve the low- to mid-segment of the US market and work with very large volumes. The work for Kmart is



Source: Baseline survey, 1998-1999

6609

Figure II.3: The structure of the bi-national production network, Lajat

obtained through a US-based broker, who does cutting and finishing; Casolco (and four of its subcontractors) does pure assembly.

For Chic by His Casolco does CMT. Finishing, including perm press, is done by Chic by His, because Casolco does not have a perm press facility/oven. Three subcontractors also assemble for Chic by His because subcontracting is allowed and quality requirements (and thus risks) are comparatively low.

Finally, the work for department store corporation Dayton Hudson is full-package work that is all done in Casolco's own facilities.

In 1999, three clients were filling most of Lajat's production capacity: Liz Claiborne, Gap Inc. and Kmart, while a few smaller clients would come and go and change regularly. The relationships with Liz Claiborne, Gap Inc. and Kmart are direct. Volumes of Gap Inc. and Kmart are very large, but Liz Claiborne has just started to work with Lajat and works with smaller volumes and pilot programs. Compared to Gap and Kmart, the quality standards set by Liz Claiborne are high and this is why the work for Liz Claiborne was only subcontracted to Maquilas Tauro - a subcontractor that could deliver the required quality. Tommy Hillfiger had also worked with Lajat, but the relationship was terminated. The work of both Gap Inc. and Kmart may be and is subcontracted, the precise mix at any point in time depends on order sizes and production planning.

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

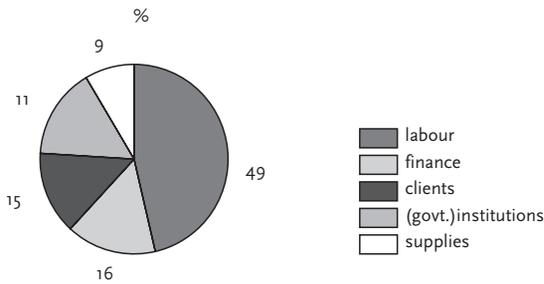
to actual changes in order to understand the influence of local entrepreneurs on actual changes and to assess their market awareness.

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 to 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 auto-evaluation 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,



Source: Baseline survey, 1998-1999

Figure 8.1: Relative importance of company relations

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.

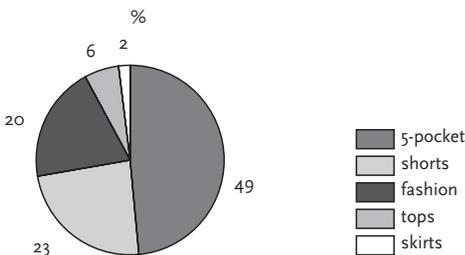
Finally, one of the most striking general observations about the local entrepreneurs' assessment of their own company is that many appeared to find these strategic questions troublesome. A first indication of their doubts is the high non-response rate on these particular questions. While this might be 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 them¹. 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.



Source: Baseline survey, 1998-1999

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

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.

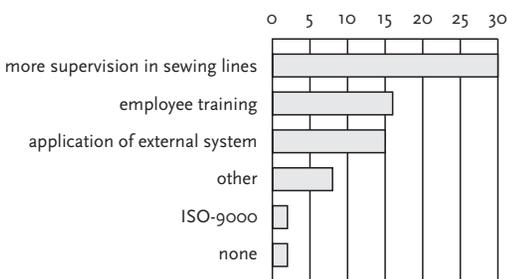
As explained in Chapter 4, garment companies in the region are contractors: they produce what is being demanded, according to the specifications of their US buyers. Most do not have any design capability of their own. Thus, fashion trends are followed, not driven or even shaped, by manufacturers in La 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 casuales 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 buyer². In Chapter 1 it was noted how in this system defective work may accumulate in in-process inventory for a long time



Source: Baseline survey, 1998-1999

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Figure 8.3: Measures implemented to improve product quality

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 Laguna³. 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 un conducive 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.

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.

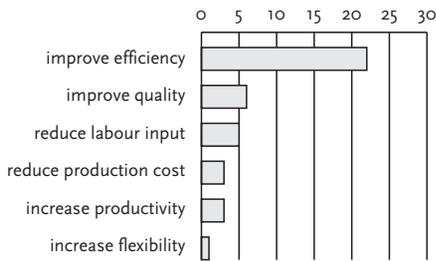
Despite the aid and expertise provided by the buyer, some of the local contractors displayed a passive or even negative attitude towards the changes. This negatively affected the commitment of the operators and hampered the transition. When Savane terminated the sourcing relationship with most of its 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.

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



Source: Baseline survey, 1998-1999

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Figure 8.4: Main aim of introducing new technology

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 problems⁴.

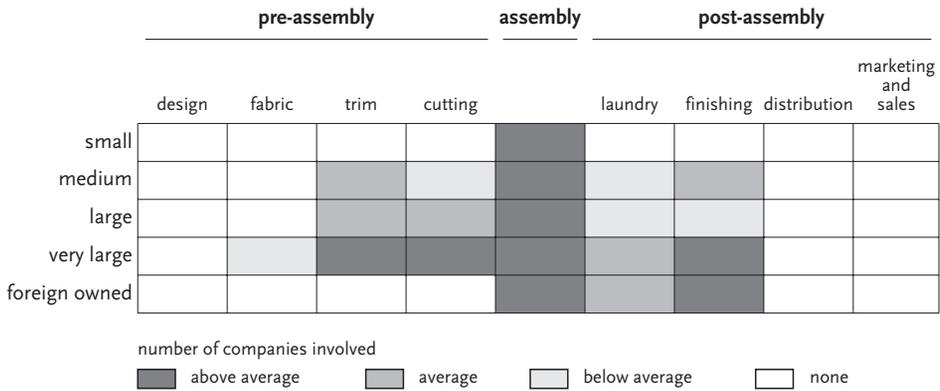
The acquisition of highly modern and very expensive machinery is an option only for the large and very large companies in the region⁵. Even between the largest companies in the region there is variation in the level of technological upgrading they engage in. Between medium-sized companies there is an 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

Table 8.1: Garment companies in La Laguna and their position within the production chain



Source: Baseline survey, 1998-1999

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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.

[224] 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

Table 8.2: Functional position of manufacturers in production networks

Position/activities	No. of companies
Pure assembly	33
Assembly and finishing	9
Assembly, laundry and finishing	5
CMT	5
CMT and laundry	6
Mix of CMT and full package	9
Other	6
Total	73

Source: Baseline survey, 1998-1999

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.

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 delivery⁶, 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 –

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.

Why do manufacturers go to the trouble of developing full-package capabilities? In the eyes of many local manufacturers, assembly work or *maquilar* 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 –

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.

[228] 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 cases, 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: dime 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. Sí, 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

question to switch jobs. This type of poaching is limited to specialist workers who work in cutting rooms or laundries as well as to technicians or supervisors.

3. *Amongst 'friends'*

Another illustration of labour poaching and the lack of scruples in this matter is the case of two friends: one the owner of a cutting room, the other the owner of a small sewing facility with its own cutting table. The two men had been close friends for a long time and at one point ended up working for the same customer.

One day the owner of the sewing facility needed cutting specifications to be picked up from his friend's cutting room. He sent the best-qualified person – the person in charge of cutting at his facility. Within a few days, this man stopped showing up for work. When one of the owner's employees visited his friend's cutting room, he returned with the news that the cutting room manager was now working at his friend's. A bitter dispute then broke out between the two friends. Finally, the case was arbitrated by the customer, who warned the cutting room owner and forced him to fire the employee in question – who returned to the sewing facility but was not given a job.

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 estimate⁷. 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.

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, SEFOMECA actively promotes the rural area of the Laguna region as a location for garment factories⁸. In its efforts, SEFOMECA 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.

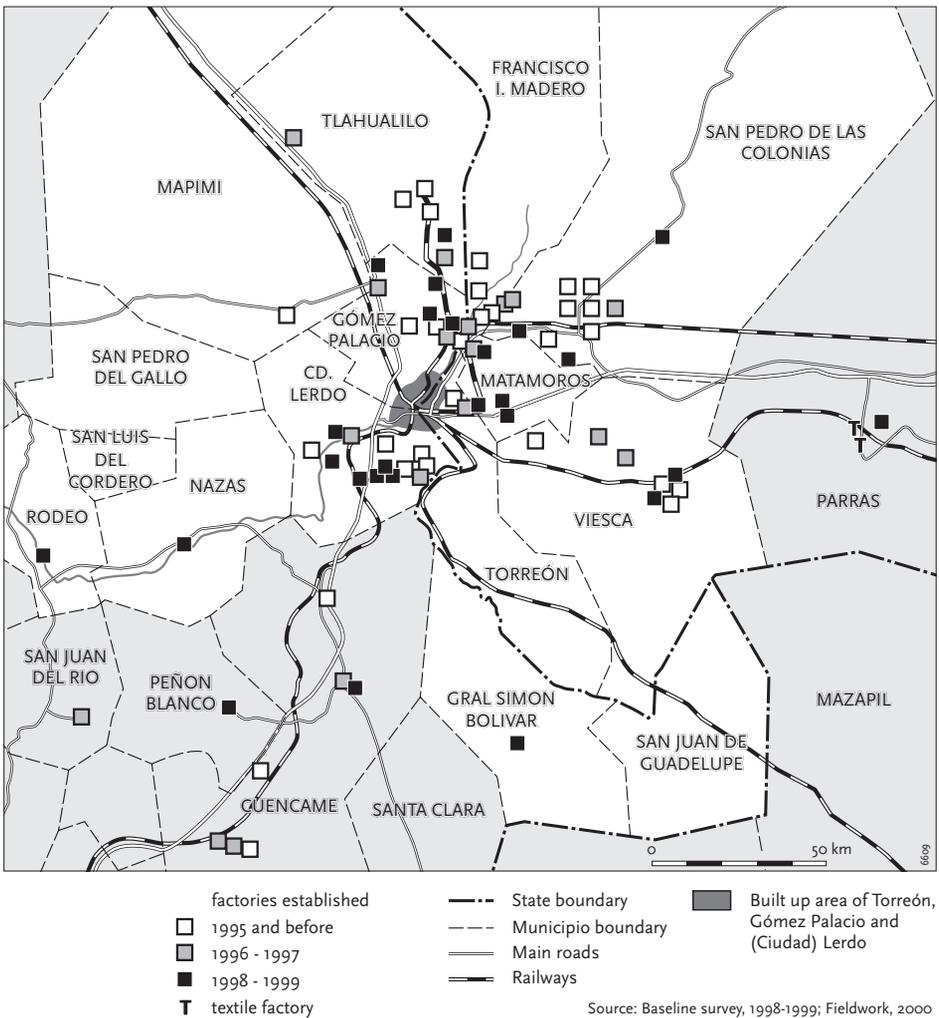


Figure 8.5: Location and year of establishment of rural garment factories

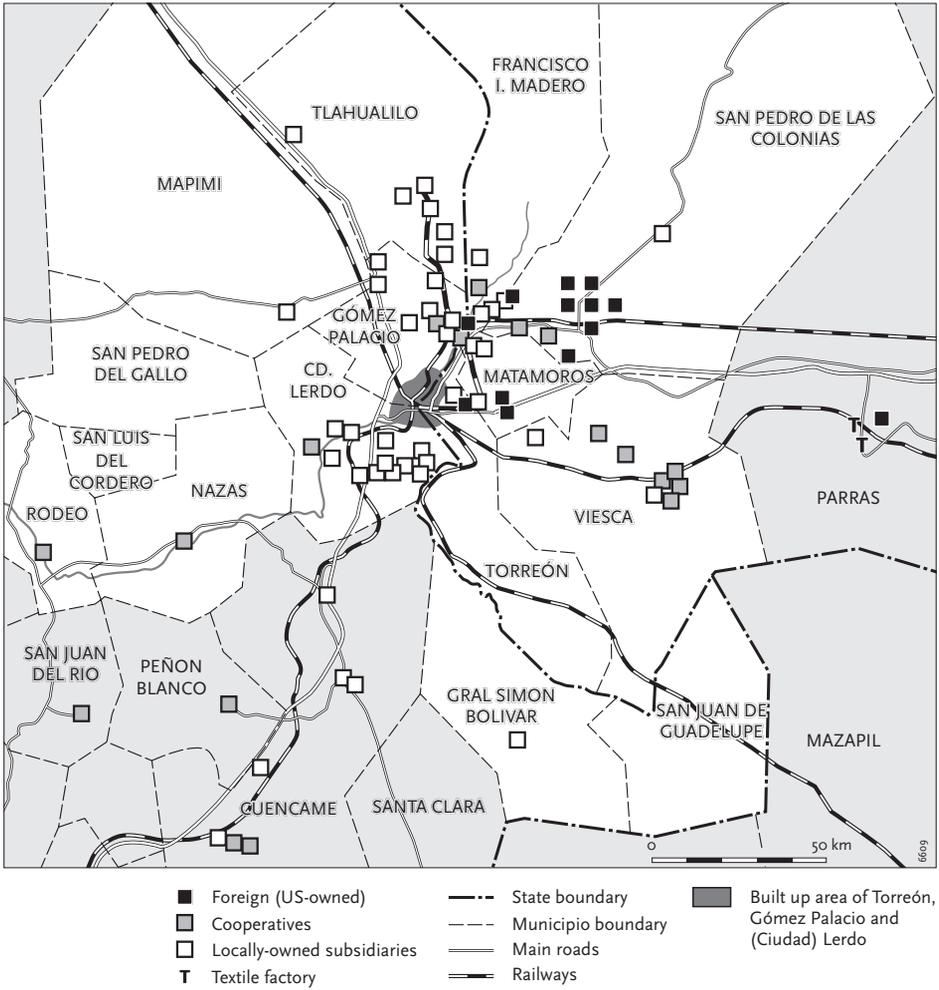
Figure 8.5 illustrates the diffusion of garment production over the rural hinterland of La Laguna between the late 1980s and 1999. It shows a concentration of factories in and around the towns of San Pedro, F.I. Madero and Matamoros, and in the areas just south of Cd. Lerdo. Another striking phenomenon is the location of some factories at a very great distance away from the urban node. The factories in Nazas, Rodeo and Gral. Simón Bolívar 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*)⁹. Foreign-owned factories located outside the three major cities tend to be located in the *cabeceras 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 *cabeceras*. 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 *cabeceras*, 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



Source: Baseline survey, 1998-1999; Fieldwork, 2000

Figure 8.6: Location of cooperatives, locally- and foreign-owned rural garment factories

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

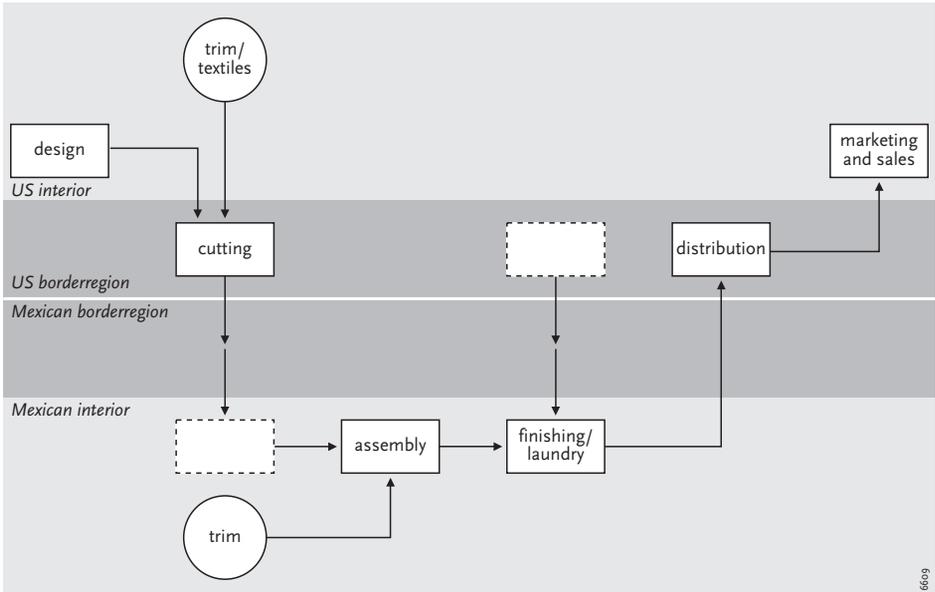


Figure 8.7: Bi-national garment value chain, late 1990s

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 process¹⁰ 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 warranted¹¹ 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

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

[242]

Source: Baseline survey, 1998-1999; Fieldwork, 2000

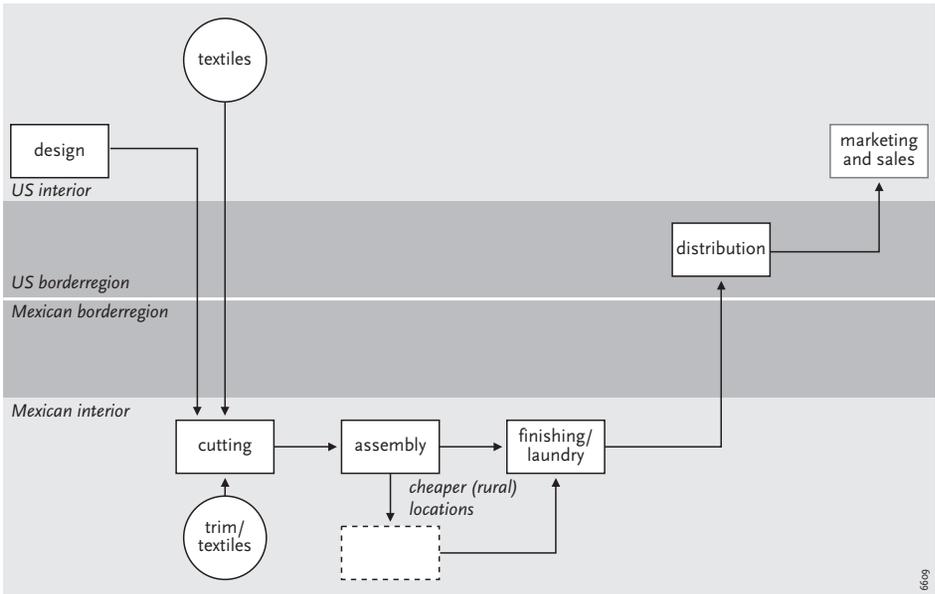


Figure 8.8: An intra-regional shift in the bi-national garment value chain, late 1990s

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?

[244] 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 locations¹². 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.

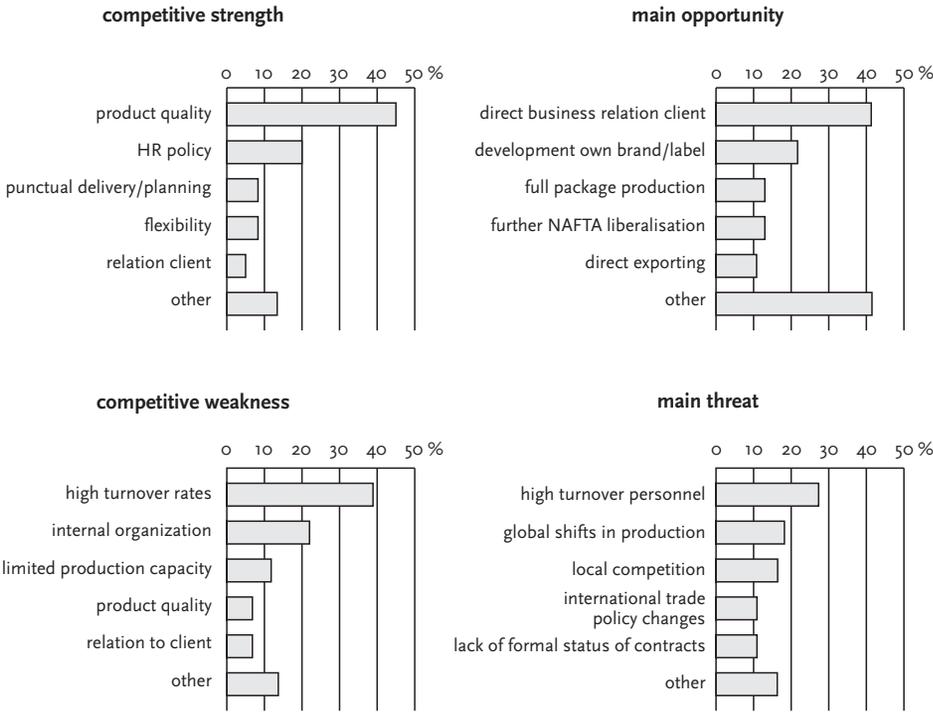
Notes

- 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.

- 8 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.
- 9 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.
- 10 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.
- 11 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).
- 12 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



Source: Baseline survey, 1998-1999

6099

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

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 city¹. 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 be 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.

9 Summary and interpretations

9.1 Summary of main findings

The globalisation of the world economy has given rise to rapid and far-reaching changes in the organisation and geography of industrial production. New production locations, often LMIC clusters, are constantly becoming incorporated into globalised value chains. Operating on demanding export markets through GVCs orchestrated by powerful buyers, presents clusters of producers in developing countries with new challenges and opportunities. For buyers, sourcing linkages to new LMIC clusters represent a low-cost opportunity to tap into geographically concentrated knowledge and experience. Whilst both the globalisation and the clustering of industrial production are well-known phenomena, the need for a more detailed insight into the interaction between the two has only recently become apparent. It is this interaction that is the topic of this study.

A focus on networks is the most suitable for the analysis (at multiple levels of scale) of the highly volatile and dynamic garment industry. Currently, two network-based approaches are receiving much attention: the global value chain and the cluster approaches. The former focuses on the division of labour patterns at the global level and on the governance mechanisms used to control and coordinate these patterns and their underlying processes. The cluster approach focuses on cooperation and competition dynamics that support the competitive position of clustered firms in a certain geographical place. Both approaches share a focus on industrial organisation but also incorporate geographical aspects.

This study concerns the garment cluster in La Laguna, northern Mexico, which has recently boomed thanks to its growing exports to the US. Whichever criterion is used to measure industrial success – growth in local production capacity, growth in exports, the creation of new firms or employment growth – all the evidence indicates that La Laguna is an exceptional case of rapid, export-based growth. Its success is based on the preferential access of Mexican imports to the US under NAFTA since 1994. In fact, based on its development, La Laguna has been hailed as ‘a NAFTA success story’ (Gereffi & Martínez, 2000). This study focuses on this exceptional export cluster in order to examine the interaction and network linkages between the producers in the cluster and global forces in the industry and poses a few specific research questions. In the first part of this chapter, the main findings are summarised in order to answer the research questions. In the second part, the case of La Laguna is positioned in a wider, national context. Then the findings are interpreted.

Research question 1: *What are the main features and trends of the global and North American industrial context within which the Laguna garment cluster is operating?*

The global, industrial context within which the Laguna garment cluster operates is characterised by geographical and organisational complexity and dynamism. Over the past decades, the garment industry has constantly changed under the influence of shifts in the wearing apparel market and/or the marketing strategies adopted to shape and manipulate it.

Among the most relevant trends is what in this study has been called 'fashionisation', that is, the faster pace of fashion change and the increased introduction of fashion elements in basic commodity garments which until recently were characterised by standardisation. Also, retailers of wearing apparel, marketers of designer label garments and branded manufacturers are adopting increasingly similar business and retail strategies which lead to hybridisation, making it harder to tell them apart. A reflection of this development is the use of the term 'buyers' in reference to all of them. A common element in the strategies of buyers is an increased emphasis on the retailing aspects of the industry, where brands and labels are commonly applied tools for the manipulation of consumption patterns. With regard to manufacturing, buyers generally rely on international sourcing networks, while their new retailing strategies call for tight control and coordination, Quick Response and a shortening of their supply chain and lead times. These latter developments are facilitated by developments in telecommunications and computer technology but without annihilating the relevance of geographical distance: nearby suppliers benefit most from these trends.

Many studies deal with the geography of garment production – more specifically, with the motives and drives underlying the process of the continuous incorporation of new garment-supplier countries. The fragmented nature of the industry, its history of vertical disintegration and specialisation, and the labour intensive nature of the manufacturing process formed the foundation of its position as forerunner in the globalisation of industrial production. Undeniably, there is truth in the view that garment production is constantly shifting to new low-wage areas, as evidenced by the recent entry of China, Vietnam and many other countries. On the other hand, several high-wage countries still maintain considerable production levels, thanks to the elaborate MFA trade regulation system designed to protect Western market from imports. More importantly, there is a segment in the Western garment markets for which quick response and short lead times are equally or more important than paying the lowest wages and, as a consequence of the general trends discussed above, this segment appears to be growing. Furthermore, as buyers are getting bigger and broadening the portfolio of brands and labels, they balance their sourcing strategies and engage in strategic localisation across the globe. As a result, more garment suppliers in countries on the periphery of the main markets are incorporated into the production networks of buyers operating on these markets.

Mexico is one of the countries that benefits from the regionalisation trend in garment sourcing. But it would be misleading to attribute its recent rise as a garment exporter solely to new marketing strategies and a push for quick response: it was aided by the powerful incentive of NAFTA liberalisation, and in less than a decade it has become a significant player in the international garment trade. Rather than participating in global trade, Mexico's exports have a regional destination; the vast majority is destined for the US. Mexico is thus a relative newcomer on the global garment scene: for decades, rules regulating US-Mexican trade limited the role of Mexican garment manufacturers exporting to the US to that of pure assemblers, in production networks orchestrated by US manufacturers. The organisational and logistical complications of such arrangements and the comparatively limited cost advantages proved to be significant barriers to the success and growth of such bi-national manufacturer-centred networks, and their impact remained modest. NAFTA changed this: it paved the road for a geographical reconfiguration of the US-Mexican garment value chain towards greater local integration of the production process in Mexico. Under this liberalised model, several garment export clusters have grown explosively and have turned Mexico into one of the main suppliers

to the low to mid segment of the US market for basic garments. On the US side, more buyers and, more importantly, new types of buyers are beginning to source from Mexico. This broadening of Mexico's buyer base, or even the succession of manufacturers by retailers and designers, may play a vital role in the development of the Mexican garment industry. Most particularly, the involvement of retailers and designers with their specific sourcing standards is believed to be pushing Mexican garment export firms to transform themselves from pure assemblers into more all-round, 'full-package' suppliers.

As the US continues to lose jobs in the wearing apparel manufacturing sector, Mexico is gaining them. The result is a bi-national division of labour in garments in which the US and Mexico can fully exploit their complementarities. The US specialises in those (capital and knowledge intensive) activities in which it has a competitive advantage, viz. design, textiles and marketing. Mexico does the same and employs its army of industrial labourers to broaden its garment manufacturing base. Within this context, in the 1990s the Laguna region of Northern Mexico developed into one of the world's main production sites of blue jeans.

Research question 2: *What are the main economic, geographical and historical characteristics of the Laguna region, and does its current position as garment export cluster stem from these characteristics?*

The economy of the semi-desert Laguna region was for the major part of its history centred on agriculture. Yet now it is known as the main Mexican jeans export cluster. The industrialisation and urbanisation processes that set in during the 1970s and accelerated in the late 1980s lie at the basis of this regional transformation.

La Laguna was once the country's main producer of cotton, and this brought the region much prosperity. However, a few decades ago, problems started to arise with regard to agriculture in La Laguna. The monoculture of labour-intensive cotton became a problem, especially with declining world market prices and fierce international competition, and in response local production was diversified. Also, the climatic conditions in the region became increasingly adverse. The impact of these changes was felt most acutely by the *ejido* or smallholder segment. Nowadays, the agricultural sector is still very important but it is becoming concentrated in large farms where processes are capital intensive and mechanised. The smallholder segment is under pressure and in general employment in agriculture is diminishing, causing grave underemployment in the rural areas of the Laguna region. Faced with a lack of employment opportunities, rural inhabitants began to leave the countryside and over the past decades depopulation has affected the rural *municipios* of the region.

Fortunately, a forceful industrialisation process (La Laguna was one of the first regions in Mexico, outside the major cities, to industrialise in the 1970s) was well on its way in the urban core of the region. Early industrialisation was based largely on the processing of the region's agricultural products: processed food and textiles and garments were amongst the early industrial products of the region. Towards the end of the twentieth century, export processing became diversified and now, in addition to garments and food products, includes different industrial products, such as television tubes and components for the automotive industry. FDI in large and modern factories has underlined the importance of mass production to the regional economy and set it firmly on the export path. At the same time, the urban service sector has expanded and modernised partly also under the influence of foreign investment and

franchises. Both the urban industrial sector and the service sector absorbed the rural labour reserve and thrived on it.

As a result of diverging developments, today the Laguna region is marked by a deep dichotomy: its relatively modern, prosperous and industrialised urban core is surrounded by a largely poor rural hinterland marked by high unemployment and a limited infrastructure. The impact of this economic dichotomy is reflected in the opposing demographic trends of a growing urban core and a rural hinterland facing a sizeable exodus of its population.

The region's geographical location – away from the overcrowded, highly industrialised Northern border cities but still relatively close to that border and the US market on the other side – and its position as infrastructural hub have played an important role in the region's current economic success. Its historical economic development is also important. The region's industrial experience built up over decades and its large labour reserve of unemployed rural inhabitants have provided fertile grounds for the region's recent development into the New Jeans Capital of the World. In a counter-reaction to the commuter flows that bring workers to their work, recently garment factories have been established in the rural areas. They provide an escape from the wage pressures in the booming urban industrial environment. At the same time there is hope that they may be the start of a more diversified rural industrialisation process.

Research question 3: *What is the structure of the Laguna garment cluster, in terms of product- and market-orientation and firm characteristics and does it correspond to the structure of other garment clusters?*

The first garment factories in La Laguna in the 1940s made use of locally produced cotton and denim and specialised in the production of jeans and other types of pants. During the 1990s the centre of gravity shifted towards assembly for export, a shift that severed the links with local cotton and denim production. Today, La Laguna produces mostly blue jeans for export to the US. By the end of the 1990s, over 200 garment companies were engaged in this industry; between them they operated more than 400 factories in the region. New are the few foreign-owned garment factories that were established in the years immediately after NAFTA came into effect. They are exceptional, as the vast majority of local companies are in local ownership. Local garment companies in the region range from small to very large, but on average the scale of operation is large and the cluster is dominated by several giant companies, many of which predate NAFTA. Many of the SMEs in the region were established during the mid to late 1990s. Garment factories are distributed fairly evenly over the region: though initially concentrated in the cities, they are beginning to disperse into the rural areas. Formal factories and fairly standardised mass production predominate while sweatshop-type informality is exceptional.

The structure of the garment industry in the Laguna differs from that of other garment clusters dealt with in the literature. Whereas many garment clusters are more diversified and produce a range of garments, garment firms in the Laguna region share an exceptionally narrow focus on blue jeans and a limited volume of other 'bottoms' for the US market. The large scale of operation of local garment factories is also exceptional: even small companies are generally larger than small factories in other regions, but most exceptional are the very large local companies that employ a few thousand operators. There is a very large gap, in terms of size as well as of competence, between them and the other companies in the region. Furthermore, the narrow export orientation of La Laguna is not found in other LMIC garment clusters.

The cluster's exceptional features and its tremendous post-NAFTA boom evince the key role of the demand pull exerted by US garment buyers in moulding the cluster into its current shape. The large exogenous demand of the late 1990s rather than a historically grown localised, endogenous industrial expertise and know-how, appears to have played a determinant role in shaping the Laguna cluster. While distinctive, the mentioned characteristics do not disqualify La Laguna as a cluster or even necessarily place it outside the cluster literature. La Laguna is a garment contracting cluster specialised in export production, and it displays the broad features of Pederson's (1997) 'subcontracting cluster'. In trajectory terminology, it has the physiological characteristics (viz. a few large firms amongst an army of SMEs) also found in mature LMIC clusters. However, given the relatively short history of the Laguna cluster and its particular development path, the maturation process that led to the current structure does not appear to have originated from a broad base of specialist garment SMEs, as was the case in other clusters recorded in the literature.

Research question 4: *To what extent is the garment industry in La Laguna locally embedded through intra-cluster linkages? If it is embedded, how does embeddedness in the economic and sociocultural environment affect the competitive position of the cluster and its firms?*

An examination of intra-cluster dynamics reveals the localised nature of many network linkages of local garment companies. Supply linkages to trim suppliers and subcontractors as well as linkages to organisations and the labour force are mostly geographically concentrated within the cluster. This localisation is based on and also translated into extensive factual knowledge regarding the local industrial infrastructure and actors. Moreover, local industrialists strongly identify with La Laguna as 'the jeans cluster'. Local business linkages are embedded in social or even family ties and networks; this smoothes the flow of general knowledge and facilitates practical support amongst industrialists. However, many other positive side effects or by-products often associated with the spatial concentration of industrial activity are not or are only to a limited extent found in La Laguna. Inter-firm supply linkages predominantly take the shape of traditional subcontracting linkages: governance is highly formalised and relations are dependent, unstable and relatively distant. Very large local factories are the pivot of often large local subcontracting networks. Though the supply linkages to trim suppliers are also mostly confined to the cluster, foreign suppliers play an important role. Global suppliers of machinery, thread, buttons, rivets and other trim items are all represented in La Laguna and, based on the specifications of US buyers, have become incorporated into the local production networks. Their presence, as well as that of local suppliers and subcontractors, contributes to the passive economic externalities (reduced transaction costs, and scale and scope economies) in the cluster, but true local decision-making is limited: sourcing decisions are dictated by buyers outside the cluster.

A large number of organisations are directly or indirectly involved with the local garment industry. Within the liberalised Mexican policy environment, the role of public organisations has been greatly reduced, mostly to administrative and facilitative tasks. State and local governments are primarily concerned with the attraction of foreign investment and with employment creation. Direct, effective support for local business is hardly being developed and financial support for local businesses is selective and against market credit rates. There does not appear to be a clear, coherent medium- to long-term industrial policy or regional development plan behind the activities of public organisations.

The local labour market is putting a strain on intra-cluster relations. With the growth of the cluster, the tightening of the local labour market and high labour turnover rates, labour is increasingly viewed as a troublesome factor rather than as a valuable resource. The build-up of expertise in the local labour force is not reflected in a high incidence of small garment business start-ups. Barriers to entry to the local garment industry are too high for individual garment workers, who lack access to capital and face the minimum requirement of twenty to thirty sewing machines to be able to operate as a subcontractor in the local networks.

The generally assumed benevolent relations between geographical and cultural proximity, specialisation, interdependence, trust and cooperation hardly exist in La Laguna. In general, intra-cluster linkages mirror local sociocultural values and display low levels of trust and cooperation. This does not contribute to the development of joint, proactive action or of local social capital. Moreover, the very narrow competitive focus of the cluster works against internal cohesion and cooperation, as individual firms are direct competitors. Even though there is a strong localisation of many network linkages, in the case of La Laguna such localisation does not appear to promote dynamic cluster effects, which – through co-operation, local learning and upgrading processes – support a cluster's competitive position.

Research question 5: What is the composition of the garment production networks connecting La Laguna to the US market, in terms of the actors involved and their productive, organisational and strategic activities and responsibilities?

Chapter 7 examined the various types of networks that connect the Laguna cluster and its garment firms to US buyers. Traditionally, in La Laguna – as in the rest of Mexico – branded manufacturers were the most important buyers for the cluster. However, in the 1990s the buyer base of the region expanded significantly and now includes a large number of retailers and a few designers/marketers.

The network structures and strategies of these different types of buyers in La Laguna differ. The importance of manufacturer-centred networks in La Laguna is reflected by a modest number of FDI facilities, and especially by a relatively long history of extensive sourcing in the region. Branded manufacturers work directly with local producers of different sizes, including in some cases SMEs, and do not allow the subcontracting of their work. Although initially local firms in these networks did pure assembly, branded manufacturers increasingly expect them to take over input procurement and other manufacturing activities and are increasingly looking for large suppliers. Branded manufacturers exercise tight governance and offer practical support and expertise in the area of product quality and the efficiency of the production process.

Designers are the latest buyers to have become engaged in the Laguna cluster. They work only with the largest local companies and buy full packages from them. During the initial stages of the relationship, they are directly involved with their suppliers to ensure that their standards and requirements are understood and respected. As their standards are higher than those of many other buyers and they exercise tight governance, their work is rarely subcontracted and then only to certified subcontractors. By the end of the 1990s, several designers were sourcing from the region, but generally in small, pilot programs. Despite the initial investments in the relationship and the production capabilities of the local contractor, no stable relationship with designers have materialised. It is not quality problems that hamper these relationships, but

flexibility and more intangible aspects of the sourcing relationship, such as service-mindedness and business mentality.

Most of the jeans produced in La Laguna are bought and sold by retailers, viz. mass merchandisers and department stores. Though some retailers work directly with local contractors, the bulk of the work for retailers is channelled to the region through and by US intermediaries. Some of the most important intermediaries for La Laguna have local production facilities through which they supply full packages. Some have cutting rooms, laundries and sewing facilities, but also subcontract a large share of the assembly work to local SMEs. The subcontracting of work for retailers is pervasive and facilitated by the fact that the intermediary/key supplier is responsible for respecting any codes of conduct and for certifying subcontractors.

The network strategies of buyers are important for the network position and opportunities of local producers. In general, local giants are in the best position to plug into the networks of all the mentioned types of buyers and to be engaged in several at the same time. By combining various types of buyers, they are able to fill their factories with work for branded manufacturers and designers, and to subcontract the less attractive and/or profitable work for retailers. In doing so, they mimic the intermediaries and occupy a strategic hub position in the local export networks, which allows them to control and coordinate production in many local assembly subcontractors. This position is reserved almost uniquely to local giants: even large local companies are much less able to combine direct work for several US buyers; instead they commonly combine direct export work with local subcontracting orders. While the local giants are directly exposed to the demands of buyers and are working to adapt to these demands, most other firms are not or are doing so only to a much more limited extent. In fact, for most firms, especially subcontractor SMEs in the Laguna region, the difference between being incorporated into manufacturer-centred as opposed to retailer-centred networks may not be very large at all.

Research question 6: *Have upgrading processes taken place in the garment cluster, and if so, what kinds of upgrading processes are found, which factors are driving these processes and who are the actors involved?*

Chapter 8 examined the dynamics concerning upgrading of products, processes and position in the value chains as well as changes in labour strategies and the geography of production within the cluster.

Several of the shifts in the garment market as described in Chapter 1 are evident in La Laguna's product composition. Though specialised in the production of garments that traditionally are mass-produced and standardised, fashionisation has made inroads into the cluster. La Laguna is increasingly producing 'mass-produced fashion'. Furthermore, much attention is focused on quality improvement and on the consistency of quality levels. By comparison, the production organisation in most factories has changed comparatively little over the past years. There is a growing awareness, especially among the larger firms, of the need to strive for good and consistent quality and higher efficiency. However, few companies have implemented changes on the shop floor to improve quality control, shorten through-put times and limit the impact of the turnover of personnel. Also, the advantages of La Laguna's geographical proximity to its main market have not yet been fully exploited. EDI and other quick response technologies have not been implemented, partly because the telecommunications infrastructure in the region does not support the intensive use required by these systems.

The establishment and ensuing boom of the garment industry in the Laguna region is part of a supra-regional process of spatial reconfiguration of the US-Mexico garment value chain. Pre-dating NAFTA, the garment industry in the region and in the rest of Mexico was largely confined in its export activities to pure assembly. NAFTA's gradual elimination of restrictive trade rules has allowed companies in the region to extend their command to other, non-assembly nodes of the chain. While most local exporters have assumed responsibility for input procurement, many have also become more integrated and have extended their command over the chain by developing laundry, finishing and, more recently, cutting capabilities. However, by the turn of the century, only the very largest local companies had mastered full-package production. They were still combining full-package production with more limited export roles, but were gradually increasing their full-package production. There is a tendency towards the greater local integration of the production process. However, developments are more cautious and selective than may be expected on the basis of recent literature. Characterising La Laguna at the turn of the century as a full-package cluster is too hasty and too much of a generalisation.

The above-mentioned changes, especially in the areas of products but also in the local integration of the production process, are driven partly by actors external to the cluster, viz. its US buyers. These gradual changes are more a reflection of a shift in the demand of buyers than of strategic behaviour on the part of local entrepreneurs. Efforts towards process upgrading were especially for SMEs facilitated by local branches of government organisations, but in other cases they were supported by active coaching on the part of buyers. In general, towards the end of the 1990s local direct exporters were mostly trying to keep up with demand growth and shifts, and displayed little purposeful strategic behaviour in any of the mentioned fields. Driven by market trends and steered by buyers, local firms were in the process of adopting new processes, new products and new standards. The high degree of market unawareness of local entrepreneurs and their one-sided dependence on buyers explains why these changes did not happen overnight and why they met with resistance. Steady adaptation and dissemination of new practices were the challenges faced by the Laguna cluster; innovation was not (yet) an issue. As buyers are steering many of the noted changes, these are only indirectly relayed to SME subcontractors. In other words, mental distance from the market or market unawareness increases with more subordinate positions in the export networks, which in La Laguna applies generally to SMEs.

As mentioned, the examination of local dynamics of the Laguna cluster and its firms in Chapter 8 also includes changes in the labour and relocation strategies of local firms.

The one challenge that affects all firms in the cluster and is a uniquely local concern is the negative impact of local labour-market dynamics. The tightening labour market and its consequences for labour turnover rates, wages and benefits are at the forefront of entrepreneurs' concerns, and all firms are trying to devise means and strategies to attract and maintain a stable labour force. Based on the urban-rural employment imbalances outlined in Chapter 4, organised commuting between the rural areas and the urban core is an important facet of garment production in the region. Faced with a tight urban labour market, urban factories have increasingly resorted to the recruitment and daily transportation of rural inhabitants to the cities. Over the course of the years, personnel transportation routes have covered increasingly large distances and penetrated remote areas.

Geographical dispersal of garment factories into the rural areas has also occurred: rural garment factories have been established throughout the region. Subsidiaries of US-owned TNCs, factories in private ownership of urban entrepreneurs and locally-owned *cooperativas* have become important sources of non-agricultural employment in *ejidos*, villages and towns. Notwithstanding differences in ownership and locational preferences, rural factories share a relatively isolated position vis-à-vis their local production environment and a narrow focus on assembly activities. The latter observation points to the emergence of an intra-regional division of labour, between the conurbation and the rural hinterland. The resulting pattern of intra-regional division of labour indicates the relevance of NIDL principles at a lower level of scale. The process has been depicted as a further reconfiguration phase of the bi-national value chain. In other words: parallel to the bi-national reconfiguration of the value chain there is an intra-regional shift based on the progressive incorporation of the low-cost rural areas as assembly locations. The latter points to a combination of low- and high-road strategies in local business behaviour.

9.2 La Laguna: a unique case?

Chapter 5 examined the structure of the Laguna cluster and showed it to be different from other garment clusters described in the literature. This may prompt questions on the relevance of the research findings of this study. In other words, are the findings of this study relevant beyond this particular case? How do they relate to garment production for export in other parts of Mexico? As discussed in Chapter 3, since the passage of NAFTA, garment production for export is a booming business throughout Mexico and not just in La Laguna. During the 1990s, new garment factories were established in cities, towns and villages from northern Chihuahua to the southern states of Chiapas, Oaxaca and Yucatán. The question concerning the possibly unique nature of the Laguna cluster and its development will be briefly explored here with reference to the Mexican context.

As in La Laguna, garment factories in other regions tend to cluster together. There are a few Mexican clusters that are comparable to La Laguna in size and significance. The two export clusters that will be briefly discussed here are that in Puebla/Tehuacan and the recently

Table 9.1: General characteristics of the Laguna, Tehuacan and Yucatán garment clusters

	La Laguna	Tehuacan	Yucatán
Types of product	Jeans, casuals	Jeans, casuals	T-shirts, jeans, shirts, lingerie, sportswear
Market destination	Export US	Export US	<i>Export USA & regional market</i>
Weekly Production Capacity (est.)	6 million	3-3.5 million	n.a.
FDI	Some; mainly US	Hardly any	Much; mainly US and Asian
Position in value chain/prod. activity	Assembly, <i>CMT+ wash</i> , full package	<i>Assembly</i> , CMT	<i>Assembly</i> , CMT, full package

Source: Fieldwork 2000

NB. Words in italic are a region's main production activity/market destination.

developed Yucatán or Henequen cluster; these are also the most direct competitors of La Laguna. Table 9.1 summarises the basic characteristics of the three production regions.

Especially the Tehuacan region is perceived by both clients and local manufacturers in the Laguna region as a direct competitor. The table clearly shows the similarities in product- and market-orientation between the two clusters. The history of the Tehuacan cluster is similar to that of La Laguna: there was a local garment production capacity throughout most of the late twentieth century and it was oriented towards the domestic market. While the opening up of the Mexican market at the end of the 1980s inflicted many casualties among garment factories, just a few years later large export opportunities provided new ways to exploit local expertise. In its current form and orientation, the Tehuacan cluster has its roots in the early 1990s. The cluster in Tehuacan is also dominated by a few very large garment firms. In Tehuacan fewer very large companies exist next to more and generally smaller SMEs. The dynamic of the local

Table 9.2: Main buyers with interests in La Laguna, Tehuacan and Yucatán

	La Laguna	Tehuacan	Yucatán
<i>Main clients</i>	<i>Marketers/designers</i>	<i>Marketers/designers</i>	<i>Marketers/designers</i>
	Old Navy/Gap	Gap	Old Navy/Gap
	Liz Claiborne	CK	Liz Claiborne
	Tommy Hilfiger	Guess	Victoria's Secret
	Eddie Bauer	Liz Claiborne	OshKosh B'kosh
	The Limited	Mudd	Ralph Lauren
	Polo Jeans		
	Mudd		
	<i>Branded manufacturers</i>	<i>Branded manufacturers</i>	<i>Branded manufacturers</i>
	VF (Wrangler)**	Levi Strauss	La Perla**
	Sara Lee/Hanes**	Savane	Sara Lee**
	Levi Strauss		VF (Lee)**
	Savane		Vogue**
	<i>Retailers</i>	<i>Retailers</i>	<i>Retailers</i>
	JC Penney	KMart	JC Penney
	Kmart	Wal-Mart	
	Wal-Mart	JC Penney	
	Sears		
	Target		
	<i>Intermediaries</i>	<i>Intermediaries</i>	<i>Intermediaries</i>
	<i>(vendors/hybrid)</i>	<i>(brokers/vendors)</i>	<i>(vendors/hybrid)</i>
	Sun Apparel*/**	Sun Apparel*	Kellwood
	Kellwood	Kellwood	Oxford Industries*
	Aalfs**	Tarrant*	
	W. Stevens*	Azteca	
	807*/**		
	Easy Wear Group		
	A & A Consultants		

[264] Source: Baseline survey, 1998-1999 and Fieldwork 2000

* These US intermediaries are also involved in retailing through licensing or own brand production.

** These US companies have FDI production facilities in the region.

labour market is also largely similar and, as in La Laguna, a tight urban labour market has caused factories to flee the urban area. In fact, garment production is much more dispersed than in La Laguna, and many garment factories have been established in the indigenous villages surrounding Tehuacan.

A few differences between the Laguna and the Tehuacan clusters also need to be noted. On the whole, the development of the Tehuacan cluster appears to be one step behind that of La Laguna. Local companies, even the very large ones, are overwhelmingly pure assemblers and by the turn of the century the concept of full packages was only just being introduced into the cluster. Also, labour conditions, especially in the village factories, are below those found in La Laguna: more children are working in the factories, and the facilities are often improvised and not built specifically to serve as a garment factory, as is mostly the case in La Laguna. The dispersed pattern of production as well as the larger distance from the US makes direct governance by buyers in these areas more difficult.

The Yucatán cluster – which was also briefly discussed in Chapter 5 – differs somewhat from the other two cases: it is more diversified in terms of its product orientation, and FDI assembly facilities now play a much more important role in the cluster, in fact they play a dominant role. As in the other two cases, local garment industry expertise was present in Yucatán before its recent export boom. The Mayans in the region are known for their traditional garments and embroidery work, and traditional men's shirts made in Yucatán have had a strong position in the domestic market for decades. In the garment industry in the region today, little remains of the former specialisation in *guayaberas*. In recent years it has been replaced by export production. While the presence of a very large skilled local labour reserve (especially in the rural areas) is the main pillar supporting the rapid growth of the cluster, local ownership of garment factories is comparatively limited, certainly in the export sector. The garment industry is dominated by the large-scale facilities of US, Asian and even European manufacturers and contractors. Export production is overwhelmingly destined for the US market and is transported by ship from the Progreso port in Yucatán to several eastern US ports.

Table 9.2 shows the main clients of the industries in La Laguna, Tehuacan and Yucatán. Although the precise mix of clients differs between the clusters, clearly all three clusters work predominantly for major US buyers. They also occupy a dependent, contracting position vis-à-vis these buyers.

All in all there are a few striking similarities between the three clusters:

- They are narrowly oriented towards the export market (domestic market production has been mostly crowded out);
- They produce basic, mass-produced garments;
- The average scale of operation is large and dominated by a few very large companies; and
- Their recent growth and success is a result of exogenous demand rather than of endogenous, evolutionary growth.

On the whole, rather than a deviant case, La Laguna appears to be a rather typical example of the Mexican garment industry and its recent export-oriented boom. Its peculiarities (especially since they appear to apply to the entire Mexican garment export industry), raise questions with regard to the cluster's future prospects.

9.3 Interpreting the findings

The evidence presented does not necessarily warrant great optimism. In fact, La Laguna has not stepped out of the looming shadow of El Paso and its dramatic demise. Of course, less than a decade has passed since the garment export boom took a hold of the Laguna cluster and significant headway has been made in this short period: growth has been impressive, more fashion is being produced, a few nodes of the bi-national value chains are shifting to Mexico, which has led to a greater local integration of the manufacturing process, and more US buyers are buying their jeans in La Laguna. Yet, perhaps because of the daunting quantitative challenges posed by the US demand boom, the more qualitative and strategic of these changes have been made hesitantly and, in some cases, under direct pressure exerted by outside buyers. Words like pro-activity and flexibility do not describe the local business attitude. And while there may be sound reasons for this, it is cause for concern in an industry that places growing emphasis on commitment, cooperation, flexibility, speed and service on the one hand, and is marked by apparent locational volatility on the other, low-end hand. Generally, LMICs that participate in regional sourcing patterns are thought to compensate for their often higher prices by offering the mentioned other, quick-response-related advantages. La Laguna does not do this, yet. With the upcoming integration of garments and textiles in general WTO rules in 2005 and the expected global reshuffling of garment production locations, the local garment industry offers little or no competitive advantages allowing it to look forward with great confidence. This appears to be validated by the cluster's crisis in 2001 and 2002, which was briefly discussed in Appendix IV.

This study does not validate the idea that the development of the Mexican garment industry will be modelled after the East Asian example. In this proposition, a number of important factors are ignored. First of all, timing: over the past four decades, especially with revolutionary improvements in computer technology, the garment industry and most notably its marketing and sourcing strategies have changed. The competitive environment and challenges facing current newcomers like Mexico are very different from those of the East Asian pioneers. Many of the new entrants start as pure assemblers and are restricted by existing trade regulations or by a dependent supplier position vis-à-vis their buyer. East Asian pioneers initially faced no such restrictions. Also, East Asian garment exporters had few or no LMIC competitors, whilst current newcomers have many, some of which have longstanding experience. Besides these general changes in the competitive environment, a few specifics of the Mexican case need to be noted as well. As the Laguna case clearly shows, Mexico's market orientation is narrowly focused on the US market and its participation is based on regionalisation and not on globalisation, as was the case for most Asian suppliers. Compared to the more all-round Asian suppliers, Mexico is in a more dependent position and is more limited with regard to learning about other markets and governance styles. Finally, Mexico's sociocultural environment and, more importantly, its policy environment are very different from those in East Asia. All in all, it cannot be taken for granted – in fact, it is unlikely – that Mexico will follow the path established by the East Asian NICs.

So, how is Mexico's position to be regarded? Trade policy (changes) are highly important in explaining Mexico's development and current position. Here, Loo's (2002) cake metaphor appears appropriate. Loo envisions the global garment industry as divided into a cream portion of flexible production regions with creative, innovative and high value-added activities, and a cake portion of low value-added activities. In between the cake and the cream, she describes a

layer of artificial cream resulting from the international regulatory framework and uniting the low-paid and low value-added activities of the cake portion with the high profits and export values for industrialists and governments found in the cream portion. Mexico is a typical example of an 'artificial cream location' that may lose much of its *raison d'être* with the ending of the MFA in 2005. Trade policy changes, in the form of NAFTA, have opened up a window of opportunities for the Mexican garment industry but a decade later impending international trade policy changes are already threatening to close it again.

La Laguna differs from most other garment cluster described in cluster literature. Most LMIC export clusters were broad SME clusters that have become internally diversified and/or oriented towards exports as the outcome of a steady endogenous development process. La Laguna is different. Its humble garment industry was devastated by a surge in cheap imports, and then a few years later what remained of the industry was faced with an overwhelming demand from the US that launched it as a major player onto the world's largest market. Local factories that predate NAFTA found themselves in a forerunner position. Several became local industrial giants that dominate the cluster and especially the newly established SMEs that work as their subcontractors. The result is a polarised cluster, where polarisation not only separates domestic market producers from export producers, as noted by Chinchilla and Hamilton (1994). This study clearly shows internal polarisation within the Laguna export cluster, which may serve as a model for the export-oriented segment of the entire Mexican garment industry. Moreover, polarisation has increased during the export boom. In this respect, the case of the Laguna cluster is illustrative of the warnings issued by Dussel Peters (1997a) and Valdes-Ugalde (1995) concerning the development of the Mexican economy in general under the influence of its current liberalisation course.

In relation to the cluster literature, two lessons can be drawn from this study. First, without being able to precisely pinpoint or rank the reasons, the Laguna case shows that the prevalence of trust-based, cooperative linkages as a basis for collective efficiency in clusters cannot be taken for granted. While the nature of the local sociocultural environment may play an important role that should not be overlooked, the exogenously driven growth spurt may be especially disruptive to the materialisation of such links. Such a dramatic outside demand boom may well position local firms as each other's direct competitors. Direct competition for a position in the export networks of not necessarily loyal, external buyers is likely to form an important structural barrier to cooperation within the cluster. This is all the more relevant and deserving of academic attention, not only because La Laguna is exemplary of the Mexican garment industry, but also – and more importantly – because progressive globalisation and the incorporation of ever new LMIC clusters into GVCs may well bring into existence many more new clusters like La Laguna outside Mexico as well.

Second, the above mentioned structure and dynamics have negative repercussions for learning and upgrading processes that support the competitive position of the cluster. There is no local think-tank, and hardly any sharing of information or lessons. Furthermore, while dominant large firms do function as upgrading pioneers (Scott, 1992; Humphrey & Schmitz, 2000) – subcontractors in the lower tier generally do not receive the incentives and information –, there is little evidence that their efforts benefit the cluster in general. In La Laguna, learning is not a collective process.

The GVC perspective has contributed significantly to the understanding of the Laguna region's development and of the core issues at stake. In the post-NAFTA export boom, vertical, chain-based linkages to US buyers have played a determinant role. Learning from global buyers (Schmitz & Knorringa, 2000) and buyer succession have been important, and one of the important challenges facing the larger local producers is to extend their command of the value chain in the direction of full-package production. With regard to the outcome of these processes, however, the narrow focus on intra-chain dynamics and vertical, top-down linkages that is typical of GVC studies does not do justice to the complexities of global-local interaction that lies at the heart of the success or failure of La Laguna as a major supplier to the US market. In this case, local and historical circumstances are highly important. For example, the former limited role of local producers as pure assemblers appears to have had a paralysing effect that is currently reflected in market unawareness, dependency and risk avoidance on the part of local producers. Also, the turn to liberalisation and the current absence of focused policies have harmed the relations between public organisations and industry, which receives little or no support. Leaving these aspects out of consideration introduces the risk of applauding potential instead of actual results and of oversimplifying the difficult upgrading process to be undertaken. In other words, there is a clear need for a more explicit and extensive incorporation of extra-chain elements into GVC studies.

Upgrading efforts have been concentrated on the improvement of production processes and techniques. There is no indication that the upgrading trajectory will extend beyond production, viz. into the design, marketing and sales activities of the GVC. Gibbon (2000) has already cast doubt on the validity of quoted examples of OBM garment producers in East Asia, and thus on the development trajectory modelled on these examples. Dussel Peters, Ruiz Durán and Piore (2002) also stress the fact that US buyers generally do not teach their Mexican suppliers the skills they need to operate independently on the international market (see also Schmitz & Knorringa, 2000; Hobday, 1995). For La Laguna it is highly unlikely, at least in the short to medium term, that local firms in La Laguna will attain an independent OBM position in the US market. This leads to questions concerning the developmental result: even if the cluster manages to safeguard its competitive position in the US market, it may not be able to appropriate much of the gains. In a locked-in position as a successful but subordinate contractor cluster, the benefits of local upgrading processes will likely be reaped by the cluster's buyers rather than by the local producers.

As mentioned, the relevance of the observations with regard to the internal development of the cluster as well as the cluster's (and its participants') position in the GVC extend beyond the Laguna case to the rest of the Mexican garment export industry. Not only that, there appears to be little reason to believe that these observations do not apply to large parts of the Mexican maquila, or export, sector. If this is true (and more research is needed to determine whether it is), one of the effects of the economic integration of the US and Mexican economies in NAFTA may well be the lock-in of Mexico in a subordinate position vis-à-vis its northern neighbour. It also raises questions with regard to the relevance of the distinction between 'buyer-driven' versus 'producer-driven' GVCs in relation to the local developmental outcome that incorporation in such chains may have.

[268] Finally, what conclusions might be drawn concerning the relation between global and local? It is almost unavoidable to relate the findings of this study to the dispute between anti-globalists and the proponents of export-based local development. Unsurprisingly, the findings of this

study affirm the wisdom of steering a middle course between the complete rejection of globalisation – as is done by the anti-globalists – and the belief that participation in globalisation will lead to development – as proposed by EOI enthusiasts. Certainly in the garment industry, the globalisation process cannot be reversed – nor should it be, as it brings with it many valuable economic development opportunities for LMICs. On the other hand, this study clearly shows that insertion in the global market or GVCs does not automatically guarantee the beginning of growth and an upgrading process with positive developmental results in the medium to long term. Learning from global buyers and their standards is not enough, even if only because these buyers' primary concern is with sales and profits and not with pushing the development process in their sourcing countries. To achieve industrial and regional development based on (export) industrialisation, involvement of the state is needed. Both the success of several East Asian NICs and the difficulties of La Laguna may serve to underline this general but important point. The involvement of institutions that support the adjustment of Mexican firms to the needs of the market and that promote the continuous upgrading needed to stay in the market would appear a worthwhile initiative¹ Strengthening of the domestic market (for example, through striving for a more equal distribution of income and power) and of the position of domestic firms on that market is especially important, also because it would somewhat attenuate the risks of depending on the volatile US/global market.

Notes

- ¹ In terms of concrete measures one could think of extending and improving the existing government-sponsored consultancy programmes for SMEs and of improving credit or loan conditions and availability. Institutions akin to the Fashion Development Centre in El Paso (see van Dooren & van der Waerden, 1997) can serve to improve market awareness amongst local entrepreneurs. The promotion and support of 'empresas integradoras' (see section 3.3) could strengthen the position of SMEs as well as help them to achieve the capacity requirements needed to operate on export market

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Annex 1: Research methodology

The general introduction to this study described the fieldwork activities carried out for this research. Here, the choice of the research location, the sampling methodology, the resulting databases and their uses will be discussed. Most importantly, the interviewees are listed – in gratitude for their cooperation.

Research carried out in El Paso in 1996 showed that most of the jeans production capacity concentrated in this border city was being shifted to Mexico. A few destination areas appeared of particular importance: La Laguna in Northern Mexico, Puebla/Tehuacan and Aguascalientes in Central Mexico. The areas surrounding Mérida in Yucatán was also booming with garment factories. Secondary sources, most notably census material published by INEGI, were consulted to gain insight into the developments in these regions, but they offered little useful information. Therefore, an exploratory fieldwork was carried out to these production locations, where information was gathered and local informants were interviewed. Experts in Mexico City were also consulted. Based on the interviews and available information La Laguna was chosen as a research location.

La Laguna

The most important source of information for this study is the company database which was compiled on the basis of an extensive, standard survey carried out at 73 local garment firms. The survey covered a broad range of subjects, including company history and structure, products, clients, subcontracting practices, human resource policies and business strategies. It was developed at IDSUU on the basis of the research proposal and tested and adapted in La Laguna.

As discussed at some length in Chapter 6, in Mexico, and certainly in La Laguna, interpersonal relationships carry great weight in business relations. In addition, there is a general atmosphere of secretism and mistrust in the local garment industry. The combination of these facts made the construction of the company database – the main database used for this study – based on an extensive company survey, in an industry where the researcher had virtually no contacts, a fairly complicated and time-consuming task.

As available information was highly fragmented, data from different sources were combined to create a more complete listing of companies. Since export networks are the central theme of the study, the decision was taken to select a number of very large companies that could be identified as local lead export firms. This selection was made based on interviews with key persons in the industry and other available information. The selected companies – generally large or very large companies – were first contacted ‘cold’ without using references or letters of recommendation of the CNIV or FOMECA. After many hours on the phone, a few appointments were made and surveys were carried out in a small number of firms. The aim of the study was to cover the local export networks as extensively as possible. Therefore, following the interviews with the large firms where possible the subcontractors of these firms were contacted and visited and this process was continued until no more (subsequent tiers of) subcontractors were found. Simultaneously, the contacts with the managers/owners of garment companies in

several cases resulted in direct recommendations with their friends or acquaintances in the industry who were hard to persuade to cooperate without a direct network contact. As a result of this strategy, the top-end of the local industry was well covered. The consequence of this manipulated snowball methodology could have been a possible over-sampling of large companies and a bias towards the export sector. In order to avoid such a bias and to get an accurate picture of the garment cluster as a whole, the data obtained during the first survey round was complemented by randomly selecting a number of medium- and small-sized companies. These companies were selected from the company listing, but some that were not on the listing were visited as they were accidentally encountered in the cities or villages. At these companies the same standard questionnaire was applied after which they were included in the survey.

To complement the survey information of the garment companies, information was also systematically collected from a number of suppliers of different supplies, ranging from machine parts to needles and thread. Suppliers were asked about developments in their own business but also about the general trends in the cluster. In addition, ten laundries, including laundries belonging to multi-plant companies and specialist, independent laundries were visited and information was collected using a short questionnaire. Since little specific information on employees, employment structure and labour conditions in the local garment industry was available, a small employee survey was carried out in a medium-sized garment plant in Gómez Palacio and in two small co-operative plants in *ejidos*; one close to the urban core of the region and one much further removed from the cities. At all three locations the workers interviewed were randomly selected. Although the results can not be used to generalize beyond the plants surveyed, they gave a valuable first impression of socio-economic characteristics of the urban and rural workers, their families and living conditions.

Finally, more in-depth information – in particular on topics such as rural garment factories, informal local linkages, relations with buyers and the impact of the 2001 crisis – was gathered by means of semi-structured, open-ended interviews with key-entrepreneurs and key persons at institutions such as SECOFI, Bancomext and CNIV. Also, several immediate ‘bystanders’ such as suppliers, specialist merchandise and personnel transporters were interviewed and gave the researcher a different angle on the relevant developments. Information obtained in an informal manner and by day-to-day observation has also been very important and in some cases highly valuable and informative. A visit to the annual regional garment Expo – where suppliers, US buyers, regional garment producers as well as producers from other regions in Mexico gather, present their products and socialise – was both interesting and useful as it provided many new and valuable contacts.

During all the fieldwork rounds, both national and local newspapers were frequently consulted and valuable information was obtained from them. In addition, a large body of other secondary sources was consulted, including statistical material published periodically in economic censuses, population censuses and a yearly publication dedicated specifically to the national garment industry, by INEGI.

El Paso

During the first and third fieldwork period El Paso was also visited. The database of the El Paso garment industry created in 1996 for a MSc. thesis (van Dooren & van der Waerden, 1997) was used as the entrance point for a follow-up study, parallel to the research in La Laguna. In order to trace the developments in the El Paso garment industry and the changes it went through during the late 1990s, the 1996 database was compared to 1998-1999 listings of the Chamber of

Commerce and the Yellow Pages of the same years. The aim was not only to monitor the collapse of the – then former – Jeans Capital of the World in itself (see van Dooren & Verkoren, 2003). Rather, successful and unsuccessful firms, firms with different backgrounds and strategies, with and without productive linkages to Mexico and/or La Laguna were identified and contacted. Managers and/or owners of these companies as well as labour representatives were interviewed with the aim of drawing lessons for and parallels with its successor Jeans Capital, La Laguna. Where relevant, direct business linkages between El Paso and La Laguna were discussed at length. The interviews in El Paso were open-ended and semi-structured. El Paso data was used in Chapters 3 and 8.

Elsewhere US

A few of La Laguna’s main buyers in the US were visited. The interviews held with them in Miami and New York were focused specifically on their global sourcing and business strategies, and on the role of Mexico and La Laguna within these strategies. These interviews helped to see the Laguna region and its development from the buyers’ global perspective. All the buyer interviews were open-ended and semi-structured.

Puebla/Tehuacan and Mérida

Finally, in order to be better able to position the Laguna cluster in its national context (Chapter 9), brief exploratory fieldworks were carried out in two other regions that are booming on garment production for export: Puebla/Tehuacan and Mérida. There the managers or owners of randomly selected firms were interviewed on a number of pre-determined topics, using open-ended interviews. In addition, secondary sources of information – including statistical data, industry listings, and studies – were gathered. Local key-informants of the garment chambers and SECOFI were also interviewed.

During the course of the fieldwork for this study, many people were interviewed. There names are listed below.

Garment entrepreneurs, La Laguna

Gómez Palacio

<i>Interviewee</i>	<i>Company</i>	<i>Interviewee</i>	<i>Company</i>
M. Nahle	807 Co. de Mexico	D. Youtsee	Aalfs de Mexico
L. García	Industrial Denim	F. Juan Marcos	Industrial JM
R. Soto Ramos	Acatex	I. Puente	Industrias Mirsa
I. Rodriguez	Alaska Jeans	R. Tohmé sr.	Industrias Pantalонера Mexicana
K. Abularach	Apache Jeans	R. Tohmé	Industrias Pantalонера Mexicana
V. Medrano	Arias	F. Muñoz	Industrias Zarpa
E. Arias	Arias	V. Iza	Los Cedros
L. Rosas	Bordados y conf. La Laguna	J. Arreola Valdes	Madesa
J. Ramirez	Bull Denim	H. Chamut	Manufacturas Chamanta
C. Mexen Flores	Camexport		

L. Juan Marcos	Camisas Siete Leguas	S. Rodriguez	Maquiladora La Texana
P. Callau	Casolco	O. Medellin	Maquilas Harper
P. Torres	Casolco	L. Espinoza	Marcas de Impacto Mundial
M. Cardona	Comercial Waco	L. Montoya	Marylus Castell
I. Rodriguez	Confecciones Roper	G. Rosas	Meromex
E. Valadez	Confecciones y Maquila Montana	J. Salazar	Meromex
G. Chaín	Creaciones Lobo	F. Morales	Morca Apparel
M. Rodriguez	Desert Apparel	S. Sanchez	OMJC
N. Cruz Santillan	Dustin	M. Cruz Macias	OMJC
R. Perales	Dustin Lavanderia	O. Juarez	Pantalonera Laguna
C. Jaidar	Fabrica de Ropa ManJai	H. Juarez	Pantalonera Laguna
C. Garcia	Fabrica de Ropa ManJai	R. Juarez	Pantalonera Laguna/Blitzer
F. Salinas	Fersal	E. Armendariz	Quality Jeans
Ma. Pamanes	Grupo Pafer Huichita	E. Gonzalez	Remmington
E. Alvarez	Grupo Pafer Huichita	U. Jaidar	Ranchero
G. Pamanes	Refaccionaria Huichita	sr. Palma	Sala de Corte Palma
N. Roman	Grupo Roman	G. Cobarrubios	Ticora
M. Monreal	Grupo Textil Bros	H. Montes	Tops & Bottoms de Mexico
M. Salas	Happy Jeans	R. Jaidar jr.	Vikingo
A. Fuentes	Impeccable	R. Jaidar sr.	

Torreón

M. Villar de Callau	Arels de La Laguna	A. Ramirez	Maquiladora Angel Ramirez
G. Sordo	Arels de La Laguna	A. Mery Milan	Maquiladora Mevi
H. Garza Roque	Basic Co.	A. Afife Nuñez	Maquiladora Santa Maria
R. Albeniz Franco	Creaciones Crisma de la Laguna	F. Zavala	Maquila y Servicio de Confección
A. Herrera	Colección Laguna	J. Chaul Franch	Maquilas Tauro
J. Bitar	Cowboy	P. Villalobos	MSE
P. Chan	Derringer Apparel	M. Nahle	Naher
F. Cuitlahuac	Eslo	F. Guttierrez	Ralph Lauren Childrenswear
J. Castellanos	Felsa	D. Ray	R.K.I. de Mexico
K. Gidi	Grupo Gidi	C. Bannon	TexBlast
C. Martinez	Grupo Libra	V. Penaloza	VF Jeanswear Sourcing
C. Papadopulos	Grupo Papadopulos	J. Rios	Wrangler
H. Ramos	Industrial Textil Ramco	D. Rush	Wrangler
C. Ortíz Perez	Industrias Maquiladora Daro	A. Mafud Kaim	Productos West
T. Bello	Lajat	F. Mafud Kaim	Productos West
J. Lara Aguirre	Lajat	R. Castro	Santa Fe Jeans

P. Garcia	Lajat	R. Palacios	Tramex del Norte
A. Hinojosa	Lajat	K. Gidi	Tower Apparel
S. Bañuelos	Manufacturas BAHER	J. Kort	Van Kort de Mexico

Cd. Lerdo

S. Villalobos Diaz	Industrial de Ropa Morales
J. Zarzar	Maquilas Zarzar
Antonio Gil Castro	Laísa
Walter Gil Castro	Laísa
J. Miranda	Pami
E. Salas	Siete Leguas
M. Martinez	Siete Leguas

Rural municipios

G. Uribe	Aramark	San Pedro
E. Lopez	Dickies de Parras	Parras de la Fuente
E. Alvarez	Fabrica la Estrella	Parras de la Fuente
A. Hernandez	Grupo Onsite de Mexico	San Pedro
H. Sheheb Jaidar	Industrias Maquiladoras Ejidales	F.I. Madero
S. Schwartz	Liga Mayor	F.I. Madero
A. Hernandez	Madero Internacional (Hanes)	F.I. Madero
F. Pamanes	Pafer Huichita	La Florida, Coah.
E. Cox	Parras-Cone	Parras de la Fuente
F. Gaytan	UCOMEX	La Union
G. Marshall	Wangler	San Pedro

Suppliers La Laguna

M. Silos	American & Efirid	Torreón
F. Garcia	American & Efirid	Torreón
J. Melendez	CIRO	Torreón
J. Rosas	Coats Timon	Torreón
B. Flattmann	Dunlap Sales de Mexico	Torreón
E. Pena	Mayoreo y Confecciones del Norte	Torreón
E. Vera	Parras de La Laguna	Torreón
A. Mafud	Productos West	Torreón
S. Guerra	Scovill	Torreón
Ma. Aguilera	The Fox Company	Gómez Palacio
E. Puishes	Comercial Samy/West Texas Textiles	Torreón/El Paso
C. Alatorre	Volunteer Thread	

Government institutions and organisations La Laguna

J. Castañeda	Bancomext	Gómez Palacio
J. Ayala	CANACINTRA	Torreón
C. Gonzalez	CANACINTRA	Gómez Palacio
B. Orduña	CNIV-La Laguna	Gómez Palacio
O. Juarez	Presidente CNIV-La Laguna	Gómez Palacio
F. Pamanes	Presidente CNIV-La Laguna	Gómez Palacio

Lic. Gomez Diaz	IMSS	Torreón
J. Ramirez	Prodinur	Gómez Palacio
A. Carlos	FOMEC-Torreón	Torreón
S. Reyes	FOMEC-Torreón	Torreón
R. Cepeda Cepeda	SECOFI	Torreón
R. Garcia	SECOFI	Torreón
H. Solís	SECOFI	Torreón
Ing. Gomez	Secretaria de Economia	Torreón
S. Coral	Secretaria de Economia	Gómez Palacio
M. Dávila	Consultoria y Estudios Economicos	Saltillo
M. Duran	SEFOMEC, Gobierno del Estado de Coahuila	Saltillo
S. Sologaistoa	Fomento Econ. Mcpio Cd. Lerdo	Cd. Lerdo
O. Dominquez	CNIV	Mexico D.F.

El Paso: Intermediaries and suppliers

A. Mowad	Mowad Apparel
A. Mansur	A&A Consultants
R. Shapiro	Action West
M. Azouley	American Garment Finishing Corp.
M. Valdez	American&Efird
L. Lazaro	Atlas Sewing Parts and Supplies
J. Alcantar	BAB Customs Broker
A. Levine	Cotton Street
C. Betancourt	Fahnos
C. Arnold	La Mujer Obrera
E. Lopez	Levi Strauss
H. Whitley	Monterrey Canon
J. Mainwearing	OMSA
T. Bruder	Onsite International
C. Zwezerijnen	Savane
J. Adames	Savane
J. Ramirez	Savane
J. Sierra	Sierra Western
T. Turley	Sun Apparel
J. Ferguson	The 807 Co.
B. Isaac	retired

Buyers and suppliers elsewhere USA

J. Elekes	VF Jeanswear	Greensboro
R. Narvaez	JC Penney	Dallas
G. Ross	Liz Claiborne	New York
J. Cox	Polo/Ralph Lauren	New York
F. Attwood	Polo/Ralph Lauren	
[294] C. Campbell	The Limited	New York
D. Brewer	Bend'n Stretch	Miami
P. Freeze	American &Efird	Mount Holly

Mérida

G. Cortes	American & Efir
H. Rosado	CNIV
G. Cohen	Creutex
J. Dalton	Doulton de Mexico
M. Herrera	Oxford de Mexico
F. Atta	Produce Mexico
G. Mendez	Promoción Industrial
M. Mayr	VF Jeanswear

Puebla/Tehuacan

L. Marlon	Camera de la Industria Textil	Puebla
J. Lopez	CANACINTRA	Tehuacan
O. Castañeda	Centro de Confección	Puebla
R. Osorio	CNIV	Tehuacan
S. Patricio	CNIV	Tehuacan
O. Garcia	Confexpo	Tehuacan
J. Vargas	Jones Apparel Group	Tehuacan
A. Anaya	REMCO	Tehuacan
I. Velazquez	SECOFI	Puebla
I. Balderas	Secretaria de Obras Publicas	Tehuacan
A. Carrasco	SEDECO	Tehuacan
P. Toscano	Gil Martinez	Ajalpan
C. Lopez	Grupo Exportador Jeans	Ajalpan

Annex 2: Corporate Code of Conduct of a garment marketer

CODE OF VENDOR CONDUCT:

This Code of Vendor Conduct applies to all factories that produce goods for XXXX or any of its subsidiaries, divisions, affiliates or agents ('XXXX').

While XXXX recognizes that there are different legal and cultural environments in which factories operate throughout the world, this Code sets forth the basic requirements that all factories must meet in order to do business with XXXX. The Code also provides the foundation for XXXX's ongoing evaluation of a factory's employment practices and environmental compliance.

As a condition of doing business with XXXX, each and every factory must comply with this Code of Vendor Conduct. XXXX will continue to develop monitoring systems to assess and ensure compliance. If XXXX determines that any factory has violated this Code, XXXX may either terminate its business relationship or require the factory to implement a corrective action plan. If corrective action is advised but not taken, XXXX will suspend placement of future orders and may terminate current production.

I. General Principle

Factories that produce goods for XXXX shall operate in full compliance with the laws of their respective countries and with all other applicable laws, rules and regulations. A. The factory operates in full compliance with all applicable laws, rules and regulations, including those relating to labor, worker health and safety, and the environment. B. The factory allows XXXX and/or any of its representatives or agents unrestricted access to its facilities and to all relevant records at all times, whether or not notice is provided in advance.

II. Environment

Factories must comply with all applicable environmental laws and regulations. Where such requirements are less stringent than XXXX's own, factories are encouraged to meet the standards outlined in XXXX's statement of environmental principles. A. The factory has an environmental management system or plan. B. The factory has procedures for notifying local community authorities in case of accidental discharge or release or any other environmental emergency.

III. Discrimination

Factories shall employ workers on the basis of their ability to do the job, not on the basis of their personal characteristics or beliefs. A. The factory employs workers without regard to race, color, gender, nationality, religion, age, maternity or marital status. B. The factory pays workers

wages and provides benefits without regard to race, color, gender, nationality, religion, age, maternity or marital status.

IV. Forced Labor

Factories shall not use any prison, indentured or forced labor. A. The factory does not use involuntary labor of any kind, including prison labor, debt bondage or forced labor by governments. B. If the factory recruits foreign contract workers, the factory pays agency recruitment commissions and does not require any worker to remain in employment for any period of time against his or her will.

V. Child Labor

Factories shall employ only workers who meet the applicable minimum legal age requirement or are at least 14 years of age, whichever is greater. Factories must also comply with all other applicable child labor laws. Factories are encouraged to develop lawful workplace apprenticeship programs for the educational benefit of their workers, provided that all participants meet both XXXX's minimum age standard of 14 and the minimum legal age requirement.

- A. Every worker employed by the factory is at least 14 years of age and meets the applicable minimum legal age requirement.
- B. The factory complies with all applicable child labor laws, including those related to hiring, wages, hours worked, overtime and working conditions.
- C. The factory encourages and allows eligible workers, especially younger workers, to attend night classes and participate in work-study programs and other government-sponsored educational programs.
- D. The factory maintains official documentation for every worker that verifies the worker's date of birth. In those countries where official documents are not available to confirm exact date of birth, the factory confirms age using an appropriate and reliable assessment method.

VI. Wages & Hours

Factories shall set working hours, wages and overtime pay in compliance with all applicable laws. Workers shall be paid at least the minimum legal wage or a wage that meets local industry standards, whichever is greater. While it is understood that overtime is often required in garment production, factories shall carry out operations in ways that limit overtime to a level that ensures humane and productive working conditions.

- A. Workers are paid at least the minimum legal wage or the local industry standard, whichever is greater.
- B. The factory pays overtime and any incentive (or piece) rates that meet all legal requirements or the local industry standard, whichever is greater. Hourly wage rates for overtime must be higher than the rates for the regular work shift.
- C. The factory does not require, on a regularly scheduled basis, a work week in excess of 60 hours.
- D. Workers may refuse overtime without any threat of penalty, punishment or dismissal.
- E. Workers have at least one day off in seven.

- [298] F. The factory provides paid annual leave and holidays as required by law or which meet the local industry standard, whichever is greater.

- G. For each pay period, the factory provides workers an understandable wage statement which includes days worked, wage or piece rate earned per day, hours of overtime at each specified rate, bonuses, allowances and legal or contractual deductions.

VII. Working Conditions

Factories must treat all workers with respect and dignity and provide them with a safe and healthy environment. Factories shall comply with all applicable laws and regulations regarding working conditions. Factories shall not use corporal punishment or any other form of physical or psychological coercion. Factories must be sufficiently lighted and ventilated, aisles accessible, machinery maintained, and hazardous materials sensibly stored and disposed of. Factories providing housing for workers must keep these facilities clean and safe.

Factory:

- A. The factory does not engage in or permit physical acts to punish or coerce workers.
- B. The factory does not engage in or permit psychological coercion or any other form of non-physical abuse, including threats of violence, sexual harassment, screaming or other verbal abuse.
- C. The factory complies with all applicable laws regarding working conditions, including worker health and safety, sanitation, fire safety, risk protection, and electrical, mechanical and structural safety.
- D. Work surface lighting in production areas – such as sewing, knitting, pressing and cutting – is sufficient for the safe performance of production activities.
- E. The factory is well ventilated. There are windows, fans, air conditioners or heaters in all work areas for adequate circulation, ventilation and temperature control.
- F. There are sufficient, clearly marked exits allowing for the orderly evacuation of workers in case of fire or other emergencies. Emergency exit routes are posted and clearly marked in all sections of the factory.
- G. Aisles, exits and stairwells are kept clear at all times of work in process, finished garments, bolts of fabric, boxes and all other objects that could obstruct the orderly evacuation of workers in case of fire or other emergencies. The factory indicates with a ‘yellow box’ or other markings that the areas in front of exits, fire fighting equipment, control panels and potential fire sources are to be kept clear.
- H. Doors and other exits are kept accessible and unlocked during all working hours for orderly evacuation in case of fire or other emergencies. All main exit doors open to the outside.
- I. Fire extinguishers are appropriate to the types of possible fires in the various areas of the factory, are regularly maintained and charged, display the date of their last inspection, and are mounted on walls and columns throughout the factory so they are visible and accessible to workers in all areas.
- J. Fire alarms are on each floor and emergency lights are placed above exits and on stairwells.
- K. Evacuation drills are conducted at least annually.
- L. Machinery is equipped with operational safety devices and is inspected and serviced on a regular basis.
- M. Appropriate personal protective equipment – such as masks, gloves, goggles, ear plugs and rubber boots – is made available at no cost to all workers and instruction in its use is provided.

- N. The factory provides potable water for all workers and allows reasonable access to it throughout the working day.
- O. The factory places at least one well-stocked first aid kit on every factory floor and trains specific staff in basic first aid. The factory has procedures for dealing with serious injuries that require medical treatment outside the factory.
- P. The factory maintains throughout working hours clean and sanitary toilet areas and places no unreasonable restrictions on their use.
- Q. The factory stores hazardous and combustible materials in secure and ventilated areas and disposes of them in a safe and legal manner.

Housing (if applicable):

- A. Dormitory facilities meet all applicable laws and regulations related to health and safety, including fire safety, sanitation, risk protection, and electrical, mechanical and structural safety.
- B. Sleeping quarters are segregated by sex.
- C. The living space per worker in the sleeping quarters meets both the minimum legal requirement and the local industry standard.
- D. Workers are provided their own individual mats or beds.
- E. Dormitory facilities are well ventilated. There are windows to the outside or fans and/or air conditioners and/or heaters in all sleeping areas for adequate circulation, ventilation and temperature control.
- F. Workers are provided their own storage space for their clothes and personal possessions.
- G. There are at least two clearly marked exits on each floor, and emergency lighting is installed in halls, stairwells and above each exit.
- H. Halls and exits are kept clear of obstructions for safe and rapid evacuation in case of fire or other emergencies.
- I. Directions for evacuation in case of fire or other emergencies are posted in all sleeping quarters.
- J. Fire extinguishers are placed in or accessible to all sleeping quarters.
- K. Hazardous and combustible materials used in the production process are not stored in the dormitory or in buildings connected to sleeping quarters.
- L. Fire drills are conducted at least every six months. M. Sleeping quarters have adequate lighting.
- N. Sufficient toilets and showers or mandis are segregated by sex and provided in safe, sanitary, accessible and private areas.
- O. Potable water or facilities to boil water are available to dormitory residents.
- P. Dormitory residents are free to come and go during their off-hours under reasonable limitations imposed for their safety and comfort.

VIII. Freedom of Association

Workers are free to join associations of their own choosing. Factories must not interfere with workers who wish to lawfully and peacefully associate, organize or bargain collectively. The decision whether or not to do so should be made solely by the workers.

- A. Workers are free to choose whether or not to lawfully organize and join associations.
- [300] B. The factory does not threaten, penalize, restrict or interfere with workers' lawful efforts to join associations of their choosing.

Samenvatting

Kleding in beweging: de lokale dynamiek van export-netwerken in La Laguna, Noord-Mexico

Inleiding

Dit onderzoek heeft zich gericht op de recente economische ontwikkeling van de Laguna-regio in Noord-Mexico. De ontwikkeling van deze regio wordt gekenmerkt door een explosieve groei van de plaatselijke kledingindustrie sinds de inwerkingtreding van het NAFTA-vrijhandelsakkoord tussen de Verenigde Staten en Mexico in 1994. Kledingbedrijven in de regio hebben zich toegelegd op de productie van spijkerbroeken. Op basis van deze specialisatie is de regio bekend geworden als de ‘nieuwe spijkerbroeken hoofdstad van de wereld’ (in opvolging van de Texaanse grensstad El Paso, waar de lokale spijkerbroekindustrie goeddeels instortte toen in de tweede helft van de jaren negentig steeds meer kledingproductie naar Mexico verschoof). Om de belangrijkste aspecten van de ontwikkeling van La Laguna goed te kunnen plaatsen is het van belang om deze in de internationale en historische context van kledingproductie te plaatsen. Dit is gedaan in hoofdstukken 1 tot en met 3 en heeft een aantal belangrijke inzichten en trends aan het licht gebracht.

Reeds in de jaren vijftig begonnen enkele Aziatische ontwikkelingslanden kleding te produceren voor de Amerikaanse en Europese markten. Binnen korte tijd veroverden een aantal van deze landen een sterke positie in de Westerse kledingmarkten. Bovendien waren verschillende van de Zuidoost-Aziatische pioniers in staat de ervaring opgedaan met kledingexport te gebruiken als basis voor een breder export-industrialisatiebeleid. Landen als Hong Kong, Taiwan en Zuid-Korea zijn inmiddels vooral bekend als producenten van meer ‘high-tech’ elektronica-producten en in de kleding hebben zij zich grotendeels toegelegd op delen van het productieproces met de hoogste toegevoegde waarde.

Kleding productie is niet beperkt gebleven tot deze landen: gedreven door grote internationale loonverschillen en gefaciliteerd door technologische ontwikkelingen in transport en telecommunicatie en de ‘opknipbaarheid’ van het productieproces heeft de internationalisering van kledingproductie in de afgelopen decennia ongekende vormen aangenomen. Tegenwoordig wordt de kledingindustrie dan ook algemeen gezien als hét schoolvoorbeeld van een globaliseerde industrie. Een zeer groot en groeiend aantal landen produceert en exporteert kledingstukken.

Een tweetal marktontwikkelingen is ook kenmerkend voor de afgelopen jaren. Ten eerste zijn grote klanten in de belangrijkste markten (met name *retailers* (detailhandelaars) maar ook enkele grote producenten) een steeds belangrijker, sturende rol in de internationale handelsstromen gaan spelen. Ten tweede zijn de strategieën van deze grote klanten erop gericht de kledingverkoop in de volwassen Westerse markten te stimuleren door middel van snellere modeveranderingen en verregaande segmentatie op basis van kledingmerken en -labels. In organisatorisch opzicht betekent dit dat de steeds dynamischer kledingmarkt [301] bediend moet worden door flexibele producenten, opgenomen in strak georganiseerde toeleveringsnetwerken. In geografisch opzicht lijkt dit te leiden tot regionalisering van de

handelsstromen, ofwel een groeiend marktaandeel voor (producenten in) landen aan de periferie van de Amerikaanse en de Europese markten. Turkije en Marokko maar ook de Oost-Europese landen zijn van groeiend belang in de West-Europese markten; landen in het Caribisch gebied en Latijns Amerika zijn belangrijke toeleveranciers voor de Amerikaanse markt.

In deze laatste groep neemt Mexico een uitzonderlijke plaats in omdat de exportpositie van het land extra wordt ondersteund door NAFTA en andere vrijhandelsovereenkomsten met de VS. Zo levert NAFTA Mexico een kwantitatieve groei van de export op, omdat Mexico niet langer gebonden is aan exportquota en bovendien goedkoper is geworden omdat over haar exporten niet langer invoerrechten geheven worden. Bovendien opent het de weg naar een kwalitatieve verbetering van Mexico's exportpositie omdat Mexico niet langer beperkt is tot pure assemblage-activiteiten, maar complete eindproducten naar de VS kan exporteren. Net als andere kledingexporterende landen heeft Mexico nu in potentie de mogelijkheid om in de voetsporen van haar Zuidoost-Aziatische voorgangers te treden, door haar kledingexportpositie te versterken.

Vaak hebben kledingbedrijven in ontwikkelingslanden zich geografisch geconcentreerd in bepaalde regio's, waar deze zogenaamde kledingclusters een belangrijke factor in de lokale economie zijn. Dit is ook het geval in Mexico. Het grootste kledingexport-cluster in Mexico is de Laguna-regio, gelegen op de grens van de staten Coahuila en Durango in het noorden van het land. Tegen de hierboven kort geschetste brede industriële achtergrond, analyseert deze studie de recente ontwikkeling van het Laguna-kledingcluster vanuit een netwerkperspectief. In hoofdstuk 2 zijn hiertoe twee verschillende netwerkperspectieven tegenover elkaar gezet: het zogenaamde *global value chain* (GVC)-perspectief, dat het belang van internationale, verticale machtsrelaties binnen de productieketen benadrukt, en het cluster-perspectief dat uitgaat van relaties (en samenwerkingsverbanden) gebaseerd op wederzijdse afhankelijkheid tussen min of meer gelijkwaardige bedrijven in een bepaalde regio. Voor een geval als La Laguna lijkt het aannemelijk dat beide perspectieven elkaar aan kunnen vullen. Vanuit die gedachte zijn de volgende onderzoeksvragen geformuleerd:

1. Wat zijn de belangrijkste economische, geografische en historische kenmerken van de Laguna-regio, en vloeit de huidige positie van de regio als kledingexport-cluster voort uit deze kenmerken?
2. Wat is de structuur van het Laguna-kledingcluster (met betrekking tot product- en markt oriëntatie en bedrijfskenmerken) en komt deze structuur overeen met die van andere kledingclusters?
3. In welke mate is de kledingindustrie in La Laguna lokaal ingebed door relaties binnen het cluster? Als inbedding van belang is, wat voor invloed heeft inbedding – in de lokale economische en sociaal-culturele omgeving – dan op de concurrentiepositie van het cluster en haar bedrijven?
4. Wat is de structuur en samenstelling van de kledingproductie-netwerken die La Laguna verbinden met de markt in de VS, gelet op de betrokken actoren en hun productieve, organisatorische en strategische activiteiten en verantwoordelijkheden?
5. Hebben er veranderings- en verbeteringsprocessen plaatsgevonden in het cluster? Indien dit het geval is, welke soorten verbeteringsprocessen hebben plaatsgevonden en door welke factoren worden deze processen gedreven en welke actoren zijn hierbij betrokken?

Bevindingen

- [302] Onderzoeksvraag 1: Wat zijn de belangrijkste economische, geografische en historische kenmerken van de Laguna-regio, en vloeit de huidige positie van de regio als kledingexport-cluster voort uit deze kenmerken?

De lokale economie in La Laguna heeft lange tijd zwaar geleund op landbouwactiviteiten, met name de katoenteelt. Over de afgelopen decennia heeft de landbouwsector in de regio echter in toenemende mate onder druk gestaan. Het aan monocultuur grenzende grote belang van katoen werd een probleem toen de wereldmarktprijzen begonnen te dalen en er een aantal sterke internationale concurrenten opkwam. In reactie op deze ontwikkeling werd reeds in de jaren zeventig de landbouwproductie gediversifieerd. Ondanks succesvolle diversificatie bleef landbouw problematisch omdat de regio werd geplaagd door toenemende droogte. Ook de aan het begin van de twintigste eeuw doorgevoerde landhervorming, met de daaruit voortgekomen *ejidos* (land in collectief beheer van vele kleine boeren), bleek niet te voldoen aan de eisen van de jaren negentig. De kleine percelen in de *ejidos* bleken na verloop van tijd nauwelijks rendabel te exploiteren. Toen in 1992 een verandering in de grondwet het collectief landeigendom in privaat eigendom veranderde had dit dan ook in veel gevallen verhuur of verkoop van *ejido* land aan grotere boederijen tot gevolg. Het algemene resultaat van deze ontwikkelingen is een concentratie van land in de handen van een beperkt aantal grote boeren (met in hoge mate gemechaniseerde boederijen) en toenemende werkloosheid onder de rurale bevolking.

In de stad had een in zekere zin tegengestelde ontwikkeling plaats: sinds de jaren zeventig kwam daar een industrialisatieproces op gang dat tot op de dag van vandaag voortduurt. In eerste instantie bouwde de stedelijke industrie met name op de regionale landbouwproductie en was gericht op voedselverwerkende activiteiten. In de loop van de tijd is de lokale economie zich in toenemende mate gaan richten op grootschalige exportassemblage. Tegenwoordig is ook de dienstensector in het urbane centrum goed ontwikkeld. Zowel de industriële als de dienstensector hebben een deel van de uit de landbouw uitgestoten rurale arbeidskrachten geabsorbeerd. De absorptie van deze rurale arbeidsreserve heeft de snelle groei van deze sectoren mogelijk gemaakt en is weerspiegeld in intensief forensisme en het urbanisatieproces (en een rurale exodus) van de afgelopen decennia.

De geschetste ontwikkelingen – met name het voor Mexicaanse begrippen relatief vroeg ingezette industrialisatieproces en de aanwezigheid van een groot en relatief goedkoop (ruraal) arbeidsreservoir – zijn belangrijke verklarende factoren voor de snelle opkomst van de regio als ‘spijkerbroeken hoofdstad van de wereld’ tegen het eind van de jaren negentig. Bovendien heeft de regio een gunstige geografische ligging ten opzichte van de Amerikaanse markt en een relatief hoogwaardige lokale fysieke infrastructuur.

Onderzoeksvraag 2: Wat is de structuur van het Laguna-kledingcluster, met betrekking tot product- en marktorientatie en bedrijfskenmerken, en komt deze structuur overeen met die van andere kledingclusters?

In de vroege jaren van haar bestaan, omstreeks de jaren veertig, was kledingproductie in La Laguna voornamelijk waardetoevoeging voor de lokaal geproduceerde katoen en een manier om eventuele katoenoverschotten af te zetten. Er ontstonden verschillende textielbedrijven die grove katoen, met name denim, produceerden. De van deze stof geproduceerde kleding werd verkocht in de regio en in Noord-Mexico. De huidige kledingindustrie in de regio heeft niet of nauwelijks met deze vroege kledingproductie te maken: tegenwoordig assembleren de fabrieken in de regio geïmporteerde stof vanuit de VS op basis van de specificaties van hun Amerikaanse klanten en de eindproducten worden geëxporteerd. De link naar zowel de regionale katoen als ook de regionale markt is dus geheel verbroken. Toch is dit nieuwe systeem is een kwantitatieve groei formule gebleken: tegen het einde van de jaren negentig waren er ongeveer tweehonderd bedrijven met vierhonderd fabrieken en vijfenzeventig-duizend werknemers verantwoordelijk voor de productie van ruim zes miljoen spijkerbroeken

per week (een ruime verdubbeling van het aantal bedrijven en een vertienvoudiging van de productiecapaciteit ten opzichte van die in het begin van de jaren negentig). Er zijn enkele buitenlandse fabrieken, maar het merendeel van de bedrijvigheid is in lokaal eigendom. De bedrijfsomvang van de lokale kledingbedrijven varieert van klein tot zeer groot. De zeer grote bedrijven hebben soms enkele duizenden werknemers en drukken hun stempel op het cluster. Geografisch zijn de bedrijven min of meer gelijkmatig verspreid over de beide staten en de laatste jaren is er een groot aantal fabrieken op het platteland geopend.

La Laguna verschilt in een aantal opzichten sterk van kledingclusters elders in de wereld. Andere clusters produceren meestal een breder assortiment aan kledingstukken. Bovendien bestaan zij vaak voornamelijk uit kleine en middelgrote bedrijven en produceren zij zowel voor de lokale en/of nationale markt als voor export. Het afwijkende karakter van het Laguna-cluster kan worden verklaard aan de hand van de bepalende rol die de Amerikaanse klanten en hun eisen hebben gespeeld in het vormen van het cluster sinds het in werking treden van NAFTA. Met andere woorden, de huidige structuur is niet de uitkomst van een langzame endogene groei (zoals bij de meeste andere kledingclusters het geval lijkt), maar van een plotselinge, exogene vraagexplosie. In relatie tot de beschikbare literatuur kan worden vastgesteld dat La Laguna overeenkomsten vertoont met de door Pederson (1997) gevonden *subcontracting clusters*. Ook lijkt het op de zogenaamde ‘volwassen’ clusters die wel in andere ontwikkelingslanden zijn gevonden. In het specifieke geval van La Laguna moet dan wel worden vastgesteld dat het in een uitzonderlijk korte tijd (in de vijf jaar sinds het in werking treden van NAFTA) volwassen is geworden.

Onderzoeksvraag 3: In welke mate is de kledingindustrie in La Laguna lokaal ingebed door relaties binnen het cluster? Als inbedding van belang is, wat voor invloed heeft inbedding – in de lokale economische en sociaal-culturele omgeving – op de concurrentiepositie van het Laguna-cluster en haar bedrijven?

Deze studie laat zien dat het merendeel van de bedrijfsrelaties in de lokale kledingindustrie geconcentreerd zijn binnen het cluster en dat de meeste bedrijven en ondernemers in hoge mate ingebed zijn in het cluster. Relaties met toeleveranciers – zowel *subcontractors* (onderaannemers) als toeleveranciers van ritsen, knopen en andere materialen – zijn gecentreerd rondom en lopen via de grote bedrijven. Deze grote bedrijven onderhouden vaak relaties met een groot aantal kleinere onderaannemers. Ondanks het feit dat ondernemers vaak geboren en getogen *laguneros* zijn en elkaar kennen (en soms zelfs familie van elkaar zijn) zijn deze relaties vaak tamelijk formalistisch, afstandelijk, wisselend en is er – in plaats van wederzijdse afhankelijkheid – sprake van eenzijdige afhankelijkheid van de onderaannemers ten opzichte van de grotere lokale opdrachtgever. Grotere bedrijven onderhouden over het algemeen ook de relaties met de Amerikaanse klanten en met de toeleveranciers van materialen (dit laatste veelal op basis van specificaties van de Amerikaanse klanten).

Alle publieke en private organisaties met welke kledingbedrijven te maken (kunnen) hebben, bevinden zich binnen de regio. Hierbij dient te worden opgemerkt dat in de huidige ‘geliberaliseerde’ Mexicaanse beleidsomgeving genoemde organisaties nauwelijks een actieve, ondersteunende rol spelen. Hun aanwezigheid in de regio betekent dan ook nauwelijks meer dan een vergemakkelijking van het onderhouden van de verplichte relaties. Ten slotte is ook de relatie tussen kledingbedrijven en hun werknemers van belang. Het personeel van de kledingbedrijven is afkomstig uit de regio. Onder invloed van de recente explosieve groei van de kledingindustrie hebben er verschuivingen in de samenstelling van het personeel (in vergelijking met enkele jaren geleden werken er nu bijvoorbeeld meer jongeren en meer

mannen in de kledingfabrieken). Toch is de regionale arbeidsmarkt bijzonder krap geworden en dit heeft de arbeidsrelaties, maar ook de relaties tussen op arbeidsmarkt concurrerende bedrijven, onder druk gezet.

De geschetste brede structuur van het cluster, met de aanwezigheid van een veelheid aan actoren, ondersteunt het cluster en haar bedrijven door middel van passieve clustervoordelen (lagere transactie kosten, schaal- en scopevoordelen). Echter, de vaak gevonden positieve relaties tussen geografische (en sociaal-culturele) nabijheid van bedrijven en specialisatie, die kunnen leiden tot wederzijdse afhankelijkheid, vertrouwen en samenwerking, zijn nauwelijks gevonden in La Laguna. Een mogelijke verklaring voor deze bevinding is het feit dat de lokale, sociaal-culturele omgeving in zijn algemeenheid wordt gekenmerkt door achterdocht en geheimzinnigheid. Bovendien zorgt de huidige, eenzijdige structuur van het cluster ervoor dat lokale bedrijven in uitzonderlijk hoge mate elkaar's directe concurrenten zijn. Zij zijn afhankelijk van opdrachten van Amerikaanse klanten en moeten direct tegen elkaar concurreren voor het werk van deze klanten, die niet altijd loyaal zijn ten opzichte van hun producenten.

Onderzoeksvraag 4: *Wat is de structuur en samenstelling van de kledingproductie-netwerken die La Laguna verbinden met de markt in de VS, gelet op de betrokken actoren en hun productieve, organisatorische en strategische activiteiten en verantwoordelijkheden?*

Hoofdstuk 7 van deze studie heeft laten zien dat in de loop van de jaren negentig het aantal Amerikaanse klanten dat werkt met producenten in La Laguna sterk is toegenomen. Bovendien zijn er naast de Amerikaanse merkproducenten – traditioneel de belangrijkste klanten in Mexico – ook *retailers* (detailhandelaars) en zogenaamde *marketers* (bedrijven die eigen (merk-)kledinglijnen ontwerpen en verkopen maar geen eigen productiecapaciteit hebben) kleding uit La Laguna gaan betrekken. De productie-netwerken van deze verschillende klanten verschillen licht van elkaar en dit heeft gevolgen voor de rol en verantwoordelijkheden van de lokale bedrijven die opgenomen zijn in deze netwerken.

Merkproducenten zoals Levi Strauss, Wrangler en Hanes werken van oudsher met producenten die kunnen voldoen aan hun kwaliteitseisen; bedrijfsomvang is hierbij geen bepalende factor. Omdat merkproducenten vaak al decennia lang een eigen productiecapaciteit hebben, brengen zij productie-technische kennis in hun netwerken en zijn zij in staat met nieuwe, beginnende (vaak kleine) producenten te werken en deze te ondersteunen. De lokale onderaannemers worden op assemblage-basis aangetrokken onder de strikte voorwaarde dat geen van de overeengekomen werkzaamheden verder uitbesteed worden. Alle non-assemblage-activiteiten worden over het algemeen samengebracht in de fabrieken van de Amerikaanse merkproducent. Hoewel al de genoemde kenmerken nu nog traceerbaar zijn in de netwerken van de merkproducenten, zijn de strategieën van de merkproducenten de laatste jaren veranderd. In de loop der jaren lijken merkproducenten steeds vaker ook bedrijfsomvang te hanteren als een selectiecriteria voor onderaannemers (hun onderaannemers worden steeds groter) en verwachten zij in toenemende mate dat onderaannemers grotere delen van het productieproces voor hun rekening nemen. Dit past binnen de strategie van merkproducenten om de eigen productiecapaciteit terug te brengen en zich meer en meer toe te leggen op design en marketing.

Retailers, in het bijzonder KMart, Wal-Mart en andere bedrijven in de lage- en midden segmenten van de Amerikaanse markt, zijn in de loop van de jaren negentig belangrijker

geworden voor het Laguna-cluster. Zij nemen inmiddels het grootste deel van de productiecapaciteit van het cluster voor hun rekening. Retailers hebben over het algemeen geen eigen productie-ervaring en -capaciteit en kunnen dus alleen werken met all-round-producenten die een compleet eindproduct kunnen leveren. In La Laguna, met haar assemblagebasis, is het proces richting integratie van het productieproces pas op gang gekomen nadat NAFTA-liberalisering dat toeliet. Het (zeker van oudsher) beperkte aanbod van geïntegreerde producenten heeft ertoe geleid dat het meeste werk voor retailers nog gedaan wordt via Amerikaanse intermediairs. Deze intermediairs nemen de hoogwaardige activiteiten, zoals ontwerp, snijden en afwerken, voor eigen rekening en besteden de assemblage uit aan een groot aantal kleine en middelgrote onderaannemers in La Laguna. De intermediairs zijn hierbij verantwoordelijk voor aansturing en controle van deze onderaannemers. In sommige gevallen werken zij vanuit de VS, maar enkelen van hen hebben eigen productiefaciliteiten in La Laguna.

Marketers of designers zijn veeleisende maar goedbetalende klanten. Zij zijn pas recentelijk productierelaties aangegaan met lokale kledingbedrijven. Vooralsnog werken zij met kleine hoeveelheden in zogenaamde *pilot programmes* en dan nog alleen met de grootste en meest geavanceerde bedrijven die hen een compleet product kunnen leveren. Voornamelijk omdat de lokale producenten maar met moeite kunnen voldoen aan de hoge verwachtingen van de marketers op het gebied van dienstverlening, flexibiliteit en ondernemingsgeest, is hun rol en betekenis in het Laguna-cluster beperkt gebleven.

In de theorie, zoals beschreven in hoofdstuk 2, wordt voor kledingbedrijven en -clusters in ontwikkelingslanden een ontwikkelingspad geschetst waarin na verloop van tijd laagwaardigere klanten verdrongen worden door hoogwaardigere – en betere betalende – klanten. Lokale bedrijven ontwikkelen zich zo van pure assemblage-fabrieken tot geïntegreerde producenten van complete eindproducten. Uit de bevindingen in hoofdstuk 7 blijkt dat het in de praktijk in La Laguna maar gedeeltelijk op deze manier verloopt. Lokale bedrijven hebben de grootste moeite hun afhankelijke assemblagepositie te ontgroeien en blijken in hun ontwikkelingsmogelijkheden beperkt.

Over het algemeen bevinden de allergrootste lokale producenten zich in de beste positie in de exportnetwerken. Zij zijn zelfs in staat de relatie met hun klanten, met name met de betere klanten, te monopoliseren. Het is echter zo dat zelfs zij de omslag naar een hoogwaardigere productie maar ten dele hebben kunnen maken. Het leeuwendeel van de productie is nog steeds bestemd voor laagwaardige retailers. Bovendien zijn de onderaannemers door de centrale positie van de grote bedrijven grotendeels beperkt gehouden tot hun (assemblage-)activiteiten. Op deze manier worden onderaannemers maar zeer indirect aan de eisen van de markt blootgesteld en kent hun ontwikkeling niet de nodige impulsen.

Onderzoeksvraag 5: *Hebben er veranderings- en verbeteringsprocessen plaatsgevonden in het cluster? Indien dit het geval is, welke soorten processen hebben plaatsgevonden en door welke factoren worden deze processen gedreven en welke actoren zijn erbij betrokken?*

Hoofdstuk 8 heeft laten zien dat er inderdaad veranderingen hebben plaatsgevonden: in overeenstemming met een algemene tendens in de internationale kledingmarkt, is de lokaal geproduceerde kleding langzaam maar zeker modegevoeliger en minder gestandaardiseerd geworden. Ook is veel nadruk gelegd op de verbetering van de kwaliteit van producten en is er in nieuwe technologie geïnvesteerd. In vergelijking tot de veranderingen van producten zijn de veranderingen in het productieproces beperkt. De nadruk heeft steeds gelegen op uitbreiding van de productiecapaciteit, door het toevoegen van nieuwe sewing lines en het bouwen van

nieuwe fabrieken. Pas tegen het eind van de jaren negentig zijn bedrijven begonnen met het treffen van maatregelen om de efficiëntie te verhogen. Dit laatste had veel te maken met de toenemende krapte op de lokale arbeidsmarkt waardoor het aannemen van steeds maar weer nieuwe arbeidskrachten niet langer haalbaar was. In dezelfde periode begon een aantal bedrijven ook te experimenteren met zogenaamde ‘modules’ waarin kleinere groepen werknemers meer verantwoordelijkheid krijgen en directer bij elkaar en het eindproduct betrokken zijn dan in de traditionele (Tayloristische) ‘lijnen’. Omdat andere belangrijke voordelen van de modules een grotere flexibiliteit en een kortere doorlooptijd van het product zijn, hebben sommige Amerikaanse klanten de introductie van modules bij hun onderaannemers gesteund of zelfs afgedwongen.

Ten slotte, met het in werking treden van NAFTA, werd het voor bedrijven in Mexico mogelijk complete producten te maken en te exporteren. In La Laguna heeft de liberalisering op dit gebied geleid tot een geleidelijk toenemende integratie van het productieproces. *Pre-assembly*- (met name het snijden van de stof) en *post-assembly*-activiteiten (zoals het wassen, inspecteren en verpakken) worden steeds meer binnen de regio uitgevoerd. Aan het einde van de jaren negentig waren echter alleen de allergrootste lokale bedrijven in staat het gehele productieproces, inclusief het inkopen van stof, voor eigen rekening te nemen. De meeste van deze bedrijven combineerden de levering van complete eindproducten, de zogenaamde *full-packages*, met pure assemblage of het leveren van halffabrikaten. Hoewel er zich een trend richting complete producten aftekent, is het nog wat voorbarig om het cluster als geheel te bestempelen als een *full-package*-cluster.

Bovengenoemde veranderingen en verbeteringen, met name de introductie van meer modegevoelige producten en de lokale integratie van het productieproces, zijn gedreven door Amerikaanse klanten.

Over het algemeen richten lokale producenten zich voornamelijk op het bijbenen van de groei en verandering in de vraag, maar zijn zij nauwelijks in staat eigen strategieën voor de middellange- en lange termijn te formuleren. Kortom, de switch naar nieuwe producten, het implementeren van nieuwe processen en hogere standaarden gebeurde vanwege trends in de markt en vonden plaats op aangeven van klanten. Afstand tot de markt, gebrekkig marktinzicht en een eenzijdige afhankelijkheid van Amerikaanse klanten verklaren waarom genoemde veranderingen vaak langzaam werden doorgevoerd en soms zelfs op weerstand stuitten. Van werkelijke innovatie in het cluster is dan ook geen sprake.

Omdat klanten de belangrijkste bron van informatie zijn, worden lokale bedrijven – met name kleine- en middelgrote bedrijven – die geen rechtstreekse relatie met klanten hebben, maar indirect blootgesteld aan marktinformatie. Zoals al eerder vastgesteld zijn zij dan ook nauwelijks op de hoogte van de dynamiek van de markt en uit hoofdstuk 8 blijkt dat zij ook slechts in zeer beperkt mate hebben deelgenomen aan bovengenoemde verbeteringsprocessen.

Eén verandering heeft zich opgedrongen aan het cluster als geheel: de toenemende krapte en onrust op de lokale arbeidsmarkt. Alle bedrijven hebben te maken met de groeiende problemen rondom het aantrekken en het vasthouden van werknemers. In reactie op deze ontwikkeling is er clusterbreed een tweetal veranderingen opgetreden. Ten eerste zijn bedrijven tegen elkaar op gaan bieden; om de gunst van werknemers te winnen worden hogere lonen geboden en secundaire arbeidsvoorwaarden verbeterd. Ten tweede worden er steeds meer rurale arbeidskrachten ingeschakeld, waarbij dagelijks transport vaak door de bedrijven zelf georganiseerd en betaald wordt. Ten slotte zijn vooral de grotere bedrijven (buitenlands en

lokaal) fabrieken gaan bouwen op het platteland. Andere schakelen nieuw opgezette plattelandsfabrieken in communaal eigendom van *ejido*-bewoners in. Ongeacht de eigendomsvorm worden de meeste plattelandsfabrieken alleen ingeschakeld voor pure assemblage-activiteiten. Als gevolg hiervan is er een intra-regionale arbeidsverdeling tot stand gekomen waarin hoogwaardigere activiteiten veelal in de stad zijn gebleven en de laagwaardig activiteiten naar het platteland zijn uitgeschoven.

Interpretatie onderzoeksresultaten

De hierboven geschetste, algemene onderzoeksbevindingen geven geen reden tot groot optimisme over de toekomst van het kledingcluster in La Laguna. Eenzelfde lot als dat van El Paso, La Laguna's voorganger als 'spijkerbroeken-hoofdstad', dreigt. Een aantal bevindingen is hierbij van bijzonder belang. Zoals reeds opgemerkt, is in de jaren negentig bijna alle tijd en energie van de lokale ondernemers ingezet om de explosieve kwantitatieve groei van de vraag naar kleding uit La Laguna bij te benen. Deze pragmatische korte-termijnaanpak, lijkt een meer strategische benadering, gericht op kwalitatieve verbeteringen op de lange termijn, naar de achtergrond te hebben verdrongen. Voor de toekomst van kledingproducenten in La Laguna is het schijnbare gebrek aan langetermijnvisie en strategisch ondernemerschap een gevaar, met name omdat de ontwikkelingen in de kledingmarkt van de kledingproducenten juist steeds meer flexibiliteit, snellere levertijden, service, *commitment* en samenwerking eisen. Hoewel dit in de lage segmenten van de kledingmarkt (waarin La Laguna zich nog steeds hoofdzakelijk beweegt) minder geldt, is dit een segment waar – met oog op kostenbesparingen – voortdurend internationale relocatie van productie op de loer ligt. Dit laatste is voor La Laguna een bedreiging omdat de lokale productiekosten relatief hoog zijn en verder stijgen onder invloed van de krappe arbeidsmarkt. Kortom, zolang La Laguna niet in staat is haar hogere kosten te compenseren met flexibiliteit en service is de toekomst voor het kledingcluster onzeker. Dit is des te belangrijker omdat in 2005 kleding geïntegreerd zal zijn in algemene WTO-regels, als gevolg waarvan een grootscheepse relocatie van productie op wereldschaal wordt voorzien.

Bovenstaande leidt ook tot de conclusie dat het niet waarschijnlijk is, zoals vaak wel in de literatuur gesuggereerd is, dat La Laguna – of Mexico in zijn geheel – het Zuidoost-Aziatische voorbeeld zal volgen. De factoren die hierbij ook een rol spelen, zijn:

- *Timing*: Mexico is pas vier decennia na Zuidoost-Azië een rol van betekenis gaan spelen in de wereldhandelsstromen van kleding. In de vier tussenliggende decennia hebben er veranderingen plaatsgevonden op technologisch gebied en op het gebied van marketing- en uitbestedingstrategieën. Bovendien zijn er veel nieuwe kledingexporteurs opgekomen zodat Mexico nu te maken heeft met een groot aantal concurrenten over de hele wereld. Ten slotte opereert Mexico nu in een streng gereguleerde wereldmarkt (met name door het Multi Fibre Agreement), terwijl daar ten tijde van de Aziatische pioniers nog geen sprake van was.
- *(Geografische) exportoriëntatie*: participatie van Mexico is gebaseerd op regionalisering, en niet op internationalisering/globalisering van kledingproductie. Mexico is zeer eenzijdig gericht op en afhankelijk van de VS.
- *Sociaal-culturele en beleidsverschillen*: waar er in de eerste Aziatische kledingexporterende landen sprake was van sturing vanuit de overheid, opereren Mexicaanse kledingproducenten in een 'geliberaliseerde' Mexicaanse economie waar geen gericht beleid wordt gemaakt of een ontwikkelingsstrategie voor de lange termijn is geformuleerd.

Het patroon zoals gevonden in La Laguna, wijkt af van de patronen die veelal in de clusterliteratuur worden beschreven. Zoals gezegd heeft dit veel te maken met La Laguna's unieke ontstaansgeschiedenis. Het huidige cluster is het resultaat van een plotseling ontstane, grote exogene vraag en niet van een gestage, endogene groei. Veelzeggend is het feit dat meer dan de helft van de bedrijven pas in de tweede helft van de jaren negentig is opgezet. Een klein aantal bedrijven kon op basis van ervaring of kapitaalkracht in de hectische jaren na NAFTA snel een dominante positie in het cluster innemen. Gevolg is een zeer uitgesproken polarisatie in de clusterstructuur. Deze bevinding sluit aan bij recente Mexicaanse literatuur waarin wordt gewaarschuwd dat het liberaliseringsbeleid van de Mexicaanse overheid tot (verdere) polarisatie in de economie kan leiden.

In relatie tot de bestaande literatuur over clusters (in ontwikkelingslanden) is het van belang twee bevindingen te benadrukken.

1. Het geval van La Laguna laat zien dat bedrijven binnen een cluster niet automatisch de vertrouwensrelaties en samenwerkingsverbanden aangaan die de basis vormen van zogenaamde collectieve efficiency. De lokale sociaal-culturele omgeving lijkt in het geval van La Laguna een negatieve rol te spelen, maar het is belangrijker om vast te stellen dat een exogene vraagschok het ontstaan van dit soort relaties heeft bemoeilijkt. Het resultaat hiervan is dat lokale bedrijven tegenover elkaar komen te staan als directe concurrenten. Directe concurrentie voor een positie in de exportnetwerken is een belangrijke, structurele barrière voor samenwerking in het cluster. Deze bevinding is vooral van belang omdat het niet denkbeeldig is dat, in de context van een globaliserende wereldeconomie, steeds weer nieuwe en door exogene vraag geleide clusters zullen ontstaan die lijken op La Laguna.
2. Bovenbeschreven structuur en dynamiek kan negatieve consequenties hebben voor de concurrentiepositie van het cluster. Er is geen lokale 'denk-tank', ervaringen worden nauwelijks uitgewisseld en er is geen lokaal front om tegenover externe klanten een gezamenlijke vuist te kunnen maken. Hoewel dominante, grote bedrijven dikwijls optreden als pioniers op het gebied van verbeteringsprocessen, zijn er weinig aanwijzingen dat hun inspanningen het cluster als geheel ten goede komen (onderaannemers staan over het algemeen niet bloot aan informatie uit of over de markt). In tegenstelling tot de situatie in andere clusters in de literatuur, is leren in La Laguna geen collectief proces.

Inzichten verkregen uit *global value chain* (GVC)-studies zijn relevant gebleken om de kernzaken en belangrijkste ontwikkelingen van het Laguna-cluster te identificeren. Zoals benadrukt in GVC-studies zijn ook voor het Laguna-cluster verticale ketenrelaties met Amerikaanse klanten van groot belang, met name het leren van klanten en de opvolging van klanten. Zoals voorspeld in GVC-literatuur is één van de belangrijkste uitdagingen voor het cluster de lokale integratie van het productieproces, zodat complete producten geleverd kunnen worden.

Echter, de bevindingen van overhavige studie wijzen op het belang van het nuanceren van GVC-publicaties met betrekking tot de uitkomsten van bovengenoemde ontwikkelingsprocessen. De nauwe focus van GVC-studies op verticale, 'top-down'-ketenrelaties doet geen recht aan de complexiteit van de interactie tussen lokale bedrijven en een globaliserende industrie die de kern vormt van het succes of de mislukking van La Laguna als belangrijke toeleverancier in de Amerikaanse markt. In het geval van La Laguna zijn lokale en historische omstandigheden van groot belang; de invloed van vroegere handelsbeperkingen en huidig overheidsbeleid zijn hierboven al besproken. Omdat deze en vele andere aspecten in GVC-studies weinig (of zelfs helemaal geen) aandacht krijgen, lopen genoemde studies een reëel risico zich blind te staren op het ontwikkelingspotentieel van een cluster of haar bedrijven. In

hun enthousiasme lijken zij gefixeerd op een positief eindresultaat en onderschatten zij de moeilijkheden, obstakels en problemen die onderdeel zijn van verbeterings- en ontwikkelingsprocessen. Het mag duidelijk zijn dat de bevindingen van deze studie de aanbevelingen van andere studies die wijzen op het belang van de incorporatie van omgevingsfactoren in GVC-studies, ondersteunen.

In La Laguna hebben met name op het gebied van productieprocessen verbeteringen plaatsgevonden. Er is geen reden om aan te nemen dat de integratie van het productieproces zich uit zal strekken naar het ontwerpen van kleding, naar *marketing-&sales-activiteiten* of uiteindelijk naar een zelfstandige positie van lokale bedrijven in de (export)markt. Op grond van de recente ontwikkelingen lijkt het zelfs onwaarschijnlijk dat een dergelijke verbetering zich voor zal doen. Dit geeft reden voor het plaatsen van grote vraagtekens bij het uiteindelijke ontwikkelingsresultaat: zelfs als het Laguna-cluster in staat is haar positie in de Amerikaanse markt vast te houden, is zij maar zeer ten dele in staat zich de winsten of opbrengsten van alle verbeteringsprocessen toe te eigenen. Als La Laguna's positie van afhankelijk subcontractor-cluster niet wordt doorbroken, komen de resultaten van lokale verbeteringsprocessen vooral ten goede van de Amerikaanse klanten.

Ten slotte was deze studie niet compleet geweest zonder aandacht te besteden aan de crisis die La Laguna sinds 2001 heeft geplaagd. In het voorjaar van 2001 verschenen de eerste krantenartikelen over de sluiting van enkele kleinere fabrieken en naarmate de zomer vorderde, leek de vraag uit de VS verder te stagneren en werd de situatie voor kledingbedrijven in La Laguna nijpend. De aanslagen op het WTC in New York op 11 september en de daarop volgende onzekerheid in de VS bezegelde het lot voor veel kledingfabrieken en hun werknemers. Begin 2002 waren veel kleinere fabrieken gesloten en alle grote bedrijven waren zeer sterk ingekrompen. De productie was teruggelopen van 6,5 tot een geschatte 2 miljoen paar spijkerbroeken; van de 75.000 werknemers waren minstens 30.000 hun baan kwijtgeraakt.

Veldwerk gedaan aan het begin van 2002 heeft uitgewezen dat de crisis in La Laguna niet of nauwelijks aanleiding is geweest voor lokale bedrijven om samen te gaan werken. Ondanks het feit dat de werkgeversorganisatie wel heeft gelobbyd voor begrip en steun van lokale (overheids-)instanties, is de afstandelijke houding van deze instanties niet veranderd. Als gevolg van de crisis is de structuur van het cluster verder gepolariseerd, grotendeels door de strategieën van de grote bedrijven: het opslokken van onderaannemers en het naar beneden drukken van de prijs. Tegelijkertijd zijn het wel vooral, maar niet alleen, deze grote bedrijven geweest die de meeste vooruitgang hebben geboekt op het gebied van verbetering van de efficiëntie.

De grootste slachtoffers van de crisis zijn echter de werknemers. Niet alleen zijn er heel veel werknemers zonder enige compensatie van de ene op de andere dag werkloos geworden, degenen die nog wel hun baan hebben behouden, moeten nu genoegen nemen met een veel lager loon en aanzienlijk minder aantrekkelijke secundaire arbeidsvoorwaarden. De plattelandsbevolking heeft het meest te lijden gehad onder deze ontwikkelingen omdat in veel gevallen de personeelstransporten tussen stad en platteland zijn stopgezet (wat hen dwong 'vrijwillig' ontslag te nemen zonder aanspraak te kunnen maken op wettelijke compensatie) en omdat het merendeel van de plattelandsfabrieken voor korte of lange tijd (of zelfs definitief) gesloten zijn.

Curriculum vitae

Robine van Dooren was born on 3 February 1973 in Almelo, the Netherlands. She started secondary school (VWO) at Pius X College in Almelo and then obtained a scholarship to complete the last two years of secondary school at the United World College of the Atlantic in Wales. There, she obtained her International Baccalaureate diploma in 1991. Subsequently, she spent a year doing voluntary work for the rural development program of Simon Bolívar agricultural college in Venezuela.

Returning to the Netherlands, she began to study Human Geography at Utrecht University. After the first year of Human Geography she switched to International Economics and Economic Geography and specialised in the field of development economics. She concluded her studies with a research on the development of the garment industry in El Paso and Cd. Juárez, on the US-Mexico border and obtained her *doctorandus* degree in 1997. The thesis was awarded with the Prince Bernhard Scholarship for Latin America Studies, which was used to conduct preliminary research on the garment export sector in Mexico and to write a research proposal for the PhD research reported in this study.

She started the research into the development of the garment export cluster in La Laguna in 1998, first financed by the Department of Human Geography for Developing Countries of Utrecht University, later by the Netherlands Foundation for the Advancement of Tropical Research (WOTRO).

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