



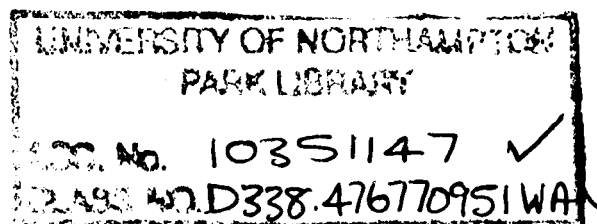
An Institutional Approach to the Development of the Textile
and Clothing Clusters in China

- The Case of Zhejiang Province

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List of Abbreviations

ATC	Agreement on Textiles and Clothing
B2B	Business-to-Business
BP	British Petroleum
CEOs	Chief Executive Officers
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Corporation
CPC	China Petroleum & Chemical Corporation
CNTAC	China National Textile & Apparel Council
CSRC	Chinese Securities Regulatory Commission
EPTA	Eastman polymer-grade terephthalic acid
ETDZ	Economic and Technological Development Zones
FDI	foreign direct investment
FFEs	foreign funded enterprises
GDP	gross domestic products
ID	industrial district
GVC	global value chains
ICTs	information and communication technologies
IGU	International Geography Union
IMF	International Monetary Fund
IPO	initial public offering
IT	information and technology
MFA	Multi Fibre Arrangement
MBO	management buyout
MNCs	multinational corporations
NBS	National Bureau of Statistics
NDRC	National Development and Reform Commission
NIE	New Institutional Economics
NGOs	Non Government Organisation
OECD	Organisation for Economic Cooperation and Development
OEM	Original Equipment Manufacture

PET	polyester
PTA	terephthalic acid
PX	Para-xylene
R&D	Research and Development
SASAC	The State Assets Supervision and Administration Commission
SDRC	State Development and Reform
IMF	International Monetary Fund
SOEs	state-owned enterprises
TFP	total factor productivity
TVEs	Township and Village Enterprises
SMEs	small- and medium-sized enterprises
UDC	The Union Developing Group of China
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation
WTO	World Trade Organisation
ZGC	Zhongguanchun

ABSTRACT

China has now become the largest producer and exporter of textile and clothing products in the world. The objective of this research is to explore the relationship between the complicated interactive process of institutional change and the development of industrial clusters in China. It focuses on the distinctive institutional factors that have allowed the textile and clothing clusters in China to benefit from globalisation while those in other transitional economies have not done so. The research also aims to make a thorough investigation into how the dynamic change of the public-private interface has influenced the development and upgrading of the textile and clothing clusters in contemporary China-in-transition, with all the political and social implications that the process entails.

The research mainly uses the New Institutional Economics Approach (NIE) and gives weight to institutional change through multiple case studies of textile and clothing clusters in Zhejiang province, East China. The micro case studies are effective in illustrating the interaction between institutional change and industrial development. The research argues that the unique institutional factors leading to the rapid development of textile and clothing clusters in China include hybrid ownership, public entrepreneurship and the specialised wholesale market.

The research has also shown that the theory of local state corporatism alone fails to explain the great success of textile and clothing clusters in China. The development and upgrading of textile and clothing clusters in China has witnessed extraordinary institutional change through co-evolution between the public sector and the private sector, which can be reflected through the interaction among social networks, entrepreneurship and performance of local government. The flexibility in the public-private interface is one unique endogenous institutional arrangement embedded in the economic system in China. It is a dynamic process of institutional

embeddedness, deembeddedness and reembeddedness with a diversity of economic regimes coexisting at different hierarchies of government.

1. Introduction

1.1 The development of private economy in China's post-reform

The Third Plenum of the Chinese Communist Party's 11th Central Committee in December 1978 marked the beginning of market-oriented reforms in China. The development of private enterprises revived afterwards. The introduction of the household responsibility system boosted farmers' income and created a labour surplus (Lin, 1992; McMillan *et al.*, 1996). The collapse of the commune system meant farmers were no longer tied to the land. The state's recognition of the legitimacy of private production strongly encouraged farmers to engage in small-scale, non-agricultural activities although the freehold ownership of land was not allowed. Self-employment was also created in the urban area after many young people who had been sent to the countryside during the Cultural Revolution returned home.

A set of State Council regulations on the urban, nonagricultural individual economy was issued in July 1981, which defined a new business category- single industrial and commercial proprietor (*geti gongshan hu*). In 1983, a series of central and local regulations for the licensing and control of individual businesses, taxation, product quality and hygiene, and free markets were introduced in China. The development of private business was affected by the following 'market rectification' drives. In June 1988, the State Council issued the 'Tentative Stipulations on Private Enterprises' (TSPE) to govern the registration and management of private firms.

Deng Xiaoping's southern tour in September 1992 promoted China's transition to the rapid development of a market-oriented economy in the whole China. The Fourteenth Party Congress witnessed ideological breakthrough and the establishment of a major socialist market economy was listed on the reform agenda of the national economy. The State-owned Enterprises (SOEs) started to transform the ownership and undertook the reform of clarification of property rights. The Third Plenary Session of the Fourteenth Party Congress in November 1993 decided to divest small SOEs from

state control. The policy of ‘keeping the large and letting the small go’ (*zhuada fangxiao*) was carried out in 1995. The ownership structure of SOEs was diversified through a range of processes including contracting, leasing, establishing an employee-held company or cooperative, even outright privatization.

In March 1999, the National People’s Congress passed an amendment to the constitution to recognize the status of the private sector. The legitimacy of private property rights was gradually accepted ideologically, politically and constitutionally. However, the building of market institutions remains one of the most important factors to facilitate the further development of the private economic sector. The latter has been playing a more and more important role in stimulating the sustainable economic growth in China. The presence of the private sector in the Chinese economy has become increasingly significant (Table 1.1). For the commercial business sector, the percentage of value added by private firms was estimated at 63% in 2003, up from about 54% in 1998. The private share of the non-farm business sector moved ahead of the public share for the first time between 1998 and 2003, with its share of output rising from 43% in 1998 to 57% in 2003. About one –third of the increase in the size of the private sector is reflected in a decline in the number and output of collectives, with the remaining two-thirds reflected in closure and divestment of solely state-owned firms. The state-owned share of value added fell from 58% in 1998 to 43% in 2003 with about half of this being the result of an injection of minority stakes from the private sector. In the economy as a whole, the private share of GDP has risen from 50% of value added in 1998 to 59% in 2003 (OECD, 2005).

Table 1.1 The private sector outpaces the public sector

(percent of value added by firm ownership)

	1998	1999	2000	2001	2002	2003
Non-farm business sector						
Private sector	43.0	45.3	47.7	51.8	54.6	57.1
Public sector	57.0	54.7	52.3	48.2	45.4	42.9
State-controlled	40.5	40.1	39.6	37.1	35.2	34.1
Collective	16.5	14.7	12.7	11.2	10.1	8.8
Total (79% of GDP)	100.0	100.0	100.0	100.0	100.0	100.0
Business sector						
Private sector	53.5	54.9	56.3	59.4	61.5	63.3
Public sector	46.5	45.1	43.7	40.6	38.5	36.7
State-controlled	33.1	33.0	33.1	31.2	29.9	29.2
Collective	13.4	12.1	10.6	9.4	8.6	7.5
Total (94% of GDP)	100.0	100.0	100.0	100.0	100.0	100.0
Economy-wide						
Private sector	50.4	51.5	52.8	55.5	57.4	59.2
Public sector	49.6	48.5	47.2	44.5	42.6	40.8
State-controlled	36.9	37.1	37.3	35.7	34.6	33.7
Collective	12.7	11.3	10.0	8.8	8.0	7.1
Total (100% of GDP)	100.0	100.0	100.0	100.0	100.0	100.0

Source: OECD, *OECD Economic Surveys: China* (2005, p.81).

1.2 The emergence of industrial clusters in China

The formation and growth of industrial clusters has taken place within the context of ownership reform of SOEs and the rapid development of the private economy along the coastal provinces in China. The industrial clusters have played an important role in stimulating the regional economic development and strengthening the local-global linkage. Some of them have exhibited similar features to those in Italy (Wang, 2006).

Marshall (1890) is often cited as the first economist to recognize that the location and proximity of firms can lead to the improvement of their productivity and business. He listed three fundamental advantages for clustered firms in the form of externalities: a pooled market for skilled workers with industry-specific competencies that prevent labour shortage, the availability of non-tradable and intermediate inputs provided by local suppliers and the easy transmission of new ideas that allows more efficient production function through technical, organisational and production improvements. Marshall identified the possible static and dynamic effects of spatial agglomeration of economic activities, enhancing the efficiency and the growth of firms located in an industrial cluster. Developing along the path set by the Marshallian tradition at the end of the 1970s, a group of Italian scholars introduced a new definition of industrial cluster, as ‘a socio-territorial entity which is characterized by the active presence of both a community of people and a population of firms in one naturally and historically bounded area (Becattini, 1990).’ This definition attaches more importance to socio-political factors, links between suppliers and clients and the impact of the community in enhancing the performance of firms within industrial clusters. According to Porter (2000), clusters are groups of companies and institutions co-located in a specific geographic region and linked by interdependencies in providing a related group of products and/ or services. That is, industrial clusters not only include a series of relevant industries and entities such as specialised input suppliers, but also extend to clients in the lower stream and complementary products such as relevant know-how and technology in the upper stream.

Many industrial clusters composed of small- and medium-sized enterprises (SMEs) were first established in the towns and cities in the eastern coastal region, particularly the Yangtze River Delta, the Pearl River Delta as well as the Bohai-rim region along the process of rural industrialisation (Figure 1.2). The three regions have taken different paths of economic growth known as ‘the Pearl River Delta Model’ (Guangdong province, South China), ‘the Sunan Model’ (Jiangsu province, East China) and ‘the Wenzhou Model’ (Zhejiang province, East China).

The formation of the 'Pearl River Delta Model' was attributed to the open-door policy of 1978. In the mid-1980s, the Special Economic Zone of the Pearl River Delta was established and the Township and Village Enterprises (TVEs) in the region had very high outward dependency. With their transformation in their role as processors for overseas invested enterprises, the joint ventures and foreign-funded enterprises not only introduced foreign capital but also advanced management systems and means of operation.

The 'Sunan Model' emphasized greater enterprise autonomy, but it was based on the predominance of small SOEs and local collectives that did not follow the radical privatization path of the Wenzhou model. Jiangsu Province adopted a policy to encourage the formation of collective shareholding enterprises in 1995, which required coordination with local governments at a time when disengagement and general privatization was already being propagated in Zhejiang. From 1999 onwards, local governments were required to reduce their control over or shares in collective enterprises and small SOEs by 2002. The industrial clusters in South Jiangsu concentrated on labour-intensive, capital-intensive and technology-intensive industries, including synthetic fibres, construction materials, information technology (IT) and the manufacturing of heavy machinery equipment (Wang, 2006).



Figure 1.1 Map of China

Source: www.mybeijingchina.com/.../images/map_china.jpg

The Wenzhou model is the outcome of the Chinese economic reform of the 1980s. Wenzhou is a prefecture-level municipality in the southeast corner of coastal Zhejiang province with a population of over six million, covering 11,800 square kilometres including two municipal districts, one inland city and eight rural counties. It is a

mountainous area with limited cultivated farm land and poor transportation infrastructure. The initial foundation for industrial development was weak. The rural industrialisation in Wenzhou was achieved mainly through thousands of family workshops closely linked to the specialised wholesale markets. 'A small commodity, big markets' is often used to describe the rapid economic growth in Zhejiang province. The commodities used to be mainly daily necessities with small scale of production, limited technology content and lower cost of transport. The formation of industrial clusters in Wenzhou and even the whole Zhejiang province was demonstrated as hundreds of family workshops engaged in the same industry and agglomerated in neighbouring villages or towns (Shi *et al.*, 2004).

Nowadays in Zhejiang province, there are about 60 specialised markets with the annual sales volume exceeding RMB 1 billion. The market network has promoted the rapid development of industrial clusters. Shaoxing is one of the largest textile cities in China, with over 2,500 key textile enterprises. It is also the synthetic fibre base in Zhejiang province, with an annual 2.7 billion metres of all types of fabrics. Ningbo is one of the most important apparel manufacturing cities in China with about 2,000 apparel enterprises, accounting for about 5% of the national total. In Wenzhou, there are over 30 specialised towns or counties with the output exceeding RMB 1 billion among a combined total of 143 such towns and counties. There are over 5,000 shoe enterprises, accounting for 20% share of the national market, over 500 manufacturers of spectacles that have exported 90% of their products to the overseas market and over 260 cigarette lighter enterprises whose output accounts for up to 70% of the world market. In addition, many other industrial clusters such as the stocking industry in Yiwu, the tie industry in Shengzhou and the leather industry in Haining have also made great achievements (Zhu, 2003).

The bottom-up rural industrialisation has shown that the SME clusters in Zhejiang province, East China, have borne remarkable resemblances to those in Italy, although some of them have only the embryonic form of a local production system. Firstly, the

industrial clusters both in Zhejiang province, China and Italy concentrate on light industries, including clothes, knitwear, ties, and leather shoes and so on, where economies of scale in production are relatively limited and where the variety of products remains high with low industrial concentration. Secondly, SMEs predominate in the industrial clusters of both countries, sharing common social and cultural characteristics. They are flexible and capable of making innovations, essential for taking advantage of the momentum that clustering can create. Large firms are also present in both countries and integral to cluster dynamics. Thirdly, the industrial clusters both in China and Italy have the awareness of innovation, enthusiasm for setting up family businesses and spirit for taking risks. Moreover, the local-global linkages between industrial clusters and international markets have been strengthened through the formation of strategic alliances with foreign firms for technology transfers and decentralization (Wang, 2001).

Although the industrial clusters in Zhejiang province, East China, match the Italian model to some extent, they have their own unique trajectory of growth and development. The most prominent feature of cluster development in Zhejiang province is that the clustered firms and government have a lot of common economic interests. My empirical research in the Ningbo clothing cluster, the Shaoxing synthetic fibre cluster and the Yiwu stocking cluster, all in Zhejiang Province, shows that the development of the private economic sector still depends critically on the influence of the public sector. The government at different levels will continue to play a crucial role in the growth and upgrading of industrial clusters in China. Another prominent feature in China is that the growth and upgrading of industrial clusters have been closely related to the large-scale specialised wholesale markets, which have contributed to the linkage with the huge domestic market and overseas business expansion. Moreover, successful industrial clusters in Italy or other European countries exhibit a 'high-road' scenario, including innovation, high-quality, functional flexibility and good working conditions (Piore *et al.*, 1984), but the industrial clusters in Zhejiang province mainly exhibit a 'low-road' scenario, including low prices, cheap materials

and labour. However, they are moving from a ‘low-road’ scenario to a ‘high-road’ scenario through adjustment of the local industrial structure with the constant support of government at different levels.

1.3 The research objectives, questions and approach

1.3.1 The objectives of research

The changes of the past 30 years outlined above have attracted considerable research both within China and without. The present thesis seeks to contribute to this research, albeit by means of a selective emphasis. That is to say, beneath what might be termed ‘an institutional umbrella’, the focus will be on the public-private interface in the distinctive evolution of industrial clusters in China. Thus, the main objective of this research is to explore the relationship between the complicated interactive process of institutional change and the development of industrial clusters in China. It focuses on the distinctive institutional factors that have allowed the textile and clothing clusters in China to benefit from globalisation while those in other transitional economies have not done so. The research also aims to make a thorough investigation into how the changing nature of the public-private interface has influenced the development and upgrading of the textile and clothing clusters in contemporary China-in-transition, with all the political and social implications that the process entails.

1.3.2 The research questions

Research question 1:

What are the unique institutional factors that have led to the rapid development of industrial clusters in China?

Industrial clusters play an important part in regional economic development because it can generate collective efficiency through economic agglomeration, eventually leading to regional innovation and competitive advantage. The institutional perspective provides one broad framework to study the process of economic transition in general, which is a complex of economic and social phenomena. The research will particularly study the distinctive institutional factors leading to the formation and

development of industrial clusters, which has contributed to making contemporary China today 'the workshop of the world'.

China's economic reform has been characterized by non-predictive gradualism. Although market-oriented reform has been deepened since the beginning of 21st century, China is still unique in the continuity of political power in the hands of Chinese Communist Party (CCP) alongside the rapid changing of economic organisation. Institutional change in China has frequently been a creative process. When China uses the cluster approach to achieve similar goals as other developing and developed countries all over the world, it is important to take its typical transitional context into account. My research intends to explore the unique institutional factors that have distinguished industrial clusters in China and those in other transitional economies and developed countries, particularly in Italy. So far, the academic researches on industrial clusters in China has attached much importance to the design and implementation of cluster policies, the innovation and upgrading of industrial clusters and the integration of industrial clusters into the global value chains (GVC). This research, however, concentrates primarily on the unique institutional factors that have contributed to the cluster development in China in transition in the first place.

Research question 2:

What are the impacts of the changing nature of the public-private interface on the development path of industrial clusters in China with particular reference to the textile and clothing clusters in Zhejiang province?

As suggested above, the Chinese government has withdrawn significantly from many parts of the economy although the core public utility and resource-based industries remain in public hands. In the remaining non-core industries that represent more than two-thirds of industrial output, state firms only produce about one-quarter of value added and are subject to competitive forces. Restructuring in the industrial sector has been most rapid, representing 57% of non-farm business sector value added in 2003.

In the eastern coastal region (especially Zhejiang, Guangdong and Jiangsu provinces), the share of industrial value added from the private sector is 63% against only 32% in other regions, which are about 5 years behind. In manufacturing, foreign enterprise growth has been in the electronics and telecommunication equipment sector while they are much less active than domestic enterprises in sectors such as textiles and smelting steel (OECD, 2005). The further reform of SOEs makes more room for the expansion of private sector. This does not simply the state withdrawal and allows the private sector to take over. The general picture in China shows that the expansion of Chinese private firms has been accompanied by frequent changes in ownership, the property rights structure and the organisational forms.

The complex public-private interface has been evolving with the transition from a centrally-planned economy to a market oriented economy in China. The growth of private firms and the restructuring of SOEs have not been two separate issues in China in the course of cluster development. The effective SOE reform has partly depended on the success in carrying out the transition tasks at the critical stage of the growth of private enterprises. When industrial clusters in China are in the process of rapid development and constant upgrading, a lot of clustered firms have inevitably participated in the further restructuring of SOEs or formed alliances with SOEs and foreign-funded enterprises as they pursue the strategy of diversification. Some clustered firms have become listed on the Stock Exchange by buying a SOE shell so as to improve their financing capability through the capital market.

In addition, the local government established many wholesale markets in the coastal provinces during the early 1980s. Specialised wholesale markets were spread to other parts of China throughout the 1990s. The emergence and growth of many industrial clusters are closely related to the specialised wholesale markets. They are closely inter-related and inter-dependent. Many specialised markets have promoted the growth of industrial clusters while many industrial clusters have, in turn, enlarged the scope and scale of the specialised markets. With the effective management and

administration of the local government, some specialised markets have achieved great success and even internationalised in the era of globalisation, leading to the upgrading of relevant clusters. Thus, the dynamic change of public-private interface has been embedded in the growth and development of industrial clusters in China in transition, coupled with the ownership change influenced by the ideology and political factors.

‘There is no one best model for organizing an industrial district or cluster. A diversity of institutional arrangements is possible and each has proved successful in different circumstances’ (Carlo, 2004). This research is designed to offer a better understanding of the interplay between institutional change and the rapid development of industrial clusters in China in general, using the textile and clothing clusters in Zhejiang Province as case studies.

1.3.3 The research approach

This research has been carried out using the approach of New Institutional Economics Approach (NIE), giving weight to institutional change through multiple case studies of textile and clothing clusters in Zhejiang province, East China. The micro case studies, which are effective in illustrating the interaction between institutional change and industrial development, have shown that the evolution of economic and political institutions determine the economic performance of transitional economies eventually because they create the incentive structure of the whole society. The evolution of the institutional matrix has had great impacts on the formation and growth of industrial clusters in the course of regional economic development in China in transition.

The research follows North’s definition of institutions as ‘a set of rules, compliance procedures, and moral and ethical behavioural norms designed to constrain the behaviour of individuals in the interest of maximizing the wealth or utility of principals’ (North, 1981). Institutions are routines, habits and social rules affecting the interaction among individuals, including economic, political and social institutions. There are formal institutions such as constitutions, laws, bills of rights, courts,

regulations and standards, which form legal and political frameworks for social interactions. In addition, there are informal institutions, such as cultural norms, conventions, codes of conduct, norms of behaviour, traditions, habits, attitudes and generally accepted, but informal procedures for governing social interactions (North, 1990).

Institutions carry out three basic functions for any economy to work. They reduce uncertainty, manage cooperation and conflicts, and provide incentives that influence behaviour in human interaction (Edquist *et al.*, 1997). Institutional frameworks affect the transaction costs of doing business by influencing the time, effort and especially, uncertainty associated with business activities. They can be effective in reducing transaction costs and provide incentive systems for finding solutions to conflicts (North, 1990). Moreover, some institutional systems have high levels of 'adaptive efficiency' that permits quick and effective adjustment to new economic, political, market and technical conditions (North, 1999).

Institutional change cannot be explained by the past institutional frameworks in abstract because the current situation leads to the institutions of the future. The legacy of the Mao era (1949-76) with its features of communist party governance structures and centrally-planned economy, led to the evolution of the new institutional framework and socialist market economy 'with Chinese characteristics' under Deng Xiaoping (1981-1989), Jiang Zemin (1989-2002) and Hu Jintao (2002- present).

1.4 The dynamic change of public-private interface and cluster development in China

The report of the seventeenth national congress of the communist party of China by President Hu Jintao in October 2007 emphasizes the significance of upholding and improving the basic economic system in which public ownership is dominant and different economic sectors develop side by side, unwaveringly consolidating and developing the public sector of the economy, unswervingly encouraging, supporting

and guiding the development of the non-public sector, ensuring equal protection of property rights, and creating a new situation in which all economic sectors compete on an equal footing and reinforcing each other. The reform of collectively-owned enterprises will be pressed ahead with and various forms of collective and cooperative economic operations will be developed. The development of individually-owned businesses and private companies as well as small and medium-sized enterprises will be promoted with equitable market access, a better financing environment and less institutional barriers. The central government will develop the economic sector with mixed ownership (China Daily, 2007).

Dramatic corporate changes have taken place with the transformation of Chinese economy from a centrally-planned economy to a socialist market-oriented economy. Coupled with the restructuring of SOEs and reform of property rights system, the organisational forms of clustered firms in China have been diversified to include private entrepreneurs, private companies established by SOEs and public-private companies. Since SOEs generally confine themselves to the business area of the original state sector, they have established some subsidiaries so as to offer monetary returns for co-operative behaviour, compete with regard to managerial professionalism and maximize profits by expansion into new business areas or new partnerships. Public-private corporations are those where one or several private investors and certain SOEs establish a new firm with the private shareowners in control of the management. The private shareowners are the Schumpeterian entrepreneurs who bring in new product ideas, new technology and access to new networks while the SOEs provide the complementary assets and /or contractual security. The intention is to search for new market opportunities. The spinning off of subsidiaries provided with the necessary assets and mergers with other private companies that can offer the complementary knowledge seem attractive ways to move into new markets.

SOEs are in the scope of most important business partners for private firms though the

costs for maintaining the social /political capital can be exorbitant. The life histories of private firms in China have revealed how often a firm changed its official registration between an individual firm, a collective firm and a corporation since the 1980s. Some of the changes were forced by changing legislation while others reflected a learning process of the owners and managers. Many firms registered as collectives were actually privately owned. These firms had put on 'red hats'^① (*dai hongmaozi*) to evade government prohibitions on private firms and ideological harassment, and to take advantage of favourable regulatory treatment and local government support in the form of financing and lower taxes.

Many actual collective firms had been performing poorly and faced similar problems to those of the SOEs at the end of 1980s. As a result, the local government frequently encouraged the renting out of collective firms to private operators in the hope that this would strengthen entrepreneurship, enhance performance and therefore generate more government revenue. Both red-hat and rented firms had enormous problems with the ownership and property rights. Registered as collectives, cooperatives or even SOEs, through their nominal association with collective units, red-hat firms rented or borrowed their business licenses. By gradually increasing private assets and control over the business, rented firms changed the basic property rights arrangement with collective firms. Both types of firm were operating under informal property rights, without legal backing. Such 'informal rights' were characteristically ambiguous and therefore difficult to partition in the case of multiple and competing claims' (Nee and Su 1996). Many firms, operating under improved environments, took off their red hats and became more actively involved in enterprise transformation. These changes led to a rapid increase in the number of private enterprises, particularly limited liability companies that had more clearly defined property rights and even public listed companies. With the increasing significance of private enterprises in the national

^① The private enterprises that grew beyond the size of family firms usually registered as collectively-owned entities and accepted their neighbourhood committee or village government as the responsible administrative body. In exchange, the administrative body collected a management fee and shared other benefits and control rights to various degrees. This practice was known as 'wearing a red hat'.

economy, 1,554 entrepreneurs in the private sector joined the Chinese Communist Party and about 32.2% entrepreneurs of private firms are party members in 2006 (Gao, 2007).

Flexibility in the public-private interface has been one of the unique endogenous institutional arrangements embedded in the growth of industrial clusters in China in transition. It is an interactive and dynamic process between the public sector and the private sector, coupled with the ownership change influenced by ideology and political factors. The transformation of ownership in China has been an evolutionary process and the implementation of privatization policy since 1990s has not put an end to the process. The research argues that the flexibility in the public-private interface has played an important role in the formation and development of industrial clusters in China. It has been embedded in the local social network, entrepreneurship and performance of local government. In an era of globalisation, the flexibility in the public-private interface has contributed to the effective integration between the top-down developmental state and the bottom-up cluster development.

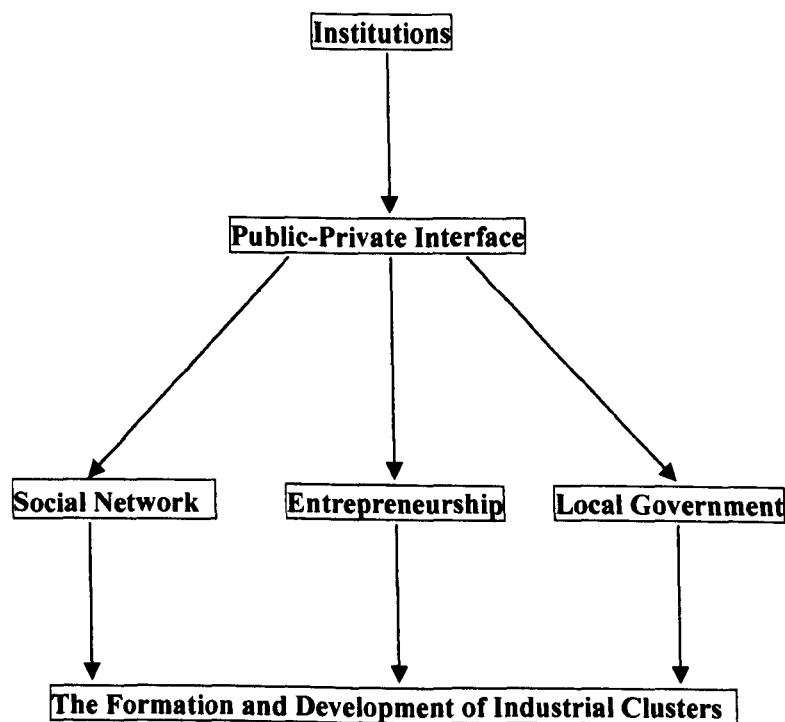


Figure 1.2 The public-private interface and cluster development

Source: Compiled by the author.

1.5 State, institutional change and economic development

The research argues that there is diversity in economic regimes in the Chinese economy (Table 1.2). The different sets of institutions can be identified by three forms in the development of industrial clusters: (i) the Neo-classical state in which free markets lead to economic development; (ii) the Developmental State in which the public sector plays a strategic role in taming domestic and international market forces and harnessing them to national ends (Wade, 1990); and (iii) the Corporatist State is defined as ‘a system of interest representation in which the constituent units are organized into a limited number of singular, compulsory, noncompetitive, hierarchically ordered and functionally differentiated categories, recognized or licensed (if not created) by the state and granted a deliberate representational monopoly within their respective categories in exchange for observing certain controls on their selection of leaders and articulation of demands and supports. (Schmitter, 1974).’

Table 1.2 The diversity of economic regimes in China

Key Features	Neo-classical State	Developmental State	Corporatist State
Economic growth	Market-oriented economy	State planning and regulating the economy through controlling the resources	State as ‘partner’
Organisational change	Tolerance of new organisational forms	Sector-specific organisational forms	Fuzzy organisational choice
Property rights regime	Domination by the Private ownership	Public-private hybrid ownership	Collective consensus
R&D	Market-driven innovation	Domination by the state	Network-driven
Economic performance	Competition	State-defined constraint	Lobbying, bargaining and negotiation

Sources: Schmitter (1974) and Wade (1990)

In the past decade, the neo-classical paradigm has prevailed and been pursued widely by the international organisations including the World Bank, the International Monetary Fund (IMF) and the World Trade Organisation (WTO) as well as national governments including China. According to the paradigm, the most successful emerging economies in the world were brought about through an outward-oriented model stimulated by market incentives and powerful private sectors (World Bank, 1993). The World Bank even proposed a 'market-friendly' approach for the role of government, in which the state acts only in the case of market failure. In this paradigm, the government plays only a passive role in the development process and the market mechanism distort with government intervention.

In contrast, the developmental state paradigm argues that the state has played a strategic role through harnessing domestic and international market forces to national ends in East Asian economic development (Amsden, 1989; Evans, 1995). Industrialisation rather than comparative advantage has contributed to economic growth. The state controls the operations of the market in the process of industrialisation. Evans (1995) indicates that states vary in the way they are organized and tied to the society and, therefore, play different roles in different countries after conducting a comparative study of hi-tech industries in Korea, Brazil and India. He argues that the government is able to meet the demands that are assumed away by the neo-liberals.

The paradigm of state corporatism shares the authority with social groups. The cooperation between the state and social groups is of great significance to economic development. The business relations depend on lobbying, bargaining and negotiating within the corporate sector. The paradigm indicates that networks can serve as the dominant organizing form of production and exchange. Whether network-supported sectors develop into state-guaranteed (local) monopolies depends on the competition home and abroad as well as the interaction among these networks and the political leadership. The property rights are mainly collective or fuzzy. The individual interests

are usually represented by one collective agent. The Research and Development (R&D), which is mainly network-driven, depends on the co-operation and support of social groups that can mobilize the necessary resources. The individual property rights under the paradigm of State Corporatism are weak and the performance of firms depends on the collective efficiency of networks. Oi (1999) extended the paradigm to 'local state corporatism' to describe the rural development in China in the 1990s. She described the Chinese cases as a subcategory of state corporatism, which was mainly constituted and coordinated by local government (counties, townships and villages) instead of central authorities.

In the 1990s, local state corporatism emerged as local governments moved from simpler and more cadre-centred forms of governance to a mixed model appropriate to a vastly larger industrial economy consisting of both private and collectively owned firms (Oi, 1999). My research has shown that the above three types of economic regimes have been established by different hierarchies of government. They co-exist and have undergone the dynamic change, which have led to the great success of textile and clothing clusters in China, compared with other transitional economies in the rest of world, particularly after China's accession to the WTO on 11 December 2001. The reality in China, as indicated through case studies of this research, will reveal that the nature of the local state-society relationship is taking up a new shape even though it is still vague and hybrid.

The theory of local state corporatism alone cannot explain the great success of textile and clothing clusters in China. As explained earlier, the public-private interface is a dynamic process of institutional embeddedness, deembeddedness and reembeddedness since the above three forms of economic regimes have both coexisted and evolved from one form to another in the past three decades. This has taken place alongside with the ideological changes at the level of central government associated with the shifts from Mao Zedong thought, Deng Xiaoping's open-door policy, Jiang Zeming's three represents (the development trends of advanced

productive forces, the orientations of an advanced culture and the fundamental interests of the overwhelming majority of the people of China) and Hu Jintao's scientific outlook on development.

China's transitional path is so unusual that it casts doubt on much of the conventional thinking on fundamental issues concerning system changes and the process of reform (Chow, 1997). Much research has been done using data from China to test existing theories, but studying China's experience in globalisation is even more useful for generating new theories, especially in the area of institutional change.

1.6 Plan of the thesis

The previous discussions outline the main research questions of this study. The following chapters deal with the issues of those concerns and offer a framework for understanding the impacts of the changing nature of the public-private interface on the rapid development of the textile and clothing clusters in China in transition.

Chapter 2 conducts a critical literature review on the conceptual framework and typology of industrial clusters, the role of social and innovation institutions in the course of cluster development, the upgrading of industrial clusters on the GVC as well as the latest research on industrial clusters in China.

Chapter 3 discusses the research design for this thesis and chooses the appropriate methodology and methods for carrying out the research. It elaborates the rationale of adopting an NIE approach to the study of change in the public-private interface within the textile and clothing clusters in China. Case study is used as the main research method. The textile and clothing clusters in Zhejiang province are chosen as the main cases in the research. The chapter concludes by discussing the whole research process and the particular problems thrown up by conducting the social research in China.

Chapter 4 discusses the development of textile and clothing clusters in China after

China's adoption of open-door policy. The main features include the extension of the production chain, the wholesale market located in or near the cluster and cross-regional and cross-border business expansion. Towards the end, the chapter explores the impacts of global institutional change on the development of textile and clothing clusters in China.

Chapter 5 argues that the dynamic change of the public-private interface has been embedded within the local social networks and entrepreneurship, which have played an important role in the development of textile and clothing clusters in Zhejiang province. Social network is an important and even critical resource for entrepreneurship because it is related to the survival of private entrepreneurs and operating efficiency.

Chapter 6 focuses on the institutional innovation of local government in the process of cluster development in Zhejiang province. With the decentralization of authority, the local government in China has been offered unprecedented economic power and it is playing a more important role in promoting economic growth with more resource allocation power. As a result, the local government takes an active part in the local economic development. It has promoted the formation and development of industrial clusters together with social network and entrepreneurship of local firms.

Chapter 7 to 9 presents evidence, drawn from the original fieldwork, of the changing nature of the public-private interface in the three well-known textile and clothing clusters in Zhejiang province, namely, Ningbo clothing cluster, Shaoxing synthetic fibre cluster and Yiwu socks cluster in terms of social network, entrepreneurship and local government.

The growth of the Ningbo clothing cluster has relied on the capital accumulation and technological improvement of the TVEs which grew up in the 1980s. The successful restructuring of SOEs and collective enterprises in the 1990s promoted the rapid

development of clustered firms further. Since 2000, a number of clustered firms such as the Youngor Group, the Shanshan Group, and the Progen Group have become large-scale business groups undertaking diversified business to include finance, real estate development and high-technology. The successful implementation of this diversification strategy has been dependent on ties, sometimes stronger and sometimes weaker, with local and/or central government officials and politicians. The government-led strategy of the 1980s has been gradually transformed into a government-pushing strategy since the new millennium.

The Shaoxing synthetic fibre cluster is closely related to a specialised wholesale market known as the Zhejiang China Light Textile Industrial City, which was state-owned and listed on the Shanghai Stock Exchange in 1997. In 2002, the whole market was privatised, but this led to the development of the market being brought to a standstill and to its failure to meet the demands of local economic development. Subsequently, in 2006, the Shaoxing Municipal government invested RMB 2 million to renovate and expand the market, regaining its controlling shares. Meanwhile, the clustered firms in the synthetic fibre cluster of Shaoxing are still facing many administrative thresholds in the course of moving from labour-intensive downstream industries to capital-intensive upstream industry. Some clustered private firms have started to produce the upstream materials such as terephthalic acid (PTA) after forming strategic alliances with SOEs.

The formation and development of the socks cluster in Yiwu are closely linked to the world's largest specialised market (Yiwu China Commodities City), which has been completely dominated by local government. The municipal government in Yiwu has played an important part in the internationalisation of the specialised wholesale market, leading to the upgrading of the local socks cluster through its information diffusion and collective learning mechanisms.

Chapter 10 concludes with answers to the questions posed in 1.3 above on the basis of the evidence of the previous chapters. Specifically, it argues

- (1) that the unique institutional factors leading to the rapid development of industrial clusters in China include hybrid ownership, public entrepreneurship and the specialised wholesale market,
- (2) that the development and upgrading of textile and clothing clusters in China have witnessed the extraordinary institutional change through the co-evolution between the public sector and the private sector. The public-private interface is one unique endogenous institutional arrangement embedded in the Chinese economic system. It is an interactive and dynamic process coupled with the ownership change influenced by ideology and political factors, which has led to the growth of clustered firms in the textile and clothing industry.

Chapter 2 Literature Review: Industrial Clusters and Economic Development

2.1 Introduction

At present, industrial clusters have aroused worldwide attention. They are playing an important role in promoting economic growth all over the world. The competitive advantage of one nation not only relies on large-scale enterprises, but also on industrial clusters composed of SMEs both in developing and developed countries. With more and more fierce global competition, SMEs need to establish all kinds of linkages through which information and creative ideas will be transmitted in the region. In the end, more SMEs can gain competitive advantage. International organisations such as the United Nations Industrial Development Organisation (UNIDO), the Organisation for Economic Cooperation and Development (OECD) and the World Bank have been attempting to promote the implementation of cluster strategy in the third world. Since the mid-1990s, both developing and developed countries have implemented public policies to nurture regional industrial clusters and integrate local production systems within the GVC. The creation of industrial clusters has been regarded as one important strategy to improve a nation's competitive advantage and to cope with the challenges of globalisation.

2.2 Industrial clusters: conceptual framework and typology

Up to now, the definition of industrial clusters still varies greatly in academic circles. Industrial clusters are commonly referred to as 'clusters' for the sake of simplification. There are also concepts such as 'cluster of enterprises' and 'regional industrial cluster' and so on. In addition, different subjects have created their respective terminology on the phenomenon. For example, 'industrial districts', 'local production systems' and 'industrial districts' are commonly used in economic geography. Gordon *et al.* (2000) equate 'industrial cluster' to 'industrial agglomeration', 'industrial complex' and

‘innovative milieu’^②. In fact, the above definitions convey the same economic phenomenon of many firms agglomerating within one location, but they have different emphases. For example, ‘new industrial district’ in economic geography attaches more importance to the social and cultural factors while Porter’s ‘industrial clusters’ stress competitiveness.

According to Piore and Sabel (1984), industrial districts are ‘flexibly specialised’. Within industrial districts, SMEs are individually highly specialised on a limited range of products and processes and collectively flexible because each SME has ready access to the product, process and employment specializations of many other SMEs. Some of them compete with each other while others complementary to one other. In turn, this collective flexibility implies a rapid response to highly differentiated consumer demands and input suppliers, rapid absorption and diffusion of new technologies and market information, as well as effective use, training and redeployment of labour. Cooke and Morgan (1998) explained the feature of flexible specialization in terms of ‘collective entrepreneurship’. High levels of market and supply uncertainty encourage a disintegration of production among SMEs and a reliance on external economies of scale and scope as a means of coping with constantly changing demands. For example, in fragmented and changing markets, SMEs are able to ‘shift promptly from one process and/or product to another, and to adjust quantities of output up or down over the short run without any strong deleterious effects on levels of efficiency’ (Storper *et al.*, 1989). (Figure 2.1)

2.2.1 Categorization of industrial clusters

Clusters differ in the type of products and services, the location dynamics, the stage of development, the business environment and so on. In terms of product and services, there are information and technology clusters (IT), financial service clusters, textile

^② The concept of milieu innovateur (innovative local environment) developed by the GREMI group, interprets the phenomena of spatial development as the effect of innovative processes and synergies which occur over limited territories. The milieu innovateur comprises a set of relations which unite a local production system, a set of actors and their representations and an industrial culture. Together, these generate a localized dynamic process of collective learning.

clusters and so on. Much importance has been attached to the role of different locations in the course of cluster development. The early discussions focused on clusters with international importance, such as the IT cluster in Silicon Valley, the financial cluster in London and the textile cluster in Northern Italy. Recent research on industrial clusters indicates that there is room for many different successful clusters even within a given field, each taking a unique and individual role. Industrial clusters are differentiated by their specialization in a particular position of the value chain in their field, by their focus on specific geographic areas, by their targeting of differentiated customer needs or market segments. The categorization of industrial clusters varies in academic circles and the main approaches are as follows (Gureeieri and Pietrobelli, 2001):

Garofoli's approach

Garofoli (1991) proposed a typology of models of local development using evidence from Italy based on structural variables such as the production structure, the enterprises' size, the inter-firm relationships, the background of the entrepreneurs, the features of the local labour market, the sources of innovation, the social structure and the local institutions and economic policies. There are three types of regional production systems composed of SMEs:

- **Areas of specialised production**

The inter-firm production relationships are weak and the production system is 'horizontal' with firms competing for the same market.

- **Local production systems**

The local production system is composed of enterprises facing horizontal competition. The inter-firm interactions within the region are constant and frequent. The production linkages with firms in other regions are relatively weak. The local production system is attributed to the historical traditions of technical and professional culture, which makes it possible for local firms to keep upgrading the

production techniques. Socio-cultural homogeneity leads to endogenous industrialisation in the region. The development model may also be extended to other regions by local agents.

- **System areas**

These are more complex and advanced forms of SME clusters. The local production system is rather complex with a clear division of labour in the same sector or related sectors among these firms. The capital equipment at different stages of production may also be produced locally. The development model is intensive and endogenous, making full use of local resources including entrepreneurship, capital and labour.

Two types of industrial clusters appear to emerge from the above studies. Some SME clusters have been shaped along the historical traditions or the same business environment and institutions. Others are characterized by intense horizontal and vertical transactions as well as heavy reliance on local factors. Inter-firm and inter-institution synergies are widespread and effective. According to Garofoli (1991), there are different phases of industrialisation on the basis of SMEs and local entrepreneurship. Specialised production will become diffused industrialisation. The model of production will change from an increase in employment to the formation of a more complex local production system.

Lorenzoni's approach

The approach explicitly introduces *asymmetries* among the clustered firms and focuses on the concept of 'leader-firms' and of the constellation surrounding them (Lorenzoni, 1990). The 'leader-firm' sets up numerous inter-firm linkages and is located at the centre of them. The linkages may take the following configurations:

- Informal constellation
- Formal constellation
- Planned constellation

- Enterprise network
- Enterprise group

Table 2.1 describes the key elements of each category of enterprise cluster: the more one moves to the right-hand side of the table, the more the target becomes that of dynamic efficiency and competitiveness, the more complex the inter-firm relationships will be. The role of the leader-firm also changes from simply designing the project and assembling individual contributions to that of coordination, strategic planning, investment and provisions of strategic services.

The Lorenzoni's approach does not indicate any necessary evolution across the various types of clusters. However, a possible transition could occur from the first informal constellation, where inter-firm relationships are minimal, to more structured forms, characterized by forceful and efficacious co-ordination. The final stage may imply the creation of a real network or an enterprise group in the event where the leader-firm holds some equity in other firms within the system. In all cases there is no perfect symmetry among the various agents operating in the cluster, but each agent may play a distinct role and one (or more) of them leads the cluster in terms of organisation, innovation, and/or finance. The extent of the leadership is more marked as the system moves towards a 'network' or a 'group'.

Table 2.1 Categories of enterprise clusters

Key elements	Informal constellation	Formal constellation	Planned constellation	Enterprise network	Enterprise Group
Target	Static efficiency by cost reduction.	Static efficiency by quality improvements and shorter delivery times .	Dynamic efficiency (adaptation and innovation) and competitiveness.	Dynamic efficiency and competitiveness.	Competitive efficiency in addition to production efficiency.
Leader-firm activities	Project design, assembly and commercialization.	Still leader, but the role of other firms acquires importance.	Final assembler, coordinator, strategic planner, provider of key services and investments.	Provision of strategic services.	Provision of strategic services and finance.
Role of other firms	Passive	The structure and behaviour affect the entire constellation.	More active; closer and more frequent communication among themselves; some may play an intermediate role between leader and others.	Active	Active; they do not simply execute the leader's directives, diffuse entrepreneurship and favour innovation.
Leader-other firms relationships	Leader dominates.	Closer interaction	Coordination.	Coordination.	Strategic interaction led by the leader-firm.
Rules governing the relationships	Short-term contracts; price is the main variable.	Long-term trust-based relationships; price loses its central relevance.	Long-term contracts, small agents' turnover; routine in the relationships facilitates agreements.	Strong identification with the network; common culture and attitudes, clear difference from outside firms; easier to choose outward orientation and reduce dependency on the local context.	Financial participation (control) of the leader in the group's firms.
Factors of development and competitiveness	Presence of localization economies; better socio-economic environment would improve performance.		Dynamic external economies play a central role.	Strength lies in global-local relationships.	Localization and urbanization economies affect the organisation's performance.

Source: Adapted from Lorenzoni (1990) and Ciciotti (1993)

Markusen's approach

Markusen (1996a) identified the 'Hub and Spoke District', the 'Satellite Industrial Platform' and the 'State-anchored District' (Figure 2.1). 'Hub and Spoke District' describes a region's economic activity revolving around one or several major corporations in one or several industries which act as hubs to the regional economy, with suppliers and related activities spreading around them like the spokes of a wheel.

In the 'Satellite Industrial Platform' model, it consists of a congregation of branch facilities of externally based multi-plant firms that are induced by the policies of national/ local governments to stimulate regional development. Key investment decisions are made out of the industrial district (ID) and tenants of the satellite platform must be more or less spatially independent from upstream or downstream operations as well as from the agglomeration of other competitors and suppliers in the same area. There tends to be minimal collaboration among platform firms, often engaged in different activities and industries. Constraints on the development of this type of industrial districts derive from the lack of local sources of finance, technical expertise, business services and of the industry-specific trade associations that may provide shared resources and services.

The 'Satellite-anchored District' describes regional economic activity linked to government investment in the widest sense, such as a military base, a defence plant, a university or a concentration of government offices. The 'industrial parks' and 'science parks' may fall within this category. They are set up in developing and developed countries through government initiatives to finance and promote the establishment of local institutions such as laboratories, technology diffusion centres or testing and R&D facilities.

Some possible transitions through different types of clusters are illustrated in Figure 2.2. The instances of a transition from a Marshallian industrial district to a hub-and-spoke, with the emergence of large oligopolistic companies (1), can be illustrated by the automotive industry in Detroit and the steel industry in Pittsburgh of the United States respectively at the end of 19th century and in the first decade of the 20th century. These regions hosted some kinds of Marshallian industrial districts and transformed themselves into oligopolies organized like hub-and-spoke districts later (Markusen, 1996b). In principle, the same process might occur through the use of incubation of a hub within the industrial district.

Similarly, satellite platforms may develop into Marshallian industrial districts by strengthening and intensifying backward and forward linkages among SMEs that are both suppliers of intermediate goods and competitors for the same final markets (3). If large firms dominated, or SMEs grew bigger and established leader-follower or hub-and-spoke links as a result of increased competition or economies of scale, a hub-and-spoke district might prevail (4). In principle, a hub-and-spoke industrial clusters might turn into a Marshallian type of industrial cluster (or an infant variant of it) (2), following the failure or the loss of influence and power of the anchor firm (institution). However, the latter appears a rather abstract hypothesis as it requires a true reorganisation of inter-firm relationship and a delegation of power in managing business relationships, previously controlled by one or a few firms.

Table 2.2 Features of industrial districts (Markusen)

Features	Marshallian ID	Hub-and -Spoke district	Satellite industrial platform	State-anchored industrial district
Prevailing market structure	Local SMEs	One/several large firms and suppliers	Large firms external to the district	One/several government institutions providing infrastructures
Economies of scale	Low	High	High	High
Local firms' level of activity	High	Low, except for services	Low to moderate	Low or none
Intra-district trade	Highly developed	Between large enterprise and suppliers	Minimal	High between institution and suppliers
Key investments	Local decision	Local decision but globally dispersed	External decision	In local government or external to the ID
Buyer-producer cooperation	Important	Low	Low or none	Low
Regulation of relationships	Long-term contracts	Long-term contracts	Short-term contracts	Short-term contracts
Cooperation with firms outside the ID	Low	High	High with parent company	High with parent company (institution)
Labour market	Internal to the district Highly flexible	Internal to the district Flexible	External to the district, internal to the large enterprise	Internal (government capital), national from other institutions
Personnel exchanges	High	Medium	High, external origin	Medium/high (professional)
Workers' commitment	1 st with ID, 2 nd with enterprises	1 st with large firm, 2 nd with ID, 3 rd with SME	1 st with large firm, 2 nd with ID, 3 rd with SME	1 st with government institution, 2 nd with ID, 3 rd with SME
Labour	High	High	High for high skills,	High

immigration			management/low for low-skilled labour	
Labour (out) migration	Low	Medium	High for high skills, management/low for low-skilled labour	High
Local cultural identity	Developed	Developed	Virtually absent	Developed
Sources of financing and technical assistance	Internal to the ID	Large firm	External	External (national or local government, military base, state university or research centre)
Patient capital	Exists	Scarce; out of the large firm	Non-existent	Non-existent
Local trade associations	Strong presence	Important	Important	Weak in regulation and industry promotion. Important in infrastructure
Long-term growth outlook	Good outlook	Depending on large firm and industry dynamics	Threatened by relocalization of activities	Depending on government institution

Source: Paolo Guerrieri and Carlo Pietrobelli (2001), Markusen (1996a) and Castellano (1999)

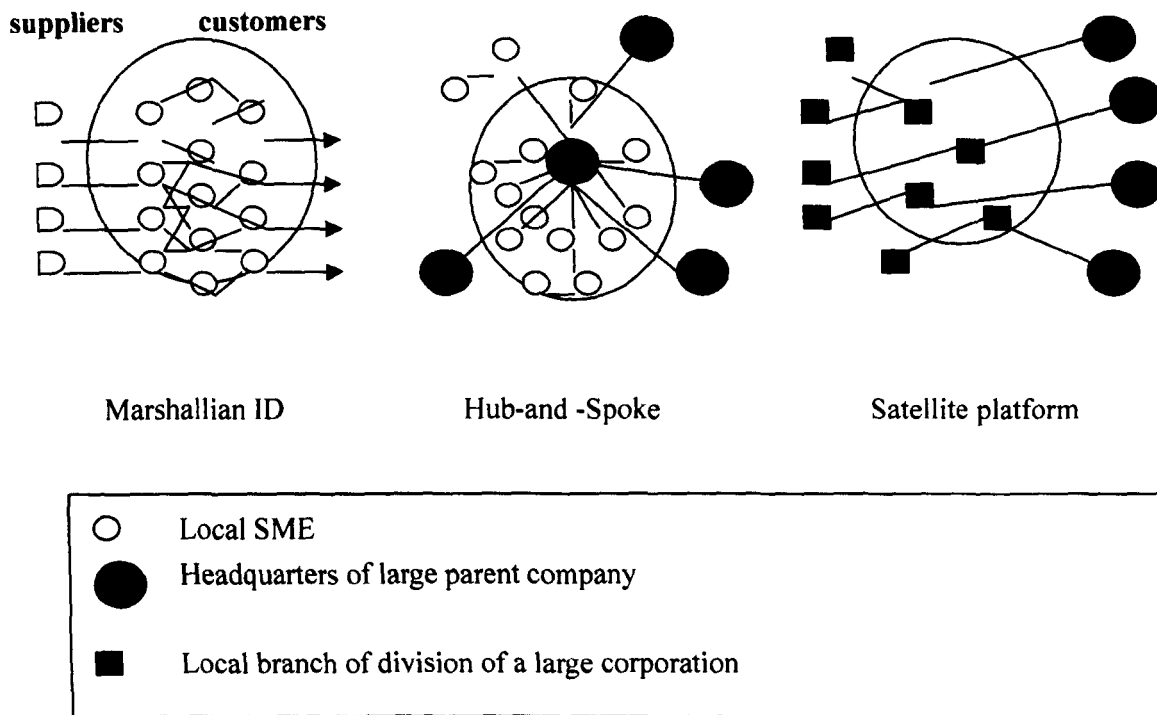


Figure 2.1 Typology of industrial districts by Markusen
Source: Adapted from Markusen (1996b) and Castellano (1999).

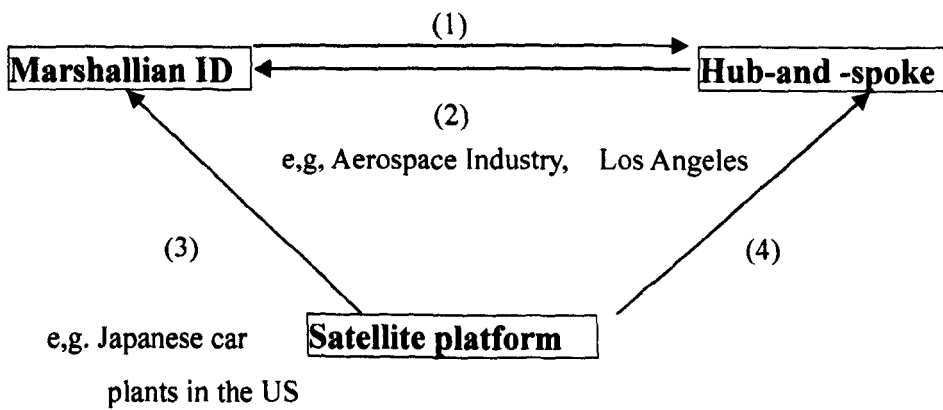


Figure 2.2 Possible transitions between different types of industrial clusters
Source: Adapted from Markusen (1996b) and Castellano (1999).

Enright's approach

Enright (2000) classifies clusters as working clusters, latent clusters, potential clusters, policy-driven clusters and wishful-thinking clusters. Working clusters are well-developed industrial clusters. Latent clusters have a high number of firms but a low level of interaction due to the lack of trust, low cooperation and high transaction costs. Wishful thinking clusters are uncompleted as policy has failed. Different stages of cluster development require individually tailored policies.

Porter's approach

According to Porter (2003), the industrial clusters can also be classified by location dynamics. The *natural resource-dependent industries* serve global markets and are concentrated across space according to the presence of natural resources like coal and wood. *The local industries* are serving only local markets and are distributed across space roughly according to population. They might agglomerate in a more narrow geographic sense like one part of a city. Local industry caters to purely local needs, whereas *traded industry* is not bound to its locality in its reach, but serves markets in many regions and countries. It is one of the most competitive parts of regional industry. The differences among these types of industries affect the types of policies that are relevant to upgrade them.

How can we summarize the vast literature on the categorization of industrial clusters that have developed over several decades? Firms may tend to share a geographical agglomeration along three broad modalities at the cost of lacking precision:

- *(Casual) geographical clustering firms*, with occasional inter-firm linkages, no (little) experience of cooperation, non-existent or little developed local institutions.
- *Marshallian (Italian) industrial clusters*, with some inter-firm transactions, much better developed practices of co-operation, more developed and effective local institutions, economies of scale at the district level made

possible by the specialization of large-scale enterprise.

- *Enterprise network with some form of leadership* prevailing, be it a hub-and-spoke, leader-followers, or satellite platform, where the leader provides the strategic services and impetus for diversification into different products and sectors, with reorganisation of production and new relationships with firms, local institutions, factor and product markets (Guerrieri *et al.*, 2001).

2.2.2 The industrial clusters in China

Industrial clusters have been playing an important part in regional economic development in China in the past decade. They have emerged with different characteristics in terms of inter-firm linkages from those in western countries. Up to now, the industrial clusters in China are mainly located around the thriving towns and cities in the eastern coastal region, including the Yangtze River Delta, the Pearl River Delta and the Bohai-rim region. A great variety of industrial clusters has developed in the three regions. In an era of globalisation, export-oriented production structures have integrated with domestic-oriented production allowing the networking of local industrial systems. There are at least five main types of industrial clusters in China now.

- **Self-augmented clusters**

Most self-augmented clusters, which are made up of SMEs, have developed rapidly on the basis of TVEs since the 1980s. The Yangtze River Delta, Pearl River Delta and Bohai-rim areas have become the most impressive regions in China where industrial clusters have formed. The self-augmented clusters are characteristic of labour-intensive, low technology content and low entry barriers. The clustered firms are mainly entrepreneurial and belong to the family business. The typical examples include the shoe-making cluster in Wenzhou City, the clothing cluster in Ningbo City, the socks cluster in Yiwu City, Zhejiang Province; the leisurewear cluster in Shaxi town, Zhongshan City and the metal processing cluster in Xiaolan, Zhongshan City

Guandong province.

- **High-tech industrial clusters**

High-tech industrial clusters, which first appeared in the early 1980s, are mainly located in the neighbourhood of large-scale universities and research institutes. The scientists, scholars and college students at home and abroad have contributed to the formation and development of high-tech industrial clusters. The most famous high-tech industrial cluster is Zhongguanchun (ZGC) in Beijing. The great success of ZGC is attributed to its geographical location where a large number of leading research institutes affiliated with the Chinese Academy of Sciences agglomerate. Besides, a large number of comprehensive universities including Beijing University and Tsinghua University are located in the surroundings. Many scientists, researchers, local and returned college students, who are engaged in high-tech, have set up their own businesses and become entrepreneurs. The central government and venture capitalists at home and abroad have made substantial investments in incubating and cultivating high-tech firms. As a result, ZGC has become the largest high-tech R&D research centre in China and the largest distribution centre for IT products in northern China (Gai, 2002).

China's development zones, specifically Economic and Technological Development Zones (ETDZ) were primarily designed by local and central governments to help technology transfer and to promote regional economic development. To become effective in the production process, they were located close to open cities in order to enjoy high linkage benefits. The government has also selected a number of 'intelligence-intensive' regions and adopted policies to gradually transform them into high-tech development zones with different characteristics (Wang, 2001).

- **Export-oriented clusters**

Export-oriented clusters have developed with the emergence of foreign direct investment (FDI). Since the mid-1990s, the emergence of FDI clustering has been a salient feature in China's efforts to attract foreign direct investment. For example, the

Dongguan export-processing zone, Suzhou Industrial Park, Shanghai Pudong New District and Beijing's Xingwang (International) Industrial Garden initiated by Nokia are four typical FDI clustering zones. Globalisation has made it possible for transnational companies to break through geographical and national boundaries to foster new production capacities and networks in other competitive regions. More and more Chinese cities have become global manufacturing centres in certain major industries. Participation of local enterprises in export-oriented industrial clusters has been conducive for foreign invested enterprises (FIEs) to foster close ties with local enterprises. Additionally, FDI industrial clusters are more likely to become innovative clusters (Zhang, 2006).

This research will mainly concentrate on the institutional dynamics of self-augmented clusters in China. In the research, some commonly accepted features of industrial clusters are the following:

- (i) *A Predominance of Small and Medium Enterprises:* This does not mean that large firms and transnational corporations are absent or that some SMEs will not become large-scale companies or even transnational corporations. Indeed, successful economic performance of an industrial cluster will boost its status in the global value chain, allowing the cluster to become the superior location should large companies outside the district and overseas transnational corporations try to expand their business there. However, the predominance of SMEs will not be changed fundamentally. The existence and development of large-scale enterprises depend on foundations provided by SMEs.
- (ii) *A local network based on specialization and cooperation:* Specialization not only reduces the average labour cost of production but also improves the capacity to acquire and accumulate wider social knowledge while the deliberate cooperation of firms can generate collective efficiency which the simple agglomeration of firms can hardly achieve. This specialization

and cooperation increases firms' interdependence and the stability of local networks.

- (iii) *Common social and cultural backgrounds:* Embeddedness means that all kinds of networks and firms' operations are based on a common social structure. The depth of embeddedness is closely related to the stability and sustainable development of industrial clusters. With regard to many export processing zones in China, the production networks have been established by enterprises from the same areas or foreign countries but they have relatively weak embeddedness because they do not have the characteristics of common local social and cultural structures. Local networks are very sensitive to political and social changes at home and abroad, allowing the cluster to survive periodic instability and trade fluctuations. The policy-makers of developing countries usually regard the establishment of industrial clusters as a form of regional industrial policy (Zhu, 2003). It is not realistic to attach more importance to the embeddedness of firms at the beginning of implementation of the clustering policy because of a shortage of capital, technology, talents and social capital. Nonetheless, it is important to cultivate the embeddedness in the course of cluster development so that industrial clusters will be able to move from cost advantages to better facilities and services.
- (iv) *Organisation of linkages among business and non-business actors in formal and informal networks:* Industrial clusters usually include an agglomeration of vertically and/or horizontally linked firms operating in the same line of business in conjunction with supporting institutions including business associations and universities.

2.3 Innovation and cluster development

Researchers have attached more importance to the role of institutions in promoting the regional learning and innovation of industrial clusters. Piore and Sabel (1984) focus

on the institutions supporting technological dynamism. Cooperation and competition in the relations among firms sustains innovation through norms that foster reciprocity. They argue that the new industrial districts in Europe resulted from the changing behaviour of manufacturing industries from an era of mass production at the end of 1960s to a new era of flexible specialization, in which cooperation among enterprises became essential for innovation while creating appropriate institutions to facilitate cooperation became an important aspect to coordinate innovative activities. According to Asheim (1996), industrial districts evolve towards learning regions, leading to organisational innovation and better cooperation mainly through the formation of dynamic and flexible learning organisations within firms, inter-firms and the whole society, thereby focusing more on the role of institutions in the evolution of industrial districts towards learning regions. Since the industrial clusters in various countries are in different stages of development, regional institutions also play different roles in regional economic development.

Nelson *et al.*'s work (2001) on economic development and the role of innovation highlights the relevance of institutions in coordinating economic activity. The work emphasizes the interrelations between institutions, industrial structure and production organisation. Economic growth and innovation follow from the nature of knowledge accumulation and the institutions that shape the growth of technological knowledge. Institutions matter because they support interactions between actors and different patterns of interconnectedness. The interactions generate flows of information appropriated in the learning process. Nelson and Sampat (2001) discuss the concept of 'social technologies' to refer to how institutions constitute means to share information and to support interactions that influence the growth of knowledge. Institutions influence the ways in which actors interact and coordinate economic activity. In this view, given the collective nature of productive activity, firm performance depends on supporting institutions that foster learning and enhance firms' capabilities. These literatures show that firm performance, growth and innovation are dependent on institutions and on the ways they influence the manner in which actors interact

(Lundvall, 1992).

Along with the emphasis on institutions, various theories put learning at the centre of the analysis of economic development (Amsden, 1989; Stiglitz, 1994; Dosi *et al.*, 1998). Knowledge and knowledge-creation have become central for understanding firms' performance and economic growth. Learning allows firms to create dynamic advantages by improving and producing better products and processes and facilitating their competitiveness. It entails a change in an organisation's capabilities. This literature suggests that institutions either foster or constrain learning. Since learning is an interactive and socially embedded process that builds on knowledge from a wide variety of sources, this view implies that institutional arrangements play a vital role in facilitating (or hindering) firms' learning (Lundvall *et al.*, 1994). In this view, the growth of firms, industries or clusters depends on how effectively institutions foster learning. Coincidentally, theoretical perspectives on development have moved away from seeing development primarily as a process of capital accumulation, but rather a process of organisational change and learning (Amsden 1989, 2001).

Knowledge and innovation are the endogenous variables of economic development. Knowledge can be categorized into codified knowledge and tacit knowledge. With the rapid development of communications technology, the diffusion of codified knowledge has been accelerated throughout the world. However, the transmission of tacit knowledge requires face-to-face communication and it is usually considered as human capital and social capital. Tacit knowledge is practical knowledge that is usually not directly expressed or taught, but rather is acquired through experience. The experience of how to do things in an industry can only be learned by embeddedness in a community of practice. This diffusion of tacit knowledge makes clusters more than mere aggregations of firms. According to Lundvall *et al.*(2000), most knowledge of the local economy is tacit and can only be acquired through social interaction, thereby emphasizing the significance of spatial proximity and local institutions. Jaffe (2000) has argued that knowledge spillover is more likely to take

place between close regions than across regions. The research of Paci *et al.* (2000) shows that agglomeration encourages higher degrees of innovation in the production process and that increasing returns to knowledge facilitates the formation of technical clusters.

2.4 Social institutions and cluster development

Industrial clusters refer to agglomerations of geographically localised firms that develop and keep up strong social bonds of trust and reciprocity over time and are conducive to specialization and innovation (Bagnasco, 1977). Institutions such as artisan associations and chambers of commerce as well as networks among entrepreneurs form the backbone of industrial districts allowing for both cooperation (for example, participating in credit-guarantee schemes open to district members) and competition to coexist among actors.

An industrial cluster is not only an economic agglomeration with complex internal mechanisms but also a hybrid of social and economic factors. Camagni (1991) argues that innovation is a collective learning process, depending mainly on the network of firms and the flow of skilled labour in a regional market. The process is usually motivated by common culture, psychology and political background. The cooperative rules and the implicit action guidelines accepted by individuals and firms will help establish trust and become the prerequisite for improving the capability of regional collective learning. According to Scott (1992), competition in the modern production system results from both the adoption of market principles and the institutional framework. These institutional frameworks will connect firms with familiar and reciprocal routines, which bring about multiple forms of cooperation strengthening the comparative advantage of specific industrial locations. Industrial clusters with strong development incentives usually need collective institutional arrangements on the basis of available social and cultural norms so as to conquer market failure. Saxenian (1994) highlights the role of community building and reproduction of social networks and institutions as a prerequisite for making flexible production systems

work in practice. She also shows that external economies due to spatial proximity alone cannot explain the innovation and dynamics of growth in Silicon Valley, emphasizing the relevant role of local institutions and culture to coordinate decentralized production. Institutions vary and make a difference in the ability of firms in a cluster to build their capabilities and improve performance (Saxenian, 1996).

Industrial clusters are not simply the agglomeration of enterprises, but an orderly system within the value chain formed by linked firms. Since firms have established formal or informal cooperative (transaction) relationships, industrial clusters gain economic advantages to include common knowledge among firms and cooperation in terms of technology, marketing, personnel training and product design. Although market interests might promote inter-firm cooperation, firms must share a consistent culture, values and objectives. Wilkinson *et al.* (1997) indicate that social rules might work when rational self-interest in the process of cooperation is uncertain. If social rules punish deceivers, the threats of revenge can prevent uncooperative behaviour when the majority of firms obey them. Harrison (1992) emphasizes that new industrial clusters not only imply traditional industrial agglomeration, but also the embeddedness of mutual trust and economic relationships within the non-economic institutions of local society. Industrial clusters are able to harvest both local economic and social forces so as to negotiate present industrial change while keeping up a specific local social-cultural identity. Thus, the advantages of local transactions not only save transportation costs but also establish trust among firms, minimizing opportunism and asymmetric information.

With regard to transitional economies, trust, collaboration and social-civic exchange can be of vital significance to cluster development particularly where there appears to be very close family or private ties. At the political-economic level, privileged informal relations were built to navigate the planned economy and to procure political and economic favours. With regard to political networks, the preferential relationships

thereby developed within the planned economy subsequently allowed political insiders to secure a head start over newly emerging entrepreneurs. Cooperation might be valued in these countries but was difficult to achieve as a strategy. A parallel can also be drawn to the political science debate on private and public spheres: the first type of social capital is public (the individual within the society, relations with institutions and public organisations) and the second is private (among people you know). The economic deficiencies of the planned system gave rise to informal networks for exchanging goods and services as an alternative to state structures. Informal social capital that occurred within the family circle could be transformed into a source of extended social trust so long as the general economic and institutional environment evolved appropriately.

In a recent study on the formation of social capital in those parts of Eastern Europe having recently joined the European Union, Fidrmuc *et al.* (2004) found that the gap in social capital can be largely attributed to economic and institutional difficulties. This suggests that improving the economic and institutional contexts is likely to have positive impacts on trust and social capital. The scholars also found a clear link between human and social capital, suggesting that increasing human capital may also have positive impacts on social capital. The cultivation of social capital is a very slow process and while it appears that policies may be able to encourage and accelerate this process in transitional economies, it is crucial to undertake further research on how public authorities can engage productively while having enough space for self-enforcement at the same time.

2.5 Competition, competitive advantage and industrial clusters

Industrial clusters play an important part in regional economic development because they can gain both economies of agglomeration and collective efficiency associated with inter-firm linkages so that regional competitiveness can be improved considerably. Both economists and policy-makers have attempted to develop a new model of regional development in industrialised economies in order to explain

economic growth and innovation in some regions while providing a potential policy tool to combat structural economic weakness in less favoured ones. In some cases, industrial clusters have been regarded as one of the most effective means of industrial organisation to facilitate improvements in regional competitiveness.

One of the most widely cited books on the subject of industrial clusters is Michael Porter's *Competitive Advantage of Nations* (1990). In this work, Porter developed a framework to analyze the competitive success of different national economies. His framework involves the diamond of four components: factor conditions; firm strategy, structure, and rivalry; demand conditions; and related or supporting industries. He argues that domestic rivalry and geographical industry concentration are responsible for the dynamics of the economic system. Unlike Piore and Sabel (1984), Porter (1990) does not focus on small size as a factor in success, but emphasizes the concentration of supporting industries in the same city or region. Concentrations of domestic rivals are frequently surrounded by suppliers, and located in areas with concentrations of particularly sophisticated and significant customers. The city or region becomes a unique environment for competing in the industry. The information flow, visibility and mutual reinforcement within such a locale give meaning to Alfred Marshall's insightful observation that in some places, an industry is in the air.

Intense domestic competition promotes the dynamism of the entire economic system. Fierce inter-firm competition has favourable effects on the composition and strength of local demand as well as the development of related and supporting industries. A nation's competitive advantage is boosted by its endowment of skilled human resources, market-specific knowledge and specialised infrastructure. The competition among clustered firms stimulates the investment in infrastructure, knowledge and skilled labour, leading to a continual upgrading of these factors and eventual competitive advantage for the region (Porter, 1998). These effects would be most pronounced when rivals located in the same city or region and spatial concentration increases the intensity of interactions within the system. A cluster of firms, which

draws on common specialised inputs and infrastructure, will upgrade local factor quality and increase its supply. The externalities of industrial clusters are reinforced through vertical and horizontal relationships among firms, suppliers and consumers.

It is important to recognize that the development of communication and the reduction of transport costs and other barriers to trade do not remove location advantages. Instead, they can actually make them more significant, because firms that develop competitive advantage in one nation or region will now be more likely to penetrate other markets. While classical factors of production become more accessible due to globalisation, specialised factors and skills remain differentiated between regions. Globalisation makes the home base more important, rather than less important.

In his empirical research, the development mechanism of industrial clusters has been emphasized. Porter's work on spatial clusters of innovation shows that firms and regions grapple with each other competitively, whether at the urban, regional, national or international level. Subsequently the refined model of regional clusters by Porter is one of the most practice-oriented in the literature. However, Porter fails to explain what factors have led to the emergence of industrial clusters. He mainly argues that one region or nation well endowed with industrial clusters will possess its own particular competitive advantages without taking any account of historical, social and cultural issues.

2.6 The global value chain (GVC), industrial clusters and economic development

The capacity of clustered firms to be economically viable and grow larger has attracted a great deal of interest in development studies. In developing countries, industrial clusters are popular in Asia and South America as an important part of small-scale industrial organisation. Some industrial clusters have grown out of urbanization while others are the outcome of rural industrialisation; some have been formed spontaneously while others are promoted by industrial policy. Clustering may be considered as a major facilitating factor for a number of subsequent developments:

division and specialization of labour; the emergence of a wide network of suppliers; the appearance of agents who sell to distant national and international markets; the emergence of specialised producer services; the materialization of a pool of specialised and skilled workers and the formation of business associations.

Since the 1990s, the developing countries have obtained more market share of some labour-intensive products than developed countries with cost advantages. Subsequently, many export-oriented industrial clusters have come into being in these countries. However, most of these industrial clusters in developing countries have comparative advantage only in terms of low prices and fail to be in a position to enter mainstream international markets. In contrast, the industrial clusters in developed countries maintain competitive advantages in terms of quality, design capacity, technological innovation and rapid response to market changes.

It has become increasingly popular in recent studies to pursue the cluster approach in relation to the global value chain and its role in the upgrading processes of clusters (Giuliani, 2005). It is common to see the exporting firms in developing countries that are integrated within a global value chain to be controlled by foreign firms. They are linked into the chain - sometimes simply through outsourcing- mainly because of their low labour cost advantage and their flexibility in entering into chain arrangements, perhaps combined with the advantage of natural resource endowments. From the local firms' points of view, the global value chain is seen, first of all, as a means of obtaining access to export markets and secondly as a potential source of upgrading and value-added expansion opportunities.

Export-oriented industrial clusters can scarcely achieve success unless they are integrated into global value chains (Gereffi, 1999). The export promotion policies adopted by developing countries in the course of industrialisation have stimulated the rapid development of domestic export processing industries and the spatial transition of labour-intensive industry from developed to developing countries, strengthening the dependency of the latter on international markets. On the other hand, the demand for

high-quality commodities by developed countries has promoted technology linkages between domestic producers and overseas clients. Thus, the upgrading of export-oriented industrial clusters and regional development ultimately depends on the degree to which clustered enterprises are integrated within global value chains.

The opportunities for SME upgrading and competitiveness enhancement in developing countries rely on the type of relations in which they are involved and the possibilities available to them to move from one level of relations to another. Business upgrading can affect process, product, functional or inter-sectoral capacities or some combination of these: process upgrading results in increased production efficiency arising from the use of new technology or the improved management of existing technology; product upgrading occurs as a result of moving into higher value products or services than previously supplied; functional upgrading refers to the redistribution of activity in ways which allow the overall skill content of activities to increase; inter-sectoral upgrading occurs where firms apply the knowledge acquired in one area of activity to move into a separate activity, such as when skills acquired assembling television sets are applied to the assembly of computer equipment (Humphrey, 2002).

In what ways are SMEs in developing countries integrated in global value chains or foreign business cooperation when they first enjoy such integration? What are the possibilities for the clustered firms not to end in an immersizing[®] growth process but to upgrade and enhance their activities? With regard to the leading or governing firm in the chain, it is assumed that this will be a large transnational corporation with the necessary resources and experience to operate in international markets. Indeed, one of the major hypotheses of the global commodity chain approach is that development requires linking up with the most significant 'lead firm' in an industry (Gereffi, 2003). However, besides 'lead firms', there are many other types of international relations to consider. Secondly, only a limited number of firms in developing countries can be

[®] "Immersizing" growth, i.e. negative growth, occurs when, as a developing country increases its export volume, the prices of its exports fall, leading to deterioration in its terms of trade, making the country worse off.

accommodated in global chains governed by the large leading multinationals. This raises the question of whether the lead firm in, say, a textile chain needs to be a company like ZARA, GAP or H&M, i.e. an international brand leader. In reality, it can be expected that many internationalised SMEs located in developed countries have links to firms in developing countries. The advantage of internationalised SMEs lies in their intelligence of the global economy where factors of production are moving freely (Audretsch, 2003). Located in high wage areas, SMEs in developed countries may well be interested in downsizing employment and avoiding large investment commitments by outsourcing activities, preferring value chains with partners located in its own proximity with the ability to control production and save scarce management resources.

The organisation of value chains typically takes one of four forms: (i) arm's-length market relations that do not lead to the development of close ties between buyer and supplier; (ii) networks involving firms interacting with each other and jointly determining the allocation of competencies between them; (iii) a quasi-hierarchy where one firm exercises control over other firms in the chain, for example, specifying the characteristics of the product to be produced and the process to be followed; or (iv) clear hierarchy where a lead firm takes direct ownership of some operations in the chain. Upgrading prospects of clusters differ according to the type of value chain to which they connect. Insertion in quasi-hierarchy offers favourable conditions for fast process and product upgrading but hinders functional upgrading. With arm's length market relations, process and product upgrading is slow but the route can open for functional upgrading. Networks offer the most ideal upgrading conditions but are least likely to exist for clusters in low-income countries (Humphrey, 2002).

Giuliani *et al.* (2005) have focused on the analysis of relationships existing between clustering, global value chains, upgrading and sectoral patterns of innovation in Latin America. They find that sectoral specificities matter and influence the mode and the extent of upgrading in clusters integrated in global value chains. For example, in traditional manufacturing sectors such as textiles, clothing and footwear, technology has important tacit and idiosyncratic elements and therefore upgrading strongly

depends on the intensity of technological externalities and cooperation among local actors (e.g. firms, research centres, technology and quality diffusion centres). Moreover, global buyers may be more involved and interested in their providers' upgrading if the technology required is mainly tacit and requires intense interaction. While, in other sectors, such as natural resource-based industries, technology is more codified and the access to external sources of knowledge, such as transnational corporations or research laboratories located in developed countries, become more critical for upgrading. Meanwhile, global buyers are less keen to get directly involved in the upgrading process while imposing compliance to strict quality standards (Giuliasi, 2005a). In the study on the Sinos Valley footwear cluster in Brazil, quasi-hierarchical value chains led by U.S. buyers obstruct the development of local skills in design and marketing, their key competencies. Only standards such as the quality process standard and the prohibition of child labour, which matter for global buyers, are promoted. Other standards, such as environmental standards or core labour standards have to be enforced by other type of agencies outside value chains (Navas-Aleman, 2005).

Recent research indicates that external linkages are vital to establish and maintain a local network of relationships for both emerging and established clusters. External links allow access to knowledge, skills, contacts, capital and information about new technological opportunities and new markets. These relationships allow upgrading of the industrial base and reduction of the risk of lock-in by keeping the clusters open to new ideas and technologies from outside. The analysis of two successful clusters in Chile (one in agri-business and the other in salmon aquaculture) highlights interactions between the state, local firms and multinationals, and the conditions enhancing collective firm learning. The argument is that the emergence of dynamic clusters depends on building institutions that enable coordinated learning among firms to improve capabilities, processes and products (Perez-Aleman, 2005).

The industrial clusters in developing countries are confronting new challenges in the face of globalisation. The competition has become fiercer and world markets demand quick responses from firms and high-quality products in small quantities. Moreover,

developing countries have to give up all kinds of export subsidies as a result of trade liberalization. The above factors have weakened the comparative advantages of clustered firms in developing countries. External linkages may, indeed, play a crucial role in increasing clusters' and firms' competitiveness, but they are not the panacea (Giuliani, 2005b). There is a great deal of heterogeneity in terms of patterns of governance of value chains, of sectoral specificity, of the upgrading and learning processes, of firms' absorptive capacity and of the role played by policy. A stylized account of developing country clusters has gaps but two points of contrast with the corresponding account of clusters in high-income countries are relatively well supported: agglomeration economies provide limited capacity to manage changes in a cluster's market or product characteristics while deliberate joint action is needed to make successful adjustments to external challenges. Such joint action is associated with enterprise growth but ultimately may become a constraint on the ability of the cluster to retain a common purpose. Without common objectives, the capacity to withstand intensified competition is put in doubt (Perry, 2005).

Trends towards SMEs, vertical disintegration and industrial districts are not unequivocally linked. Firms that exist in vibrant industrial districts have chosen to disperse some elements of production. The most celebrated case is Silicon Valley, whose firms have established factories in Asia in the late stages of the product life cycle. In still other cases, firms in 'rival' industrial districts are linked by joint ventures, cross-licensing and strategic alliances. While strategic alliances are typically thought of as arrangements made by already large international firms in research-intensive industries, SMEs have also participated (Ahern 1993b). Leung (1993), for example, demonstrates this point in his work on Hong Kong firms associated with geographical dispersal of facilities within China. Even in Italy, Harrison (1993) argues that the intrusion of corporate hierarchies by take-over and merger is beginning to displace co-operative behaviour patterns developed by SMEs over long periods of time.

Industrial clusters and globally dispersed production systems are in constant tension. How this tension is played out has an important but contentious implication for local

development. In Piore and Sabel's view, flexible specialised industrial clusters are a desirable form of development, being democratic, progressive and oriented to continual improvement in working conditions as well as profitability. Others reject this view. An important question is the direction in which the industrial district is moving: whether towards greater or lesser use of low-cost low-skilled labour or higher-cost higher-skilled labour. The latter may require greater investment and ingenuity but is socially more sustaining (Christopherson, 1989).

The studies have revealed that industrial clusters in developed and developing countries differ considerably. In developed countries with a sound industrial base, advanced technology and strong innovative capability, the researchers and policy-makers have focused on how industrial clusters improve national and regional competitiveness as specific regional social, cultural and economic systems. However, the background of industrial clusters in developing countries is different from that in developed countries. Therefore, it is very important to grasp and analyze the features and development mechanisms of industrial clusters in its typical national context.

They exist in a wide range of sectors and their growth experiences vary widely: some are stagnant and lack competitiveness, others are dynamic and competitive. While some show active inter-firm collaborations, others do not. The competitiveness of the cluster can be strengthened by appropriate public intervention in many cases. A big difference between clusters in developed and developing countries appears to revolve around the kinds of market niches they focus on. For clusters in developing countries, upgrading within global value chains is important. Only by the careful adoption of coherent policies and strategies can a cluster upgrade.

2.7 Research on industrial clusters in China

2.7.1 Ownership reform and the growth of clustered firms in China

(a) The definition of private enterprises in China

Definitions of the private sector based on enterprise types in China are regarded as

unclear and hard to interpret. The term 'nonstate' (*minyin*) in China indicates a broader category than 'private' since the former includes urban and rural collectively owned enterprises, the latter known as TVEs that promoted rapid economic development in the rural areas and absorbed millions of surplus farm workers in the 1990s. The difficulty is compounded further due to the large number of small firms in all parts of the economy- in agriculture, industry and services - that are outside the statistical reporting system and are only roughly estimated in the national accounts.

Government estimates usually focus on a narrow definition of the private sector in China. Domestic enterprises formally registered as private, excluding foreign-held firms, private controlled companies or the informal sector, put the private sector as contributing about one third of gross domestic product (GDP) in 1998, but a widely cited outside estimate puts the figure at one half or even close to two-thirds of GDP if all non-state enterprises were deemed private (Neil, 2000). However, not all enterprises registered as non-state are indeed private. For instance, a significant number of joint ventures and shareholding corporations are controlled by the state.

A relatively strict definition of private enterprise implies that only firms that are not identified as being public-controlled (state or collective-controlled) are classified as private. Modern theories of the firm suggest that ownership should be defined in terms of who controls the 'residual rights' of the firm (Hart 1995). There are three types of firm ownership in China now including state (directly or indirectly), collective (local government) and private (individuals, domestic legal persons, or foreign companies). The official firm registration categories commonly shown in China's statistical publications (the official registered enterprise structure) often do not reflect the real owner. The National Bureau of Statistics (NBS) micro data has a classification based on share ownership.

(b) The classification of private enterprises in China

The classification of private enterprises in China has Chinese characteristics. New

categories come out, but the old ones still survive. It is hard to understand and to some extent reflects the transitional nature of Chinese law. Private enterprises in China are generally classified as follows:

- **Sole proprietorships (*Getihu*)**

Getihu was recognized in a set of State Council regulations in 1981 first and it is a diminutive of *gongshanghu*, denoting a single industrial and commercial proprietor. These individual businesses cannot employ more than eight people and are commonly referred to as individuals or households. They are not legally considered as enterprises and are excluded from the official definition of private enterprises.

- **Privately enterprises (*Siying qiye*)**

According to the ‘Regulations for Classifying Registration and Licensing of Enterprises by Ownership,’ issued by the State Administration for Industry and Commerce together with the National Bureau of Statistics (NBS), the category of private enterprises is one of the eight categories of wholly domestically funded enterprises. *Siying qiye* became an independent business category in the ‘Tentative Stipulations on Private Enterprises’ in 1988, where private enterprises were defined as ‘for-profit organisations that are owned by individuals and employ more than eight people.’ They can take many forms to include sole proprietorship, partnerships, limited liability companies and shareholding cooperatives. There are different requirements for registered capital and numbers of shareholders associated with these forms of private ownership.

Sole proprietorships or wholly individually owned private enterprises (*siying duzi qiye*) are private enterprises registered under the ‘Provisional Regulations for Private Enterprises’ issued by the State Administration for Industry and Commerce in 2000. They are legally recognized as enterprises and thus differ from *getihu*. However, they are not companies in the legal sense because the owner of each is usually a single natural person with unlimited liability for the firm.

Partnerships (*siying hehuo qiye*) are similar to sole proprietorships in that they are owned by natural persons sharing unlimited liability for the enterprises. They are registered under the ‘Law Governing Enterprises under Partnership’ and ‘Methods for Registration by Partnership.’

Private limited liabilities companies (*siying youxian zeren gongsi*) and private shareholding corporations (*siying gufen youxian gongsi*) are limited liability companies registered under the ‘Company Law’ and ‘Provisional Regulations for Private Enterprises.’ The latter requires either a single owner, or five or more owners.

- **Shareholding cooperatives (*gufen hezuo qiye*)**

There are a relatively small number of shareholding cooperative enterprises that are collectively owned by employees of the enterprises. These enterprises are, in effect, an intermediate stage, as the formerly collectively owned enterprises undergo transition to full private ownership. As a consequence, the exact distribution of asset ownership is uncertain because a portion of their start-up assets used to be collectively owned. Although they are not legally *siying qiye*, they are self-governed and solely responsible for salaries and dividend payouts.

- **Shareholding corporations (*gufen youxian gongsi*)**

Shareholding corporations, which are publicly listed on the stock exchange, comprise a category of domestic enterprises separate from *siying qiye*. Theoretically, they should be considered as a form of private ownership as long as the state is not a majority shareholder.

- **Foreign-funded enterprises (*waizi qiye*)**

These are enterprises that have foreign (including Hong Kong, China; Macau, China; and Taipei, China) investors or operate with foreign partners. Many of them should be considered part of the private sector since foreign investors frequently hold control rights especially in the wholly foreign-funded enterprises. But since the official *siying*

qiye are, by definition domestically owned, they exclude such foreign-owned private enterprises. Additional complexity arises when the foreign investors lack a controlling stake in these enterprises. For instance, foreign-funded shareholding corporations require a minimum of only 25% foreign-owned registered capital. Depending on the ownership shares, these enterprises can be state-owned, collectively-owned or private. However, statistical reporting on foreign-funded firms usually fails to distinguish those controlled by the state. As a result, double counting can occur (ADB, 2004).

(3) Ownership reform and economic performance

According to the State Assets Supervision and Administration Commission (SASAC), 85 percent of small and medium local government state enterprises across all industries had been restructured by 2003. The number of state controlled companies (SOEs and companies controlled by the state) has fallen remarkably over the past decade, falling from a peak of over 300,000 in 1995 when ‘state control’ was first assessed to less than 150,000 in 2005 (OECD, 2005). The number of large-scale private industrial enterprises has surpassed 100 for the first time in 2005, though that of the corresponding SOEs still account for 57% out of 2,154 as a total (People’s Daily Overseas Edition, 2005). In the survey report of ownership transformation covering 6,627 enterprises in 16 Chinese provinces and cities by Liu *et al.* (2005), 30 percent of 950 reformed enterprises had been transformed into private firms, while 68 percent of them were still under the control of state with private equity (Table 2.3).

Table 2.3 The ownership classes of reformed enterprises in 2004

	Total Sample of firms		Central government-owned firms		Local government-owned firms	
	firms	% of sample	firm	% of sample	firms	% of sample
State controlled firms	652	68.63%	219	89.39%	419	62.17%
Fully privatized firms	298	31.37%	26	10.61%	255	37.83%
Total sample	950	100.0%	245	100.0%	674	100.0%

Source: Liu *et al.* (2005) ‘Report on the 2004 Enterprise Survey Project of Ownership Transformation and Enterprise Reorganisation in China’, The World Bank.

The central government launched the Shanghai Stock Exchange and the Shenzhen Stock Exchange in 1990 and 1991 respectively to facilitate the reform of SOEs. Most listed companies were originally controlled by the government at different levels. The equity structure of Chinese listed companies now include state-owned shares, corporate shares and floating shares (A shares), each category accounting for one third and enjoying the same voting right. The state-owned shares belong to the central government, provincial government and local government; the corporate shares are owned by the companies and institutions; the floating shares are offered to the general public. Only the floating shares can be traded at both stock exchanges. The definition of state-owned shares and floating shares is self-evident, but the definition of corporate shares is rather complicated because the owners of the corporations and institutions can be either individuals or the state. The listed companies have also failed to disclose detailed information on the ultimate holders of state shares and corporate shares. Besides, the classification of different categories has also been vague. As for state-owned shares, we hardly know if the ultimate holder is the central government, the provincial government or the local government. Neither do we know if the ultimate holder is the government or a private institution. The top ten shareholders of most of the listed companies are normally the state and legal persons; the latter are themselves partially owned by the central or local governments. The central government originally intended to make use of the stock market to raise funds from the public to finance the state sector. The number of listed companies increased from 10 in 1990 to 1,381 in 2005 (Table 2.4). At the end of September 2007, the market capitalization of the stock market in China reached RMB25, 000 billion (National Bureau of Statistics of China, 2007).

Fiscal decentralization carried out as part of China's economic reform since 1979 has unleashed strong incentives for China's local governments to pursue economic development, but the same incentives have also led to local protectionist policies inhibiting the process of regional specialization. Bai *et al.* (2004) construct a panel data

of 32 two-digit industries in 29 Chinese regions over a period of 13 years (1985–1997) and use a dynamic panel estimation method to investigate the determinants of regional specialization in China's industries, paying particular attention to local protectionism. Less geographic concentration is found in industries where the past tax-plus-profit margins and the shares of state ownership are high, reflecting stronger local government protection of these industries. The evidence also supports the scale-economies theory of regional specialization. The overall time trend of regional specialization of China's industries is found to have reversed an early drop in the mid-1980s, and registered a significant increase in the later years. Bai *et al.* (2007) focus on the constraints or freedom with which local governments can implement their protectionist policies with a panel data of 29 regions in China over the same time period of 1985–1997 and find that China's political system of bureaucratic integration (specifically, concurrent appointment of local government officials in the central government) imposes constraints on the local governments in practicing protectionism. They also find that the effectiveness of local protectionist policies is limited by market competition, specifically, competition from foreign-invested firms operating in China and from foreign imports. Their results on the role of local protectionism remain robust to controls for the regional variations in the size of the economy and the stage of economic development. Fu and Wu (2006) analyze the role of agglomeration economies in China's regional growth with the aggregate production function based on increasing returns to scale. The estimation results show that the agglomeration effect is strong, especially in the southeastern areas, contributing 12.7% to the growth of GDP per effective labour and more than one third of the total factor productivity (TFP)^④ growth. It is also found that the regional agglomeration effects are influenced greatly by different levels of urbanization and transformation of economic institutions.

^④ Total-factor productivity (TFP) is a synonym for multi-factor productivity (MFP). It relates a change in output to several types of inputs. It is often measured residually, as that change in output that cannot be accounted for by the change in combined input. Factors that may account for variations in TFP include technology, institutions and infrastructure and so on.

Table 2.4 The development of the stock market in China, 1990-2005

Year	The Number of Listed Companies	Raised Capital (100 million yuan)	A Shares	Rights Issued	H, N Shares	B Shares
1990	10					
1991	14	5.00	5.00			
1992	53	94.09	50.00			44.09
1993	183	375.47	276.41	81.58	60.93	38.13
1994	291	326.78	99.78	50.16	188.73	38.27
1995	323	150.32	85.51	62.83	31.46	33.35
1996	530	425.08	294.34	69.89	83.56	47.18
1997	745	1293.82	825.92	170.86	360.00	80.76
1998	851	841.52	778.02	334.97	37.95	25.55
1999	949	944.56	893.60	320.97	47.17	3.79
2000	1088	2103.08	1527.03	519.46	562.21	13.99
2001	1160	1252.34	1182.13	430.63	70.21	
2002	1224	961.75	779.75	56.61	181.99	
2003	1287	1357.75	819.56	74.79	534.65	3.54
2004	1377	1510.94	835.71	104.54	648.08	27.16
2005	1381	1882.51	338.13	2.62	1544.38	

Source: National Bureau of Statistics of China,
<http://www.stats.gov.cn/tjsj/ndsj/2006/html/T2018e.htm>

One of the most popular approaches to the dilution of state ownership in China is the creation of joint stock firms, which are limited liability joint stock companies. Different from other forms of share ownership in China, the number of shareholders in a joint stock firm is unlimited. It implies that the company is permitted to issue stocks and the stock can be transferred freely. The state may hold a majority of shares (e.g. The Industrial and Commercial Bank of China, currently the biggest bank in the world) or a minority of shares. The first case of transforming a state-owned firm into a joint stock firm took place in 1984 when Beijing Tian Chiao Department Store shifted part of its ownership to other firms and legal entities (47.56 percent) and to individuals, including the firm's management and employees (41.18 percent). The number of similar cases increased steadily afterwards. By the end of 1997, the number

of joint stock firms had reached 9,200, which accounted for about 25 percent of all large and medium sized state firms in China (Smyth, 1998). According to the blueprint of the central government, the previous SOEs were expected to compete in the market like those public listed companies in the west after transformation. Since 1990, there has been an increasing number of joint stock firms listed on the Chinese capital market. The transformation of SOEs is considered a conversion of managerial mechanisms or a transition of dependent instruments of the state plan into independent market-oriented entities (Chen, 1999). With the gradual reform of the state-owned sector, the state has been reducing its shares in these firms and private firms have been allowed to become public listed companies through purchasing the controlling shares of those previously listed firms (McCallum, 2001).

The ownership transformation has been influenced by the institutional environment in China from the very beginning. Liu *et al.* (2006) argue that local governments have been active in selling off their SOEs only if they can be assured of both higher growth of fiscal revenues and the retention of private benefits. The growth of fiscal revenues, as a measure of regional economic performance, is closely associated with the career concerns of local officials. According to the cadre promotion system in China, the careers of local officials mainly rely on decisions of Party officials at higher levels of government and conformity with a set of evaluation criteria. As the central government has concentrated more on economic development in the past decade, the economic performance of one region has been regarded as one significant evaluation criterion of local officials. Studies have found that the likelihood of promotion of a local leader is significantly positively associated with the average GDP growth rates during his tenure. The promotion of local officials is at stake if the prevalent losses of SOEs seriously hamper local economic development. Therefore, the widespread occurrence of ownership transformation and privatization of local SOEs has normally enjoyed firm support from local authorities. In addition, the local leaders who are keen on personal promotion need to make efforts to stimulate local economic growth through privatizing their SOEs and resettling any workers made redundant because

securing social stability is taken as a top priority by the central government in restructuring the SOEs.

The majority of empirical research on Chinese ownership reform has concentrated on the impacts of different types of ownership on the performance of listed companies. According to Xu and Wang (1999), the profitability of enterprises was positively related to corporate shares instead of state-owned shares and floating shares (A shares). Labour productivity declined with the increase of state-owned shares. The research emphasized the role of large institutions' shareholding in the improvement of corporate performance. Qi (2000) came to similar conclusions after his research on Chinese listed companies and explained the relative advantage of corporate shares compared with state-owned shares further. Tian and Estrin (2005) examined the ownership structure of 826 listed corporations on the Chinese stock exchanges and found that the government shareholding was surprisingly large. They proved the non-linear relationship between corporate value and government shareholding. Corporate value decreased with the increasing shareholding by the government up to a certain threshold, but beyond this it increased. They interpreted this in terms of ownership concentration and the advantages of government partiality. Hu *et al.* (2006) studied the influence of diversified ownerships on corporate performance with a database of more than 700 enterprises within six competitive sectors in five Chinese cities from 1996-2001. They found that private and foreign shareholdings could bring about higher corporate productivity than state-owned shareholding. Among the private shares, corporate shares and the shareholding by senior managers and employees promoted improvements in productivity effectively while shareholding by external parties failed to do so. As for the state-owned shares, corporate shares and the shareholding by local government were negatively related to corporate productivity. The stimulation of corporate productivity by the shareholding of central and provincial governments was not remarkable. The research concluded that the privatization of SOEs in China was effective, improving the performance and competitive advantage of enterprises. It suggested that the state could reorganize and

reallocate state-owned corporate shares through merger and acquisition activity to produce a better corporate equity structure.

Although the state sector in China remains large, further reform of SOEs will make more room for the expansion of the private sector as well as changes to the public-private interface. The general picture in China shows that the expansion of Chinese private firms has been accompanied by frequent changes in both the property rights structure and associated organisational forms, to include the privatisation of SOEs. The complex public-private interface in China has inevitably been influenced by ideological and political factors. Since the 1990s, the neo-classical paradigm has been prevailing in the economic reform and academic circle of China. In terms of the restructuring of SOEs, the means of management buyout (MBO) started in May, 1999 when Si Tong Investment Company purchased 50.5% equity of Hong Kong Si Tong Company owned by Si Tong Group in Beijing.

Due to the vested interests of officials and the ideological pressures of neo-classical paradigm, the further reform of SOEs has degenerated into a wave of crony privatization, which has resulted in losses of state assets, causing many workers to lose their jobs in the process of system-changing, annexation of property, bankruptcy and reorganisation. This form of privatization is nothing other than direct plunder of public assets by the people in power and has thus posed the most serious challenge to the socialist nature of the reform because the initial arrangement of property rights was extremely unfair (Cao, 2005). The means of MBO in the case of Ke Long Electronics Company in Guangdong province aroused great disputes on the property rights reform of SOEs in the whole society in 2004 and it was stopped by Ministry of Finance afterwards. The State-owned Assets Administration and Supervisory Commission (SAASC) declared that MBO be prohibited in privatizing large-scale SOEs. The SMEs could make use of the means. Nonetheless, the process of privatization in China is still encouraged and reinforced.

Private enterprise development and the restructuring of SOEs are no longer two separate issues in China. Effective SOE reform has been partly attributed to the success of the private sector in carrying out the tasks of transition at the critical stage of its development. During that stage, the rapid growth of the private economy, which continues to draw resources out of the state sector, helps create a more favourable environment for restructuring the SOEs.

The ownership reform of SOEs in China has had great impacts on the rapid growth of private sector, which has led to the emergence and rapid growth of industrial clusters in China. Academic circles in China did not embark on research into industrial clusters until the late 1990s. Professor Jici Wang of the School of Geography, Beijing University started to conduct research on industrial clusters in China after attending an international conference organized by International Geography Union (IGU) in Tokyo in 1993. In her paper, 'The Formation of New Industrial Districts in China- Insights on the Phenomenon of Development Parks', she indicated that industrial districts with the features of flexible specialization might emerge at some advanced development parks located in the coastal cities of China. She insisted that local networks and embeddness were of great value to the growth of industrial clusters. Since then academic research on industrial clusters in China has mainly focused on the development of hi-tech industrial clusters, the relationship between industrial clusters and regional economic development, the position of industrial clusters on GVC and the role of networks in the development of industrial clusters.

2.7.2 Hi-tech industrial clusters

Academic research on the hi-tech industrial clusters in developed countries has made it clear that rich regional human resources are only part of the recipe for establishing innovative regions and that the 'cooking' process more important: the configuration and dynamics of inter-organisational linkages in the region. Beijing has become well-known for the richness of its human resources in China. Yet, after conducting her research on Beijing Zhongguanchun (ZGC) high-tech industrial cluster, which

represented an experiment in the conscious public creation of new industrial spaces founded on the spontaneous action of key individuals, Wang (1998) argued that it grew up as an embryonic industrial cluster initially with the formation of hundreds of small-scale innovative firms in the surroundings of a large number of comprehensive universities including Beijing University and Tsinghua University and many leading research institutes affiliated to the Chinese Academy of Sciences. However, it was eventually constrained by a unique combination of weaknesses, including strong hierarchical restraints from state-owned institutions or firms on local networking, and direct global linkages with the multinationals, exposing the local economy to volatile world competition. These weaknesses highlighted the necessity for a developing country to rest its development of industrial clusters on self-sustained innovativeness.

Zhou (2006) conducted a comparative study between the Beijing ZGC high-tech industrial cluster and Silicon Valley in California. His research showed that the local clustered firms in ZGC are more competitive than the subsidiaries of multinational corporations (MNCs) in the cluster. His paper discusses the key dimensions of inter-organisational relationship within the ZGC, such as the labour market, university ties to the clustered enterprises, inter-firm linkages, the development of business services and informal social networks. ZGC bears surprising resemblances to Silicon Valley in terms of a young, well-educated and upwardly mobile workforce, high-tech entrepreneurship and the close collaboration between universities and clustered enterprises. However, ZGC and Silicon Valley have also shown striking differences in other dimensions, in terms of forms of business associations, information transparency, inter-firm cooperation, venture capital and local governance to include the legal framework. The paper also evaluates the role of the state in fostering an innovative environment.

Chen (2006) conducted an empirical research on the policy effects of establishing the western area of ZGC by the Beijing municipal government in 2001. His research

indicates that ZGC is still dominated by small- and medium-sized hi-tech enterprises and that the specialised electronics market still plays an important role in promoting the development of the cluster. However, large-scale enterprises constantly entering the scientific park are accelerating the process of expanding the cluster. As a result, the commercial atmosphere in the area has been strengthened, leading to the spatial change of the whole city. The large-scale electronics shopping mall is still playing an important role in marketing the products and the growth of the hi-tech cluster is attributed both to central planning and market mechanisms. Dijk and Wang (2005) studied a citywide information and communication technologies (ICTs) cluster in Nanjing, China, involving various software parks and universities, as well as a huge concentration of computer shops. They found that ICTs clustering in China is still in the initial stage of development. Li (2006) conducted one study on the strategy of cluster upgrading against the background of international industrial relocation in the IT sector. He disclosed the different patterns and models of cluster relocation and upgrading after making a comparative study of typical IT clusters around the world.

Taiwan has witnessed the successful development of hi-tech industrial clusters and accumulated rich experiences of incubating hi-tech firms. In 'Towards a late-industrial district: the construction of learning networks in Hsinchu-Taipei Corridor, Taiwan', Hsu (2000) examined the late-industrialisation paradigm by exploring high-technology development in Taiwan. The latercomer advantage, as Amsden(1989) illustrated in the South Korean case, was constructed on the base of learning and strong state intervention. In spite of being praised as a model of the developmental statist paradigm as in South Korea, Taiwan's high technology industry demonstrated a different story of late-industrialisation. The industrial system in Taiwan was characterised by vertical disintegration, learning networks and redundant institutional embeddedness. Taiwan's high-technology industries revealed the advantage of flexible specialization and collaborative learning in the globalisation process. In particular, the connections between the social and professional communities in Taiwan and Silicon Valley provided a bridge for technological cooperation and

enhanced the learning capabilities of latecomer firms. In other words, the central agent of Taiwan's story was the technical community, rather than the large conglomerates in the Korean case. Hsu (2001) also explored the process of institutional change in the globalisation of Taiwan's late-industrial district. The high-tech industrial system in Taiwan is noted for its decentralization and geographical agglomeration. It demonstrates varieties of features of industrial districts: spin-offs, collaborations, networking, and most importantly, institutional presences. At the initial stage, Taiwan's government did lead in technology transfer, encouraged new firm formation and pushed the private sector hard to bring the industry into being. However, as the industry became global, new complementary institutions, including dense social and professional connections and associations, replaced the monotonic role of the state to make learning through networks effective in the decentralized industrial system.

2.7.3 Industrial clusters and regional economic development

A lot of research has focused on the economic performance of industrial clusters and their impacts on the regional economic development in China. On the basis of information economics theory, Qiu (1999) concluded that excessive competition led to oversupply of low quality products within some small enterprise clusters in China due to information asymmetry. The quality of products deteriorated in some clusters at the end of the 1990s. Wang (2001) published *Innovative Space: Enterprise Agglomeration and Regional Development* which summarized the main schools of industrial cluster theories and conducted an empirical analysis of typical industrial clusters both in China and abroad. Feng (2006) has explored the theoretical foundation of implementing industrial cluster policy with the aim of creating an ecological environment suitable for industrial development and promoting productivity improvements within microeconomic entities. Since industrial clusters in China are confronted with problems of growth and sustainable development, Feng argues they should strengthen the increasing returns to scale resulting from the interaction between technological and

institutional innovation. Therefore, she argues, cluster policy is the appropriate strategic choice for regional economic development. She suggests that the government should be aware of industrial clusters and foster them, arguing that the government can also act as a coordinator, organizing related institutions so as to help the clustered firms make technological innovations. A regional culture involving trust, cooperation and entrepreneurship should also be nurtured to stimulate cluster growth and accelerate regional economic development. Yang *et al.* (2006) analyze the growth of SMEs in industrial clusters following the logic of ‘resources—abilities—growth’ in line with Edith Penrose (1980)’s enterprise growth theory. The research discusses the role of industrial clusters in the integration and utilization of resources and the improvement of enterprise capabilities in technology, finance, production and marketing.

Zhang *et al.* (2006) found out that the brand situation within industrial clusters in China is worrying after making analysis with brand management theory and conducting an empirical investigation of brand management of industrial clusters. The core issue lies in the considerably high positive externality involved in creating and maintaining the brand for small and medium-sized clustered firms. Therefore, it is necessary for local government to promote the establishment of one complete production line, a quality control system with simultaneous transmission of management information and the establishment of an after-sales system to establish the competitive advantage of clustered firms and eventually realize cluster upgrading. Mei *et al.* (2006) studied the role of regional brand strategy in upgrading industrial clusters on the global value chain. Since most industrial clusters in China are labour-intensive, brand absence, extensive operations and excessive competition constrain the development of industrial clusters. The regional brand can enhance the competitiveness of clusters and promote the development of the regional economy. The research discusses the development mechanism and the supporting systems of regional brands. It also focuses on the upgrading mechanism of industrial clusters on the global value chain through integrating different types of technology and market channels with the case study of Da Lang wool knitting cluster, Dongguan City,

Guangdong Province.

2.7.4 Chinese industrial clusters in the Global Value Chain

In recent years, more and more scholars in China are engaged in research on the development and upgrading of Chinese industrial clusters in the GVC. *The Transition and Upgrading of Local Industrial Clusters in the Global Value Chain* by Zhang (2006) is the first book in China on how local industrial clusters climb up the global value chain and participate in global competition. There are three types of driving mechanism in global industrial transfer and division of labour: producer-driven, buyer-driven and a hybrid form. The formation and upgrading paths of industrial clusters differ under the above driving mechanisms. The upgrading of local industrial clusters is also constrained by three models of chain governance: a market system, a hierarchical system and a quasi-hierarchical system. After this discussion, he creates one spatial hierarchical system of local industrial clusters in the GVC, illustrated by the example of Shanghai's radiation over Zhejiang province and Jiangsu province. According to his ideas, most of the industries in China are still at the lower end of value chain. Since the industrial upgrading is a dynamic process, the innovation corresponding to the present development stage in China will promote the upgrading of local industrial clusters. The case study of Zhejiang Pinghu Optical and Electrical cluster shows that the small-scale clustered firms around one leading firm have the function of applying technological innovation into the whole industrial organisation, leading to the eventual upgrading of the entire industrial cluster (Yang, 2007).

Subsidiaries of multinational corporations have played an important role in the formation of manufacturing clusters in Guangdong province. The relevant data indicate that there is an agglomeration of firms in the clothing, leather and related products and furniture manufacturing industries. The investment seeking for low-cost locations has led to the formation of industrial clusters in Guangdong, which, in turn, has resulted in the inflow of more investment in these labour-intensive sectors (Beule,2005). Wang

(2006) argues that the development of supporting industries is playing an important role in creating linkages between foreign multinational firms and the clustered firms in China thereby improving the competitiveness of downstream industries there. The research shows that the adjustments of international strategies by multinational firms have great impacts on their organisational structures. The stronger selectivity of supply chains has forged linkages between their subsidiaries in developing countries and parent firms in the developed countries. Yang and Liao (2006) compared the emergence and patterns of industrial clustering in the manufacturing sector of Dongguan City, Guangdong Province, which has enjoyed substantial investment from Hong Kong and Taiwan. They argued that the investment from Hong Kong and Taiwan has demonstrated distinctive development trajectories in terms of production systems, technological upgrading and the embeddedness to the local economy. The case study of Hong Kong and Taiwan enterprises in Dongguan City also suggests that the cultural affinity and kin relations still affect the embeddedness of overseas Chinese investment in the mainland, even though its role has been changing in the context of globalisation and local economic restructuring.

Most scholars in China argue that the definition of organisational proximity goes beyond simple geographical proximity and they emphasize the integration of diverse production activities along the value chain. The integration can help reduce transactions costs, create local capabilities and generate a shared vision of business growth and potential from the various possible technological trajectories. Global economic integration indicates that the access to international markets is not achieved merely by designing, making and marketing new products alone for many industries. Instead, it involves gaining entry into international design, production and marketing networks that are composed of many different firms.

2.7.5 Networks and the development of industrial clusters

Networks are the means by which firms in one area are developed into industrial

clusters. The principal task of networks is to gather and spread information. Networks have been identified as the crucial elements within the local production system. Zhu and Gai (2001) discovered that traditional industrial clusters, with local industrial networks established on the basis of social networks in certain areas, possess strong learning capacities and exhibit similar features to those in developed countries. Gai (2002) discussed the development mechanism of industrial clusters from the perspective of regional innovation networks with the case study of Zhongguanchun (ZGC). Cai *et al.* (2006) have also studied the relationship between the inter-regional expansion of firms and the upgrading of industrial clusters using the same perspective. Network resources provide advantages for industrial clusters, but the evolution of network resources can also bring about a 'lock-in' effect and obstruct the development of the regional economy. Using the analytical framework of social networks, they argue that the inter-regional expansion of clustered firms will change and extend the network structure of the industrial cluster. The transformation of the network structure will promote the improvement of network resources for clustered firms, enhance the position of industrial clusters in the global production network and eventually realize the upgrading of industrial clusters. Cai and Wu (2006) have also re-examined the logic of the competitive advantage of industrial clusters coupled with the evolution of the business environment, analysing the relationships between the network structure, the dynamic network capabilities and competitive advantage of industrial clusters from the inter-firm network perspective and provide a structuralist cluster theory based on micro-data. The functioning mechanism of the network structure and associated dynamic network capabilities in improving the competitive advantages of industrial clusters was tested with four years' empirical data from nine textile clusters in Zhejiang Province using social networks analysis, providing a coherent understanding of the structural functions of the inter-firm network as well as the formation and evolution of industrial clusters.

Li (2006) has analyzed relationships between the boundaryless enterprise, innovations associated with the network organisation and the governance of industrial clusters. While industrial clusters have their own unique competitive advantages, they also have some potential risks. The organisational structure of industrial clusters depends upon the interactive relationship among clustered firms. It is important to study the evolution of the enterprise itself in the course of the dynamic evolution of industrial clusters. Creating boundaryless organisations makes the industrial cluster more flexible and adaptable to changes in the external environment, leading to organisational innovation and allowing the cluster to further adapt to changes in the knowledge economy.

Yang *et al.* (2006) have explored the impacts of the network positions of clustered firms and network structure on cluster innovation through an empirical study of the IT cluster in Suzhou, Jiangsu Province, East China. They go beyond the micro-level analysis of innovation in terms of cluster innovation in their use of a social network analysis approach. Wang (2006) has conducted research on the technological innovation of clustered firms, network embeddedness and cluster upgrading in Chinese manufacturing industry. He argues that improvements in the technological innovation capability of domestic clustered firms provide the micro-foundation and basic propelling power for upgrading Chinese manufacturing clusters. Different forms of network embeddedness among the manufacturing clusters provide the foundation stones for supporting different learning modes and gaining different types of knowledge. His research analyzes the technological innovation capacities of domestic clustered firms during the cluster updating process, clarifies the different types of knowledge and learning modes supporting the different technological innovation levels and develops different network embeddedness patterns.

Si *et al.* (2006) have studied the financial services cluster in the Lujiazui area of Shanghai, which consists of a large number of financial firms and supporting intermediary firms. There is both competition and cooperation within this highly agglomerating industrial grouping. The research suggests that the inter-firm network there exhibits more openness than traditional industrial clusters and those horizontal linkages are weak owing to the cluster's short history. They suggest that this financial cluster is still in its initial stage and that its competitiveness can be further enhanced with the further development of the financial industry and better integration of new entrants with local clustered firms.

Path dependence and path creation are regarded as two important paradigms in the development processes of technology and institutions. The transition from path dependence to path creation not only need the appropriate external environment and timing, but also require entrepreneurs in the cluster to integrate external resources with their internal endowments actively, constantly and effectively. The process of path transition can also be divided into four stages including previous accumulation, endogenous gradual gaming, endogenous radical gaming, and exogenous gaming. In terms of industrial clusters, the leading firms usually possess the extraordinary features of path creation while the following firms take up the characteristics of path dependence. Liu *et al.* (2006) have conducted an empirical study of the home appliance cluster in Qingdao and conclude that the development path of this large-firm dominated cluster is heavily influenced by the collective innovation of entrepreneurs in the cluster, including the introduction of new technology and institutional innovation under the firm support of local government. Cultivating indigenous R&D, participating in the formulation of global standards and joining in global industrial associations are all of vital importance for industrial clusters to realize successful path creation.

2.8 Conclusion

In the past decade, the research on industrial clusters has emphasized the role of innovation (particularly the knowledge and learning processes), social institutions, competitive advantage and local-global linkages. Academic circles in China have developed cluster theory principally on the basis of the experience of developed countries and concentrate on the research on how to promote regional economic developments through nurturing the most innovative high-tech clusters, the establishment of industrial parks by creating all the necessary backward and forward linkages of firms, and the upgrading the industrial clusters in the traditional industries along the global value chain. Some research has attached the importance to the local institutions and the role of government. However, their analysis is mainly on one dimension. My research tries to adopt the multi-dimensional approach to examine the role of networks, entrepreneurship and local government as governance mechanisms and policy mediators in the process of cluster development.

Currently, much research has been done on how to design, implement and assess cluster policies in China, ignoring the fact that the formation and development of industrial clusters have resulted from the interaction between major institutional forces. It remains unclear how clustered firms will respond and how they will perform in a society where the institutional environment continues to evolve. The business system in China is the outcome of interaction between the exogenous international institutions such as WTO's regulations, the exogenous macro-level institutions such as financial deregulation, and the endogenous micro-level institutions such as private contracting. The evolution of micro-level institutions such as the public-private cooperation in the business sector induces demand for more effective macro-level institution while international institutional change affects both the macro-level and micro-level institutions. The research tends to fill the gap through looking into the typical institutional factors leading to the development and upgrading of industrial clusters and has a better understanding of the changing nature of the public-private interface in the process of cluster development in China.

Chapter 3 Research Methodology and Methods

3.1 Introduction

The research design aims at building up a theoretical framework for analyzing dynamic changes in the public-private interface associated with industrial clusters in China and providing a scientific approach to conduct the investigation. The former is concerned with the theoretical issues of the subject while the latter considers the methodological problems of the research.

3.2 Philosophical perspectives

3.2.1 Epistemology and ontology

An epistemological issue concerns the question of what is (or should be) regarded as acceptable knowledge in a discipline. A particularly central issue in this context is the question of whether or not the social world can and should be studied according to the same principles, procedures, and ethos as the natural sciences. The position that affirms the importance of imitating the natural sciences is invariably associated with an epistemological position known as positivism (Alan, 2007). The term 'positivism' was coined by the nineteenth-century French philosopher and sociologist Auguste Comte (1798-1857). As an approach in the philosophy of science, positivism is characterized mainly by an insistence that science can deal only with observable entities known directly to experience and is opposed to metaphysical speculation without concrete evidence. The positivist aims to construct general laws or theories which express relationships between phenomena. Observation and experiment will then show that the phenomena are or are not related in the predicted way; explanation of phenomena consists in showing that they are instances of the general laws or regularities (Abercrombie, 2000). The world assumed by positivism can be a set of interacting variables. Identifying relationships between variables is achieved by experimental research designs, which enable some variables to be isolated and their interactions observed, and/or by correlational methods that permit statistical

associations to be uncovered (Thomas, 2004).

‘Interpretivism’ is a contrasting epistemology to positivism. It is predicated upon the view that a strategy is required that respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action. The subject matter of the social sciences-people and their institutions-is fundamentally different from that of the natural sciences. The study of the social world therefore requires a different logic of research procedure, one that reflects the distinctiveness of humans against the natural order. Its intellectual heritage includes Weber’s notion of *Verstehen*, the hermeneutic-phenomenological tradition and symbolic interactionism (Alan, 2007).

Questions of social ontology are concerned with the nature of social entities. The central point of orientation here is the question of whether social entities that have a reality should be considered objective entities that have a reality external to social actors, or whether they can and should be considered social constructions built up from the perceptions and actions of social actors. These positions are respectively referred to as objectivism and constructionism. Objectivism is an ontological position that asserts that social phenomena and their meanings have an existence that is independent of social actors (Alan, 2007). According to constructionism, the world of lived reality and situation-specific meanings that constitute the general object of investigation is thought to be constructed by social actors. That is, particular actors, in particular places, at particular times, fashion meaning out of events and phenomena through prolonged, complex, processes of social interaction involving history, language and action (Schwandt, 1994).

When it comes to the theories of economic transition, there is a trade-off between positivism and interpretivism. Neo-classical economics attaches much importance to positivism and objectivism. It mainly creates and develops economic theories by establishing and testing economic models. An economic model usually consists of

assumptions and implications. The relationship between the assumptions and implications is mainly explored through a process of logical deduction. The implications are used to develop a theory about how the real world works and make predictions about how the real world will be going. The predictions are usually tested against the quantitative data using econometric software. If the predictions fail to be in accordance with the data, the theory will be examined to see if it is making the most plausible predictions. If it is not, a better theory will be developed and tested. Neo-classical theories can bring about unambiguous results at the cost of a high level of abstraction.

However, in order to analyze economic transition in China, research must be elaborated in a framework allowing for the fact that China is transforming itself from a centrally planned to a market-oriented economy ‘with Chinese characteristics’, a process which involves uncertainty, changes, and structural transformations. Nowadays, China is still undergoing highly dynamic and fundamental economic and social changes, which are having significant impacts on the evolution of the business and political sectors. Many unconventional institutional norms, routines and processes embedded in the transitional processes have generated the unique transitional path in China. This research prefers the interpretivist to the positivist approach because the former allows us not only to analyze the success of China’s transition, but also to highlight the problems and challenges that lie ahead through examining the activities, behaviours and interactions among individuals, organisations and government. Instead of adopting the theories and econometric skills of neo-classical economics, a new paradigm for the study of economic transition and social change can be developed.

3.2.2 An institutional perspective

An institutional rather than neo-classical approach will be used to analyze dynamic changes in the public-private interface associated with the textile and clothing industrial clusters in contemporary China in transition. As neo-classical approaches concentrate on economic issues within a given institutional environment, they cannot

thoroughly comprehend transitional economies undergoing fundamental and diverse institutional change. Once it is accepted that an analysis of transitional processes must take account of institutional change and uncertainty, the institutional approach is an obvious candidate to choose.

Institutional theories deal with institutions, uncertainty and processes in divergent ways. The well-known distinction of institutional theories lies in the old institutionalism and New Institutional Economics (NIE). The old institutionalism was predominant in the first half of the 20th century and represented by Thorstein Veblen (1898), John Commons (1934) and Wesley Mitchell (1937). The old institutionalists preferred inductive theorizing and demonstrated the similarities to the German Historical Schools. They have been dismissed as atheoretical and descriptive by mainstream neo-classical economists who have attached more importance to deductive reasoning. However, institutionalists have witnessed a modest renaissance in the late 1990s.

The NIE can be divided into two broad schools. The first school concentrates on the choice of governance structures for private actors under an institutional environment, which is assumed to be given. It is concerned with investigating the conditions within which exchange will be secured at least cost through the market and the conditions within which exchange will be secured within organisations. The analytic tradition was initiated by Coase (1937) and reinvigorated by Williamson (1985). The simple dichotomy between firms and the market has been transformed into a continuum through fine-grained governance structures such as long-term contracts. The second school does not take the institutional environment as given, but investigates the effects that various institutional environments have on economic performance and development as well as explaining the change of the institutional environment over time. The representatives of the second school include Douglas North (economic historian), Posner (law and economics), Schotter (game theorist) and Nelson (organisational economist).

The NIE adds a healthy dose of realism to the standard assumptions of microeconomic theory. Individuals attempt to maximize their behaviour over stable and consistent preference orderings. Institutional economists argue that they do so in the face of cognitive limits, incomplete information and difficulties in monitoring and enforcing agreements. Institutions arise and persist when they confer benefits greater than the transaction costs incurred in creating and sustaining them. The NIE has also advanced a basic concept of transaction costs as the fundamental cause of institutional change, which is further developed in the property rights school (Coase, 1960; Cheung, 1983; Williamson, 1985; North, 1990).

Hayami and Ruttan (1984) argue that the demand for institutional change results from technological change, factor endowments and production requirements while the supply of institutional change is determined by the cost of gaining a consensus within the whole society, which, in turn, depends on the power structure of vested interest groups. Arthur's theory of self-reinforcing mechanisms illustrates the process of institutional change (Arthur, 1989). In the theory of self-reinforcing mechanisms, Arthur argues for four types of mechanism, which are (i) large set-up or fixed costs, which give the advantage of falling unit costs as output increases; (ii) learning effects, which improve products or lower their costs as their prevalence increases; (iii) coordination effects, which confer advantages to cooperation with other economic agents taking similar action; and (iv) adaptive expectations, where anticipation of market changes can be reinforced by agents' beliefs. The consequence of these self-reinforcing mechanisms is characterized by four properties: (i) multiple equilibrium- a number of solutions are possible and the outcome is indeterminate; (ii) possible inefficiencies- a technology that is inherently better than another loses out because of bad luck in gaining adherence;(iii) lock-in - once reached, a solution is difficult to exit from; (iv) path dependence- the consequence of small events and chanced circumstances can determine solutions that, once they prevail, lead one to a particular path (Arthur, 1988). This theory has influenced the studies of institutional change both in economic and sociological approaches.

North (1990) has provided a theoretical paradigm to study institutional change. According to North, institutions are rules of the game. There are millions of games that govern our social, political and economic life and interact in complex ways to affect economic performance. The aim of members of organisations is to improve their chances in the game. For this purpose, they may wish to change the rules to their own advantage. But, even if they succeed, institutional change is likely to be marginal since there will be few groups with sufficient bargaining power vis-a-vis others to bend institutions in their favour. While formal institutions normally change marginally, they can still be replaced overnight. Informal institutions, however, always tend to change only marginally since norms and values tend to be remarkably stable. When decisions do not depend on the past or on learning, the concept of development paths is not useful. However, when information is incomplete or there is uncertainty, development paths are important. When these paths vary, decisions can be different even if circumstances are otherwise similar. The concept of path dependency is not deterministic.

Since the theories of institutional change proposed by Hayami and Ruttan (1984) and North (1990), were mainly developed within developed economies, some of their viewpoints fail to accord with the institutional evolution of the Chinese economy in transition. Therefore, some Chinese scholars have developed institutional theory in the context of economic evolution in China. Lin (1989) uses the concepts of 'induced institutional change' and 'imposed institutional change'. Because of limited human rationality and the free-rider problem, the supply of institutions caused by induced institutional change fails to reach the social optimal level and the government has to take advantage of imposed institutional change to remedy this. Yang (1993) distinguishes between supply-dominant and demand-induced institutional change. Supply-dominant institutional change is enforced by the government on a top-down basis. Additionally he argues for a theory of institutional change involving three stages: (i) supply dominant, (ii) intermediate diffusion and (iii) demand induced. He argues that China is currently in the stage of intermediate diffusion and will not reach

the demand-induced stage until enterprises have the capacity to bear the costs of institutional innovation. Qian (2000) explores Chinese economic transition within the framework of regional decentralization. Huang (1999) argues for a theory of agents' roles changing constantly in the course of institutional change. Zhou (2000) makes use of Hayek's theory of dualism and draws the conclusion that institutional evolution in China is, in fact, an evolutionary process involving conflicts and coordination between internal and external rules and that those internal rules play a critical role in the formation of social order.

Industrial agglomeration has been strongly connected to the following four factors: institutions, technology, geographical factors and historical events (Figure 3.1). This research focuses principally on the unique institutional factors that have contributed to the success of industrial clusters in China. It is carried out within a New Institutional Economics Approach, giving due weight to the institutional change in economic transition.

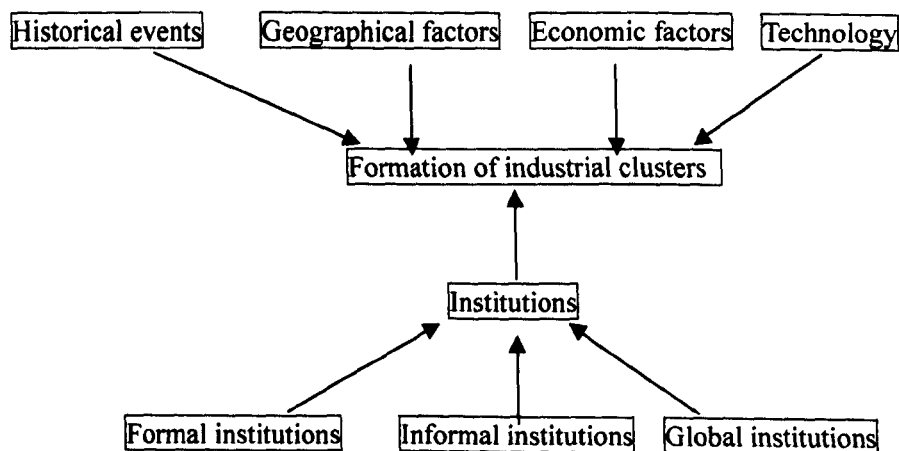


Figure 3.1 Factors affecting the formation of industrial clusters

Source: Compiled by the author.

3.3 Methodological choices and research design

Given the abstract nature of the theoretical framework of the subject, it is crucial to find the most appropriate way to carry out empirical study. The starting point for that

is how to cope with the nature of research problems. The holistic approach 'takes as its problem the nature of a total system rather than of a particular process within the situation' (Weiss, 1968). In holistic research, the product of the research aims not at the testing of a set of hypotheses but rather at the discovery of a new patterning organisation, institution or system. In other words, holistic research is essentially hypothesis generating rather than hypothesis testing (Becker *et al.*, 1961). The method allows discovery of the variables themselves as well as the relationships between variables. The research aims at empirical generalization which is a 'statement of relationship that is constructed by first observing the existence of a relationship in one or a few instances, and then in generalizing to say that the observed relationship holds in all cases or most cases' (Bailey, 1987). Essentially, it is a grounded methodology using an analytically inductive approach.

For Glaser and Strauss (1967), grounded theory includes the following components: simultaneous involvement in data collection and analysis; constructing analytic codes and categories from data, not from preconceived logically deduced hypotheses; using the constant comparative method, which involves making comparisons during each stage of the analysis; advancing theory development during each step of data collection and analysis; memo-writing to elaborate categories, specifying their properties, defining relationships between categories and identifying gaps; sampling aimed toward theory construction, not for population representativeness; conducting the literature review after developing an independent analysis. According to Glaser and Strauss (1967), systematic qualitative analysis has its own logic and can generate new theory constructing abstract theoretical explanations of social processes, without the need for any strong *a priori* theory. When born from reasoned reflections and principled convictions, a grounded theory that conceptualizes and conveys what is meaningful about a substantive area can make a valuable contribution. Add aesthetic merit and analytic impact, and then its influence may spread to larger audiences (Charmaz, 2006).

The dynamic development of industrial clusters in contemporary China in transition is complex and multidimensional and cannot be assessed by a single criterion or explained by one single theory from any particular discipline. The best way is to study it in a pragmatic manner; not starting from any *a priori* theory with the intention of verifying it, but by discovering theory from systematically gathered and analyzed data. To conduct holistic research, a qualitative method is more suitable than a quantitative one. Weiss argues that 'qualitative data are apt to be superior to quantitative data in density of information, vividness and clarity of meaning- characteristics more important, in holistic work, than precision and reproducibility' (Weiss, 1968). This is due to the fact that holistic assessment requires data that are concerned with virtually every important issue, which may emerge from the system and this demand for density leads to the case study or small sample study as a preferred research design. The case study method can involve the use of unstructured or partly structured interviews, participant observation and document study. In other words, it is a form of triangulation in terms of the use of multiple methods in research (Denzin, 1978; Jick, 1979). The purpose of using multiple methods is to achieve a particularly good understanding of the system in order to gain a holistic view.

In qualitative research, the important question is how to assess the credibility of qualitative data. Apart from the usual criteria (evidence for important assertions, correspondence to facts the reader already knows, internal consistency), many authors emphasize the effects of sympathetic understanding (Glaser *et al.*, 1965; Weiss, 1968). Qualitative data can bring the reader to visualize the situation in its own terms and elicit an empathic response. 'A theory has been accepted not because it has been demonstrated but rather because it is appealing' (Weiss, 1968). However, the problem of qualitative data also arises from the fact that it might be appealing but might not compel. This shortcoming can be compensated for by conducting similar qualitative research or by further quantitative studies. Nevertheless, the holistic approach using qualitative methods has a unique value in conducting a certain type of research. It aims at perceiving all-important issues, discovering variables and relationship

between variables and, eventually, generating hypotheses.

To collect the necessary data, this research uses the case study method relying principally upon semi-structured interviews. Robson (2002) defines a case study as ‘a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence’. The reason for choosing a case study method based primarily on semi-structured interviews is that the research has to deal with a complex set of processes over time. The complexity is caused by events taking place at both institutional and organisational levels in the course of economic transition. In terms of the time scale, the study covers the emergence and growth of textile and clothing clusters in China.

The case study method has two major advantages. Firstly, it is flexible because the interviewer can probe for more specific answers and can repeat a question when the response indicates that the respondent misunderstood. A more important point is that different questions are appropriate to different interviewees and the method allows the interviewer to decide which questions are appropriate to whom. Secondly, it can be used to investigate multi-dimensional issues: topics and hypotheses are selected in advance, but actual questions are not specified in advance. The interviewer is able to ask questions ‘tailored to probe avenues of exploration that seem to yield information relevant for the hypothesis or topic being studied’ (Bailey, 1987).

The semi-structured interview is particularly suitable for Chinese managers since it has been part of the daily routine for Chinese managers to participate in long discussions with their colleagues or leaders. This is regarded as one of the most important approaches to communication. Through face-to-face communication, it is easier in China to find common ground, to break down barriers between participants such as social status and ages and to avoid any risks involved in written languages, especially when one needs to express controversial issues. A semi-structured

interview is closer to this approach and is readily accepted. The obvious disadvantages of this method are that it is time-consuming and more expensive, which makes the sample smaller. An even more important obstacle to using this method is the necessity of sophisticated communication skills.

3.4 The research methods: the pilot study

3.4.1 The purpose of the pilot study

When I started my research in 2005, there was a new round of privatization in the Chinese economy and Management Buy-Out (MBO) was used as the principal means of privatizing the State-Owned Enterprises (SOEs). As the reform deepened, there were widespread debates on the use of MBO as a means of privatising SOEs both in academic circles and within the society at large. Curious about privatization, institutional reform and effective regulation in China, scholars were concerned to discover whether there were any other better and more just alternatives to the use of MBOs in the privatisation process. At the same time, the scholars became increasingly drawn to the study of the rapid development of the private sector in China more generally.

In its reform from a centrally planned to a market economy over the past two decades, China has developed from a rural agricultural society to a modern industrial one. In the 1980s and 1990s, the dynamism of China's economic growth came mainly from the collectively owned TVEs (Oi, 1999), but since the late 1990s, the private enterprise has become an increasingly important driving force. In 2005, the Chinese government opened more sectors to private investors to include infrastructure construction, financial services and even the defence industry, previously monopolized by state firms, enabling the private sector to exert greater influence on economic transition in China. As a result, private enterprises participated in the restructuring of SOEs and entered previously monopolized sectors in this new phase of privatisation.

At the start of China's opening to the outside world, the development of the private economy was constrained by the ideology of a centrally planned economy (Tian, 2000). However, an amendment to the Chinese Constitution stipulated that the private economy was an integral part of the socialist market economy, creating a favourable institutional environment for the further development of private enterprise in 1999. As a result, the previously restrained demand for institutional innovation by the private sector was released.

The synthetic fibre industry was chosen for my pilot study. The industry is in the middle of an industrial chain with the oil industry upstream and the textile industry downstream. In China, the oil industry is still a state monopoly. In recent years, the pace of private firms entering the petrochemical industry and moving upstream has accelerated with the rapid development of the textile industry and the considerable increase of textile exports to the world market after China's entry into the WTO. Private enterprises have dominated downstream of the synthetic fibre industry but upstream the industry is still controlled by the state-owned China Petrochemical Corporation (CPC), China National Petroleum Corporation (CNPC) and China National Offshore Oil Corporation (CNOOC). However, because of the restrictions of raw materials, private textile enterprises were forced to choose the path of combining the production of polyester and textiles. They usually initiated a programme of producing polyester first and then producing the upstream material, terephthalic acid (PTA). The purpose of my pilot study was to explore the relationship between institutional change and economic development in contemporary China; to identify the likely institutional, social and political implications of expanding the private sector there; specifically, to examine how the dynamic change of the public-private interface would be affected in the new wave of privatisation and what outcomes would result. The pilot study was also designed to test the feasibility of my research questions, specify my research questions further, establish relationships with sample private firms for the main study and keep updated with the latest economic transformation in China.

3.4.2 Operationalising the pilot study

I made the pilot study in Zhejiang province in the summer of 2005 principally in the cities of Shaoxing and Ningbo. The province is famous for the rapid development of the private economy and the synthetic fibre industry has been one of the backbone industries in the province.

On the train to Ningbo to visit the Youngor Group Co., Ltd, I observed for the first time the China Light Textile City which had grown up in the neighbourhood of a large scale clustering of synthetic fibre firms in Shaoxing City on the way. When in Ningbo, I visited the Ningbo Youngor Group Co., Ltd with the help of the deputy director of the international trading department and an associate professor of the Party School of CPC Ningbo Municipal Committee. I was shown around Youngor International Garments City, which was composed of a modern office building and a series of large-scale workshops involved in weaving, dyeing, clothing-making and distribution. The employees were operating the first-class modern specialist equipments for design, slope-making, feeding and auto-cutting made in France, all kinds of ready-made clothes hanging systems and specialised finishing and binding machines made in Germany and post-weaving trimmers made in Italy. The technological level and working environment were much more advanced in comparison with the state-owned workshops I had visited before. I interviewed the deputy director of the international trading department in her office about the development of the Youngor group, entrepreneurship, business strategy and the impacts of trade barriers on Youngor's exports. I also interviewed Zhong Leiming, board member and chief of the administrative office, Youngor Group. He analyzed the changing patterns of competition on the domestic market of China, the diversification strategy of the group and the internationalisation of business. In Ningbo, I also visited Yinzhou District, where I observed the agglomeration of small/ medium-sized and large-scale clothing firms, clothing accessory firms, universities and test centres.

In Shaoxing, I visited Zhejiang Hengyi Group Co., Ltd and Zhejiang Hualian

Sunshine Petro-chemical Co. Ltd, both involved in the production of terephthalic acid (PTA) and interviewed the board members and managers in the production divisions of both companies about their strategic alliances with SOEs, the whole process of obtaining the license from the central government, their relationship with the local government, the horizontal and vertical cooperation with other enterprises in the cluster, the competition against the domestic joint ventures and foreign producers and so on.

3.4.3 Pilot findings

After the mid-1990s, the textile and clothing clusters of Zhejiang Province developed to such an extent that China has been one of the largest producers and exporters of textile and clothing products in the world since the mid-1990s (CNTAC, 2005). The rapid expansion of China's exports of textiles and clothing products was closely linked to the phenomenon of industrial clustering of textiles and clothing firms at the Yangtze River Delta, which had important economic and social implications with the creation of a large number of enterprises, entrepreneurs and employment. The Youngor Group, the Hengyi Group Co., Ltd and Hualian Sunshine Petro-chemical Co. Ltd had all developed into important players in the local textile and clothing clusters in the 1990s.

It was clear from the pilot research that both the success of the Youngor Group in Ningbo and the implementation of the PTA programmes by the Hengyi Group Co., Ltd and Hualian Sunshine Petro-chemical Co. Ltd in Shaoxing relied on the strong support of the respective local governments and the formation of strategic alliances with SOEs. The synthetic fibre firms in Shaoxing were still facing many administrative barriers in the course of moving from labour-intensive downstream industry to capital-intensive upstream industry. Only after forming strategic alliances with SOEs could private firms produce the upstream materials such as PTA.

My initial research suggested that the interface between the public and private sectors

within each synthetic fibre cluster was clearly very significant in the development of the clustered firms within them, that this interface was subject to frequent and dynamic change over time and that such changes involved new institutional arrangements and structures which created new forms of path dependence. It was as a result of these conclusions that I decided to make the public-private interface within the textile and clothing clusters in Zhejiang the principal focus of my further research.

3.5 The research methods: the main study

3.5.1 Site selection

China, the world's largest producer and exporter of textiles and clothing, accounts for one-fifth of the world's total production. According to China National Textile & Clothing Council (CNTAC), 133 textile and clothing clusters were developed in 57 cities and 74 towns in China in 2007, mainly located in the coastal provinces, including Zhejiang, Jiangsu, Guangdong, Fujian, Shandong and Hebei (Table 3.1). Two-thirds of the textile clusters are located in Zhejiang and Jiangsu Province while one-third of the clothing clusters are located in Guangdong province, one-fifth in Zhejiang.

Both Zhejiang and Jiangsu provinces are located in the Yangtze River Delta and their economic integration has been further strengthened in the new century. The 'Wenzhou model' and the 'Sunan model' converged gradually at the end of the 1990s. The development of textile and clothing clusters in Jiangsu province follows the same route as those in Ningbo City and Shaoxing City of Zhejiang province. The textile and clothing industry in Guangdong province has been mainly driven by foreign direct investment once China adopted its open-door policy. In particular, many companies in Hong Kong have shifted their operations to Guangdong in the past two decades to make use of the cheaper production and labour costs. However, as the textile and clothing clusters in China have become one of the main sourcing bases for textile and clothing that are sold in the global market, the industrial clusters have also become more export-oriented and participated in Original Equipment Manufacture (OEM)

actively. Therefore, the textile and clothing clusters in Zhejiang province are typical of such clusters in China and suitable for the case studies in the research.

Table 3.1 The major textile and clothing clusters in China

Province	Cities/Counties/Towns	Products
Zhejiang Province	Ningbo City	Men's, women's, leisure, children's wear, knitted garments
	Shaoxing City	Light textiles, men's, women's, leisurewear
	Yiwu City	Socks, non-woven clothings
	Pinghu City	Work suits, leisure wear, cotton jackets, artificial leather wear, raincoats, knitwear, women's wear and down clothing mainly for exports
	Shengzhou City	Neckties
	Zhili Town	Children's wear
	Tatan Town	Socks
Jiangsu Province	Wujiang City	Synthetic fibre, men's, women's, leisurewear, silk products
	Changshu City	Leisurewear, knitted sweater, feather and down
	Jintan City	men's, women's, leisurewear mainly for exports
Guangdong Province	Xiqiao City	Light textile, textile materials and clothing accessories
	Shaxi Town	Leisurewear
	Xintang	Denim wear

Source: National Textile & Clothing Council (2007) *China's Textile Industry Clusters Development Report*, China Textile Press.

3.5.2 The research sites

In-depth case studies were conducted in Zhejiang province in the summer of 2006 and in the spring of 2007. The province is famous for the rapid development of the private economy and the textile industry has been one of the backbone industries in the province. The research has used purposive (non-probability) sampling and three critical case studies, namely, the Ningbo clothing cluster, the Shaoxing textile cluster

and the Yiwu socks cluster, were chosen to reflect the relationship between changes in the public-private interface and the dynamic development of industrial clusters in China (Figure 3.1).

I built up and maintained good relations (*guanxi*) with the sample companies throughout the research, gaining consistent and contemporary information on the textile clusters in Zhejiang Province. In view of the size of the Chinese economy, it is impossible to undertake a comprehensive representative survey with limited resources. Therefore, in order to take a snapshot of the latest cluster development and draw policy conclusions, I adopted a rapid assessment approach for my fieldwork and mainly analyzed textile clusters in Zhejiang province that could yield usable information and analytical insights within a limited time frame. It is to be hoped that future researchers with greater resources can use the insights and ideas arising from my research when extending the study to cover more locations and other segments.

3.5.3 The interviews and participants

As expressed above, the formal fieldwork was conducted in the summer of 2006 and in the spring of 2007. Each of these studies lasted about two months. The first-hand data and information were collected mainly in Zhejiang province. I interviewed officials from different government agencies in Beijing and Zhejiang province, including the State Development and Reform Commission (SDRC) in Beijing, the Economic & Trade Commission of Zhejiang Province and the Municipal Governments of Ningbo, Shaoxing, and Yiwu, these being the key state, provincial and city level government organisations in charge of industrial and financial policies concerning the development of industrial clusters in Zhejiang Province.

I conducted semi-structured, in-depth interviews with Chief Executive Officers (CEOs) and managers of fifty-nine clustered firms (including two listed companies of specialized wholesale markets) within three textile clusters in Zhejiang province including fifteen clothing firms in Ningbo, twelve synthetic fibre firms in Shaoxing

and thirty-two sock firms in Yiwu on their histories, businesses, competition, innovations, corporate strategies, inter-firm alliances, local-global linkages and their viewpoints on the role, functions and impacts of local and central government.

I also interviewed the board members of Yiwu China Commodities City and Zhejiang China Light Textile Industrial City - both specialised wholesale markets - on their latest policies to support clustered firms, both markets being listed on the Shanghai Stock Exchange and currently playing a critical role in promoting the rapid development of textile clusters locally.

In addition to the interviews, I also accumulated notes on meetings with other informants, including academics at Zhejiang University and Shaoxing University, middle-level managers, and ordinary workers. Some of the information from these sources is used in the thesis.

3.6 Data analysis

Qualitative analysis has been conducted in the research. As explained above, grounded theory and analytical induction are the two principal inductively based analytical strategies for qualitative analysis. Analytic induction was adopted to analyze the qualitative data collected from the sample enterprises. Johnson (1998) defines analytic induction as ‘the intensive examination of a strategically selected number of cases so as to empirically establish the causes of a specific phenomenon.

Following the procedures of grounded theory, I used initial coding, focused coding and axial coding in analyzing the data. Initial coding, which involves naming each word, line or segment of data, was provisional because I aimed to remain open to other analytic possibilities and create codes that best fit the data. The data that I collected were disaggregated into conceptual units and provided with a label. Initial codes were provisional, comparative, and grounded in the data. They indicated how to

select, separate and sort data to begin an analytic account of them. The raw notes made 'in the field' first were converted into a write-up. Then the qualitative data were coded and analytical notes (memos) were composed to reach a conceptual level. Fieldwork files were used to sort my data.

Focused coding is the second major stage of coding. It means using the most significant and/or frequent earlier codes to check the large amounts of data carefully. It requires decisions about which initial codes make the most analytic sense to categorize my data incisively and completely. Axial coding relates categories to subcategories, specifies the properties and dimensions of a category, and reassembles the data I have fractured during initial coding to give coherence to the emerging analysis (Charmaz, 2006). Strauss (1987) views axial coding as building 'a dense texture of relationships around the 'axis' of a category.' I looked for relationships between the categories of data emerging from open coding. The interim summary was written to highlight what still needed to be found out in the course of fieldwork. The data being collected were constantly compared with the concepts and categories being used so as to aid the process of developing an emerging theory thoroughly grounded in the data.

3.7 Conclusion

The research makes use of direct observation, semi-structured interviews, case study and documentary research methods in the fieldwork. The theory has been mainly developed on the basis of observation and interview evidence. The perception of 'co-evolution' theory between the public sector and the private sector will be waiting for the test with the collection of more firm-level data in the textile and clothing clusters in Zhejiang province in the future.

Apart from the normal difficulties occurring in organising an interview, such as the difficulty of finding the right people, obtaining permission, making appointments and talking openly with Chinese managers and officials, it is necessary to persuade them that my research is valuable for something important, such as policy-making in the macro-economy or specially important training programmes, which may not necessarily be of direct benefit to their own company or themselves. If convinced, they are more likely to contribute as much as possible. They will not simply believe an official letter or statement; they need to assess your position, experience, and communication skills before speaking openly and deeply. If not convinced, the interview is likely to be superficial with few or no new discoveries. The other way of doing it is to find friends or acquaintances to collect data, the so-called '*guanxi*' network.

Throughout the fieldwork, I tried to build up '*Guanxi*' (networking) and take advantage of '*mianzi*' (face and favour) so as to maintain and strengthen '*Guanxi*'. On most occasions, it was important for me to know the senior managers or board members beforehand so as to obtain the approval for the study easily. The status of the initial contact person often decided whether the interview could take place. Meanwhile, it was essential to present myself as a friendly non-troublemaker to the interviewees because most entrepreneurs in China do not want to touch on the sensitive political and ideological topics openly while having to establish good relationships with government officials for the rapid expansion of their own business.

The nature of this research was politically sensitive to some extent and it was therefore impossible to tape record interviews. By and large, this phenomenon might account for the cultural and ideological impacts on doing scientific research in China.

Chapter 4 The Development of the Textile and Clothing Clusters in China

4.1 Introduction

China is one of the major players in the textile and clothing industry in the world currently, accounting for 22.3 percent in world exports of textiles and 30.6 percent in world exports of garments in 2006 (Table 4.1 and Table 4.2). More than three quarters of Japan's textile and clothing imports originated from China in 2006. The combined textile imports of the United States, the EU and Canada from China rose by 41 percent in 2005 and increased by a further 15 percent in 2006. Although the introduction of quotas by the United States and the EU in the course of 2005 had a restrictive effect on textiles imports from China, China's overall exports of textiles and clothing to the world increased in 2005 and 2006 by 21 percent and 25 percent respectively (WTO, 2007).

Since the 1980s, the country has attracted textile and clothing manufacturers all over the world to set up production bases because of the abundant supply of cheap and skilled labour. As explained above, the textile and clothing clusters are primarily located in the coastal regions, particularly in the Yangtze River Delta, the Pearl River Delta and Bohai-rim region. Hundreds of textile and clothing manufacturers have clustered together in each of these localities. Firms of supporting industries are also located in the same region. The specialised wholesale markets serve as important trading platforms for textile and clothing firms in the above regions. In a globalizing world where private firms in China have to compete internationally, the textile and clothing clusters are playing an important role in supporting firms' competitiveness by increasing productivity and encouraging innovation. This chapter reviews the historic development of textile and clothing clusters, and then elaborates the impacts of international institutional change on them.

Table 4.1 Leading Exporters of Textiles 2006 (Billion dollars and percentage)

Exporters	Value	Share in world exports			
	2006	1980	1990	2000	2006
European Union (25)	71.21	-	-	35.6	32.6
extra-EU (25) exports	24.60	-	-	10.9	11.3
China a	48.68	4.6	6.9	10.2	22.3
Hong Kong, China	13.91	3.2	7.9	8.5	6.4
domestic exports	0.53	1.7	2.1	0.7	0.2
re-exports	13.38	1.6	5.8	7.7	6.1
United States	12.67	6.8	4.8	6.9	5.8
Korea, Republic of	10.11	4.0	5.8	8.0	4.6
Taipei, Chinese	9.76	3.2	5.9	7.5	4.5
India b, c	9.33	2.4	2.1	3.8	4.3
Turkey c	7.59	0.6	1.4	2.3	3.5
Pakistan	7.47	1.6	2.6	2.9	3.4
Japan	6.93	9.3	5.6	4.4	3.2
Indonesia	3.61	0.1	1.2	2.2	1.6
Thailand	2.88	0.6	0.9	1.2	1.3
Canada	2.37	0.6	0.7	1.4	1.1
Mexico a	2.19	0.2	0.7	1.6	1.0
United Arab Emirates c, d	1.89	0.1	0.0	0.8	0.9
Above 15	197.22	-	-	89.6	90.2

Notes: a. Includes significant shipments through processing zones; b. Figures refer to fiscal year; c. Includes Secretariat estimates; d. 2005 instead of 2006.

Source: WTO (2007) International Trade Statistics 2007

Table 4.2 Leading Exporters of Clothing 2006 (Billion dollars and percentage)

	Value	Share in world exports			
	2006	1980	1990	2000	2006
Exporters					
China a	95.4	4.0	8.9	18.2	30.6
European Union (25)	83.4	-	-	26.9	26.8
extra-EU (25) exports	21.9	-	-	6.8	7.0
Hong Kong, China	28.4	12.3	14.2	12.2	9.1
domestic exports	6.7	11.5	8.6	5.0	2.2
re-exports	21.7	0.8	5.7	7.2	7.0
Turkey b	11.9	0.3	3.1	3.3	3.8
India b, c	10.2	1.7	2.3	3.1	3.3
Bangladesh b, c, d	7.8	0.0	0.6	2.1	2.8
Mexico a	6.3	0.0	0.5	4.4	2.0
Indonesia	5.7	0.2	1.5	2.4	1.8
United States	4.9	3.1	2.4	4.4	1.6
Vietnam d	4.8	0.9	1.7
Romania	4.4	...	0.3	1.2	1.4
Thailand	4.3	0.7	2.6	1.9	1.4
Pakistan	3.9	0.3	0.9	1.1	1.3
Morocco a	3.2	0.3	0.7	1.2	1.0
Tunisia b	3.2	0.8	1.0	1.1	1.0
Above 15	256.1	-	-	77.1	82.2

Notes: a. Includes significant shipments through processing zones; b. Figures refer to fiscal year; c. Includes Secretariat estimates; d. 2005 instead of 2006.

Source: WTO (2007) International Trade Statistics 2007

4.2 The development of the textile and clothing industry in China

The textile and clothing industry, one of the backbone industries in China, has played an important part in national industrialisation and export growth after China's adoption of open-door policy in 1978. The production of textiles and clothing is relatively concentrated in the eastern part of China, particularly Zhejiang, Jiangsu, Shandong, Guangdong and Fujian provinces as well as Shanghai. The eastern part of China accounted for 73% of total employment, 82% of turnover, 88% of total exports and more than 90% of FDI in the textiles and clothing sector in China in 2007 (CNTAC, 2007a). Shandong and Jiangsu provinces are relatively rich in cotton production compared with other coastal provinces. The cotton output of Zhejiang province amounted to only 62,000 tons in 1996, 40,000 tons in 2000, 21,000 tons in 2004 and 24,000 in 2007. Guangdong and Fujian provinces do not produce any cotton at all (Table 4.3). However, the textile and garments output in the three provinces has been in the front rank of China. For example, the profits of large-scale textile enterprises and the output of main textile products in Zhejiang province were ranked the first in 2001 (Table 4.4 and Table 4.5). The statistics has shown that the resources are not the critical factor leading to the success of textile and clothing clusters in Zhejiang, Fujian and Guangdong provinces. The critical determinants must lie in location and other institutional factors including the norms, culture, people and behaviour of local government. These typical institutional factors will be explored further in the following chapters.

In the 1980s, the textile and clothing producers from Japan, Hong Kong, Taiwan and South Korea, started to invest heavily in Guangdong province in an attempt to meet the demands of both their domestic markets as well as overseas markets in Western Europe and North America and offset the rising wage costs in their home countries. Subsequently foreign capital flowed steadily to the Yangtze River Delta, including Shanghai, Zhejiang province and Jiangsu province.

Table 4.3 The provincial output of cotton in China from 1996-2007 (Unit: 10,000 tons)

	1996	2000	2004	2007
Beijing	0.3	0.2	0.3	0.2
Tianjin	1.1	0.6	9.5	10.9
Hebei	37.0	22.3	52.2	62.8
Shanxi	9.1	4.4	9.2	11.8
Inner Mongolia	0.0	0.2	0.5	0.2
Liaoning	2.4	0.5	0.3	0.2
Jilin	0.0	0.0	0.1	0.3
Heilongjiang	0.0	0.0	0.0	0.0
Shanghai	0.4	0.2	0.1	0.2
Jiangsu	56.2	24.6	29.1	38.1
Zhejiang	6.2	4.0	2.1	2.4
Anhui	30.1	19.5	24.1	40.8
Fujian	0.0	0.0	0.0	0.0
Jiangxi	11.9	6.3	7.6	9.5
Shandong	47.1	33.9	87.7	102.3
Henan	77.0	70.7	37.7	83.0
Hubei	58.6	28.2	32.5	44.9
Hunan	22.4	17.7	16.3	24.8
Guangdong	0.0	0.0	0.0	0.0
Guangxi	0.1	0.1	0.1	0.1
Hainan	0.0	0.0	0.0	0.0
Chongqing		0.1	0.0	0.0
Sichuan	11.2	7.6	2.5	1.6
Guizhou	0.1	0.1	0.1	0.1
Yunnan	0.1	0.1	0.0	0.0
Tibet	0.0	0.0	0.0	0.0
Shanxi	4.0	2.0	5.3	8.7
Gansu	2.3	4.3	8.7	12.8
Qinghai	0.0	0.0	0.0	0.0
Ningxia	0.0	0.0	0.0	0.0
Xinjiang	99.4	135.4	160.0	218.9

Sources: National Bureau of Statistics of China *China Statistics Yearbook 1996, 2000, 2004, 2006*, Beijing, China Statistics Press.

Table 4.4 The ratio and ranking of main economic indicators of large-scale textile enterprises of Zhejiang province in China

Indicators	2001		1996	
	Ratio in China (%)	Ranking	Ratio in China (%)	Ranking
Number of units	19.3	2	12.1	2
Added-value of industry	15.3	2	11.7	3
Total assets	14.5	2	10.9	3
Sales revenue	20.0	2	12.3	2
Total profits	36.1	1	The whole China suffered from a loss of RMB7.13 billion while Zhejiang province made a profit of RMB 382 million	2
Employees	11.8	3	9.3	3

Source: Zhang, H. (2003) An analysis of present situation, characteristics and competitiveness of textile industry in Zhejiang province. [online] <http://www.stats.gov.cn/tjfx/zfx/decjbdwpc/t20030909_107243.htm> (accessed on 18 June 2008)

Table 4.5 The market share and ranking of Zhejiang textile industry in China in 2001

Textile products	Output in Zhejiang Province	The ratio of Zhejiang province in China (%)	Ranking
Pure synthetic fabrics (100 million metres)	16.32	37.28	1
Printing and dyeing fabrics (100 million metres)	81.84	45.90	1
Raw silk (10,000 tons)	4.43	49.11	1
Silk weaving products (100 million metres)	29.60	63.23	1
Printing and dyeing silk weaving products (100 million metres)	10.80	55.70	1
Cotton weaving products (10,000 tons)	14.72	21.64	1
Non-weaving fabrics (10,000 tons)	2.02	32.48	1
socks (100 million pairs)	82.00	65.00	1

Source: China Textile Industrial Association (2002) *A Study on the Competitiveness of Textile Industry in Zhejiang Province*.

In the mid-1990s, the state-owned textile industry became the worst performing industrial sector in China. Losses in the industry reached USD 1.3 billion in 1996.

Many factors led to the faltering of the industry. Firstly, there was overstocking of textile products and insufficient work within SOEs due to the overcapacity in the 1980s and early 1990s while local governments made blind investments in the repetitive construction of textile plants all over the country. By the mid 1990s, consumers' behaviour in the domestic market started to change as living standards continued to improve. They attached more importance to the quality of textiles and style of clothes rather than having merely enough to wear. Yet more than 1,000 out of an estimated 3,277 state-owned textile enterprises were idle or partially idle in the first quarter of 1996. Secondly, the rapid expansion of spinning capacity led to fierce competition for raw materials among the enterprises throughout the country. The price of cotton increased by thirty-eight percent in 1993 and rose well above the average international price. The price of synthetic fibre was also on the rise, weakening the cost advantages of state-owned textile and clothing firms. Thirdly, many other developing countries competed against China in the low- and medium-grade textile market. Though exports of textile and clothing products were increasing, the net earnings of foreign exchange were decreasing. Moreover, the management and operation of state-owned textile enterprises were inefficient. Under the centrally planned economy, workers could enjoy permanent occupational status and a package of social welfare including housing, health and pensions from their work units. Gradually state-owned textile enterprises found it difficult to compete against joint ventures and private enterprises. The state-owned textile enterprises usually had three times as many employees as the foreign-funded enterprises (FFE), but the productivity per worker was less than half that of their rivals. There was also a widening productivity gap between state-owned and foreign-funded clothing firms. In 1999, the state-owned textile sector alone was making a loss of RMB 2.15 billion (Table 4.6).

The textile industry required structural adjustment because the product line of many state-owned textile and clothing enterprises failed to meet the market demand. The output of low- and medium-quality textile products and clothes was much greater than

that of high-quality products. The ratio of simply processed products was much higher than that of highly processed products. Besides, the technology of state-owned textile enterprises was lagging behind that of foreign-funded enterprises. For example, China had about 41 million cotton spindles in 1995 but 25 percent of them needed to be upgraded. Synthetic fibre equipment also failed to reach international standards. There were 76,000 shuttleless looms, accounting for only 7 percent of the total of 1.1 million. The average ratio in the world's textile industry was 27 percent (Wei *et al.*, 2002).

When the ninth Five-Year Plan started in 1996, both central and local governments started to promote the necessary structural adjustment by creating a new system for the textile and clothing industry. The central government set three targets: to eliminate ten million outdated cotton spindles, to lay off 1.2 million textile workers and to turn the state-owned textile enterprises from losses to profits (Table 4.7). Both central and local government subsidised any enterprises that were prepared to eliminate 10,000 spindles with RMB 3 million. The reserve funds of state-owned banks were the main source of this financial subsidy. Loans with favourable interest rates were offered by local fiscal bureaux and they could be repaid in five to seven years. In addition, the central government imposed strict controls on the production of new cotton spindles. According to the Ninth Five-Year Plan (1996-2000), textile enterprises were forbidden to add new spindles or sell outdated spindles to other enterprises. The manufacture, sales and imports of looms were strictly administered and managed by the issuance of production certificates, purchase certificates and import certificates.

Table 4.6 Comparison of state-owned and foreign-funded textiles and clothing enterprises in 1999

	Enterprises	Employees/ enterprise	Value added (RMB billion)	Sales (RMB billion)	Profits (RMB billion)	Productivity per employee (RMB)
Textiles/SOE	3,011	903	41.70	148.24	-2.15	15,325
Textiles/FFE	2,032	299	23.41	88.30	1.29	38,496
Garments/SOE	792	303	4.04	13.52	0.17	16,833
Garments/FFE	2,864	332	24.52	90.91	2.64	25,800

Notes: The annual sales of enterprises in the table exceeded RMB 5 million. The productivity is measured as value added per employee.

Source: National Bureau of Statistics of China (2000) *China Statistical Yearbook*. Beijing, China Statistics Press.

The international competitiveness of the textile industry in China was further weakened during the Asian financial crisis as a result of fierce competition from countries in South East Asia. In order to encourage textile exports, the Ministry of Commerce raised the rate of export rebates for textiles exports uniformly from nine percent to eleven percent from 1 January 1998. The export of textile machinery and equipment could enjoy full tax rebates and preferential credit guarantee treatment. Meanwhile, non-state-owned textile enterprises started to expand their business rapidly. The share of the state-owned sector declined considerably from 67 percent in 1985 to 30 percent in 2000. Meanwhile, the share of joint-ventures, collective and private firms reached 29 percent, 26 percent and 15 percent respectively in 2000 (Wei *et al.*, 2002). These policies achieved the expected results. By the end of 2000, about 9.4 million cotton spindles and 280,000 wool spindles had been eliminated; 1.4 million textile workers had been laid off and the profits of state-owned textile enterprises had reached RMB6.7 billion (Table 4.7). Although the number of state-owned textile enterprises had been declining in relative terms, it still played an important role in the development of the textile industry.

Table 4.7 The objectives and fulfilment of reforming the state-owned textile enterprises in China during 1996-2000

Targets	Fulfilment by the end of 2000
to eliminate ten million outdated cotton spindles	9.4 million cotton spindles and 280,000 wool spindles were eliminated.
to lay off 1.2 million textile workers	1.4 million people were laid off.
to turn deficits into profits	The profits reached RMB6.7 billion.

Source: Wei, H., Shen, Z. and Wang, M. (2002) Structural adjustment: creating a new textile industry. In Webber, M., Wang, M. and Zhu, Y. (eds.) *China's Transition to a Global Economy*. New York, Palgrave Macmillan. Page 199.

In the last twenty-five years the textile and clothing industry has successfully attracted substantial FDI and is currently highly export-oriented. It has become an important pillar for earning foreign exchange over the years. The exports of textile and clothing products hit USD 88.767 billion and USD 107.661 billion in 2004 and 2005 (Table 4.8). The industry created a trade surplus of USD 657.6 billion and USD 842.16 billion respectively. As a result, the textile and clothing industry has become one of the most important contributors to the overall trade surplus in China. The total export value of in Zhejiang, Jiangsu, Shanghai, Guangdong, Fujian and Shangdong Province amounted to USD 19.4 billion in 2004, accounting for 81.5% of total textile and clothing exports in China, with the textile production representing 53% and the clothing 47% (CNTAC, 2004). The clothing sector is more exported-oriented than the textile sector. China is mainly exporting low and middle-end textile and clothing products currently. Profit margins remain low due to intense competition and due to the industry's position on the low and middle- end of the textile and clothing production chain. However, the clothing sector makes slightly higher profit margins than the textile sector because clothing involves more added-value with regard to design and production differentiation components than the textile products which are mostly semi-finished items. Most of textile and clothing clusters have witnessed rapid development and the clustered firms are trying to expand their business and create their own original brand in addition to undertaking original equipment manufacture

(OEM). The textile and clothing clusters are moving towards higher positions on the value chains, improving their competitiveness.

In recent years, the textile and clothing clusters in China have tried to extend the vertical value chain, coordinate cluster development with local specialised wholesale markets and forge strong linkages with the outside world.

(a) The extension of the vertical value chain. In China, most textile and clothing firms are still engaged in low value-added processing activities. Their business scope has expanded as the firms have developed. Consequently, some firms have engaged in the strategy of vertical integration. More relevant activities come into play and cover nearly all stages of the value chain, ranging from producing textile fabrics to processing ready-to-wear garments and to marketing the final products to consumers. The clusters are also able to create their own brands and enjoy higher profit margins.

Table 4.8 The value of imports and exports of textile materials and products, Customs Statistics, 2004-2005 (USD 100 million)

Categories of Commodities	2004		2005	
	Exports	Imports	Exports	Imports
Textile Materials and Products	887.67	230.07	1076.61	234.45
Natural Silk	10.62	1.40	13.36	1.36
Wool; Wool Yarn and Woolen Woven Fabrics				
	17.15	20.89	18.45	21.47
Cotton	65.87	68.98	74.38	70.78
Other Textile Fibre; Yarn and Related				
Woven Fabrics	5.53	4.71	6.18	4.77
Chemical Fibre; Continuous Filament	51.56	38.08	58.90	37.76
Chemical Fibre; Staple Fibre	35.54	34.21	43.87	32.57
Wadding; Felt and Adhesive-Bond Fabrics;				
Special Yarn; Thread; Rope; Cable and Related Products	5.95	6.19	8.60	7.07
Carpets and Related Products	7.73	0.59	9.32	0.62
Special Woven Fabrics; Lace; Embroidery				
	19.75	8.18	27.09	8.46
Coated Textiles; Textile Products for				
Industrial Use	12.35	13.50	17.55	14.50
Knitwear and Crocheted Fabrics	29.94	18.12	36.52	18.78
Knitted or Crocheted Garments & Clothing Accessories	258.03	6.42	308.71	6.95
Garments Not Knitted or Crocheted	289.81	7.93	350.31	8.15
Other Textile Products; Secondhand Garments				
	77.84	0.88	103.36	1.19

Sources: National Bureau of Statistics of China (2006) *China Statistics Yearbook 2006*, Beijing, China Statistics Press.

b) Coordinated cluster development with local specialised wholesale markets. The specialised wholesale markets act as major marketing and distribution channels for the large quantity of textile materials and products in the cluster (Table 4.9). The markets supply more and more mid-range branded clothes and some franchised fashion stores have also been opened within the market.

Table 4.9 The top twenty textile and clothing wholesale markets in China in 2005

Name of textile and clothing wholesalesmarkets	Province	Turnover (billion yuan)
Shaoxing China Light Textile City	Zhejiang	25.82
Wujiang China Eastern Silk Market	Jiangsu	25.03
Haicheng Xiliu Clothing Market	Liaoning	19.20
Xiqiao Light Textile City	Guangdong	16.97
Shaoxing Qianqing Light Textile Raw Material Market	Zhejiang	15.06
Changshu Commercial Town	Jiangsu	12.00
Zhili Children's Wear Market	Zhejiang	10.54
Dieshiqiao Embroidery Market	Zhejiang	10.00
Datang Light Textile and Socks City	Zhejiang	9.34
Zichuan Clothing City	Shangdong	7.42
Jimo Garment Wholesale Market	Shangdong	6.96
Changshu Textile Commodity Exchange Market	Jiangsu	6.12
Hangzhou Sijiqing Clothing Market	Zhejiang	6.07
Shaoxing Yuezhou Light Textile Industrial Park	Zhejiang	6.01
Haining China Leather City	Zhejiang	5.69
Chuangang Bed Lining Products Market	Jiangsu	4.00
Tongxiang Fuyuan Woollen Sweater Market	Zhejiang	3.59
Haining China Textile City	Zhejiang	3.50
Liucheng Xiangjiang Market	Shandong	3.23
Tangshan Lunan District Xiaoshan Industrial Products Wholesale Market	Hebei	2.84

Source: National Bureau of Statistics of China (2006) *Statistical Yearbook of China Commodity Exchange Market in 2005*, Beijing, China Statistics Press.

According to the *Statistical Yearbook of China Commodity Exchange Market in 2005*, there were 409 textile and clothing commodity exchange markets with an annual turnover above RMB100 million. The number of booths hit 475,842 units and the total turnover reached RMB 473.17 billion, among which the wholesale business

accounted for RMB 418.54 billion while the retailing sector earned RMB 54.62 billion. Table 4.9 lists the top twenty textile and clothing wholesale markets in China in 2005. The specialised wholesale markets serve a platform for small textile and clothing firms to be informed of market trends, lowering information costs for small enterprises that usually do not have large information networks. In addition, they offer a series of supporting services for trading and sourcing textile and clothing products, including logistics, exhibition, finance and translation. The specialised wholesale markets help to connect all parts of the value chain so that locally produced textiles and clothing can be marketed easily at home and abroad.

(c) Cross-regional and cross-border business expansion. Clustered textile and clothing firms in China have extended their cross-regional and cross-border business activities in recent years so as to establish their own marketing networks. With further economic integration in the Yangtze River Delta, business expansion into Shanghai has become a trend for clustered firms in Zhejiang province. Shanghai is the economic centre of China, accumulating capital, technology and talents. Some clustered firms make use of this platform to establish national and international marketing networks after they set up exclusive shops in the downtown area while others move their headquarters to Shanghai to gather the latest information and make better capital management. The rapid expansion of clothing clusters in Guangdong province is partly attributed to the extensive trade networks in Hong Kong. Their proximity to internationally metropolitan Shanghai and Hong Kong enables the textile and clothing clusters to market their products to the world market efficiently.

Most textile and clothing clusters are located in coastal regions and they take advantage of the major logistic infrastructure there to distribute imported finished textile products and fabric from other countries. For instance, Humen Town in Dongguan City, Guangdong province has a well-developed port, which facilitated its industrial exports greatly and contributed considerably to the development of the textile and clothing industry in the region, making it renowned as the 'No. 1 Fashion

Wholesaler in China'. In 2006, the central government made an investment of RMB 1.36 billion to improve productivity in the textile and clothing industry and RMB 560 million to promote innovation and to support enterprises to go abroad in other developing and least developed countries (WTO, 2008).

4.3 Global institutional changes in the textile and clothing industry

On 1 January 2005, all special quotas on textile and clothing were finally eliminated for member countries of the WTO with the termination of the Agreement on Textiles and Clothing (ATC) of 1994 negotiated during the Uruguay Round which phased out the Multi-Fibre Arrangement over a ten year period. Passed in 1974, the MFA was an explicit attempt to protect developed country producers by restricting exports of textiles and clothing from developing to industrialised countries. Theoretically, it sought to provide temporary protection to textile and clothing firms in developed countries to undertake the necessary changes so as to compete against lower cost producers from developing countries in due course. In practice, the MFA not only provided an effective framework for extending the protected position of garment manufacturers in developed countries, it also gave some developing countries preferential quota access to the leading markets around the world. Negotiated in 1994, the ATC brought textiles and clothing under the rules of WTO by insisting on the abolition of all special textile quotas by the end of 2004. It was to be done in four stages over a period of ten years, allowing those countries affected by the MFA (both importers and exporters) to take steps to adjust to a new 'free-trade' environment. It was designed to terminate the series of trade-distorting regimes that had governed textile and clothing trade over some four decades and set an end to the status of textile and clothing as the only sector of international trade in industrial goods that had remained outside multilateral rules after the conclusion of the Uruguay Round.

Many developing countries benefited from the MFA and built a thriving clothing industry thanks to the distortions it introduced. Leading garment exporters that were quota restricted (such as South Korea and Hong Kong) promoted the development of

an export-oriented clothing industry in quota-free countries as one channel to jump over their own quotas. Countries that built an export garment industry on these distortions clearly feared the phase out of the MFA and its consequences for the competitiveness of their clothing industry. These fears and the continuing protectionist interests of garment producers in the North, such as the United States that still maintained a large garment manufacturing sector raised doubts as to whether the global clothing and textiles trade would ever see the kind of liberalization envisaged by the ATC (Spinanger, 1999; Edwards, 2003).

In practice, from the 1990s, alongside the slow liberalization of the textile and clothing trade, there has been regionalization of the textile and clothing industries, particularly clothing (Edwards, 2003). Re-orientation of clothing imports into the United States has taken place, with the shares from Mexico and the Caribbean countries growing rapidly. This has been encouraged by trade discrimination in favour of these areas by the United States so long as fabric manufactured in the United States is used. Although this protection has done little to support the clothing industry in the United States, it has supported the textile industry there. There has been a similar growth of offshore processing around the European Union and the share of clothing imports from Turkey, North Africa and Eastern Europe has grown. Adding in a cluster in East Asia, there developed what Graziani (2001) called 'a reorientation of textiles and clothing trade... in three definite clusters around the major players of the world economy'. Graziani and the United Nations Conference on Trade and Development (UNCTAD) (2002) argued that trade discrimination was the main reason for this re-orientation. In contrast, as a result of their study of the US textile and clothing industry, Abernathy *et al.* (1999) argued that it was due to the trend towards 'lean retailing' that required suppliers to be located near to retailers. In any event, the removal of quotas from heavily quota-constrained countries such as China was likely to reduce the advantages that preferential trade arrangements gave to adjacent countries such as Mexico (in relation to the United States) and Turkey (in relation to the European Union).

An additional set of trade related challenges for textile and garment firms supplying global markets has come from pressures to meet global processing standards, including regulations on labour, environment, quality assurance as well as the wider social and ethical concerns in production. They reflect an enhanced interest in how the production and delivery take place as well as what product or service should be provided. For many countries and regions, such standards have become either part of the formal 'rules' governing international trade or necessary 'voluntary' requirements to access markets. The concerns on the compliance with global labour and ethical standards are especially marked in the textile and garment industry. Such standards are also being driven by a diverse set of factors, including various international public and private actors, consumer groups, and the corporate sector, local and global Non Government Organisation (NGOs), alongside national and international public sector bodies. Compliance can potentially offer developing country producers a basis for upgrading. It also raises possibilities of changing the ways in which such producers are inserted into global markets so that the position of firms in developing countries can be strengthened in more demanding markets. Global standards can also restrict market access by raising costs. Despite these concerns, compliance with labour, environmental and social standards has emerged as a key factor in the selection of suppliers by the global buyers of leading brand names. The credible and independently monitored certification according to global standards offers buyers a basis for offsetting commercial risks. Thus, local garment producers have increasingly to meet the codes of conduct of buyers as well as sector-specific and cross-sector standards.

Finally, the textile and garment firms in developing countries face challenges from the global garment retailers in terms of the improvement of quality, the reduction of costs and production times. As Gereffi (1999) has shown, the global garment industry is organized by international retailers, especially the leading brand names in the United States and the European Union. Retailers include independent stores that play an important role in some parts of Europe such as Italy, specialist multiples that only sell

garments under their own brand names, department stores that sell brands, supermarkets that sell their own brand garment items usually of lower quality, discount stores and mail order outlets. Few retailers undertake their own production, but source either directly or through traders from the suppliers in developing countries, instead. Many first-tier suppliers are large regional producers based in Hong Kong, which distribute the production to their own facilities across a range of countries. Some producers also sub-contract to second and even third-tier suppliers. Thus, there can be an extensive chain between final retailers and actual producers. The leading firms and the retailers enjoy the key value-added functions of garment design and marketing.

There are some significant changes at the retail end that have had great impacts on local suppliers. First, there is evidence that, in the face of growing competitive pressures, retailers at the higher quality end, such as the specialist multiples and department stores to some extent, are moving to shorter season product lines. The traditional four seasons are being replaced with multiple seasons in line with specialist needs. Retailers are keen to keep product shelf lives short and attract consumers with ever-changing fashions. This implies that new products are usually designed in smaller batches more flexibly and more rapidly. To meet such demands, suppliers must respond to retail designers rapidly in producing samples, re-jigging production lines and meeting shorter delivery schedules. At the same time, quality pressures are increasing while the unit prices of clothing falls. Most department stores, supermarkets and discount outlets are producing cheaper own-brand items, which are proving increasingly competitive alongside higher quality and more expensive international brands. In the process, suppliers are squeezed and have to improve their efficiency in order to lower costs while maintaining or enhancing product quality.

4.4 The impacts of global institutional change on the textile and clothing clusters in China

International institutional change imposes great impacts on the sustainable growth and upgrading of textile and clothing clusters in China. The removal of quantitative restrictions does not imply unconstrained trade in textiles and clothing. Indeed, the level of tariffs on textiles and clothing remains high even after the reductions were implemented as a result of Uruguay Round Commitments.

The United States negotiated a market access agreement with China, which became part of China's Protocol of Accession to the WTO in December 2001. The agreement includes a textile-specific safeguard provision allowing the imposition of quotas on imports of textile and clothing from China that causes or threatens to cause market disruption. This agreement does not expire until the end of 2008. On 1 January 2002, the United States abolished quantitative import restrictions on twelve clothing categories for the third stage of ATC-integration: babywear, cotton dressing gowns and bathrobes, gloves made of man-made fibres, brassieres, dressing gowns and bathrobes of man-made fibres, silk gloves, silk men's coats, silk women's coats, silk dresses, silk woven skirts and silk trousers. These twelve categories accounted for about 8 percent of the United States imports of MFA-categories in terms of value, about 4 percent in terms of volume in 2001. The strong growth of imports in the twelve liberalized categories from China to the United States led to a more than five-fold rise in market share for mainland China to reach almost 60 percent on average for these categories in terms of both value and volume between 2001 and mid-2004 (Mayer, 2004).

However, given that clothing categories yet to be liberalized are neither predominantly silk products nor standardized clothing items, it is unlikely that the rise in China's market share in imports from the United States after ATC termination will be as large as for the twelve categories liberalized in 2002. Cost competitiveness is

comparatively less important for export success in high-value clothing and fashion-related items. Suppliers who can respect very short lead times, partly because of geographical proximity, have a competitive edge in fast-moving fashion articles, such as women's clothes, for which quota removal has been limited. In December 2003, the United States actually implemented import quotas on China's exports on five categories, three of which had been liberalized in 2002, namely brassieres and dressing gowns. China's market shares for these three categories remained at the levels reached in 2003. The United States have, and are willing to use, a policy instrument that effectively limits the mainland China's exports to unilaterally established levels (Mayer, 2004).

Quantitative restrictions for eleven categories were affected by the third stage of ATC-integration in the European Union (EU) on 1 January 2002 (WTO, 2001): gloves, underwear, parkas, nightwear, women or girl's skirts, pile fabrics, synthetic filament fabrics, fabrics of continuous artificial fibres, fabrics of continuous staple fibres, babywear and tracksuits. The value of imports from mainland China rose, sometimes very substantially, for all these categories in the EU in 2003 and 2004. However, the growth rates of imports originating in greater China area was about half that for Mainland China alone in 2002 and 2003 (Mayer, 2004). Hence, part of the increase in the value of EU- imports from China reflected substitution of imports from mainland China that had been previously channelled through the Hong Kong China Special Administrative Region, Macao China Special Administrative Region, or Taiwan. The countries with preferential access to the EU-market through regional trading agreements such as Turkey, the Eastern European and the North African countries succeeded in maintaining their market shares. The regulations through which the EU grants tariff preferences to these countries helped shield them from competitive pressure from China. The EU has also used unilaterally determined measures designed to limit a rise in China's market share in textile and clothing trade. The recent re-imposition of quotas on textile and clothing imports from China by the U. S. and EU has stopped the rise of China's shares in the U.S. and European countries.

Besides, the contradiction between global free trade and regional trade agreements has become much fiercer. The spread of regional trade agreements will also impose negative impacts on the export of Chinese textile products in the future.

More and more industrial clusters target international markets as the main destination for their products, but most clustered firms are still at the bottom of the international division of labour. Although a large number of labour-intensive clustered firms have strong international competitiveness, they rely principally on low-price competition. The constant low-price competition not only affects the bargaining power associated with export earnings, but also results in trade frictions. The further implementation of an export-oriented strategy has also been constrained by other developing countries that can enjoy even lower prices. The phenomenon of export disorder has led to price wars among clustered firms for export orders.

Developed countries have controlled the distribution channels of most industrial clusters and can enjoy cost advantages through R&D, design, branding and so on. At present, many clustered firms are producing through OEM and profit margins are low. International trade frictions on Chinese textile and clothing products are currently on the rise. In the post quota era, textile and clothing clusters in China are facing challenges including the new forms of trade protectionism and the upgrading of industry. The textile and clothing firms in the cluster not only need get used to new trade rules but also to deal with fierce competition in terms of product, pricing and technology.

Under the more recent liberal trade regime in the global textile and clothing industry, fiercer domestic competition has the potential to harm the continued development and overall interests of textile and clothing industrial clusters in China. For example, Japan filed a series of anti-dumping allegations against Chinese towels at the beginning of 2000. The investigation indicated that 40% of towels exported to Japan had been made by Japanese firms in China. The industrial association in Japan

intended to attack their Chinese counterparts adopting a low-price strategy through anti-dumping allegations so as to protect the interests of Japanese firms. In order to maintain the normal order of Chinese firms exporting towels to Japan, the Chinese Textile Import and Export Chamber of Commerce successfully organized the producers and suppliers and reached an agreement on the certification of Chinese firms exporting towels to Japan. The towels exported to Japan by Chinese towel suppliers were released by customs according to the approval documents issued by the Chinese Textile Import and Export Chamber of Commerce. The policy eventually prevented chaos associated with Chinese firms exporting towels to Japan and promoted the development of the towel industry in China. Another typical example is that the EU filed anti-dumping allegations with regard to the trade in cigarette lighters produced in the industrial clusters of Wenzhou City, Zhejiang province in 2002. Their eventual success in fighting against anti-dumping allegations on lighters showed that the civil industrial associations could organize clustered firms to solve international trade disputes successfully and protected the interests of clustered firms in China (Bureau of Fair Trade for Imports and Exports, 2006).

4.5 Conclusion

The textile and clothing industry has played an important role in the industrialisation of China. Until the mid 1980s, wholly state-owned, it was the largest such industry in the world in terms of total output and production capacity. However by the mid-1990s, the state-owned textile enterprises were suffering from huge losses. The textile industry was chosen as the first state-owned sector for industrial restructuring, which led to the emergence and development of the textile and clothing clusters in China. Under the Ninth Five-Year Plan in 1996, both central and local government began to promote the necessary structural adjustments to restore the industry's competitiveness and upgrade the industrial sector. Since China's accession the WTO in 2001, the central government has taken a series of measures including reducing the tax rebates for low value-added textile exports, limiting the investment of twenty-eight types of

mainly low grade and highly polluting textiles, protecting intellectual property rights and upgrading labour skills in order to adjust the industrial structure and meet more fierce international competition. With the rapid growth of the textile and clothing industrial clusters, local government abandoned its traditional viewpoint of regional protectionism by encouraging economic integration of different regions thereby creating a sound industrial and trade environment.

One of the important phenomena of recent economic globalisation has been the large-scale relocation of certain production processes to developing countries. Though the textile and clothing clusters in China can still take advantage of cheap land and low-cost labour, labour costs are nonetheless on the rise while at the same time clustered firms have to deal with more and more anti-dumping allegations as part of the globalisation process. The sustainable development of textile and clothing clusters therefore needs to rely more and more on making indigenous innovations, upgrading production technology, strengthening industrial coordination and encouraging integration into the global value chain. Multinational firms in developed countries usually do not want to break up the entire value chain despite constant international institutional change and some may well help protect the interests of Chinese firms by lobbying their governments to remove trade protection. The textile and clothing clusters in China need to continue to extend the value chain, strengthen inter-firm linkages, create famous regional brands, establish a platform for professional services and promote the development of industrial associations.

A study of the recent development of the textile and clothing clusters in China indicates that the state has played a significant role throughout. After the restructuring of state-owned textile enterprises at the end of 1990s, the state-owned textile companies were placed on the same footing as private and foreign-invested firms. While the state-owned textile industry has steadily declined in relative terms since then, however, state intervention has played – and continues to play - a critical role in the development and upgrading of Chinese textile and clothing clusters. However, the

public-private interface has taken a new form. The following chapters will disaggregate the public-private interface from the perspectives of social networks, entrepreneurship and local government to reflect an ongoing symbiotic relationship between the state and business.

Chapter 5 Social Networks, Entrepreneurship and the Development of Industrial Clusters in Zhejiang Province

5.1 Introduction

This chapter gives an overview of the development of industrial clusters specifically in Zhejiang Province and explores the role of social networks and entrepreneurship in the formation and development of industrial clusters there. Social networks have been the foundation for the formation and upgrading of local industrial networks generally. Economic networks and local, social and cultural networks are mutually interdependent. Social networks have generated trust and traditions of cooperation which have brought about substantial economic agglomeration effects. Membership of social networks has been regarded as one of the essential assets for business expansion in China in general and in Zhejiang in particular. At the same time, the success of industrial clusters has been closely related to the degree of entrepreneurship in Zhejiang, the embeddedness of entrepreneurship in rural areas from an early date in Zhejiang contributing to the successful performance of SMEs within the industrial clusters. In the early stages of development of a business, entrepreneurs usually act as owners and managers simultaneously, carrying out multiple roles to include the development of new business projects and products, innovation and networking amongst similar firms in the cluster.

5.2 The development of industrial clusters in Zhejiang Province

After 30 years of development since the reform and opening up, Zhejiang is now a province with a strong economy with industry as the leading sector. From 1978 to 2006, its GDP achieved an annual increase of 13%, rising from RMB12.4 billion to RMB 1564.9 billion, thereby rising from 12th to 4th place among all Chinese provinces after Guangdong, Jiangsu and Shandong province (Figure 5.1). Zhejiang province has been well-known for its private economic development. In 2006, the total industrial added-value reached RMB753.8 billion, increasing by 17.4%. The state-owned and the state-holding industrial enterprises realized RMB 102.8 billion,

rising by 14.6% while the private industrial enterprises RMB 190.7 billion, increasing by 17.4% (Table 5.1).

5.2.1 The growth of light industrial clusters

Light industry has played an important role in the industrial sector of Zhejiang province and many industrial clusters have developed rapidly. Most of the clusters remain in the traditional labour-intensive industries, including textiles, clothing, plastics, synthetic fibres, general purpose equipment and machinery (Table 5.2). Zhejiang province has been well known for ‘one commodity in each town; one industry in each county’ (*yixiang yipping, yixian yiye*) in China since the 1980s. As a result, industrial organisation is mainly composed of low and medium-end commodities. Compared with some other successful provinces, there has been less investment from the state and less use of foreign capital in Zhejiang, and as a result industrialisation there has had to depend principally upon the development of labour-intensive industries in rural areas.



Figure 5.1 The gross domestic products (GDP) and growth rate of Zhejiang Province, 2001-2006

Source: Zhejiang Provincial Bureau of Statistics (2006) *Zhejiang Statistical Yearbook*, Beijing, China statistics Press.

Table 5.1 The added-value of large-scale industrial enterprises in Zhejiang

Province in 2006		
	Absolute value (billion yuan)	Growth rate over the previous year (%)
Industrial added-value	5655.05	17.4
State-owned and state holding enterprises	1028.29	14.6
Collective enterprises	204.09	11.6
Shareholding enterprises	1487.64	18.1
Investment enterprises by foreign businessmen or those from Taiwan, Hong Kong and Macau	1372.78	23.7
Private enterprises	1906.67	17.4
Light industry	2466.69	13.6
Heavy industry	3188.36	20.4

Source: Zhejiang Provincial Bureau of Statistics (2006) *Zhejiang Statistical Yearbook 2006*, Beijing, China statistics Press.

In recent years, the output of cloth, synthetic fibres, building materials and information communication equipment have been ranked among the highest in China. Zhejiang provincial government has invested substantially in the establishment of industrial parks to allow firms to benefit from the effects of industrial agglomeration, particularly in the high-tech industries. The output of high-tech industry reached RMB 236.4 billion in 2006, increasing by 33.9% compared to 2005. Three industrial belts have developed in the province, including the Hangzhou Bay area (covering 6 prefectural level cities, including Hangzhou, Ningbo, Jiaxing, Shaoxing, Zhoushan

and Huzhou); the coastal cities around Wenzhou and Taizhou; and the Jinquli region (the area either side of the highway linking three prefectural level cities namely Jinhua, Quzhou and Lishui) (The People's Government of Zhejiang Province, 2006).

5.2.2 Prevalence of economic development zones

Up to now, 8 state-level economic development zones approved by the State Council, 54 provincial-level economic development zones of various sorts and 4 export processing zones approved by Zhejiang Provincial People's Government have been established. The state-level and provincial-level development zones and export processing zones are where the attraction of foreign funds is the most highly concentrated and where the economy shows the quickest growth. In 2005, a total of 1,072 projects with foreign investment were approved by the 62 state-level and provincial-level economic (technological) development zones, the contracted foreign capital reaching US \$7.493 billion and the foreign capital in use amounting to US \$3.984 billion, accounting for 31.6%, 46.5% and 51.6% respectively of the total for the province (The People's Government of Zhejiang Province, 2006). The construction of the state-level and provincial-level development zones and export processing zones has thus contributed substantially to the promotion of economic development, structural adjustment and industrial upgrading in Zhejiang province.

Many clustered firms which have accumulated the necessary capital are eager to undertake technological improvement and business expansion. One of the urgent issues they are facing is a shortage of land. The economic development zone not only solves the issue of land use for clustered firms but also offers a series of preferential policies including favourable land prices, tax breaks and so on. In addition, infrastructures in the state-level and provincial-level economic (technological) development zones and the export processing zones in Zhejiang are fully constructed, capable of meeting the requirements of a variety of high- and new-tech industrial projects.

Table 5.2 The major industrial clusters in Zhejiang Province

	Cities	Major industries	Typical industrial clusters
North-eastern Region	Hangzhou	Textiles and clothing (e.g. silk, dyeing), electronic information, large-scale machinery and equipment	Ladies' wear in the urban area of Hangzhou, synthetic fibres in Xiaoshan district
	Ningbo	Clothing, machinery, petrochemicals	Clothing in Yinzhou; moulds in Yuyao
	Shaoxing	Textiles and clothing, chemical for dyeing	China Light Textile City in Shaoxing county, neckties in Shenzhou city
	Jiaxing	Textiles, leather, toys, machinery and instruments	Woollen knitted sweaters in Tongxiang, leather and warp knitting in Haining; clothing and suitcases in Pinghu; silk products in Xiuzhou district, Jiaxing
	Huzhou	Textile and clothing (e.g. silk, dyeing, children's wear), building materials	children's wear in Zhili, building materials in Nanxun, bamboo products in Anji
	Zhoushan	Processing of aquatic products, aquatic medicine, machinery	Zhoushan Aquatic wholesale market,
South-eastern Region	Wenzhou	Glasses, lighters, shoes, buttons, low-voltage electric appliances	Glasses, lighters, shoes in the urban area of Wenzhou, buttons in Yongjia, low-voltage electric appliances in Yueqing
	Taizhou	Plastic products, auto parts	Plastic products in Jiaojiang

Central and south-western region	Jinhua	Textiles, socks, hardware, jewelry and ornaments,	Yiwu China Commodity City, hardware in Yongkang
	Quzhou	Fertilizer, cement, mechanical electric appliances	
	Lishui	Wood processing, handicrafts, shoes, toys and umbrellas	Umbrellas in Longquan, wooden toys in Yunhe

Sources: Zhu, H. (2003) *Industrial Clusters in Zhejiang Province*, Hangzhou, Zhejiang University Press, pp 56-57.

The looseness of inter-firm alliances is a common problem many industrial clusters in Zhejiang province are facing. Economic development zones have facilitated an understanding between clustered firms and have supplied a better platform for professional inter-firm cooperation. Many development zones have tried to create a regionally innovative environment, promoting technological progress and information communication. Meanwhile, the development zones provide an attractive environment for investment. For instance, the local government departments concerned have established their offices in the development zones to provide a full-range of services regarding the examination and approval, construction and operation of the enterprises in the zones. These offices and personnel also help investors with all the necessary procedures they have to go through. Enterprises with foreign investment in the development zones enjoy certain preferential treatment with regard to taxation (The People's Government of Zhejiang Province, 2006).

Moreover, haphazard rural industrialisation has caused environmental pollution while promoting rural economic development and in some areas the conflicts between industrial production and the normal life of local people have produced significant social and ecological problems. The establishment of economic development zones

can deal with industrial pollution more effectively, not only saving the cost of handling pollution, but also reducing the damage of industrial production on social and ecological environment.

5.2.3 The increasing number of scientific industrial clusters

Fierce market competition has accelerated the transition of traditional industrial clusters to scientific industrial clusters. Three industrial parks have been set up in Yinzhou District, Ningbo City, where the famous clothing cluster is located. More and more clustered firms have started to enter into high-tech industry, including IT, electronics, biomedicine, petrochemicals, new materials and new energy. Shanshan Group, a famous clothing firm in the cluster, established Shanshan Science& Technology Park in Yinzhou district in March 2005. Shanshan Technology Group 800T/Y anode material project for lithium-ion battery is the first national high-tech industrialised demonstration project in Ningbo. Meanwhile, about 10 high-tech projects are being incubated within the park. The group has forged strategic alliances with some leading research institutes affiliated with the China Scientific Academy, Zhejiang University, Shanghai Jiao Tong University, Harbin Industrial University and Yamagata University in Japan.

Meanwhile, new high-tech firms have continued to be attracted to the industrial parks. The emergence and growth of scientific enterprises within the cluster has led to great improvements in the regions' innovative capability. As the clustered firms have strengthened their innovative capacities in science and technology, the pace of industrialisation has accelerated.

5.2.4 The spatial expansion of industrial clusters at home and broad

The clustered firms in Zhejiang province have extended the cross-regional and cross-border business activities in recent years so as to establish their own marketing networks. For example, in Liushi electrical equipment cluster of Wenzhou City,

CHINT Group and Delixi Group, the core clustered industrial groups of low-voltage electrical equipment began to pursue vertical integration amongst enterprises from 1994 to 1996. CHINT Group, which was founded in July 1984, has expanded from a home workshop of seven workers to a leading manufacturer of electrical products, with six specialised branches, more than 50 holding companies, over 800 specialised cooperative partners and 15,000 employees in the last 22 years. Its production range has extended from high, medium and low voltage electrical apparatus, measuring metres and instruments, electrical products for construction, automation control devices and automobile applications in power transmission and distribution equipment. In addition, it has established a sound sales network composed of more than 2,000 agents and project managers through China as well as an international sales network comprising more than 70 agents, sole distributors, secondary distributors and local partners all over the world (CHINT Group, 2007).

Delixi Group, a specified supplier of low and high voltage switchgear sets for China Jiuquan Satellite Launch Centre, originating from a small-scale workshop - the Yueqing Qiuqing Switch Factory - in July 1984, has become a large-scale enterprise group with more than 70 holding companies, over 700 specialised cooperative partners and 600 marketing centres at home and abroad. Since 1998, it has adopted diversified business strategies integrating manufacturing and capital management. Shanghai Delixi Group Co., Ltd, established in 1998, primarily produces series of high, medium and low voltage electrical apparatus in cooperation with Xian High Voltage Electronics Research Institute. The group merged with the state-owned Hangzhou Xizi Group in 1999 and participated in the 'Developing the West' initiative advocated by the central government in 2000, restructuring several state-owned enterprises in Xinjiang Uygur Autonomous Region and making investment to construct the Xinjiang De Hui International Plaza (Delixi Group, 2007). The CHINT group and the Delixi Group are two typical clustered firms representative of innovation associated with the 'Wenzhou model'.

With further economic integration in the Yangtze River Delta, business expansion into Shanghai has become a trend for clustered firms in Zhejiang province. Shanghai is the economic centre of China, accumulating capital, technology and talents. Some clustered firms have made use of the platform provided by Shanghai to establish national and international marketing networks after setting up exclusive shops in the downtown area while others have moved their headquarters to Shanghai to gather the latest information and make better capital management.

Yiwu municipal government has successfully established the biggest wholesale market in the world. With the unwavering support of Yiwu municipal government, some businessmen have cloned new markets in other regions of China and other parts of world, including Beijing Yiwu Commodity Wholesale Market, Suzhou Yiwu Commodity Direct Sale Supermarket (Jiangsu Province), Taiyuan Yiwu Commodity Wholesale Market (Shanxi Province), Lanzhou Yiwu Commodity City (Gansu Province), Urumqi Changzheng Wholesale Market (Xinjiang Uygur autonomous region) and China Commodity Town in Dubai and South Africa. These new markets have not only attracted businessmen from Yiwu to open booths, but have also encouraged local businessmen to make procurement from the Yiwu wholesale market. The clustered firms in Yiwu have also contributed to the formation of a national market network which is made use of by Yiwu's SMEs. Both local businessmen and those from other provinces in the new markets have been appointed as agents (Yiwu Government Office, 2006).

5.3 Social networks involved in industrial cluster development in Zhejiang Province

Social networks are the sum of social or personal relationships among individuals in the social community. They consist of four basic elements, including structure (the form and strength of linking agents), resources (the distribution of various properties such as capability, knowledge, property, sex, religion and so on), rules (the various regulations affecting the behaviour of agents) and dynamic factors (all kinds of

opportunities and restraints to the formation and change of network). Obviously, the rules of social network, which have evolved through long-term social interaction, have been infiltrated with local culture (Zhu, 2003).

In recent years, economic theory has attached more importance to the impacts of social structure and social relations on economic activities. The latest development of social economics argues that economic activities are not pure market behaviour, but rely on particular social structures (Granoverter, 1985). Social relations, rules and institutions influence the economic behaviour of agents through their decision-making. The strength of social relations can be termed as 'embeddedness'.

The institutions formed by clustered firms and enterprise groups and the emergence of informal networks has become significant features of contemporary industrial economies (Wang *et al.*, 1998). Research on industrial clusters has focused on the role of social networks in regional economic development viewing social networks as the basis of inter-firm cooperation and alliances leading to collective efficiency (Zhu, 2003). Since the measurement of social networks is relatively difficult, most research has been qualitative in nature and has focused on how local industrial networks composed of social relations and informal local learning processes influence local economic performance and technological innovation (Saxenian, 1996).

According to the experiences of those countries that have adopted development strategies involving the strengthening of inter-firm networks, successful cooperation among firms is rarely achieved without effective social communication. The research indicates that this economic growth model applied in developed countries cannot be transplanted to other countries mechanistically owing to differences in national culture and social norms (Hudson *et al.*, 2001). The role of social networks varies with different nations and regions. Private relationships play a more important role in developing countries than in developed countries (Martina, 1999). In addition, social relations play different roles in different industrial clusters. In some high-tech

industrial clusters such as the Silicon Valley of the U.S., the formation of informal communications network between firms and individuals are mainly attributed to similar educational and career backgrounds as well as informal social relations and cooperative traditions. However, in developing countries inter-firm networks have been mainly set up thanks to kinship and neighbourly relations. Some scholars have even argued that local network with excessive embeddedness might lead to the path-dependence and 'lock-in' effects (Granoverter, 1985).

Moreover, the effects of social networks on industrial networks are changing constantly. At the early stage of firms' growth, entrepreneurs collect relevant information mainly through informal network suchs as family members, friends and neighbours. Afterwards, they gain further necessary economic information from banks, lawyers, suppliers, government organisations and so on. The firms will depend more on economic transactions than on social communications. Firms in industrial clusters will behave more rationally and interpersonal relationships will be based less on social relations and more on commercial relations, less informal and more impersonal. Such changes amongst the leading firms will be more obvious as they try to improve their ability to produce high-quality commodities.

5.3.1 Local networks and overseas networks

Rural society in China is made up of networked communities intertwined with family, regional and personal ties. Individuals are the nodes of networks and the relationships among them make transactions possible and reduce operational risks and transaction costs greatly. Family relationships are the most important of all relationship in the rural areas of Zhejiang province, even across China as a whole. The highest trust is among family members while the relationships between friends and acquaintances involve significant trust (Chu, 2000). Family networks extend to the relations between fellow countrymen ranging from sibling, kinship, to regional ties. In the long-term commercial activities, these traditional ties will vary with commercial interests, effectively integrating social networks and economic networks.

There are differences in the patterns of social networks between the Wenzhou area and Ningbo areas of Zhejiang, which have led to the different development paths of industrial clusters in the two areas. Ningbo City, located in northeastern Zhejiang province, has very close social links with Shanghai since many Shanghai-ese originated from Ningbo. With the advantage of social networks, Ningbo has gained the skills and raw materials for industrial use conveniently, becoming the processing base for Shanghai and helping to promote the rapid development of the Ningbo clothing cluster. A lot of people in Ningbo used to make clothes for foreigners and they were well known as '*Hong Bang Sewingmen*' and active in the fashion circles of Shanghai. After liberation in 1949, some Ningbo-ese went to Shanghai to learn modern clothing-making skills and then returned to set up modern clothing enterprises, thanks to the sibling, kinship and regional ties. In addition, some experts in Shanghai were invited to Ningbo City to provide professional guidance helping to establish further business relationships. A lot of famous firms in the Ningbo clothing cluster developed rapidly by taking advantage of the unique social networks there (Zhu, 2003).

Ningbo Progen Group Co., Ltd is one of the typical examples. Jiangliu village is located in the neighbourhood of Ningbo City and there are about 200 families. In 1984, Shi Liying and nineteen female villagers set up Jiangliu Village Synthetic Fibre and Labour Protection Factory with RMB 1,000. The factory mainly produced gloves, aprons, oversleeves and so on. In 1985, she learned from *Ningbo Daily* that Lu Chengfa, Super Master of western style suits in Shanghai, gave guidance on the establishment of western style suits factory in Ningbo and worked as a technical consultant there. He had developed new sewing templates of western style suits particularly for Asian people and pioneered the industry. Shi Liying was also surprised to learn that Lu Chengfa was born in Jiangliu village, and then she had the idea of employing the Super Master for the township enterprise. Master Lu was moved by her sincerity and agreed to help his villagers to run a clothing business. He helped Shi Liying to set up a joint venture (Progen Western Style Suits Factory) with

Shanghai Textile Bureau. In the beginning, Master Lu worked as a technical consultant for the factory and was mainly responsible for training the sewingmen. In the following two years, Shi Liying found that western style suits became more and more popular all over the China and she was determined to develop the essence of ‘Hong Bang Sewingmen’. One comfortable western style suit was the incarnation of diligence, hardship and innovation of ‘Hong Bang Sewingmen’. In 1987, Master Lu was invited to take up the post of technical director at Progen Western Style Suits Factory, which was renamed Ningbo Progen Clothing Company in the same year. There are about 300 sewingmen in the company who have received the instruction of Master Lu. The tradition of ‘Hong Bang Sewingmen’ has been inherited and developed in the industrial cluster. The social network and public entrepreneurship have contributed greatly to the rapid growth of Ningbo Progen Group Co., Ltd and other companies in the cluster.

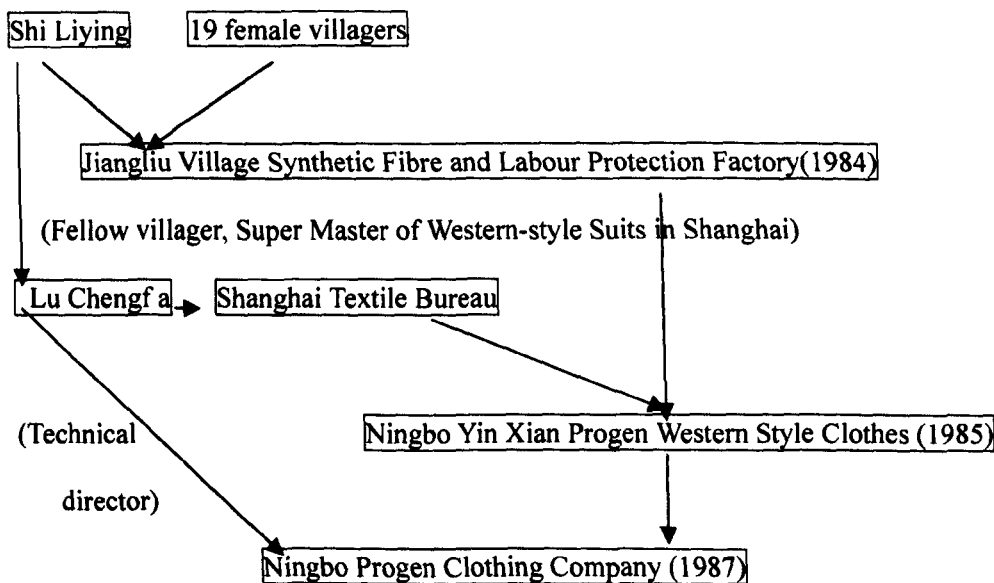


Figure 5.2 Social network and Ningbo Progen Group Co., Ltd

Source: Compiled by the author

Overseas Chinese have played an important part in the development of industrial clusters in Wenzhou, located in southeastern Zhejiang province. A lot of Wenzhou-ese emigrated in the 1950s and 1960s. There was also an emigration fever in the 1970s and 1980s. Approximately 400,000 Wenzhou-ese are now living abroad, most of

whom are in Europe. They are acting as agents for industrial districts in Wenzhou to explore overseas market. In recent years, some Wenzhou-ese have established their factories in France and Italy. Many SMEs in Wenzhou sell their products to their overseas relatives, strengthening their production stability and effectively reducing the risks of exporting. In addition, the clustered firms in Wenzhou have gained the latest technological information from overseas markets. With the rapid expansion of the domestic market, the Wenzhou-ese have also showed strong team spirit. Once one Wenzhou-ese discovers a good opportunity, his family, relatives, friends and fellow-villagers will join with him and expand the business. Currently, about 1.6 million Wenzhounese are scattered around China undertaking all kinds of business. The social networks formed by the Wenzhou-ese all over the world continue to influence the development of industrial clusters in Wenzhou and other parts of Zhejiang province (Fang, 2000).

5.3.2 The formation of industrial network

Industrial clusters in Zhejiang province are open networked organisations. The inter-firm network is more flexible and effective than the hierarchical system of large-scale enterprises. Network efficiency depends on the trust and cooperation among networked firms. Network forms of exchange entail indefinite, sequential transactions within the context of a general pattern of interaction. Sanctions are typically normative rather than legal. In hierarchies, communication occurs in the context of the employment contract. Relationships matter and previous interactions shape current ones, but the patterns and context of intra-organisational exchange are most strongly shaped by one's position within the formal hierarchical structure of authority. However, under market transactions, the benefits to be exchanged are clearly specified and no trust is required. Agreements are bolstered by the power of legal sanction (Powell, 1990).

In practice, social networks depend upon long-standing social capital, including a series of private relationships and informal institutions, which implies that networked

members must obey a variety of ethical standards and rules of behaviour. Thus, the cost of trust within the social network is no higher than that of moral trust. Besides, there are various means of control among the members, rewarding the cooperative parties and punishing the uncooperative ones, even excluding the parties that break the social rules outside the social network (Wang, 2001). Since the development of social networks is path dependent, past cooperation will lead to future alliances.

One of the main features of industrial clusters in Zhejiang province is that thousands of family workshops have promoted rural economic development. Without these family workshops, there would not be so many industrial clusters. They are not independent production systems, but the formation of production networks made up of clustered firms with all kinds of social relationships including households, neighbours and friends. There is specialised division of labour within production networks. Strong ties within industrial networks have made industrial clusters efficient large-scale entities. Inter-firm networks have become essential for the survival and development of family workshops. Firstly, the division of labour reduces the capital threshold of new entrants and solves the bottleneck of capital shortage in rural areas. Secondly, since the division of labour has been based on relations between siblings, kinship or regional ties, the resulting low transaction costs among firms, the scattered operation risks and rapid information flows to do with technology and marketing have generated high collective efficiency and improve the competitiveness of the whole industrial cluster. Moreover, the SMEs in the industrial cluster have forged formal and informal horizontal and vertical linkages to produce the intermediate and finished products. They forecast market trends together and exchange production and management experiences together (Zhu, 2003).

Some informal organisations which have emerged in the rural areas of Zhejiang province have played an important part in the development of industrial clusters. For example, the so-called 'underground banks' (*qianhui*) have been popular in Wenzhou as a means of granting loans for the SMEs in industrial clusters. Although this sort of

financial intermediation might cause social unrest and disorder, it has played a positive role in promoting the rapid growth of SMEs in industrial clusters when the formal financial arrangements failed to meet the high demand for capital within Zhejiang's private sector (Shi *et al.*, 2004).

Table 5.3 Stylized comparison of forms of economic organisations

Key features	Forms of Economic Organisations		
	Market	Hierarchy	Network
Normative basis	Contracts- property rights	Employment relationship	Complimentary strengths
Means of communication	Prices	routines	relational
Methods of conflict resolution	Haggling- resort to courts for enforcement	Administrative fiat- Supervision	Norm of reciprocity- Reputational concerns
Degree of Flexibility	High	Low	Medium
Amount of commitment among the parties	Low	Medium to high	Medium to high
Tone of climate	Precision and/or suspicion	Formal, bureaucratic	Open-ended, mutual benefits
Actor preferences or choices	Independent	Dependent	Interdependent
Mixing of forms	Repeat transactions/ Contracts as hierarchical documents	Informal organisation/ Market-like features: profit centres, transfer pricing	Status hierarchies, multiple partners and formal rules

Source: Walter W. Powell (1990) Neither market nor hierarchy: network forms of organisation. *Research in Organisation Behaviour*. 12 (3), 295-336.

5.3.3 Industrial innovation

The competitiveness of industrial clusters in Zhejiang is subject to its innovative capability. Innovation is one dynamic collective learning process for the clustered SMEs. Although both horizontal cooperation and vertical integration along the value chain are important for making innovation, informal social networks help to transmit information and knowledge within the industrial cluster. Because most of industrial clusters in Zhejiang province are in the traditional sectors with relatively mature manufacturing skills, industrial innovation mainly lies in the management, marketing and introduction of new technology and equipment. The SMEs in the industrial clusters can access the latest developments of their rivals from the entrepreneurs, managers and employees within social networks. Mobile rural labour constitutes most of the labour force within clustered firms. Most workers are from the central and western provinces with relatively backward economic development, such as Hunan, Anhui, Jiangxi and Sichuan. They possess sibling relationships, kinship and regional ties and keep in close touch with their countrymen working for other firms within the industrial cluster, helping to promote the information and knowledge flows within the whole cluster. The social ties can help the instruction of skills between old and new employees within the same company and save training costs for the clustered firms.

5.4 Social networks, entrepreneurship and cluster development

5.4.1 Social networks and entrepreneurship

In the development of industrial clusters, social networks influence the formation of industrial networks, the diffusion of internal knowledge and information within industrial clusters and the performance of entrepreneurship. The industrial cluster has been regarded as the endogenous force of regional development. According to Porter's diamond model, the strategy and organisation of enterprises have been taken as the sources of competitive advantages of nations (Porter, 1990). Entrepreneurs play an important part in the making and implementation of firms' strategies. Industrial clusters constitute the production system formed by inter-firm networks while entrepreneurs play an important role in the formation of production networks. When

industrial clusters emerged in Wenzhou, the scale and performance of clustered firms were very similar. Since the mid to late 1980s, a lot of entrepreneurs with extraordinary innovative spirits have become the main driving force of cluster upgrading. The 'public entrepreneurs' running the TVEs were the main force promoting the rapid development of industrial clusters in the eastern part of Zhejiang in the 1980s (Oi, 1999). Today, it is entrepreneurs who are promoting the development and upgrading of industrial clusters throughout the whole province.

According to Schumpeter (1934), entrepreneurship is of vital importance to economic development. The entrepreneurial innovations include the introduction of a new product or of a new method of production, the opening of a new market, the conquest of a new source of supply of raw materials or half-manufactured goods, the establishment of a new form of organisation within an industry and so on. Entrepreneurs play an innovative role in reallocating the resources by disrupting the existing equilibrium. On the other hand, Kirzner (1973) focuses on the ability of the individuals to identify profitable opportunities by obtaining information. Entrepreneurs find out the changes and profitable opportunities from the information available to them. They subsequently take advantage of their discoveries for arbitrage. Entrepreneurship thereby pushes an economy towards a new equilibrium.

Most clustered firms in Zhejiang province are family-owned or semi-family-owned businesses. The family provides strong cohesion and family members enjoy cooperation and coordination because of kinship. When the business is initially set up, family members usually do not care much about gains and losses of individuals. In addition, the business operator can bring into play his power and authority associated with his hierarchical relationships within the household. Power is usually concentrated while duties and responsibilities are clarified. The clustered firm therefore has the ability to react quickly. Facing constantly changing markets, the family-owned business needs to make prompt and efficient decisions so as to gain a secure foothold in the market.

Social networks are an important and even critical resource for entrepreneurship in Zhejiang province. They are responsible for the survival of private entrepreneurs and for operating efficiency. Those private entrepreneurs with special social status and social relations can achieve commercial success more easily. The wider their social network is, the more easily they can gain commercial opportunities and reduce commercial risks.

The main reason why social networks perform these functions is that rural areas in Zhejiang province were unable to obtain raw materials for industrial use through formal institutional arrangements in the previous planned economic system in 1980s. The urban and rural economy was separated at that time. Besides, the natural resources in the rural areas of Zhejiang province were scarce and the information was incomplete. The previous industrial base was weak and there were great shortages of technology and capital. These factors hampered industrial development in the rural area of Zhejiang province. Therefore, entrepreneurs had to make use of social networks to establish relationships with economic and political organisations so as to gain capital, technology, raw materials and information, helping to expand their businesses and improve their capacities to sense commercial opportunities and potential threats. At present, information asymmetry still exists in the transitional stage and social networks are still important for clustered firms to select and screen information (Bing *et al.*, 2000).

Another particular set of social networks exists in industrial clusters of Zhejiang, notably involving social connections between entrepreneurs and local government officials. In the particular institutional environment of China, the prestige and political status of entrepreneurs allows their firms to make more profits. On the one hand, many entrepreneurs try to strengthen their social relationships with local government officials. On the other hand, the entrepreneurs of large-scale firms in industrial clusters take an active part in political activities and improve their local political influence to gain advantages in market competition. In some industrial clusters

originating from the collective economy, certain political figures made huge gains for themselves as public assets were 'privatised' during the transformation of the enterprise system in the 1990s. In particular, rent-seeking behaviour led to widespread corruption and a loaded competitive environment in the transformation of the property rights of TVEs.

In China, one of the key factors in successful entrepreneurship is the ability to form an alliance with those economic agents who possess or control financial assets, physical assets, or specific human capital needed for brokering market entry, that is, for starting production, securing supply and gaining access to distribution channels (Nee, 1989). Such public-private alliances have helped firms to evade administrative entry barriers, reducing business risks and increasing their expected net returns.

Public-private alliances with local government and SOEs also help to overcome the difficulties associated with weak institutional arrangements and sustain a stable business environment. As far as the industrial clusters are concerned, the public-private alliance can also be understood as a form of private collective action. An effective alliance has four transaction cost saving properties in this respect: (1) it provides access to insider information, which allows the entrepreneur to anticipate changes in the regulatory framework, and to acquire information relating to factor and final goods markets; (2) by generating its own influential codes of behaviour, an effective alliance is able to supplement an inadequate legal system with social and political sanctioning thereby providing a higher level of contractual security than would otherwise be the case; (3) it provides room for experimentation in two ways: it ensures that an entrepreneur can fail once yet return for a second attempt, and it forms a buffer against failure in the first instance; and (4) it imparts a positive externality: it acts as a form of collective memory, ensuring that a single failure need not be constituted simply as one individual's loss of investment but as an experience which others can learn from. Numbers count in the performance of these transaction cost-saving tasks: the greater the number of economic agents who participate in the

alliance, the more effective it will be in the dissemination of information, the management of risk, and the monitoring and sanctioning of business practice. With these significant benefits at stake, the fortunes of the entrepreneur are heavily dependent on their ability to form alliance with bureaucrats, political leaders and other significant parties in the business environment (Krug *et al.*, 2004).

The ability to form the right kind of alliance can mitigate problems, including not only imperfect institutions, such as the banking services or tort laws facilitating the transactions in the private sector, but also imperfect business practices, such as the norms, conventions and routines which determine how things are done. These practices constitute a form of tacit knowledge that is present in a mature economy but missing in the newly reformed China. Effective alliances perform a critical role in the development of tacit knowledge by creating and promoting a stable set of expectations of good business behaviour.

5.4.2 The network effects of local entrepreneurship

The industrial cluster in Zhejiang province constitutes an organic system resulting from interactions among local networks instead of resulting from a simple agglomeration of independent firms. Social networks and the industrial networks of entrepreneurs are important channels to transmit materials, information, technology and knowledge to other clustered firms. The two networks are inseparable since the one is based on the other. With the rapid development of industrial networks, the boundaries of social networks continue to expand. However, the dominant position of social networks is gradually weakening as market transactions increase.

Social networks help to diffuse the innovation of entrepreneurs within industrial clusters. In manufacturing new products, entrepreneurs usually send technicians to offer technical guidance and undertake the monitoring of product quality. The innovation of entrepreneurs can be transmitted from the first-tier subcontractors to the lowest-tier manufacturing firms and upgrade the manufacturing level and innovation

capacity of the whole cluster. Since entrepreneurs make demands on subcontractors for more advanced technology and processing capacity, competition among sub-contractors has become fiercer. Those subcontractors with high innovative capacity usually have more opportunities. As a result, entrepreneurs are able to learn about the latest innovations from subcontractors and have more innovative resources.

The private network of entrepreneurs is another channel to diffuse innovation. In general, the entrepreneurs who manufacture homogeneous products and push sales in the same regional market have little communication because of fierce competition with each other. However, those entrepreneurs who are within the same value chain and target different segments usually keep close contacts with each other. The entrepreneurs have woven enormous network through direct or indirect links. Under most circumstances, the innovation of entrepreneurs has been diffused through social networks with entrepreneurs learning some of the latest information from their competitors. Although the network effects might lead to free-riding behaviour, the mature and innovative entrepreneurs become motivated to improve the competitive advantages of their firms when they face fierce competition from their counterparts.

In addition, the location decisions of entrepreneurs have also had great impacts on the development of industrial clusters. Spatial activities have generated network effects. As has been said above, most of the industrial clusters in Zhejiang province originate from the rural areas or small townships. The local entrepreneurs have to make location decisions when they expand their business and adopt the diversification strategy. The location decision will affect the spatial structure of the industrial cluster. The influence of entrepreneurs in the location decision is subject to the capability of clustered firms in the network. Those specialised suppliers with high design capabilities or advanced production technologies have strong powers to affect the location decision since they do not merely rely on one or several core clustered firms in the region. As for those with weak design capabilities, they will be affected greatly by the location decisions of core enterprises. When the core enterprises are relocated,

specialised suppliers will have to move to the neighbourhood of new sites of the core enterprises.

Some of the clustered firms form alliances through integrating their independent production networks. Although they are not the leading firms in the region, they usually have strong influence and high reputation. The objective of forging such alliances is to gain an overall advantage and increase their competitiveness by complementing resources and capabilities. The alliance mainly takes place among entrepreneurs who have close personal relations such as family, relatives or friends and so on. It can lead to the emergence of a new leading force within the industrial cluster.

One common alliance involves vertical integration within the industrial chain. That is, those enterprises which have specialised capacities and resources can constitute one complete industrial chain. For example, four medium-sized firms can gain competitive advantage and economic scale through forming an integrated virtual enterprise group (Figure 5.2). Another type of alliance involves horizontal integration as a result of market expansion. The clustered firms create a relatively complete industrial chain within different segmented markets. Such alliances not only improve a firm's capacity to make timely deliveries of large orders and thereby reduce risks, but also strengthen its leadership in the cluster in its competition against existing leading firms.

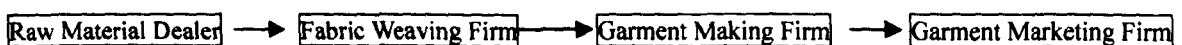


Figure 5.3 The vertical alliance of entrepreneurs

Source: Compiled by the author.

One new type of alliance has appeared within industrial clusters of Zhejiang province recently. It is initiated by a core enterprise in the cluster which organizes a new production system on the basis of its branding and scale effects. The SMEs that participate in the new production system subsequently reach a greater scale and

improve their standards. This type of alliance not only strengthens the core firm's status in the industrial cluster but also improves the competitiveness of the entire industrial cluster.

In recent years, many entrepreneurs in Zhejiang province have created new clusters in new sites home and abroad, established their own marketing network all over China and set up new research and development organisations at the new sites. The relocation does not imply that these entrepreneurs have exited from local industrial clusters. Instead, they are trying to explore new markets. The convergent behaviour of entrepreneurs has strengthened the production capability of local industrial clusters. Since complete production networks and low-cost advantages continue to exist in Zhejiang, this new trend of production translocation has not been very obvious. Besides, the entrepreneurs involved have already connected local production networks with global production networks. Industrial clusters thereby take full advantage of marketing hubs at home and abroad.

5.5 The alliance of entrepreneurs at home and abroad

The alliance of entrepreneurs at home and abroad has contributed to the improvement of the technological level of industrial clusters, their brand image and collective efficiency.

5.5.1 Upgrading the technological level of industrial clusters

External entrepreneurship (including that of foreign entrepreneurs) has also played an important role in the development of industrial clusters in Zhejiang province. The foreign entrepreneurs usually obtain their own formal identities by establishing joint ventures with domestic firms or fully funding their own operations. Although they lack local embeddedness, most foreign enterprises enter industrial clusters in Zhejiang to take advantage of the complete production network and low-cost skilled labour to be found there. Therefore, they usually establish industrial links with local firms. These foreign entrepreneurs have not only introduced modern management concepts

and models, but have also improved the technological capability of clustered firms.

5.5.2 Strengthening the brand image of the whole industrial cluster

Most clustered firms in Zhejiang province are SMEs and their brands are not very famous. Although the volume of exports is high, most products involve simple processing, have low added-value and deliver low profit margins. Thus, some of clustered firms have formed strategic alliances with foreign leading firms to improve their brand image and competitive advantages on the world market through taking advantage of the international reputations and marketing channels of foreign leading firms. Leading clustered firms have bargaining power with international firms with their leading positions and cost advantages. For example, Langsha Group, Zhejiang province, has formed a strategic alliance with the leading textile firms in Japan and Italy, attempting to build an international brand to enter international markets. Textile and clothing firms in Zhejiang usually have high design and production capabilities while Japanese and Italian firms enjoy global marketing and distribution networks. Such alliances are able to improve the international competitive advantage of clustered firms.

5.5.3 Promoting inter-cluster cooperation

The industrial clusters in different areas of Zhejiang have formed one large-scale production network by forming industrial alliances and integrating their advantages to include geographical proximity, complementary products, and good reputation and so on. Many firms in the Ningbo clothing cluster have adopted diversification strategies to improve their competitive advantage. This not only involves expanding the scale of production, but also strengthening the links with clustered firms in other areas and making coordinated development. For example, one cashmere-clothing firm in Ningbo has extended its production line to leisurewear and shirts. Clustered firms can simply subcontract their business to other clothing firms in Shaoxing City, Hangzhou City and Wenzhou City within the same province instead of making substantial investment to set up new workshops. Coordination not only reduces costs and risks,

but also makes better use of local resources, avoiding repetitive construction and excessive competition. More high-quality products can be produced at lower cost. Moreover, inter-firm coordination has also be extended to other relevant clusters in the province such as the textile cluster in Shaoxing City, the socks cluster in Yiwu City, the ties cluster in Shengzhou City and so on. The systematic effects have led to the formation of complete production chains within Zhejiang province.

5.6 Conclusion

Social networks have played different roles at different stages of cluster development in Zhejiang province. In the beginning, social relations promoted the informal division of labour and the formation of inter-firm networks. With rapid growth of clustered firms, some shareholding enterprises and joint cooperative firms were set up according to different endowments of human capital within family workshops. Driven by market forces, the modern enterprise system has been gradually established and some large-scale enterprises or enterprise groups have emerged within industrial clusters. Since the 1990s, some of them have expanded their business across China and abroad. When they choose the suppliers of intermediate and finished commodities, they have gradually attached more importance to production capability than to social relationships. The transition corresponds to the restructuring of supplier networks. However, social networks are still one of the most important factors leading to the success of industrial clusters in Zhejiang. The restructuring of social networks is one gradual process and the implementation of the socialist market-oriented economy has gradually changed social relationships. With the backdrop of globalisation, social networks continue to play an important role in the building of regional capability.

‘Public entrepreneurship’ is one unique institutional factor leading to the success of textile and clothing clustes in Zhejiang. It is embedded within the local social network and industrial network. Entrepreneurs are usually in full control of resources, technology and personnel in market economies, but they are also expected to control external relations with potential market partners in the state-owned sector and with

local politicians. In short, they need to command social capital based on personal relations with economically valuable partners and political capital, i.e. personal relations with politicians. The growth path of Chinese private firms depends crucially on the ability to switch networks. For the initial establishment of a private firm, a small number of strong ties with local administrators and business partners is essential, but expansion is dependent on broader, if weaker, ties with a more heterogeneous group of business partners and politicians (Krug *et al.*, 2004).

In addition, entrepreneurs have contributed to the realization of institutional, technological and market innovation in Zhejiang. The rapid development of industrial clusters has been attributed to a series of institutional innovations. Although non-governmental forces have driven institutional innovation, entrepreneurship arising out of the grass roots (ordinary people) has accelerated this process. Successful entrepreneurial innovation has had demonstration effects within the textile and clothing clusters. These demonstration effects serve as a catalyst for the initial stage of cluster growth, extend its life cycle and remove its technological inertia. These effects have been generated by entrepreneurs in the same neighbourhood and could not have been achieved merely through the application of modern information technology. The competition among the clustered firms is direct and transparent in Zhejiang province. The success of entrepreneurs has had significant social repercussions and imposed great pressure on their competitors, leading to more investment in innovation. As a result, the overall technological level of industrial clusters has been improved and the industrial organisation is optimised.

To sum up, the public-private interface, which is embedded within the local social network and entrepreneurship, has played an important role in the emergence and growth of industrial clusters in Zhejiang province.

Chapter 6 Local Government and the Development of Industrial Clusters in Zhejiang Province: An Evolutionary Perspective

6.1 Introduction

The development of industrial clusters can signify the competitiveness of one nation or one area to some extent. At the end of the 1970s, the resurgence of industrial clusters changed industrial policies in different countries. The implementation of industrial policies is closely related to the formation of industrial clusters because policy-makers face new challenges such as how to create an appropriate institution to promote the dispersed self-organisation process without sacrificing the autonomy and flexibility of an individual entity. The great success of industrial clusters in many countries has undoubtedly become the major driving force for national governments in choosing their appropriate cluster strategy. Besides, the interactive mechanism among the firms within an industrial cluster does not rely solely on the market. Public organisations must be set up to stipulate the guidelines for joint action. As a public administrator, the government must offer public goods and coordinate all kinds of relations for firms so as to ensure the sustainable development of industrial clusters. The main role of governments is not to govern firms and public organisations within industrial clusters, but to create fair competition and an innovative environment. The collective efficiency of industrial clusters can be achieved by creating a mechanism for promoting and adjusting the connections between clustered firms and public organisations.

6.2 Local government and the development of industrial clusters

There are two opposing opinions on the role of local government in the development of industrial clusters. Those who support the localisation associated with industrial clusters argue that the power of government should be weakened. Local autonomy and culture play a more important part in regional development (Humphery, 1995).

However, they do not ignore the role of central government, which can still interfere with the regional economy. In most countries, local government is delegated by the central government. Others argue, however, that the central government should play a more important role than local government (Stamer, 1999).

Since the founding of the People's Republic of China in 1949, the central government has failed to make much investment in the rural areas of Zhejiang province. In the late 1980s, the central government even slowed down the development of industrial clusters there because the institutional innovation in Wenzhou City led to a series of ideological disputes at a national level. However, it is clear that economic reforms emanating from the top down has had great impacts on the development path of industrial clusters in Zhejiang. For example, the implementation of the rural household contracting system at the end of the 1970s liberated millions of farmers from the fields, who subsequently provided the necessary labour to meet the rapid development of secondary and tertiary industries in rural areas. The recognition of the 'non-governmental economy' (*minying jingji*) put an end to ideological constraints on private economic development in Zhejiang province. In addition, the acknowledgement of the economic achievements and institutional innovation by the central leaders since 1992 strengthened the sense of security of the entrepreneurs and enhanced the vigour of regional economic growth in the province (Shi *et al.*, 2004).

Compared with the central government, local government can play a more prominent role since they have been closer to the grass roots and have a deeper understanding of historic traditions and realities. Local government takes an active part in the development of industrial clusters because it takes responsibility for the development of the local economy. Additionally, industrial clusters make high demand for public policies to remedy market failure.

6.2.1 The economic functions of local government

Local government has been an important driving force for economic growth in China.

Local government had little economic autonomy before 1978. With the decentralization of fiscal power, local government was delegated unprecedented economic power and had more autonomy to deploy their resources (Qian, 2001). The success of economic development in China from the end of the 1970s to the mid-1990s is attributed to the fact that local government gained the initiative in guiding and promoting regional economic growth (Oi, 1999).

Local government officials have pursued multiple objectives in the course of regional economic growth. Firstly, they aim to maximise economic interests and realise the highest utility through the efficient allocation of resources. Secondly, they try to maximize the welfare of local people so as to ensure the stable development of the local economy. Thirdly, they care much about their reputation, power and working environment. Meanwhile, they try to optimize their individual economic interests. Lastly, they are in pursuit of the best performance of the local economy, which is closely related to the success of their political careers. Since local economic performance can be compared with that of their successors or other regions, local government officials are highly motivated to promote regional economic growth in order to be promoted to higher positions (Chen, 2000).

6.2.2 The high demand for public policies

The rapid growth of industrial clusters in Zhejiang province has been attributed to the effective integration of market power with government intervention. When local government implements industrial policies, they occasionally deviate from nationally expected targets. Local government can fulfill its role when market failure takes place. The sustainable development of industrial clusters has generated high demand for public policies and has encouraged local government to adopt effective intervention programmes.

Since the industrial clusters in Zhejiang province used to be made up of family workshops, their short-run speculative behaviour often led to overproduction and

cutthroat competition arising from incomplete information and imprecise market predictions. The price competition resulted in a market full of counterfeit and shoddy products, which seriously marred the image of the industrial cluster. Local government could take measures to standardise market behaviour and ensure the implementation of quality criteria. On the other hand, short-run speculative behaviour was one of the reasons why small businesses were reluctant to make investment in technological innovation. When the protection of property rights was still weak, the speculative behaviour dampened the incentives of innovators and led to the long-run 'lock-in' of the technical development path (Qiu, 1999). Therefore, the local government was able to establish public research organisations to protect intellectual property rights and help the SMEs within industrial clusters to improve their technological capability.

Additionally, the SMEs in the industrial clusters were initially unable to internalise basic activities such as market research, technological innovation, disseminating information on the Internet, and so on, on their own. It was difficult for the SMEs to break through these bottlenecks singlehandedly. Local government was able to play an important role in attracting talents from other regions and providing all kinds of public services. This was the case because many local government officials had established important social relationships through their administrative hierarchy or their personal social networks. Local government also wields considerable power in the region as an administrative organisation.

The industrial clusters in Zhejiang province have grown up with constant institutional innovation as a result of support from local government. Moreover, the development of industrial clusters has generated higher demand for public services including the improvement of infrastructure, the establishment of information networks, the management and training of rural labour and the establishment of regional brand images.

6.3 The evolution of local government in Zhejiang province

Local government has played different roles in meeting the development of industrial clusters in different districts at different stages. The industrial clusters at Wenzhou-Taizhou district (southeastern coastal area), Ningbo-Jiaxing-Huzhou district (northeastern area) and Yiwu-Quzhou-Lishui district (the middle and southeastern area) have taken different paths of regional economic growth. Correspondingly, the local governments have been playing different roles in the above districts.

6.3.1 The changing roles of local government in the Wenzhou-Taizhou district

In the Wenzhou-Taizhou district, local government has changed its role from one of passive administrator and adaptor to one of provider of public services. Before 1983, local government was unable find any appropriate means of regulating the prosperous private economy. Under the circumstances, it did not interfere with, but rather keep an eye on the steady development of industrial clusters. The industrial cluster was taking its own course without any interference from the government.

The adoption of a wait-and-see attitude by local government officials in the first instance occurred largely to preserve their political careers to the extent that, within the centrally planned system, officials who promoted institutional innovations did so frequently at their own peril. For example, two communist party secretaries of Wenzhou Municipal Government were transferred to other regions before the end of their terms of office in the early 1980s. The first party secretary encouraged and supported the development of family workshops in Wenzhou while the second tried to explore the feasibility of developing the socialist commodity economy with the power of the masses so that the Wenzhou area could be approved as the 'Wenzhou Experimental District' of China. When no social consensus was reached on the development of private economy under the socialist political system in the early 1980s, however, the debates on regional economic reform became magnified as political and/or ideological disputes on the choice between socialism and capitalism. Therefore, the wait-and-see attitude taken by the local government officials was, in

fact, a manifestation of insight into the need for gradual reform of China at the time because of the ideological barriers to rapid change which still existed then (Shi *et al.*, 2004).

However, local government officials in Zhejiang were frequently in a better position to understand the preferences of local people and their motivations for institutional innovation than the central government. Local government was better able to grasp positive externalities associated with institutional innovation for local social and economic development. Indeed, some indigenous local government officials, who had been nurtured within the local commercial atmosphere, had very positive attitudes to business and innovation: their families or relatives were frequently doing business or running family workshops themselves. As a result, local government officials' attitudes to institutional change soon altered. Indeed, it was just as well: had local government prevented the budding of induced institutional change, it is unlikely the industrial clusters in Zhejiang province would have developed so rapidly.

Thus, during 1983-1986, the industrial clusters in some regions of Zhejiang province took shape and exhibited rapid growth. Local government strengthened its role in the development of the local economy and made adjustments of local policies to meet the new economic environment. The local government officials gradually realized the feasibility and necessity of developing the private economy in the Wenzhou-Taizhou district and provided it protective mechanisms to avoid political risks. For example, local government provided the necessary guidance, support and services for the development of private industry and commerce, established the specialised wholesale market and fought against counterfeiting and other forms of cheating. The 'Wenzhou Experimental District' was established officially by the local government in 1987 after being approved by the central government. After 1993, the development of industrial clusters reached its high point and local government took initiatives, adjusting its role as the policy-maker and service provider for regional development. As long as there were no prohibitions by law, the local government would try to improve the local

infrastructure, standardize the operation of specialised wholesale market, guide the local economy's development by making new policies and manage the economy through legal means. In addition, the local government also tried to nurture the development of entrepreneurship and promoted the formation of entrepreneurial groups (Wang *et al.*, 2006).

6.3.2 The Ningbo-Shaoxing-Jiaxing district

The industrial clusters in northeastern area conformed to the 'Sunan model' in the 1980s. That is, collectively-owned TVEs dominated the economy and local government interfered with the management of enterprises through government appointed agents. In the 1990s, however, as collective enterprises exposed their shortcomings to include rigid mechanisms, inefficient operations and fuzzy property rights, local government took a series of measures to undertake shareholding restructuring and to encourage the development of the private economy. In the process of shareholding transformation, local government exited from the daily management of enterprises and devoted itself to the construction of local infrastructure, the provision of government services and the simplification of project application procedures so as to create a sound development environment (Chen, 2000). Meanwhile, most of agents in the collective enterprises abandoned their contracts with local government and chose to work in the shareholding firms.

The local government has also played an important role in restructuring and privatising the SOEs in late 1990s and at the beginning of 2000s. At the end of 1997, the central government deepened the reform of SOEs and aimed to invigorate them within three years. Ningbo municipal government reorganized forty-two state-owned textile companies and established Ningbo VEKEN Group Shareholding Co., Ltd in May 1998. However, due to the lack of ownership reform, the newly-found VEKEN Group inevitably confronted various systematic defects. For example, 11,033 out of 18,678 employees were retired. It was highly important for the local government to initiate a new round of more fundamental reform so as to establish the modern

enterprise system with the corporate legal person management system. In 2000, Ningbo municipal government issued *Several Opinions on Straightening out Labour Relations of Municipal Enterprises* and *Opinions on Deepening the Reform of State-Owned Enterprises Further*. Afterwards, the reform of property rights and labour relations were carried out in the form of Management Buyout (MBO). The ownership reform was completed successfully under the guidance of local government. In 2004, the total assets of group reached RMB4.2 billion with the profits of RMB 300 million (NBEC, 2005). The restructurd SOEs have contributed to the rapid development of local clothing cluster.

6.3.3 The Yiwu-Quzhou-Lishui district

There have been different development models within this district, well illustrated by differences between the experiences of Quzhou City and Yiwu City. After the founding of the People's Republic of China in 1949, the central government made a lot of investment in Quzhou City, which became one of the biggest petro-chemical bases in Zhejiang province. The state-owned economy occupied a leading position. Quzhou Municipal Government, which was used to the planned economic development model, tried to nurture the local state-owned industry without attaching much importance to the development of the rural economy. It failed to encourage the development of rural household processing and the development of industrial clusters was slow as a result. In contrast, the Yiwu Municipal Government promoted the development of a commodity economy by establishing a specialised wholesale market in the mid 1980s. In 1982, the Yiwu municipal government allowed the farmers to do business in town, to transport goods for sale across long distances, to conduct fair trade in rural and urban areas and to encourage business competition. The policy promoted the rapid development of the 'small commodity' industry in Yiwu City. Thereafter, the Yiwu Municipal Government strengthened the regional marketing capability and created the biggest specialised wholesale market in the world – the China Small Commodity City. Meanwhile, Yiwu Municipal Government has taken measures to standardize market behaviour, establish a market credit system and create

a sound commercial environment. Currently the specialised wholesale market in Yiwu has spurred a rapid development of industrial clusters and connected local production networks with the global production system (Ding, 2006).

6.4 Institutional innovation of local government

The main roles of local government have been to establish a sound institutional environment for making innovations and nurturing new businesses, to establish relevant informal functional departments to provide services for industrial development and create a network of individual firms with all kinds of organisations so as to strengthen the overall competitive advantages of industrial clusters. That is, local government has been mainly devoted to local institutional innovation, the formulation of industrial location policy, the establishment of specialised wholesale markets and credit systems, the implementation of regional marketing and the creation of commercial associations.

6.4.1 Promoting the development of private economy

Institutional innovation has affected the development path of industrial clusters in Zhejiang province deeply. Although institutional innovation in Zhejiang province was partly induced from bottom-up, local government was a prime mover in recognising and nurturing grassroots enthusiasm. Undoubtedly, the Wenzhou-Taizhou district became the core area of institutional innovation. (The prosperity of family workshops and the emergence of the shareholding system there aroused substantial disputes within political circles in China in the 1980s, however.)

Local government in Zhejiang province influenced grassroots institutional innovation mainly by the following means. Firstly, some senior officials in the local government participated in grassroots institutional innovation directly. Local government officials did not interfere with the establishment of the first private bank (*qian zhuang*) in Wenzhou City. Indeed, officials from the provincial government supported this 'illegal' institutional innovation after conducting an on-site investigation, accelerating

the rapid development of the private economy in Wenzhou City. Secondly, the formulation of local administrative regulations and the legal acknowledgement of institutional innovation helped to create an atmosphere of making innovations and initiating new businesses. Although civil institutional innovations invigorated the rural economy, its potential for development was still limited. However, with the support of local government, institutional innovation was activated and diffused. Local government officials would make announcements after taking actions, strengthening the bargaining power between the lower-level and upper-level government and increasing the possibility of reconstructing a new political and economic contract (Yang, 1998). Thus, local government played an important role in ensuring the development of grassroots institutional innovations into formal institutions. In particular, it formulated new regulations on private enterprises and shareholding cooperatives. A 'Registration System of Enterprises' was implemented to lower the entry barriers and the development of private enterprises was accelerated afterwards.

Since the beginning of 1980s, the provincial government in Zhejiang has undertaken many important measures to ensure the development of the private economy with formal institutions, which, in turn, promoted the emergence and growth of industrial clusters (Fang, 2000). The local government promoted the innovation of a new management system for guiding the rapid development of industrial clusters in Zhejiang province. The objective of innovation within the administration system was to improve the regulation and efficiency of government so as to create a good environment for local private economic development. In the early stages of transition, institutional innovation was often interwoven with ideological issues. Consequently, the institutionalization of grassroots institutional change in some parts of China was often at the cost of the political career of forward-looking government officials. That such institutional innovation could be pushed in Zhejiang province was due to the actions of local elites, who had both innovative spirits and good educational backgrounds.

Table 6.1 The formal institutions promoting the development
of the private economy in Zhejiang Province

Time	Formal Institutions
July, 1981	The provincial government issued <i>Notice on Problems of Developing Various Forms of Business in Rural Area</i> , which required bringing the initiatives of collective enterprises and individuals to play.
January, 1985	The provincial governor stated that the cadres at various levels and divisions discard prejudice and attach strategic importance to the development of household business and cooperative enterprises.
1985	The provincial congress issued <i>The Temporary Stipulations on Protecting the Legal Interests of Specialised Households in the Rural Areas of Zhejiang Province</i> .
January 1989	The provincial leaders stated that the reform of the experimental zone in Wenzhou had achieved great success.
January 1991	The provincial government issued <i>Notice on Strengthening the Management of Privately or Individually-owned Business and Private Enterprises in Urban or Rural Areas</i> , adopting the principle of 'permitting coexistence, developing appropriately, promoting what is beneficial and abolishing what is harmful, strengthening guidance and management.'
December 1992	The provincial committee stated at the Second Provincial Individual Workers Delegates Conference and the First Provincial Delegates Conference that it be unnecessary to stick to the ratio of different forms of ownership. Privately or individually-owned business and private enterprises must be encouraged to become the new driving force of local economic growth.
April 1993	The provincial government issued <i>Notice on Promoting the Healthy Development of Privately or Individually-owned Business and Private Enterprises</i> , stating that privately or individually-owned business and private enterprises can be engaged in any business except the industries and commodities that were prohibited by the national law.
January 1998	The provincial government issued <i>Notice on Developing the Non-Public Economy Vigorously</i> , determining to develop privately or individually owned business vigorously

	and improve the quality of economic growth to create a fair and competitive environment for the non-public economy.
1998	The provincial committee declared clearly that privately or individually owned business should be developed vigorously. The private entrepreneurs would be able to enjoy favourable economic treatment, political status and social honours.
2000	The private entrepreneurs were awarded 'provincial model worker' status.

Source: Fang, M. *et al.* (2000) *The Institutional Change and Development Path in Zhejiang Province*, Hangzhou, Zhejiang People's Press.

6.4.2 The formulation of industrial policy

Recognizing the industrial tradition and resource endowments of the region, the local government in Zhejiang province has carried out the so-called industrial policies of 'one product in a village' (*yi cun yi ping*) and 'one product in a township' (*yi xiang yi ping*) since the 1980s. It has promoted the emergence of many specialised industrial clusters and overseen sufficient capital accumulation to enable industrial upgrading and regional development in the past thirty years. Initially, the industrial clusters in Zhejiang province were characterised by low efficiency, small scale and scattered distribution, while enjoying the advantages of small start-up capital and efficient management. However, with the further development of the economy, this model has generated a series of problems. The spatial distribution of clustered firms became too scattered, limiting the expansion of enterprises and the improvement of technology (Wang *et al.*, 2006). In particular, even though Zhejiang province is densely populated, scarce land and limited natural resources constrained the land use of SMEs in the industrial clusters.

Under the circumstances, the government at various levels has established industrial parks adjacent to the townships specializing in specific products so as to encourage the clustered firms to carry out technological innovation and expand their business scale with a better investment environment. Usually the local government sets up one

working party responsible for planning and policymaking on the industrial park. One shareholding company will be established to manage the industrial park through financing from the community, enterprises and individuals. As a long-term planner of industrial park, the local government not only provides the complete infrastructure and services for the enterprises in the park, but also grants a series of favourable policies on financing, tax, land and technological innovation. In some areas, the establishment of industrial parks has promoted the growth of SMEs and strengthened the regional competitiveness.

6.4.3 Building the specialised wholesale market, new quality systems and a good reputation

In the late 1980s, the infrastructure of the extant specialised wholesale markets was unable to support the rapid development of industrial clusters in Zhejiang province, so local government took an active part in the establishment of new-generation specialised wholesale markets. Local government officials were fully aware that the commodity markets and specialised wholesale markets could promote the rapid development of industrial clusters. In addition, they understood that specialised wholesale markets may well become important sources of local fiscal income. Local government tried to improve the administration and management of the newly-built or expanded specialised wholesale markets (Ding, 2006). Comprehensive administrative organisations were set up including the various departments of finance, transport, security, telecommunications and taxation, to ensure their smooth and efficient operation. The development of commodity markets and specialised wholesale markets thus became a large-scale social project dominated by local government with the participation of professional market developers and various administrative departments.

The agglomeration of homogeneous enterprises in one region frequently led to price war and mutual imitation. Some specialised wholesale markets were filled with counterfeit and inferior products, spoiling the regional image. The forgery of

low-voltage electronics and leather shoes in Wenzhou in the late 1980s had negative effects in the development of the industrial clusters there. Therefore, since the mid to late 1990s, local government has taken a series of measures to standardize market behaviour, motivate clustered firms to improve the quality of their products and establish a good local reputation. Since it understood the importance of reputation in global markets, the provincial government set a new target to establish 'Credit Zhejiang' with the aim of developing a good reputation for Zhejiang province.

6.4.4 The implementation of 'go out' strategy at the local level

The central government set up a Special Fund to support the restructuring of the textiles industry and the efforts of Chinese textile companies to 'Go Global'. The Ministry of Finance, the State Development and Reform Commission and the Ministry of Commerce issued *Circular on Relevant Policies to Promote Chinese Textile Industry to Shift New Ways of Growth in Foreign Trade and Support Chinese Textile Enterprises to Go Global* in 2006, allocating a special government fund to encourage technology innovation, industrial upgrading and overseas direct investment by textile enterprises. In particular, the government supports the establishment of overseas textile industrial parks by granting subsidies for loan interest, land supply, manufacturing facilities, infrastructure and supporting services. The initial scale of fund reached RMB 800 million, which was appropriated to provincial government who were required to formulate their own measures on the administration of the fund in accordance with guidelines given by the central government. The amount of the fund received by each province varies proportionately with exports and overseas investment of that province.

Pursuant to the Zhejiang province's *Measures on the Administration of the Fund to Support Companies to 'Go Global'* on 7 December 2005, the fund is to support the establishment of overseas specialised wholesale market, the manufacturing enterprises and R&D institutions, the implementation of 'market diversification' strategy, the promotion of overseas marketing by small- and medium-size enterprises, and the

participation of overseas trade and investment fair by the enterprises (ZFTEC, 2005).

6.4.5 Conducting regional marketing

Although the specialised wholesale market became an important channel to connect industrial clusters with clients home and abroad, industrial clusters in Zhejiang province, developed from rural areas without a sound industrial base, did not enjoy a high reputation at the start. Most of the SMEs in the industrial clusters, without their own brands or capacity to launch large-scale commercial campaigns, faced an unfavourable competitive environment. The majority of local governments adopted a regional marketing strategy and tried to create new distribution channels to promote the development of industrial clusters. For example, Yiwu Municipal Government launched domestic and international commodity fairs from the 1990s onwards to attract businessmen from home and abroad. The implementation of effective regional marketing strategies such as this has helped to connect the local industrial clusters with the global value chain (Yiwu Government Office, 2006).

6.4.6 Establish the supporting organisations and provide intermediary services

The supporting organisations that introduce new technology and information services for SMEs in Zhejiang province have helped to improve the performance of industrial clusters. For example, industrial associations have been set up to serve the clustered firms in Wenzhou. However, because non-governmental organisations (NGOs) in China play a limited role in regional economic development, local government has assumed responsibility for setting up business associations to coordinate regional industrial development and has worked in the interests of the SMEs particularly when the international anti-dumping allegations against the local commodities took place. Therefore, the majority of business associations are still subordinate to local government and many local government officials will continue to take an active part in the organisation of all kinds of commercial activities.

6.5 Conclusion

With the decentralization of authority, local government in China has been offered unprecedented economic power and is playing a more important role in promoting economic growth with more resource allocative power than ever before. Owing to the small size, short-term operation behaviour and limited capability of clustered firms, industrial clusters have generated higher demand for public policies and increased the participation of local government. The capacity and scope of intervention by local government has varied between different historic periods and different regions in the province. Provincial local government has also created a liberal political environment for making grassroots institutional innovation. Wenzhou is such a typical example. The dissemination of institutional innovation associated with the Wenzhou model has significantly reduced the cost of institutional innovation throughout the whole province and even throughout the rest of China. In recent years, local government has strengthened its role in macro- economic adjustment and service provision. It has been committed to the establishment of specialised wholesale markets, formulated industrial policy, conducted regional marketing and created an intermediary service system. Innovative government officials have also contributed to the success of industrial clusters. On the whole, social networks, entrepreneurship and local government have contributed to the formation and development of industrial clusters in Zhejiang and their dynamic interaction has, as the clusters have developed, led to significant changes in the public-private interface there.

Chapter 7 The Ningbo Clothing Cluster: Successful Interaction between Social Network, Entrepreneurship and the Local Government

7.1 Introduction

Ningbo City, located in the south of the Yangtze River Delta, has witnessed a history of over 7,000 years. It is a seaport and sub-provincial city with a population of 1.2 million in northeastern Zhejiang Province. The City lies south of the Hangzhou Bay, borders Shaoxing City to the west, faces Sanmen Bay in the south, is adjacent to Taizhou City and is naturally sheltered by the Zhoushan Archipelago to the east (Figure 7.1). Ningbo is an important industrial base in Zhejiang Province and it has formed an industrial structure mainly composed of traditional industries, such as textiles, garments, machinery, large-scale harbour-based industries represented by petrochemicals, iron & steel, power generation and paper-making, and new hi-tech industry including the integration of electronic information and mechanical & electrical engineering, biomedicine and so on. In 2006, the GDP of the city reached RMB 286.45 billion, increasing by 13.45% over 2005; the GDP per capita reached RMB 51,285 (US\$6568); the budgetary revenue income hit RMB 56.12 billion, including local revenue RMB 25.74 billion, which increased by 21.2%. The city ranks fifth among all the sub-provincial cities of China by its GDP, the fourth by local revenue income and the third by disposable income of urban residents per capita (Ninbo municipal government, 2007).

At present, the clothing industry has become one of the backbone industries in Ningbo. Ningbo has become the largest production and sales base of clothing in Asia and the garments have been exported to over 80 countries and regions. There are over 2,000 clothing firms with an annual output of over 1.4 billion suits, accounting for twelve percent of the country's total. Many famous brands such as 'Firs', 'Younger', 'Romon', 'Progen', 'Rouse', 'Aiyimei', 'Peacebird', 'Tonlion', 'Veken' have been

created and cultivated throughout the country. Most of the clothing firms have agglomerated in Duantan Town of Yinzhou District and Jiangkou Town of Fenghua City, covering an area of 15 kilometres (Figure 7.2). The clothing industry in Ningbo is dominated by the production of suits and shirts, children's wear, knitted dresses, leather wear, silk clothes and so on. The output, sales and the number of famous brands are all at the top of the league tables in China.



Figure 7.1 Map of Ningbo, Zhejiang Province

Source: http://encarta.msn.com/map_701515138/Ningbo.html (accessed on 8 January 2008)



Figure 7.2 The administrative districts in Ningbo

Sources: <http://english.ningbo.gov.cn/col/col333/index.html> (accessed on 20 December 2007)

7.2 Fieldwork in Ningbo clothing cluster

I interviewed managers and workers in fifteen firms in Ningbo clothing cluster, including eleven clothing firms, two trading companies and two garment accessories firms in the summer of 2005 and 2006. Five out of the eleven sample companies are the leading firms in the clothing cluster, that is, Youngor Group, Shanshan Group,

Louse Group, Peacebird Group and Progen Group. They originated from TVEs in the 1980s and have since become large-scale diversified modern enterprises. A sixth, Ningbo Youngor Song Yong Garment Making Factory was established in 1992 and the other five are medium-sized clothing firms established after 2000. Both the trading companies started to undertake international business before 1995. Ningbo Yinzhou Xintai Garment Accessories Factory used to be the state-owned Yin Xian No.2 Textile, Printing and Dyeing Factory established in the mid-1980s. However, more garment accessories factories were established to meet the high demand from local small and medium-sized clothing firms after 2000.

Table 7.1 The size distribution of clothing firms in the interview

The firm size (the number of employees)	Less than 100 (<100)	101-200	201-1,000	More than 1,000	Total
Number of clothing firms	3	3	2	7	15

Source: Compiled by the author.

7.3 History

The clothing industry in Ningbo has witnessed a long history and its development has gone beyond the administrative region of the city. Ningbo was the port of departure of ‘the silk road in the sea’ in ancient China. The tailors from Cixi, Ningbo, known as ‘*Zhe Ci Bang*’, were famous for making traditional Chinese clothes and monopolized the clothing industry in Beijing between the 1680s and 1930s. However, those from Yinzhou district and Fenghua, the ‘Hongbang’ tailors, did not enter Shanghai until the end of the 18th century. They grasped the skills of making western-style suits as a result of communicating with foreigners living in the foreign concessions of Shanghai. The two schools of tailors, who used to make Western-style suits outside Ningbo, imparted their skills and clothing culture around Ningbo through their social networks. Therefore, Ningbo has enjoyed its special position in the historic development of the

Chinese garment industry. Ningbo people made the first Chinese tunic suits and the first Western-style suits, managed the first Western-style suit stores, wrote the first book on making Western-style suits in China and even founded the first garment-making school in China (Qian, 1999).

After the founding of the People's Republic of China in 1949, the cooperatives initially created by villages and towns were turned into clothing factories in the 1950s, which made military uniforms and embroidered dresses in the 1960s and uniforms in the 1970s. The TVEs developed very fast after China adopted the open-door policy in 1978. The output rose by 30 percent annually before 1983. Ningbo became the processing base for companies both in Shanghai and overseas with its locational advantages and good social relations. The local clothing factories were initially engaged in processing for the clothing factories in Shanghai. Afterwards, a number of Shanghai-affiliated factories emerged. Some garment industrial companies were established to manage the state-owned, large collective clothing enterprises in the mid-1980s while others created their own brands and were given awards for the quality of their products by ministry-level and provincial governments (Qian, 1999).

The transformation of the system took place after Deng Xiaoping's southern tour speech in 1992. Shanshan Enterprise achieved great success in establishing its own brand and many other local clothing firms followed suit. Other leading firms moved towards the establishment of world famous brands. Subsequently, the Shanshan Group and the Youngor Group were listed on the Shanghai Stock Exchange in 1996 and 1998 respectively. Private enterprises mushroomed in Ningbo after 1999 when the status of the private sector was officially recognized in the Chinese constitution. A fever for establishing joint-venture clothing firms emerged in the new millennium. In the last few years, Ningbo has become an OEM production centre in China, emphasizing design, efficiency, cost, technology and diversification with a high degree of specialization and a relatively complete industrial chain (Table 7.2).

Table 7.2 The development path of Ningbo clothing cluster

Development stages	Market demand	The features of garment industrial cluster	Representative enterprises
The initial stage (1949 to 1978)	The making of ready-to-wear clothes started with limited market demand.	<ul style="list-style-type: none"> - The cooperatives initially created by villages and towns were turned into clothing factories. - The initial stage mainly dealt with the processing of supplied material. Military uniforms and embroidered dresses were made in the 1960s and the suits in the mid to late 1970s. - The clothes-making equipments were simple and the industrial development was slow. - Industrial scale was low: there were 76 garments factories with 4,780 employees. 	Ningbo Embroidery Dress Factory, Ningbo Clothing Factory and so on
The growth stage (From the end of 1970's to the mid-1980s)	The economic development and increasing foreign exchanges led to changes in fashion and promoted the rapid development of the ready-made clothes industry; the garment market was not mature; the mid-1980s witnessed the start of	<ul style="list-style-type: none"> - Ningbo became the processing base for Shanghai and for overseas companies depending on its location advantage and good social relations; - The clothes factories were set up throughout Ningbo, most of which were in Fenghua City; - Suits were mainly 	Yinzhou District Textile and Garments Factory, Fenghua Roman Suits Factory, Yinzhou District Pei Luo Chen Suits Factory, Ningbo Suits Factory affiliated with Shanghai Kai Kai Company and so on.

	<p>the fashion for wearing western suits throughout China.</p>	<p>made in Jiangkou Town, Fenghua City and Yinzhou District; shirts in Chunhu District;</p> <ul style="list-style-type: none"> -Initially processing for the clothes factories in Shanghai and some Shanghai affiliated factories emerged later; - Technology and operation were updated, but capital accumulation was slow. -The clothes market was immature and unstable, resulting in the rapid creation and bankruptcy of small enterprises; -The industry reached a greater scale with 825 clothes enterprises and 6,370 employees. The output hit 35,51 million units. 	
<p>The transition stage (The mid and late 1980s)</p>	<p>Suits were out of fashion.</p>	<ul style="list-style-type: none"> - A large number of lagged enterprises went bankrupt. - The medium-sized enterprises introduced some new equipment and improved the grade and quality of their products. - Some garment industrial companies were established, managing the state-owned, large collective clothes enterprises and 	<p>Yingzhou District Qing Chun Garment Factory, Ningbo Yong Gang Garment Factory, Roman Suits Factory and so on.</p>

		<p>TVEs (Township and Village enterprises).</p> <ul style="list-style-type: none"> - Some enterprises created their own brands and some products were given awards by ministry and provincial government, but the market value of brands and awards was not recognized. 	
<p>Development Stage (From 1990s to now)</p>	<p>The clothes market has been relatively saturated; the demand for the middle and high-grade clothes is high; new cultural elements have been reflected in the clothing industry; the consumption psychology is increasingly mature and the value of famous brands has been strengthened.</p>	<ul style="list-style-type: none"> - Shanshan Enterprise achieved great success in establishing its own brand, promoting the emergence of branded enterprises. - Some leading enterprises are moving towards the establishment of world famous brands. - The brand helps to differentiate the local garment enterprises. It also spaces out the differences in garment enterprises between Ningbo City and other areas, establishing the the regional brand- Ningbo 	<p>Youngor Group Shan Shan Group, Roman Group, Rouse Group and so on.</p>

		<p>Clothes.</p> <ul style="list-style-type: none"> - A fever for establishing joint-venture garment enterprises has emerged. - The government has attached more importance to the garment industry and improved the development environment of the garment industry. - The professional garment organisations (institutes, testing centres) and the garment associations have been established and the production system has been basically completed. 	
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Sources: Qian (1999) *Garments in Ningbo*, China Textile Press and interviews by the author.

7.4 The importance of networks in the clothing industry in Ningbo

Local networks have played an important role in the development of the Ningbo clothing cluster. In the early days, for example, some small-scale clothing making stores formed loose alliance to complete some orders. However, with the expansion of enterprises, the improvement of specialization and the strengthening of operations, the inter-dependency among local enterprises has been on the decline. According to my interviews in the Ningbo clothing cluster, horizontal cooperation among the large-scale garment enterprises is not high. Rather, some of them have established relatively complete vertically integrated industrial chains. Others purchase the fabrics and clothing accessories from other provinces because the local accessories market

mainly meets the demand of local SMEs.

At present, industrial linkages in the Ningbo clothing cluster principally take the form of information exchanges. The information is transmitted mainly through formal exchange activities and communications among employees within the cluster. The newly-built Ningbo University, Zhejiang Textile & Fashion College, Hongbang Dress College and Ningbo Textile & Fashion Test Centre also play an important part in the growth and upgrading of the Ningbo clothing cluster. Because these institutions were set up to meet the demands of the local clothing market, they have been kept in close touch with the industrial sector since their establishment. They not only provide supporting services for the clothing firms in the cluster, such as training professionals and providing workshops and so on, but also launch new products onto the market. In 2002, the Zhejiang Clothing Training Group was established by eight vocational clothing colleges including Zhejiang Textile & Fashion College and some famous clothing firms in the cluster. It has become a new model of industry-learning-research cooperation in China.

The evolution of the Ningbo clothing cluster has shown that the formation of extra-local networks at the very beginning was aimed at acquiring advanced technology and seeking target markets. Extra-local networks have constantly expanded: in the stage of brand development, the extra-local network has been extended beyond Zhejiang province to neighbouring Shanghai City, Jiangsu Province, other provinces in China and even to the overseas market.

The extra-local networks provide the following functions:

(a) The supply of fabrics. According to the interviewed enterprises, the number of fabric producers making high-quality suits is limited. They concentrate principally in Jiangsu, Shandong and Guangdong provinces. Most of the suit-making enterprises in the Ningbo cluster have established stable relationships with these suppliers. Some fabrics for high-quality suits need to be imported from Italy and Japan. Although there

are also some local textile factories, their quality cannot meet the criteria of large-scale clothing firms in the cluster because of their out-of-date technology.

(b) Outsourcing. The first type of outsourcing involves differentiated products. For example, the garment factory makes suits by itself while shirts and leisure wear are subcontracted to the clothing factories in other areas. The second type of outsourcing involves complementary products such as leather shoes and ties and so on, which can be produced in other industrial clusters in Zhejiang province; the third type is franchising where all the production procedures are subcontracted. As a result, the enterprise is mainly engaged in the management of the brand. The subcontractors are not subject to any territorial constraints.

(c) Marketing. Many clothing firms in the cluster have set up three-tier marketing networks including sub-branches, franchised stores and special marketing centres inside the shopping malls. For example, the Youngor Group has set up 157 subsidiaries and 2,200 marketing stores in China in 2007. It has also set up two overseas subsidiaries in Japan and the United States.

7.5 The role of entrepreneurs

The western concept of entrepreneurship is focused on the ability of the individual to identify profitable opportunities (Kirzner, 1973). But, in China, the key factor in successful entrepreneurship is the ability to form an alliance with those economic agents who possess or control financial assets, physical assets or specific human capital needed for brokering market entry, which is, for starting production, securing supply and gaining access to distribution channels (Nee, 1989).

The achievements of entrepreneurs have generated strong external effects in Ningbo clothing cluster. Firstly, since competition among the clustered firms is direct and relatively transparent, an individual's success will usually have strong social repercussions which can be transformed into enhanced competitive pressure and

incentives to innovate. Secondly, such results will encourage more entrants because many more channels will be created to acquire information on how to become a successful entrepreneur. Thirdly, entrepreneurs need to undertake innovation constantly in order to maintain their leading positions and make more profits, thereby promoting the evolution of the entire cluster.

7.5.1 Entrepreneurial institutional innovation in the Ningbo clothing cluster

Constant institutional innovation of entrepreneurs has invigorated enterprises and promoted the reform of the Chinese enterprise system. The institutional innovation of enterprises at the end of 1980s led to the rapid development of clothing firms. There were two types of clothing firms at that time: TVEs and family firms. Because of government intervention and inflexible operational systems, TVEs found it difficult to respond to the market sufficiently quickly and a number even went bankrupt. Meanwhile, family firms were confronted with potential crises due to the poor performance of managers, an inefficient management system and conflicts of interests among family members.

According to my interview with Chen Jianhua, Director, Zhejiang Provincial Investigation Bureau of Industry Injury, Economic & Trade Commission, the institutional innovation of Ningbo Yong Gang Clothing Factory (Shanshan Group) opened up a new space for TVEs.

“The transformation of TVEs in Zhejiang province started in 1992, which was at least 5 years earlier than Su Nan (the southern part of Jiangsu province). Meanwhile, a lot of private enterprises were also set up. For example, Shanshan Group was called Ningbo Yong Gang Clothing Factory at that time. Zhen Yonggan, factory director appointed by the government, argued that the responsible local government had to reduce its direct interference in the management of the clothing factory. The director of the factory became responsible for the strategy of the enterprise, which, itself, became a separate

legal entity with operational and management autonomy. In 1992, he took the lead in completing the reform of the shareholding system with the support of the local government. Shanshan Group separated government functions from enterprise management and assumed sole responsibility for its profits and losses. In 1996, the company was listed on the Shanghai Stock Exchange and became the first listed clothing company in China, providing the enterprise with sufficient capital to establish a modern enterprise system.”

The institutional innovation of Shanshan Group improved its performance rapidly, which, in turn, had enormous impacts on the growth of the clothing cluster in Ningbo. Other TVEs and private enterprises in Ningbo also undertook similar enterprise reform. Many family firms introduced a shareholding system and clarified property rights in order to pave the way for future enterprise growth. However, these institutional innovations, initially inspired by entrepreneurship, would, according to my research, have been impossible without the firm support of local government.

The brand strategy has not only accelerated technological and institutional innovations within the clothing cluster in Ningbo but has also involved a great number of professionals and promoted the inflow of clothing talents from outside the region, leading to the rapid development of a clothing labour market. Large and medium-sized clothing enterprises have established their own fashion design institutes (Table 7.2). The workers that the clothing firms in the cluster need most are professionals with a garment-making background. The flow of clothing talents and skilled workers among the clustered firms contributes to mutual learning and the growth of enterprises in the region.

7.5.2 Entrepreneurship and diversified business of clustered firms

Although none of the clustered firms interviewed intended to leave the textile and clothing industry, more and more clustered firms in Ningbo have developed into large-scale business groups centred on a holding company with diversified business to include finance, real estate and public health, all previously monopolized by the public sector. The Shanshan and Youngor groups are typical and significant examples of this process.

(a) The Shanshan Group began to undertake diversified business after being listed on the Shanghai Stock Exchange in 1997. Wan Jianmin, Board member/ General Manager, Shanshan Group remarked in my interview:

“Our headquarter was moved to Shanghai in 1999. Clothes, high-technology, non-ferrous metal and investment are the main sectors we are engaged in now. We have also set up Shanshan Ningbo Scientific Park. In the first half of 2006, the sales of lithium battery materials reached RMB 30 million yuan, taking a leading role in China. We aim to become the world’s largest-scale supplier of comprehensive Lithium battery materials. Our international partners include the world’s leading firms such as Sony Corporation, LG Chemical, VISTA etc. However, we will not give up the textile & Apparel Sector, which should account for one third of our total output in 2010.”

In September, 2000, Changchun High-tech Industrial Group Co., Ltd transferred its shares to Shanshan Group, which itself became the second largest shareholder of China Kinwa (600110), another listed company on the Shanghai Stock Exchange. In April, 2002, Shanshan Group became the largest shareholder of China Kinwa after acquiring shares owned by Changchun Applied Chemistry Research Institute (Jilin Province, North China) affiliated with Chinese Academy of Science, which founded Changchun Heat Shrinkable Material Shareholding Company in March, 1994. Changchun Heat Shrinkable Material Shareholding Company was listed on the

Shanghai Stock Exchange in 1997.

In 2004, Shanshan Group entered into the oil business through China Kinwa's subsidiary-Chanchun Zhong Ke Kinwa Scientific Development Co., Ltd - acquiring 95 percent shares of the shares of Song Yuan Jin Hai, which, in turn, holds 50 percent of the Jing Yuan Oil Corporation, jointly founded by COPC (China Oil and Petrochemical Corporation) and Song Huan Jin Hai Industrial Corporation. The company also purchased the remaining 5 percent of the shares from another shareholder (Chong Qing Guan Hui Corporation). In addition, Shanshan Group took over Haerbin Song Jiang Copper Group, the biggest state-owned nonferrous company (Heilongjiang province, Northeast China) on March 16, 2005 (Figure 7.3).

On August 20, 2006, Ningbo Shanshan Shareholding Co., Ltd (Shanshan Gu Fen, registered in Ningbo in 1996) and Shanshan Investment Holding Company (Shanshan Kong Gu, registered at Zhangjiang High-tech Industrial Park, Shanghai on 30 August, 2004) founded Zhong Ke Lang Fang Scientific Valley Co., Ltd with Lan Fang State Holding Company in Hebei province through China Kinwa (Figure 7.3). The registered capital reached RMB 200 million. The ratios of registered capital by Shanshan Gu Fen and Shanshan Kong Gu accounted for 75 percent and 10 percent respectively (Figure 7.4).'



Figure 7.3 Shanshan Group's involvement in the oil business

Sources: The Annual Reports of Shanshan Group Co., Ltd (2001-2005)

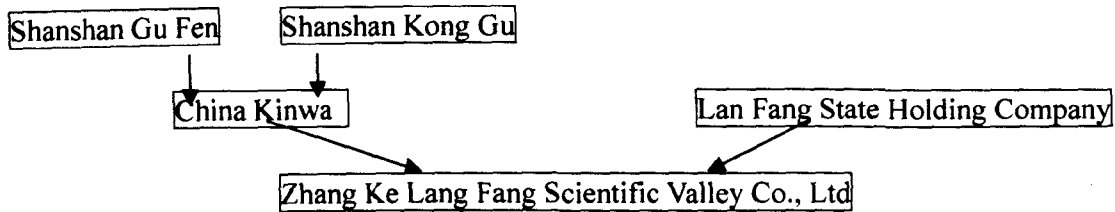


Figure 7. 4 Shanshan Group's partnership with the state sector

Sources: The Annual Reports of Shanshan Group Co., Ltd (2001-2005)

(b) The Youngor Group has been seeking to become one of the largest clothing firms in the world. The company has been sticking to its own brand strategy while developing high value-added products to meet the increasing demands of the domestic market. While maintaining its market share of mens' suits, it has also entered into leisurewear, endeavoring to expand its international market and exporting clothes with its own brand instead of conducting OEM for overseas clients. The entrepreneurs of Youngor Group have successfully implemented a vertical integration strategy and a diversification strategy, making the group one of the most competitive clothing firms in China. In addition, the entrepreneurs are trying to make the group go global by forming strategic alliances with the leading textile and fashion firms in the world.

According to my fieldwork in the Youngor Group from 2005 to 2007, the evolution of the vertical integration strategy at Youngor Group consists of the following stages (Table 7.3).

- Individual workshop processing

Youngor Group Co., Ltd started its own business at the beginning of 1980s. It mainly undertook the processing for some large-scale clothing enterprises such as the Shanghai Kai Kai Shirts Company. There were less than ten employees and several sewing machines at this stage. Compared with other state-owned clothing enterprises in big cities, the only advantage that Youngor had was diligence and the only profits came from low-grade processing.

Table 7.3 The fashion design institutes of clustered firms in Ningbo

Clustered Firms	Design institutes	Main designers
Youngor Group	Youngor Design Centre	Brand Consultant, Founder of Paris Fashion Studio and some famous designers home and broad.
Shanshan Group	Shanshan Fashion Design Headquarters	Over 60 famous designers home and abroad; some famous brands such as Marco Azalli, Renoma, Callaway, Lubiam, Le Coq and so on.
Roman Group	Roman Modern Fashion Design Research Institute; Men's design centres in Italy, Paris, Japan, the United States and Germany; Women's design centre in South Korea.	Famous designers from home and abroad.
Peacebird Group	Shanghai Peacebird Fashion Design Centre; Leisure Wear Design Sub-centre of China Fashion Research and Design Centre.	Over 20 first-class Chinese fashion designers.
Rouse Group	Shanghai Rouse Fashion Design Centre	Designers from Hong Kong mainly engaged in brand design and domestic designers who have received an overseas education.
Progen Group	China Professional Suit Design Centre	Designers in the centre who received Golden Award in China and International Professional Suits Design Competition.

Sources: Interviews by the author.

- Traditional wholesale market

With the deepening economic reform in the middle of 1980s, Youngor Group Co., Ltd grasped several good opportunities and expanded its scale of business. Making garments through using the brand recognized by domestic customers, the firm also conducted wholesale business. The penetration into the retailing market changed the market structure of the enterprise. Although the management system was not changed, the enterprise became aware of the concept of the market economy. The subsequent corporate strategy was formulated to satisfy the market demand. Meanwhile, the processing charges, the added value of the raw materials and the profits of the wholesale business led to initial capital accumulation for the expansion of the firm.

- International brand OEM

At the beginning of the 1990s, the demand for garment processing from international firms with well-known brand names promoted the rapid development of the clothing industry in China. Its overall progress was also stimulated by the development of the domestic clothing market. The Youngor Group was one of the representative enterprises that grew up at this stage. The capacity to make clothes was mainly driven by the high-demand for ready-made clothes. The constant introduction of advanced manufacturing techniques and efficient management methods at the previous stages made it possible to realize economies of scale, improve the product quality and reduce production costs along the learning curve. It laid a solid foundation for establishing a good reputation for the Youngor brand in China. The successful implementation of its brand strategy accelerated the rapid expansion of the enterprise.

- Producing and marketing its own brand

In the 1980s, more than 4,000 state-owned department stores had partnerships with the Youngor Group, but a lot of them closed down or went bankrupt as competition became fiercer at the beginning of the 1990s. As the number of business partners fell, the senior managers of Youngor Group became more competitive, aggressively promoting their brand image. In 1995, Youngor Group set up Youngor Clothing

Limited Company as a modern marketing company, which was mainly engaged in the establishment of a marketing network for cultivating its own brand, expanding the target market and improving corporate profits. Currently, more than 100 sub-branches, 300 self-supporting chain stores and 2,000 franchised stores have been established throughout the country, forming a diversified marketing network and improving its sales volume greatly within a relatively short period. Youngor Group has achieved great success in the primary market of branded ready-made clothes. The market structure of Youngor Group has also changed with the upgrading of the clothing industry in China. The enterprise has been transformed from a clothing-making factory mainly engaged in the wholesale and OEM business into a diversified enterprise group specializing in the making and marketing of clothes with its own brands. The huge profits resulting from its strong brand image has led to the accumulation of more capital and talents for the further development of the enterprise.

- Vertical integration strategy

To realize the strategy of vertical integration, a 'Textile Town' was constructed by Youngor Group with several leading Japanese *keiretsu*, with the Youngor Group accounting for 70 percent of the ownership and the *keiretsu* 30 percent, engaging in a range of processes from cotton spinning, mainly for shirts fabrics, to printing, dyeing and finishing, wool spinning and synthetic fibre programmes. More and more international giants such as Next and Gap have linked with the Youngor Group to procure high-quality fabrics. Meanwhile, with the rapid development of the clothing industry in China generally, the domestic demand for high-quality fabrics continues to rise fast. There is still ample room for developing high-quality fabrics in the near future and the group intends to take advantage of its vertical integration strategy to improve its competitiveness.

Youngor Group can compete against most leading firms in the making of ready-to-wear clothes because it has been involved in OEM for many famous overseas brands including some strict Japanese customers for many years. However,

there is still a wide gap between the quality of the fabrics produced at home and those produced abroad since most of fabrics are still made with traditional means and the inputs are still limited in the Ningbo clothing cluster generally. Youngor Group has reduced its domestic purchases because of the demand for high-quality fabrics. In order to meet the challenges of China's accession to WTO, Youngor Group has been trying to expand its international sales in recent years. It has established a subsidiary in Japan, which, in 2001, had a sales volume of US\$30 million. In addition, it has set up partnerships with leading Japanese textile and clothing companies such as Itochu and Marubeni, which has improved its business with selling prices in Japan 30% above domestic prices. But Japanese firms are concerned that Youngor Group may not maintain the quality of its fabrics in terms of their colour, strength, density, environmental standards and so on.

Another reason for Youngor's vertical integration strategy has been the high price of imported fabric as a result of high import tariffs levied. In 2005, the degree of fabric self-sufficiency was about 40 percent in China. The clothing industry needed to import 5.1 billion metres of fabric at a cost of US\$3 billion. In order to guarantee the quality of fabrics, Youngor Group needed to import 10% of their fabrics in 2005. The annual output of Youngor shirts was over 8.5 million units, 2.5 million of which were exported. However, the enterprise had to import most of the high-quality fabrics it used.

In addition, the lagging behind of the printing, dyeing and finishing of textile products has constrained the further development of the clothing industry in China. Youngor Group signed agreements with the Japanese *keiretsu* Itochu and the Italian company Marzotto in Ningbo at the end of 2005, forming the biggest global textile and clothing alliances in terms of technology, capital, training and marketing with the primary aim of evading world trade barriers and expanding the high-end textile and clothing market. The three large-scale textile firms have over 60,000 employees with an annual sales volume hitting US\$24 billion, covering over 150 countries and regions. At the

beginning of 2003, Youngor Group invested US\$40 million alongside Itochu to set up one joint venture specializing in refined wool textiles. The enterprise, which covers 60,000 square metres, has gained a competitive advantage in the international market by introducing globally advanced equipment for dyeing, weaving and finishing.

Itochu, the biggest sales dealer of fibre products around the globe, is one of the most important business partners of Youngor Group. With the help of Itochu, the subsidiary of the Youngor group in Tokyo has expanded its business so rapidly that it is regarded as one of the companies with most growth potential in the twenty-first century by the Japanese media. Meanwhile, the Italian Marzotto Company has a 200 year-old history owning a series of the world's leading brands such as Hugo Boss, Valentino and so on. At present, it is also the biggest supplier of textile fabrics in Europe. In order to meet the global competition of textile and clothing industry, Marzotto had the intention of expanding its investment in China, looking for its new strategic partner in Asia. Originally it planned to become a majority shareholder in a Chinese textile company or set up a new high-quality textile company. In the end, it decided to form alliances with Youngor Group and Itochu Keiretsu to expand its global share. As explained above, there is a substantial gap in the production of high-quality textile fabrics between China and western countries. Since 2005, the sales volume of western-style clothes and shirts has risen by 120% and 70% respectively while that of textile fabrics by over 500%. In recent years, Youngor group has established some joint trading institutions in the United States, Japan and Hong Kong, trying to establish its own overseas marketing channels. The cooperation with Itochu and Marzotto has been one of the most important strategies for Youngor Group in its expansion into the high-end market and its arrival as an important player on the international textile market.

The joint venture between Youngor Group, Itochu and Marzotto, has provided exclusive production skills and technology boosted by new investment, technology transfer and marketing channels, improving the competitiveness of all three corporations. Italian manufacturing equipment has arrived at the Youngor Industrial

Park in Ningbo and Italian experts visit the Youngor Group regularly to supervise the production. Italy is well-known for its textile and clothing industry with a lot of international brands. It also has a mature flow of production, technology, workshop management, advanced marketing models, global networks and complete marketing systems. Chinese companies have lower labour cost and diligent workers. Japan owns the advanced management models and has rich experience of international operations. The alliance formed by these three leading enterprises in the world allows it to take advantage of their respective advantages, strengthening the competitive advantage of each.

Competition among modern enterprises involves competition in terms of time, cost and quality of the whole supply chain. Youngor's construction of 'Textile Town' has not only reduced transport and transaction costs with fabrics suppliers, but has also ensured that the quality of fabrics for ready-to-wear clothes keeps up with international fashions. Youngor Group expects to reach the international level of making fabrics and strengthen its core competitive advantage. The advantages of Youngor Group's vertical integration strategy are as follows: (a) Economies of Scale. The high demand for ready-to-wear clothes and marketing network can ensure the realisation of economies of scale. The moving towards the upper stream will save a large amount of transportation costs and transaction costs, reducing the cost of ready-to-wear clothes in the end. (b) Reorganizing the operation. The enterprise will be able to benefit more from the operation and reorganisation since most of partners are the leading international textile firms. Moving towards the upper stream is based on the quick response of whole supply chain. The non-core business activities will be subcontracted to external specialised firms. The development and production of fabrics have become the core activities of Youngor Group. The introduction of advanced technology and scientific management will fill the gap of producing, printing and dyeing, afterfinishing of domestic advanced fabrics. (c) Risk sharing. The utilization of external resources will reduce the risks of investment and improve the adjustment capacity to the changes of business environment. The R&D and

management of Youngor Group will be geared to international standards through establishing the joint venture of 'Textile Town'.

Table 7.4 The evolution of the vertical integration strategy and the marketing network of the Youngor Group

History	Textiles	Clothes	Marketing network
Past (1979)	Processing with supplied material or purchase from other domestic firms	Individual workshop processing- OEM of domestic shirts	The marketing channels of domestic state-owned clothing firms
	Purchasing from other domestic firms	Expanding the scale of production	Domestic wholesaling and retailing markets
	Processing with supplied material or purchasing from other domestic and international firms	Expanding the scale of production, OEM of international brand	The marketing channels of international firms
	Purchase from other domestic and international firms	Producing and marketing its own brand	Organizing the distribution channels (regions/ branches/self-supporting/ shopping centres/ franchise and so on)
Present	Establishing joint ventures with other domestic and international firms producing fabrics	Producing at the newly-built firms in western regions	The primary integration of domestic marketing channels
Future	Relocating of fabric producing workshops	Relocating of production firms	The integration of domestic and international marketing channels; multi-brand operation

Source: The Author's fieldwork

- **Diversification strategy**

In addition, Youngor Group has been engaged in the development of high-quality residential apartments and the provision of supporting services with the advantages of large land reserves and capital since 1992. The gross profits of this real estate

development business rose steadily from 2001-2005 (Table 7.4). The total assets of Youngor Real Estate Development Corporation exceeded RMB2.3 billion in 2005 by which time its net profits had reached the same level as Youngor's mainstream clothing business. While maintaining its leading position in Ningbo, Youngor is making efforts to become one of the leading real estate developers in China.

Li Ruchen, President, Youngor Group elaborated his corporate strategy in my interview as follows:

“The textile and apparel industry will always be one of the best sectors we will be engaged in. However, if we aim to become an international famous enterprise, we cannot only stick to the textile and apparel industry. My philosophy is ‘We do not undertake the uncertain business.’ I think that the real estate is a good industry and we entered it in 1992. We are developing high-quality residential apartments and provide supporting services with the advantage of land reserve and capital. In maintaining our leading position in Ningbo, we will do our best to become one of the first-class real estate developers in China.”

On August 5 2001, the board of directors of Youngor Group Joint Stock Co, Ltd decided to invest 320 million yuan to become a founding member of Zhongxin Securities Stock Co Ltd. Zhongxin Securities Stock Co., Ltd, one of the top ten mainland stockjobbers, was authorized by the Chinese Securities Regulatory Commission (CSRC) and was set up initially by some mainland corporations working together with Zhongxin Securities Co., Ltd as the core player. Youngor chipped in capital to set up Zhongxin Security Stock Co., Ltd. in order to implement a sustainable development strategy, improve profitability and strengthen Youngor's comprehensive competitiveness. Youngor made the investment as a means of tapping the capital market while still adhering to its main operation business of garment making, expanding operating space and giving investors a good return. In 2007, Youngor Group made huge profits as a shareholder of Zhongxin Securities Stock Co

Ltd. with the prosperous capital market in China.

Table 7.5 The gross profits of clothing and real estate business
in Youngor Group Co.,Ltd from 2001-2005

(RMB 100 million)

	2001	2002	2003	2004	2005
Clothing	7.25	8.32	6.91	7.87	9.29
Real Estate	-	1.83	2.49	5.54	5.69

Sources: The Youngor Group (2001-2005) *The Annual Reports of Youngor Group Co., Ltd (2001-2005)*. Ningbo, The Youngor Group.

More and more clustered firms including the Peacebird Group, the Louse Group and the Progen Group in Ningbo have also adopted diversification strategies as they have developed. Thus sectoral specialization has increasingly moved away from the mono-sectoral pattern of specialization towards more diversified models of production. However, none of the business groups in my interview intend to leave the textile and apparel industry. It is still one of their favorite industries.

“Our business is being diversified on the basis of our leisure brand ‘Peacebird’, which implies fashion and leisure, so we will try to develop the leisure industry in the near future. Our business has been extended to international trade, printing and packaging, fashion and leisure health care, the development of fashion and leisure centre.”

(Che Xiaofang, Vice Executive President of Peacebird Group)

“Garments will always be our backbone industry. Uniform-making is the main business in my company, accounting for 70%. Our clients are mainly the large –size enterprises including China Telecom, China Mobil, Ministry of Security, National Customs, Eastern Airlines, Macao Airlines and so on. We mainly concentrate on the

uniforms and suits while making dress and leisure wear. We are also trying to pursue the diversification strategy so as to reduce the business risks. Up to now, our business also covers the investment, banking, printing, air ticket service, real estate and property etc. In the downtown, we have Progen Mansion. We are a big shareholder of Yingzhou Bank, which is the first shareholding bank transformed from the rural cooperatives. Besides, we make huge investment in setting up Ningbo Zhuo Yang Printing Company.”

(Zhu Hongjun , Director of Administrative Office, Progen Group)

However, the small- and medium-sized firms only want to concentrate on the textile& apparel sector and try to expand their business.

“I do not have any idea to diversify our business now. After all, it is a new company. We will concentrate on the sportswear first. It is not the time to make the diversification. Maybe in the future.”

(Huang Jianjun, General Manager, Ningbo Orlando Dole Garment Co., Limited)

“Our company is a newly-established joint venture with Japan and Hongkong under Youngor Group in 2003, mainly engaged in the development and marketing of childrenwear.”

(Zhang Lunjie, Deputy Manager,
Ningbo Youngor Childrenwear Co., Ltd)

Trading companies in the cluster attach more importance to the concept of ‘service’ to their overseas client.

“I think that we are the service provider, so we must offer the best service to our client on the basis of our procurement capability. We attach more importance to the initial product development and

deliver each batch of orders successfully through the strict quality control. What our client pay is for our trade service. In my opinion, a trading company is a team, providing the overall service to our clients ranging from the initial development of products to the delivery. Many clients might go to the factory directly, mainly for a single factory. For those clients dealing with collection lines, series of products, they will come to us.”

(Zhao Qian, Manager, Import & Export Dept 3,
China-Base Ningbo Foreign Trade Co., Ltd)

7.5.3 Entrepreneurship and the public-private interface

Despite the growing significance of the private sector in the Ningbo clothing and textile cluster, it is clear from my research that the social connections between entrepreneurs and local government officials are indispensable to the successful implementation of any diversification strategy by the clustered firms. In the particular institutional environment of contemporary China, the political status and prestige of entrepreneurs have created ample room for their firms to make more profits. Many entrepreneurs actively try to strengthen social relationships with local government officials. In addition, entrepreneurs of large-scale clustered firms have been taking an active part in political activities and improving their local political influence in order to gain advantages in market competition with their particular political identities.

7.6 The role of local government

My fieldwork has shown that during the development of the clothing cluster in Ningbo, the role of local government has continued to change. At the beginning of the early 1980s, the local government established collective clothing factories in order to develop the local economy, directly providing managers to operate these enterprises. Since the mid-1980s, the local government has reduced its direct intervention with

clustered firms, coordinated with local entrepreneurs to undertake shareholding system reform, established a modern enterprise system, strengthened the modes of macro-economic planning and regulation, improved the environment of industrial development and taken an active part in regional marketing.

“The upgrading of industrial clusters is an important task the provincial government is facing. If you can solve the problem, the government will invite you definitely. The development of industrial clusters is closely related to industrial upgrading. The difficulties lie in cutthroat competition and product upgrading.

The industrial upgrading is related to the industrial chain (forward and backward linkages) and institutions. The production costs (energy, land and labour) have been rising because of the expansion of output. The economic development is related to institutional change. The Jiangsu model is collective enterprises plus foreign-funded enterprises.”

(Chen Jianhua

Zhejiang Provincial Investigation Bureau of Industry Injury,
Zhejiang Economic & Trade Commission)

In recent years, the local government has strengthened its functions of service and coordination, cultivated a new cultural environment within the clothing cluster, and improved the local investment environment and coordinated competition and cooperation with neighbouring clusters with the aim of strengthening the cluster's locational advantages and improving its international competitiveness. The main functions of local government in the Ningbo clothing cluster include: (a) the formulation and implementation of industrial planning, (b) the creation of a sound industrial, investment and trade environment, (c) the provision of help to clustered firms to cope with trade frictions and the appreciation of the RMB and (d) the development of peripheral industries.

'I think that there are more advantages than disadvantages after China's accession to the World Trade Organization (WTO). However, the domestic competition in disorder has become more serious. There is the price war in the domestic market. We are also facing a lot of difficulties such as the rising costs (labour, accessories, electricity, and water) and the appreciation of RMB.

The domestic business environment has become more and more open. As long as our business is legal and we do not evade the tax, we do not face any intervention from the government, but we have to face more complicated international business environment including trade discrimination and political discrimination. Entrepreneurs nowadays are attaching more importance to the fluctuation of exchange rates and changes of quotas than the government.

Safeguard measures and specific safeguard measures undertaken by the U.S government have made it difficult for our company to export shirts to the United States, so we cannot expand the U.S market smoothly. However, we are still exporting a lot of shirts to Europe and Japan in the form of OEM including the famous brands such as NEXT, M&S, Monsoon etc.

American and European companies have come to inspect our workshops occasionally. They keep an eye on our labour standards including the human rights, working hours, hand-washing detergent and so on.'

(Zhong Leiming
Board member, Director of Administrative Office, Youngor Group)

Thus, with regard to industrial planning, the Ningbo municipal government has been

involved in changing the previously weak cohesion and excessive competition of clustered firms by formulating and implementing mid- and long-term planning of the clothing industry to make full use of regional resources and improve the image of the clothing cluster. At the same time, the government has constructed industrial parks where clothing firms agglomerate to improve collective efficiency. The municipal government has also played an important role in creating a sound industrial investment environment and these measures can be regarded as important institutional innovations. The functions of government have been integrated in order to improve the quality of government service, the approval system has been simplified and government efficiency has been improved.

With regard to the trading environment, in order to keep the clothing cluster *au fait* with the rapid development of international markets and improve the competitive advantages of local brands, the municipal government has begun to make use of e-commerce to help firms to expand their business. An e-commerce platform has been created to diffuse information and facilitate transactions. Most clustered firms have joined the platform. Since 1997, the local government has held the Ningbo International Fashion Festival annually, which has helped to improve the cultural environment and collective image of the clothing cluster. The China International Fashion Trading Fair (originally Ningbo International Fashion Fair) is one of the top five fashion fairs in China. The 10th fair in 2006 attracted more than 600 clothing firms, 100 international fashion brands and over 5000 overseas buyers from home and abroad, thereby promoting the internationalisation of the clothing cluster in Ningbo. Moreover, the Ningbo municipal government has established clothing associations to promote the development of the clothing cluster. These associations play an important role in coordinating cooperation and exchange among clustered firms and in strengthening the collective efficiency of the clothing cluster.

With the implementation of a brand strategy by large-scale clustered firms, the demand for imported fabrics has increased considerably and testing fabrics has

become essential. For those clustered firms engaged in the export and import business but with insufficient capacity to set up their own testing departments, the Ningbo Quality Supervision Bureau has established the Ningbo Fibre Inspection Institute to do the job. While fabrics are upgraded rapidly and new products are launched into the market on a constant basis, the national testing system continues to lag behind. In recent years, the Ningbo Fibre Inspection Institute centre has cooperated with universities and research institutions to improve testing methods, thereby to offer better services to clustered firms. The municipal government has also created foreign trade development funds to help clustered firms establish overseas marketing centres, providing them with guaranteed credit security facilities.

Currently, China is one of the major clothing exporters in the world and is the largest supplier to the United States, the European Union and Japan. Although the ATC came to an end on 1 January 2005, China's Ministry of Commerce signed a Memorandum of Understanding with the European Union and the United States. The new quotas will apply until the end of 2007 for the EU and until the end of 2008 for the United States. In addition, the peg of the Chinese currency to the United States dollar was replaced by a peg to a basket of currencies, leading to a moderate appreciation of the RMB by 6 percent by the end of May, 2007 (Ministry of Commerce, 2007). The RMB is expected to appreciate more in the near future. Almost all the clustered firms interviewed in Ningbo agreed that the appreciation of RMB has led directly to a loss of profits. Small-and-medium sized clustered firms, those mainly undertaking labour-intensive and low value-added products, have been affected greatly. The trading companies in the cluster targeting American and European markets have been under great pressure since the financial tools to avoid foreign exchange risks at local banks remain limited.

'The appreciation of RMB has led to our direct loss of profits. In the short run, the loss will exist since we cannot change our previous contracts. The only way to avoid this is that we must develop more

high-end clients instead of low-end clients. For example, we have raised our offer prices of sports wear for next autumn such as skateboarding, surfing etc because of the appreciation of RMB and rising costs of raw materials.

The appreciation of RMB is the trend and it will not change. It might rise by 20-30%. I think that it will affect our employment, balance of foreign exchange, national debt and credit greatly.

The banks will also incur great loss on granting foreign exchange loans in the following 5-10 years. BOC (Bank of China) will suffer a loss of US\$3 billion while ICBC(Industrial and Commercial Bank of China) incur US\$70 if RMB appreciates by 10%.

We are in a very passive position since the relevant banking services are very limited. It is still not worthwhile even if we make use of forward foreign exchange contracts for the exports of US\$ 20 million. For example, when we sign a forward foreign exchange contract with a bank at the rate of US\$ 1for RMB7.9, the range of appreciation might be broader in 6 months. It is not worthwhile on an overall assessment.

We once have an idea to reduce the risk through providing raw materials to manufacturers in other developing countries and then re-export, but it is very difficult to undertake quality control and keep the delivery time. What we can do now is to maintain the profits margin through upgrading our clients.

We are exporting 60% to the United States and 40% to Europe. We have the clients at Manchester. Pounds and Euro are hard currency

and it is better to settle in Sterling or Euro, but some of our clients are listed companies and they can calculate more accurately than we do. To them, it is better to settle in U.S. dollars. Japan is a very different market and we mainly settle in U.S. dollars.'

(Cen Ganqi, General Manager,
Ningbo Jehson Textile Import& Export Corporation)

'The appreciation of RMB has great impacts on our business, particularly on the small orders since most of clients are not happy if we raise our prices. We are settling most of our transactions in US dollars because our main export destination is Middle East. If we choose other currencies, it will be difficult for us to make the international settlements in the bank.'

(Huang Jianjun, General Manager,
Ningbo Orlando Dole Garment Co., Limited)

Facing the new restrictions on Chinese clothing exports, both central and local governments have taken a series of measures to promote the structural adjustment of clustered firms, to strengthen the competitive advantage of original brands and to improve the collective efficiency of the clothing cluster. The export duties on 79 textiles and clothing products were abolished on 30 May, 2005 and the export taxes on 17 textiles and clothing products which were subject to quantitative restrictions based on the MOU with EU Commission were removed on 25 July, 2005. In addition, the Ministry of Finance in China suspended all export taxes on textiles products on January 1, 2006.

The local government has helped the SMEs in the cluster to expand their potential markets in India, Russia, ASEAN, Africa and South America. Early warning information has been sent to firms to avoid anti-dumping, anti-subsidy allegations and to include any information on provisional safeguard measures taken by importing

countries. Above all, favourable policies have been formulated to encourage processing trade and the upgrade of the processing capacities in the cluster. Some firms mainly targeting the domestic market or producing the high-quality clothes do not think that the appreciation of RMB will be a direct threat to their business.

'The appreciation of RMB will have some effect in our business, but it will not be very serious since most of the profits lie in the quality of fabric. Our rate of profitability reached 10% while the average rate in Ningbo area is about 5%. Some trading companies and small-sized companies relying on the thin profit margins might go bankrupt quickly if RMB appreciates quickly.'

(Xu Yang ,Manager, Ningbo Xin Ming Da Knitting Co., Ltd)

'Trade frictions and appreciation of RMB have not much impact on our business.'

(Zhu Hongjun , Director of Administrative Office, Progen Group)

With regard to the development of peripheral industries, according to the interviewed enterprises in Ningbo, connections with large enterprises in regard to sourcing products locally is remarkably weak. Even their clothing accessories may be purchased outside Ningbo, the local clothing accessories market serving mainly small-scale garment factories. This phenomenon is principally due to the following factors. Firstly, because the style of men's wear changes slowly (Ningbo being famous for menswear), scale economies of large-scale mechanized production are significant. Once enterprises have made use of modern clothing-making equipment, the production capacity can basically satisfy market demand and outsourcing is unnecessary. Secondly, there are currently three tiers in the Ningbo clothing industry. The Youngor and Shanshan Groups comprise the first tier, the Peacebird and Progen Groups the second, the rest the third. The groups in the first and second tiers attach more importance to building their own brands, making efforts to display the cultural content and speciality

of their enterprises. However, subcontracting to the small-scale enterprises makes it difficult to control the quality of garments and increases the risk and cost, so the latter may have to make their own garments or subcontract with qualified producers outside the region. Moreover, there are also some enterprises making dresses and sophisticated leisure wear. As dresses needs more individualization and higher design capability, the risk and costs of subcontracting are relatively high.

However, the interactions among clustered firms in the region have been strengthened with deepening globalisation. The clothing industry is labour-intensive and the technological content is not high. The majority of clustered firms are undertaking OEM business and it is often impossible for a single firm to complete one large order within limited time. Under these circumstances, several clustered firms usually cooperate to make deliveries on-time, with local inter-firm alliances driven by the strength of demand. Different segments exist within the same industry and cooperation among firms at different positions in the value chain has taken place naturally.

An industrial cluster has the feature of flexible specialization, small-and –medium sized enterprises being able to respond to the market very quickly. As competition becomes fiercer, local inter-firm alliances strengthen, allowing firms to face difficulties arising from, say, a shortage of rural labour or constant appreciation of RMB, more easily. Distribution channels and logistics are attached more importance by the clustered firms as a result.

7.7 Conclusion

My empirical research in the Ningbo clothing cluster in China shows that the development of the private economic sector has depended critically upon the work of the public sector. The growth and upgrading of clothing clusters in China has been closely linked with shifts in the nature of the public-private interface, which has been embedded within the interactions between local social networks, entrepreneurship and

the local government.

The clothing cluster in Ningbo has developed on the basis of specific, local, social and economic conditions. Informal, formal and global institutions have been closely related to the growth and upgrading of the cluster. In the initial period of development, some community members with entrepreneurship and market consciousness took advantage of their social networks, gained advanced clothing-making skills and grasped market opportunities from their fellow villagers in Shanghai. With the support of local government, they established collective clothing firms. The achievements of entrepreneurs encouraged local people to set up more clothing firms which led to the formation of the clothing cluster in the 1990s. The capital accumulation and technological achievements of TVEs and SOEs in the 1980s and early 1990s laid a solid foundation for the formation of the Ningbo clothing cluster and the growth of firms in the cluster. Meanwhile, entrepreneurs accelerated institutional innovation and technological innovation with the help of local government. The implementation of brand strategy has improved the competitiveness of industrial cluster. The quality of the public-private interface still matters when the clustered firm is undertaking its diversification strategy.

The *government-as-leader* strategy of the 1980s has been gradually transformed into a *government-as-provider* strategy since the late 1990s: local government has changed its function from directly managing enterprises towards coordinating industrial development and regulation of the market generally in order to improve the collective efficiency of the clothing cluster. But local government continues to be the provider of the framework in which the clustered firms in Ningbo operate and the supplier of services to them. With increasing trade frictions and the constant appreciation of RMB, it continues to adjust its policies to improve the competitive advantage of the whole cluster.

Thus, although the Chinese economy is increasingly characterized by private rather than state-owned enterprises, my research into the Ningbo clothing cluster suggests that the public sector is likely to continue to play a crucial role in the expansion of clustered firms and the upgrading of the industrial cluster there.

Chapter 8 The Shaoxing Textile Cluster: Case of Entry into Petrochemical Industry and Privatisation of Specialised Wholesale Market

8.1 Introduction

The city of Shaoxing, situated in the southern corner of the Yangtze River delta and the mid-northern part of Zhejiang Province, covers an area of 8,256 square kilometres and has a population of 4.3 million. It has six administrative divisions, Yuecheng District, Shaoxing County, Shangyu City, Shengzhou City, Xinchang County and Zhuji City with 118 township-level subdistricts (*jiedao*) and townships (*xiang and zhen*). It is one of the largest textile cities in China with over 2,500 textile and clothing enterprises. It is also the base of synthetic fibres in Zhejiang with an annual production of 2.7 billion metres of all kinds of fabrics (Shaoxing municipal government, 2007).

Shaoxing has a well-developed wholesale market called 'China Textile City' (*Shaoxing Zhongguo Qinfangchen*), which is the largest wholesale textile market in China, recording a turnover of RMB 30 billion in 2006 (Figure 8.1). It is also the largest cloth market in the world and the largest fabrics distribution centre in Asia. Additionally, Shaoxing hosts the Qianqing Light Textile Raw Material Market and the Yuechen District Light Textile Raw Material Market. The wholesale markets, which have connected the textile clusters in Shaoxing with domestic and overseas markets, have contributed greatly to the competitive advantage of the textile industry.



Figure 8.1 Shaoxing light textile market

Source: Gu Qiang (2006) Promoting the upgrading of China industrial cluster up the global value chain. www.cggc.duke.edu/pdfs/workshop/20061110.pdf

Shaoxing has also formed a complete industrial chain, ranging from synthetic fibre raw materials and textile machinery to textile products, from printing and dyeing to finishing the garments. Since 1988, the Shaoxing textile cluster has witnessed a rapid increase of textile exports. From 1998 to 2003, the annual growth rate of exports was over 50%. Despite constant trade frictions, the absolute value of textile products in Shaoxing has been increased greatly. According to the Shaoxing Customs, the export volume of textile products in 2006 reached US\$70.72m, accounting for 67.33% of total exports from Shaoxing (The Shaoxing Statistics Bureau, 2007).

The Shaoxing textile cluster is made up of a series of sub-clusters located in different districts and counties. The urban area and Shaoxing county are mainly engaged in synthetic fibre and fabrics; Shangyu City in cotton textiles; Shenzhou City in ties; Xinchuan County in wool spinning and knitting machinery. Some leading firms have

emerged in each sub-cluster. For example, in the printing and dyeing industry, the dyestuff output of Zhejiang Long Shen Group Shareholding Co., Ltd and Zhejiang Runtu Co., Ltd accounted for 47.1% of total output of that industry in China in 2006; Zhejiang Yong Tong Dyeing and Knitting Group Co., Ltd is one of the top ten dyeing and printing enterprises in China; in the clothing industry, Bushen Group produced 5.22 million units of shirts, 310,000 suits and 2.26 pairs of trousers in 2006 (Table 8.1).

Table 8.1 The production capacity of Shaoxing textile cluster in 2006

Products	Production Capacity	Share of National Output
Polyester (PET)	3 million tons	25.6%
Polyester fibre	2 million metres	20%
Knitting products	5 billion metres	17%
Printing and dyeing	18 billion metres	38.6%
Clothes	373 million units	2%
Ties	350 million units	80%
Printing and dyeing raw material		47.1%*
Textile machinery	60,000 sets	

Sources: The Shaoxing Statistics Bureau (2007) and the author's fieldwork

* The ratio is only for the first two printing and dyeing firms in Shaoxing: Zhejiang Long Shen Group Co., Ltd and Zhejiang Runtu Co., Ltd

8.2 The Terephthalic Acid (PTA) programme in China

The Shaoxing textile cluster hosts some of the most efficient private firms in the synthetic fibre industry in China. Since a relatively complete industrial chain has already been formed in Shaoxing, some clustered firms had the intention of launching terephthalic acid (PTA) projects in order to make more profits and realize industrial

integration further. In 2003, about 10 corporations in China were reported to the National Development and Reform Commission (NDRC) by the provincial government to apply for the PTA programme. However, only two of them eventually obtained licences (*piwen*). One was Huanlian Sunshine Petro-chemical Co., Ltd and the other was Oriental Petrochemical (Shanghai) Co., Ltd, which was set up in the Shanghai Pudong New District by Taiwan Far Eastern Textile Co., Ltd in January 2003.

The PTA is the preferred raw material used to manufacture polyethylene terephthalate, a widely used PET polymer for the production of textiles, bottles, packaging and film products (Figure 8.2). World production in 1970 was around 1.75 million tonnes. By 2006, global PTA demand had substantially exceeded 30 million tonnes. In China, 90 percent of PTA production is used in the textile industry. The production and consumption of PTA in China rank the first around the world. In 2005, the output of PTA was 5.89 million tons while the domestic demand reached 12.14 million tons, yet China had to import 6.49 million tons (Xinhua News, 2006).

Para-xylene (PX) is also petroleum-derived raw material needed in the manufacture of PET, which is a major polymer that is the main constituent of synthetic textile fibres for clothing, thin films for packaging and containers for beverages. The worldwide consumption of PET is over £20 billion per year. About 99% of PX produced is used for PET production, making PX a commodity-scale chemical. In addition, it has a forecasted annual growth rate lying between 5-10%, comparing favorably to the 2-4% average growth rate in the overall chemical processing industry (Xinhua News, 2006). Therefore, it is expected that a large number of new PX and PTA production facilities will be installed in the coming decades in China.

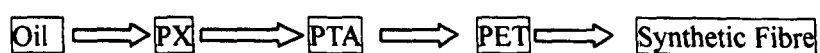


Figure 8.2 PTA in the synthetic fibre industry

Source: Compiled by the author.

The lower stream up to PET has been fully developed, but the shortage of PTA supply has remained the bottleneck of the PET industrial chain in China. At present, the demand from the textile industry in Shaoxing, Xiaoshan, Tongxiang and Ningbo, all in Zhejiang province and the biggest PTA consumption areas in China, has reached 3 million tons, but most of the PTA has been imported from abroad. The domestic production of PTA and PET has been constrained by the administrative system in China. Originally the state-owned China Petroleum & Chemical Corporation (SINOPEC) and CNPC monopolized the production of PTA. Despite advanced technology, huge investment and complex approval procedures, many clustered firms attempted to enter the field.

Up to now, the enterprises that have already launched and undertaken PTA projects include the subsidiaries of SINOPEC, CNPC and some FIEs. British Petroleum (BP) Zhuhai Chemical Limited, located in Zhuhai, a harbour city in Guangdong province, South China, launched its first PTA joint venture with 85 percent of the capital held by BP and 15 percent held by Fu Hua Group Ltd, a local company on 9 September, 2003. The chemical plant, with a total investment of over 300 million US dollars, has a capacity of 350,000 tons of PTA. BP is planning a second world-scale PTA plant. The new plant, with a capacity of 900,000 tonnes a year, aimed to be the first to employ BP's latest generation PTA technology and, subject to final approval from the Chinese Government, was expected to come on stream at the end of 2007 to meet PTA demand growth in China (BP, 2006).

Table 8.2 The main producers of PTA in China in 2007

SINOPEC	<p>Yangzi Petrochemical Shareholding Co., Ltd, Jiangsu Province</p> <p>Yizhen Synthetic Fibre Shareholding Co., Ltd, Jiangsu Province</p> <p>Luoyang Petrochemical Shareholding Co., Ltd, Henan Province</p> <p>Shanghai Petrochemical Shareholding Co., Ltd, Shanghai City</p> <p>Tianjin Petrochemical Shareholding Co., Ltd, Tianjin City</p>
CNPC	<p>Liaoyang Petrochemical Fibre Company, Liaoning Province</p>
FICs	<p>BP Zhuhai Chemical Limited, Guangdong Province</p> <p>Xiamen Xianglu Petrochemical Co., Ltd, Fujian Province</p> <p>Oriental Petrochemical Co., Ltd, Shanghai City</p> <p>Ningbo Mitsubishi Chemical Co., Ltd, Zhejiang Province</p>

Source: Compiled by the author.

8.3 Entrepreneurship and the PTA programmes

Since the PTA programme is capital- and technology-intensive, the cost of obtaining patents is very high and has already risen above ten million U.S. dollars. Additionally, the project cannot be launched until NDRC and the State Council issue the necessary licences because PTA is inflammable and explosive. Even if some clustered firms possess abundant capital and advanced technology, they do not wish to expose

themselves to high risks nor do they have sufficient time to wait for official licences: those firms that are not engaged in the petro-chemical and oil industries must spend at least two years applying for official licences in addition to the construction time.

That the import dependency of PTA is high in China has been mainly caused by imperfect competition in the domestic market. The approval of PTA projects needs to be accelerated and the large-scale clustered firms that do have capital advantage should have priority in order to change the current situation in which the production of PTA is almost totally dominated by SOEs and FIEs. The PTA market should be opened to domestic private firms as well. As some clustered firms in Shaoxing move towards the upper stream of industrial chain, strict market entry has made industrial development more difficult. My pilot study and fieldwork in the Shaoxing textile cluster indicate the significance of the public-private alliance in the winning and implementation of PTA projects there.

8.3.1 Zhejiang Hualian Sunshine Petro-Chemical Co. Ltd (Hualian Sunshine)

I first visited Zhejiang Hualian Sunshine Petro-Chemical Co. Ltd in the summer of 2005. The company, which was founded at Binghai Industrial Park in Shaoxing County, Zhejiang province, East China in March 2003, is a large-scale petroleum enterprise with registered capital of RMB 970 million. The total assets were RMB8.8 billion and the sales income was RMB 2.9 billion from January to September, 2006. It is mainly engaged in PTA, PET slices, synthetic fibres and other raw materials. Huanlian Sunshine is the first large-scale state-holding petrochemical company with private equity participation. It has not only created a new investment model but has combined the standardised internal management and risk control system of SOEs with rapid market response, a flexible operating system and an attractive rewards scheme for employees normally associated with the private sector, leading to the joint venture advantage of public-private enterprises. The company was created from investment by Hualian Holdings Co., Ltd. (51%), Zhejiang Zhanwang Group (24.5%) and Zhejiang Gabriel Group (24.5%).

Hualian Holdings Co., Ltd is owned by the Union Developing Group of China (UDC) with its headquarter in Shenzhen. It is a large-scale SOE engaged in the textile and clothing industry under the direct control of central government. It has also diversified its business including hi-tech, commerce, trade, finance, real estate and so on. Two subsidiaries of the group have been listed on Shenzhen Stock Exchange, *Hua Lian Kong Gu* and *Shen Zhong Guan*. The group was ranked 280th among the 1,000 China's largest enterprise groups in 2000. Additionally, it has also been listed in the 'Top 500 of the World Textile Industry'.

UDC has invested in and constructed two large-scale PTA and PET projects in Zhejiang Province with the cooperation of private firms in the Shaoxing textile cluster. Their total investment in the PTA project reached around RMB2.4 billion with annual output of 600,000 tons in 2003. In addition, it also invested in the PET programme with RMB 1 billion and annual production capacity hit 330,000 tons, This PET project also holds a leading position in terms of its scale and its technology in China. The Group is planning to establish the largest petro-chemical industrial base with the latest technology in China.

Both Zhejiang Zhanwang Holding Co., Ltd. and Zhejiang Gabriel Holding Co., Ltd. are private enterprises. **Zhejiang Zhanwang Group** is a diversified company specializing in PTA, synthetic fibre, soy protein fibre, dyeing and finishing of textile products, automobile spare parts and international trade. It owns seven subsidiaries and holds shares in three other companies. The company, which was listed on the Hong Kong Stock Exchange on 18th February 2004, was named one of 'the most profitable large-scale enterprises in China' by the central government, one of the 'top 50 enterprises in Shaoxing' by the local government and amongst the 'top 100 potential enterprises in China' by Forbes in 2005.

Zhejiang Gabriel Holdings Group (Gabriel) was established in Shaoxing in 2001 with registered capital of RMB 260 million. Zhejiang Yong Long Industrial Holding

Co., Ltd., one of the subsidiaries of Gabriel, was listed on the Growth Enterprise Market, Hong Kong Stock Exchange on 8 November, 2002. It was the first private textile company from the mainland that was listed on the Hong Kong Stock Exchange. The group has turned itself from a sole textile company into a large-scale investment company specializing in textiles, garments, dying, petrochemical, real estate, investment and international trade.

Dong Binggen, Chairman of board, introduced its first-phase PTA programme in my interview.

“Hualian Sunshine started up its new 600,000 tons per year PTA plant in Shaoxing in 2005. The State Council approved the project on 18 September, 2002. The engineering work for the plant started on 10 March 2003. The new facility was the first to use Eastman Chemical Co PTA technology from the United States, developed through an alliance with Lurgi Oel Gas Chemie, Frankfurt am Main, Germany and SK Chemicals, South Korea. The alliance forged by Eastman and Lurgi with its cooperation partner SK Chemicals formed a strong association that provided expertise in the fields of engineering, technology, production and processing to final products. PTA was produced in the plant 24 months after the order was awarded to Lurgi. This PTA project is currently one of the largest for single line production in the world and was constructed in the shortest period.

PTA is a base chemical for the production of PET bottles, containers, fibres and other engineered plastics. Eastman polymer-grade terephthalic acid (EPTA) can be used for all these applications. Compared with the conventional PTA technology, the EPTA process offers the advantages of lower investment costs as well as substantially lower production costs that convinced Zhejiang Hualian Sunshine Petrochemical Co. Ltd. to choose the EPTA technology. The

successful commissioning of the plants in China marked the starting point for the breakthrough of the EPTA technology in China. This has appreciably increased the availability of high-grade EPTA products as an alternative to conventional PTA on the Chinese market.”

8.3.2 The second phase of the PTA programme

The macro-economic adjustments of the central government in 2004 resulted in entirely different fates for the private firms in the Shaoxing textile cluster. The PTA programme of the Zhejiang Zongheng Light Textile Group had to be stopped because of the shortage of capital caused by the government’s macro-economic adjustment policies. After negotiations lasting over one month, Huanlian Sunshine Petro-chemical Co., Ltd agreed to purchase the ‘illegal’ production line.

As Yuan Bairen, Chairman of the Board of Zhejiang Zongheng Light Textile Group, remarked in my interview with him,

“Our PTA programme was submitted to the provincial government at the beginning of 2003, but it was not subsequently reported to the National Development and Reform Commission (NDRC). However, the company had started to negotiate with foreign companies at the end of 2002 and the programme was initiated at the beginning of 2003. Before transferring the programme, the company had already signed the equipment purchase contract with E.I. du Pont de Nemours Company of the United States. The programme, which was advanced in technology and rich in scientific content, was not designated as ‘over-investment’ by the central government. Indeed, it was encouraged by the government. Since the licence was not standardised, the programme had to be suspended on 26 April 2004 because the relevant application procedures were not complete. Worse still is the fact that the company doesn’t know when the programme can be resumed. With the suspension of the programme,

the company is suffering from a loss of RMB300-400 million.”

When Zhejiang Zongheng Light Textile Group was in trouble, Huanlian Sunshine Petro-chemical Company sent out rescue signals with the support and coordination of local government. In September 2003, Huanlian Sunshine Petro-chemical Company obtained a formal licence to construct the first-phase of a 60-ton PTA programme with an investment of RMB2.4 billion. The objective of Huanlian Sunshine Petro-chemical Company was to have the capacity to produce 200,000 tons of PTA within two to three years. The demand for PTA in Zhejiang province was 300,000 tons every year, so 200,000 tons was a relatively reasonable scale for the company. Were the acquisition to be successful, Huanlian Sunshine Petro-chemical Company would reach its target. The negotiation of restructuring was smooth as a result of mutual concessions. Yet, after the two companies signed the agreement, Huanlian Sunshine Petro-chemical Company still had to wait for the approval of the State Council.

In fact, the government officials of NDRC visited Zhejiang province in June 2004 and held discussions with local officials to find a solution to the two illegal PTA projects. However, they did not make any comments since the local government officials hoped that the projects could continue. After all, the Ningbo municipal government approved the PTA programme of the Yisheng Group; the PTA programme of Zongheng Group was approved by Zhejiang Economic and Trade Committee. NDRC did not care much about the restructuring between enterprises, but the implementation of PTA programmes needed to go through the complete procedures and obtain licences. Otherwise, the banks and the customs would interfere with the programme.

The board of directors of Hualian Kong Gu issued an announcement to take over the PTA programme with annual output of 600,000 tons from Zhejiang Zong Heng Group on 25 August, 2005. In my interview, Dong Binggen, Chairman of board, elaborated the following details of its second-phase PTA programme.

“The programme was approved by NDRC on 21 December, 2005 and it became the second-phase of the PTA programme at Shaoxing Industrial Development Zone. The total investment of the second-phase PTA programme was as high as RMB222 million (including foreign exchange of US\$13 m.), in which the construction investment was RMB 205 million and the minimum liquid capital was RMB 4 million. The annual sales income was RMB263 million, the annual average cost was RMB195 million, the annual average profits was RMB 53 million, the after-tax internal earnings rate was 18.76%, the after-tax net present value was RMB 78 million and the payback period was to be 6.45 years. The capital for the programme was RMB 66 million, supplied by the shareholders of Hualian Sunshine Petro-chemical Co., Ltd and accounted for 30% of total investment. The long-term banking loan was 154 million at an annual interest rate of 5.89%. The total liquid capital was RMB12 million, of which 30% was financed by the enterprise and the banking loan was RMB 8 million with an annual interest rate of 5.42%. The construction period of the project was 28 months.

After the second-phase of the PTA project was completed and implemented in January, 2007, the production scale of Hualian Sunshine Petro-chemical Co., Ltd reached 1.5 million tons annually. It became the first PTA producer in the world owning two sets of the latest PTA production technologies, promoting the extension of the textile industry in Shaoxing to the upper stream petrochemical industry.”

On 6 March, 2007, Hua Lian Kong Gu announced that it planned to reduce the guaranteed quota for Hua Lian Sunshine after the bank loans became due. The financing of Hua Lian Sunshine gradually changed: previously guaranteed by the three shareholding companies, it became guaranteed by the clustered firms purchasing

PTA from it. The renewal and added bank loans of Hua Lian Sunshine through mutual guarantee by the clustered firms amounted to RMB 240 billion in 2007 and currently provides the cash flow for the PTA programme (UDC Group, 2007). Except Jiang Gong Group, which is mainly engaged in steel structure construction and real estate, Nan Fang Group, Ci Fu Corporation and Yuan Dong Group are also large-scale private firms in the Shaoxing textile cluster having business transactions with Hualian Sunshine Petro-chemical Co., Ltd. The state-owned Zhejiang Yuan Dong Group is one of 26 key large-scale enterprise groups in Zhejiang province; Zhejiang Yuan Dong New PET Co., Ltd, Shaoxing Bing Hai Petro-Chemical Co., Ltd and Zhejiang Yuan Dong Chemical Fabre Co., Ltd are the core subsidiaries of the group.

Table 8.3 The financing of Hua Lian Sunshine Petro-chemical Co., Ltd through mutual guarantee from 2007-2009

Mutually Corporations	Guaranteed	Amount of Banking Loans	Duration
Jing Gong Group		RMB 3 billion	2 years
Nan Fang Group		RMB 6 billion	2 years
Ci Fu Corporation		RMB 7 billion	2 years
Yuan Dong Group		RMB 8 billion	2 years
Total		RMB 24 billion	

Source: UNDC Group (2007) The announcement of No.17 meeting of the fifth board of directors by Hualian Konggu Shareholding Co., Ltd.

[http:// www.udcgroup.com/manage/doc/upload/20070322095609.pdf](http://www.udcgroup.com/manage/doc/upload/20070322095609.pdf).

8.3.3 The PTA programme of Zhejiang Henyi Group

In my pilot study of the summer, 2005, I also interviewed Qiu Jianlin, Chairman of

Board. He explained the history of the group in the following.

“Established in October 1994, Zhejiang Hengyi Group Co., Ltd. is currently a large-scale industrial enterprise concentrating on polyester, filature, weaving, R & D and international trade. With total assets of RMB 1.5 billion, it covers an area of 530,000 square metres and employs more than 3,000 staff. In addition to the processing of 180,000 tons of polyester yarn every year, the company also manufactures 50,000 tons of polyester chips, 300,000 tons of directly-melted textile polyester filaments and 70 million square metres of garment fabrics. Over 200 types of brand-new fabrics are developed every year. Its annual import and export volume reaches USD 70 million. By sticking to the management idea of ‘depend on talents and survive through quality’ and ‘making unswerving efforts to obtain further success’, the group encourages all its employees to strive for the long-range target of ‘letting China’s textile history re-glimmer in our generation.

In 1988, I set up Xiaoshan Polytechnic Cloth Factory and was invited by the local government to run Yaqian Silk and Chemical Fibre Cloth in February in 1989. It became the strongest enterprise in the town with sales volume of over RMB10 million and profits of over 1 million in the following two years. In 1991, I became Director of Xiaoshan Yarn Dyeing Factory, originally named Xiaoshan Yaqian Knitting Factory and established by the local government in 1974 mainly for employing intellectuals who had been ‘sent down’ to the countryside and which was on the verge of bankruptcy. There were only a few manual hosiery knitters and dozens of female workers in the factory. The main products were socks. The small local factory with the assets of only RMB2.6 million and around 200 employees was developed into the present Hengyi Group.

I established Henyi Dyeing Company and Henyi Synthetic Fibre Company in 1992. In October 1994, Zhejiang Henyi Group Co. Ltd became the first provincial enterprise group after the implementation of the Company Act in Zhejiang province, possessing an integrated production and operating system of synthetic fibre, weaving manufacture and dying. This collective enterprise was transformed from a township enterprise into a private enterprise in 1997. In 1998, it became the first company to pass ISO9002 quality certification in the local textile industry. In 1999, the group made an investment of RMB 450 million to introduce the latest generation PET production line and the production capacity of polyester filaments subsequently reached 300,000 tons every year.”

8.3.4 Entrepreneurship and the public-private interface in the Shaoxing textile cluster

Before the mid-1990s, the investment management system in Shaoxing area was still based on the model of the planned economy. All projects with an investment value exceeding RMB 50,000 had to be approved by the local government before they were undertaken. This was true for all enterprises, whether state-owned, collective or private. The approval procedures, which consisted of the registration of projects, the evaluation of proposals and the final approval, were complicated and time-consuming. The general managers had no authority to make decisions on human resources and the disposal of property. Gradually, the private firms in Shaoxing textile cluster realized that they could make independent private investment decisions, so long as they conformed to the industrial policy and environmental standards, without breaking the law.

In recent years many private enterprises in Zhejiang province have been breaking through the policy restrictions, contributing to the dramatic increase of private capital and economic growth in the province, indicating that they have sufficient capacity and

experience to enter into new business lines. In March, 2003, the officials responsible for the management of social investment in the administrative area of Zhejiang province replaced the extant approval system (*shen pi zhi*) with a new registration system (*deng ji zhi*).

In my interview, Qiu Jinlin also explained the whole process of how the Group successfully implemented its PTA programme. In September, 1999, Henyi group made an investment of RMB450 million to build a new generation PET production line, which was one of the best-selling raw materials for the local textile industry. PET had been monopolized by the state-owned oil companies and joint ventures. In order to restrain the excessive investment in PET, the government issued a special announcement that all new polyester projects must have an approval certificate before being launched. All large-scale projects must have the approval of the State Council. No provincial government was allowed to approve PET projects and banks could not grant loans to them. Fully aware that the application for the PET project could not be approved, Henyi Group made an application to produce agricultural plastic film. The local government gave implied consent to the enterprise's decision for the reason that the company was carrying out the strategy of extending the industrial chain. Otherwise, the further development of the textile industry would have been constrained by the lack of raw material.

The first enterprises to object to these decisions were Henyi's competitors in the same industry – the state-owned oil and chemical enterprises - which made complaints to the government that the private investment of Henyi group went against state policy and harmed the interests of SOEs. The response from the government was rapid and direct and a special team was set up to conduct the investigation. However, they were surprised to find that Henyi's investment was much lower than that of the the SOEs with the latest technology and the high-quality PET. The inspectors from the government did not stop the project. The second and third- phases of the production line were thus put into operation with the tacit consent of the government. Probably it

was the enthusiasm of the local private economy, the advanced equipment and the high-quality products with low costs that moved the government officials in the inspection team to grant approval. They also saw no reason why local private enterprises in the Shaoxing textile cluster should not be allowed to compete against the SOEs, while joint ventures were permitted to do so.

In 2002, the State Economic & Trade Commission of China held an industrial conference in which Henyi group was invited to attend to present its experiences. When Henyi group wanted to invest in its PTA project, it faced strict entry barriers. Under the approval system, the private enterprises in the cluster made use of their own capital, but they needed to have permission from the government before launching the project. Although both local and provincial governments had delegated their powers to the enterprises, some ministries of the state government still had some authority over approval for large-scale projects.

In the end, Zhejiang Henyi Group and Zhejiang Rongsheng Chemical Fibre Group jointly invested to establish Zhejiang Yisheng Petrochemical Co., Ltd, located in Beilun district, Ningbo, East China and covering an area of 1,200 mu thanks to their good relationship with China National Textile and Apparel Council. The total investment reached RMB10 billion. The first PTA production line adopted the patented technology of the American INVITA Corporation. Kvaerner Engineering Company in the United Kingdom designed the infrastructure and the project was implemented by the China Textile Industrial Engineering Institute. The project was launched on 22 May, 2003. The PTA production line, which was worth RMB 4.5 billion, was put into operation successfully on 18 March, 2005, with an annual output of 530,000 tons and annual profits of RMB 8 million.

8.4 The role of local government

8.4.1 Equity changes in the specialised wholesale market and the development of the Shaoxing textile cluster

I visited Zhejiang China Light Textile City in the spring of 2006. The Shaoxing synthetic fibre cluster is closely related to the specialised wholesale market. The company is mainly engaged in the development and construction of wholesale textile markets as well as the production and marketing of textiles, chemicals and construction raw materials. Before the initial public offering (IPO) of A shares on the Shanghai Stock Exchange, the total equity amounted to RMB 87,750,000. On 8 January, 1997, CSRC announced that the Zhejiang China Light Textile City Group Co., Ltd was allowed to make its IPO of 29,250,000 shares (Table 8.4). The company was listed on the Shanghai Stock Exchange successfully on January 17, 1997 and the shares were traded for the first time on February 28, 1997. Since then, Zhejiang China Light Textile City has been promoting local economic development through public financing with the firm support of local government. My fieldwork has shown that the growth of the Shaoxing textile cluster has been closely related to the equity changes of the specialised wholesale market. The relationship between the public sector and the private sector has witnessed the dynamic change in the course of cluster development.

Table 8.4 The shareholding structure of Zhejiang China Light Textile City Group Co., Ltd

in the Year 1997 (Unit: Shares)

	In the beginning	Change (+,-)		In the end
		Transfer of shares	Initial Public Offer	
一、 Non-floating shares				
1. Promoter's shares	43903254	-6084668		37818586
Among which:				
State-owned shares				
Domestic corporate shares	43903254	-6084668		37818586
Foreign corporate shares				
Others				
2. Public corporate shares	5726746	+6084668		11811414
3. Employees' shares	38120000			38120000
4. Preferred shares or others				
Total of non-floating shares	87750000			87750000
二、 Floating shares				
1. Domestic listed common shares			+29250000	29250000
2. Domestic listed foreign shares				
3. Overseas listed foreign shares				
4. Others				
Total of floating shares			+29250000	29250000
三、 Total shares	87750000		+29250000	117000000

Source: Zhejiang China Light & Textile City Group Co., Ltd (1997) *The Annual Report in the Year 1997*,

http://www.zjctc.com.cn/china/news/dqbg/1997818_92.html.

Table 8.5 The first ten shareholders of Zhejiang China Light Textile City Group Co., Ltd in the Year 1997

Shareholders	Quantity of Shares	Change of Shares	Ratio of Total Equity (percent)
Shaoxing County Cai Hong Industrial Company (state-owned)	15822674	+1789608	13.52
Zhejiang International Trust and Investment Company (state-owned)	12169336	+6464668	10.40
Zhejiang Financial Development Company (state-owned)	6084668		5.20
Zhejiang Jin Feng Co., Ltd (state-owned)	5531516	-380000	4.73
Hongjian Village Committee, Kejiao Village, Shaoxing County (collective)	2147530		1.84
Shaoxing City Yue Tong Real Estate Company (state-owned)	1789609	+1789609	1.53
Shaoxing Yin Ying Economic and Trading Company (state-owned)	1789608		1.53
Shaoxing County Yin Xiang Economic and Industrial Company (state-owned)	1073765	+1073765	0.92
The Yangtze River Economic Joint Development (Group) Shareholding Co., Ltd (state-owned)	1073765	+1073765	0.92
Jin Xing Computer Company (private company)	975652	+975652	0.83

Source: Zhejiang China Light & Textile City Group Co., Ltd (1997) *The Annual Report in the Year 1997*,

http://www.zjctc.com.cn/china/news/dqbg/1997818_92.html.

8.4.2 The privatization of Shaoxing Light Textile City during 2002-2006

Shaoxing Light Textile City grew up smoothly from a cloth street to become the biggest light textile specialised market in Asia and a listed company. However, it experienced some investment failures in the capital market in 2002, which made the listed company suffer from a huge loss because of falsification of accounts by a listed company at Shanghai Stock Exchange - Yin Guang Sha (000557) and led to the equity change of Shaoxing Light Textile City. In September 2002, Shaoxing Cai Hong Industrial Corporation, the biggest shareholder of Zhejiang China Light Textile City Group Co., Ltd, undertook shareholding reform. Its equity, including 33,679,358 promoter's shares and 14,056,522 public corporate shares were transferred to four legal persons including Jing Gong Group Co., Ltd (Table 8.6 and Table 8.7).

Table 8.6 The equity structure change of Zhejiang China Light & Textile City Group Co., Ltd in the Year 2004 (Unit: Shares)

	In the beginning	Change (+,-) Transfer of shares	In the end
一、 Non-floating shares			
1. Promoter's shares	22,827,971	-13,691,203	9,136,768
Among which:			
State-owned shares			
Domestic corporate shares	22,827,971	-13,691,203	9,136,768
Foreign corporate shares			
Others			
2. Public corporate shares	96,799,435		110,490,741
3. Employees' shares			
4. Preferred shares or others			
Total of non-floating shares	119,627,406	13,691,203	119,627,406
二、 Floating shares			
1. Domestic listed common shares	252,233,280		252,233,280
2. Domestic listed foreign shares			
3. Overseas listed foreign shares			
4. Others			
Total of floating shares	252,233,280		
三、 Total shares	371,860,686		371,860,686

Source: Zhejiang China Light & Textile City Group Co., Ltd (2004) *The Annual Report in the Year 2004*, http://www.zjctc.com.cn/china/news/dqbg/2003215_105.html.

Table 8.7 The first ten shareholders of Zhejiang China Light Textile City Group Co., Ltd in the Year 2004

Shareholders	Quantity of Shares	Ratio of Total Equity (percent)
Zhejiang Jing Gong Group Co., Ltd	47,735,910	12.84
Zhejiang Yong Li Industrial Group Co., Ltd	29,206,406	7.85
Shaoxing County State-owned Assets Investment and Operation Co., Ltd	13,275,639	3.57
Zhejiang Financial Development Company	9,136,768	2.46
Fu Guo Dong Tai Ping Heng Security Investment Fund	7,277,297	1.98
Yu Yang Security Investment Fund	5,985,708	1.61
Hongjian Village Committee, Kejiao Village, Shaoxing County	5,154,072	1.39
Shaoxing City Yue Tong Real Estate Company	4,295,061	1.16
Shaoxing County Yin Xiang Economic and Industrial Company	3,092,443	0.83
Jinxin Securities Investment Fund	2,824,049	0.76

Source: Zhejiang China Light & Textile City Group Co., Ltd (2004) The Annual Report in the Year 2004, http://www.zjctc.com.cn/china/news/dqbg/2003215_105.html.

In 2002, the Shaoxing County State-owned Assets Investment and Operation Co., Ltd, Shaoxing Yue Tong Real Estate Company, the Yangtze River Economic Joint Development (Group) Shareholding Co., Ltd and Shaoxing County Ying Feng Textile Consultancy Co., Ltd signed an agreement to transfer 21,856,761 corporate shares, accounting for 5.88% of the total, to Shaoxing Cai Hong Industrial Corporation, whose equity ratio was thereby raised to 18.72% of the total. It meant that Shaoxing light textile wholesale market was privatized. On January 24, 2006, Shaoxing County

State-owned Assets Investment and Operation Co., Ltd transferred the remaining 13,275,639 corporate shares to Zhejiang Jing Gong Group Co., Ltd., Zhejiang Yong Li Industrial Group Co., Ltd also transferred all their shares to the biggest shareholder, owning 26.11% shares of the listed company in the year 2006. Jinggong Group, one clustered private enterprise in Shaoxing, became the overall controller of the listed company (*Figure 8.3*).

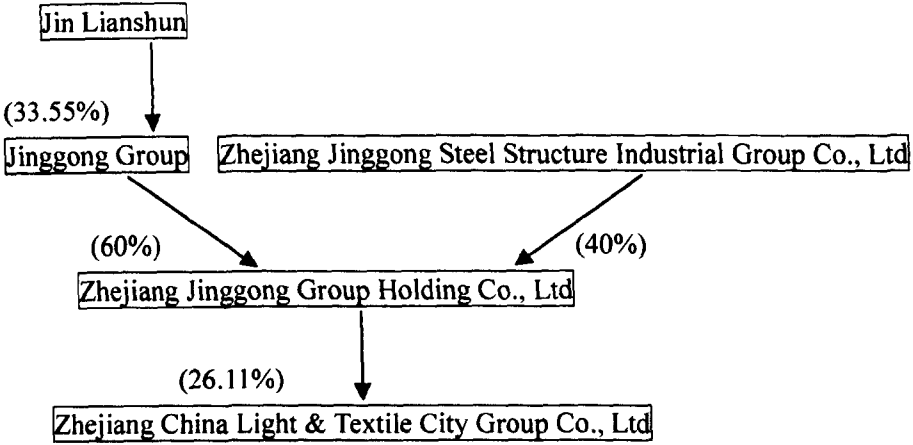


Figure 8.3 The property rights and the last controller of Zhejiang China Light & Textile City Group Co., Ltd in the Year 2006

Source: Zhejiang China Light & Textile City Group Co., Ltd (2006) The Annual Report in the Year 2006, http://www.zjctc.com.cn/china/news/dqbg/2006215_105.html.

Jing Gong Group, listed among China's largest 1000 enterprise groups, is mainly engaged in aviation, steel building, real estate, automobiles and machinery, the wholesale textile market and Shaoxing rice wine. It was originally Shaoxing County Yangxunqiao Comprehensive Processing Factory established in 1968, a collective enterprise mainly specializing in handicrafts. The factory, embarking on the manufacturing of small farming machines in 1972, was renamed Yangxunqiao Farm Electromechanical Repair Station. In 1981, it successfully developed the ZJ-2 type of jacquard warp knitters and entered the warp-knitting machinery market. Jin Liangshun was the factory director at that time. The factory undertook one Spark Programme project^⑤ in 1986 and one national Torch Programme project[®] in 1989,

^⑤ Launched in 1986, the Spark Program aims to revitalize rural economy through science and

making great strides in technological progress. Ever since, it has expanded its own business by means of scientific and technological development. The initial accumulation of capital and technology was thus attained. Seizing the opportunities from China's market-oriented reform, the enterprise developed by leaps and bounds. The joint-stock shareholding reform was carried out in 1993. Zhejiang Huang Neng Jing Gong Group, which was established on 23 January, 1996, was honoured as a 'National Advanced Enterprise in terms of Production Scale and Sound Economic Benefits during the 8th Five-Year Plan'. It was renamed Zhejiang Jinggong Group Co., Ltd. in July 1997. In 1999, the Group was transformed into a private shareholding enterprise. In the new century, Jinggong Group has outlined a new corporate development strategy and created a modern management system. In September 2000, Zhejiang Jinggong Science & Technology Co., Ltd. was set up through business restructuring. In September 2002, the group successfully purchased Shaoxing Cai Hong Industrial Corporation and became the largest shareholder of Zhejiang China Light Textile Industrial City Group Co., Ltd. Jinggong Group was listed in the Top 100 Private Enterprises of Zhejiang Province in 2003. The Jinggong Steel Building Construction Group was listed successfully through purchasing 'Chang Jiang Kong Gu' (600496) on the Shanghai Stock Exchange in June 2003. Zhejiang Jinggong Science & Technology Co., Ltd. was also listed successfully on the Shenzhen Stock Exchange, known as 'Jing Gong Science' (002006) in June 2004. The group was also rated as a national key high-tech enterprise.

technology and to popularize science and technology in rural areas. There are more than 100,000 scientific and technological demonstration projects being carried out in 85 percent of rural areas throughout China at present.

® Launched in August 1988, Torch Program is China's most important program of high-tech industries. As a guiding program of China, it includes: organizing and carrying out projects of developing high-tech products with high technological standards and good economic benefits in domestic and foreign markets; establishing some high-tech industrial development zones around China; exploring management systems and operation mechanisms suitable for hi-tech industrial development. The program mainly includes projects in new technological fields, such as new material, biotechnology, electronic information, integrative mechanical-electrical technology, and advanced and energy-saving technology.

Since its privatization in 2002, Shaoxing light textile city has not developed as rapidly as the local government had expected. The gross profits declined sharply from RMB56, 938,525.71 million in 2003 to RMB -100,517,693.01 in 2006 while the earnings of each share failed to rise steadily and hit the bottom of RMB -0.20 in 2006. The sales volume of Shaoxing textile wholesale market in 2005 could not compete against China Eastern Silk Market in Wujiang City, Jiangsu Province. Meanwhile, about ten large-scale textile wholesale markets went into construction in the Yangtze River Delta with the total investment of RMB 10 billion, including Zhejiang Changxing Light Textile City, Shanghai Yangpu International Textile City, Shanghai Fengjing Clothing City, Jiangsu Wuxi International Textile and Clothing City, Jiangsu Wuxi Oriental International Light Textile City, Jiangsu Wujiang International Textile City, Jiangsu Changshu International Clothing City, Jiangsu Suzhou Xiangchen International Clothing City, Jiangsu China Sutong Light Textile City, Jiangsu Gaoyou Huangshi International Clothing and Textile City and so on. The newly-built textile wholesale markets had the late-development advantages and their facilities were far more advanced than Shaoxing Light Textile City. Some businessmen in these newly built wholesale textile markets used to undertake their business at Shaoxing Light Textile City. The main reason why they chose to leave was the high business costs there.

After Shaoxing Light Textile City was wholly marketized in 2002, the rent of business booths within the wholesale market skyrocketed. The bidding for the rent of one business booth with thirty square metres for six years reached RMB 3.8 million without any installments. The rent was 5-10 times higher than the initial transfer. Because landlords could enjoy high rents, there were more and more 'sub-contracted' landlords in the wholesale market. In addition, the supporting facilities there were incomplete, with little systematic or scientific planning with spot transactions in cash still prevalent. In addition, the general appearance of the market deteriorated.

Table 8.8 The main financial indicators of Zhejiang China Light & Textile City Group Co., Ltd from the Year 2002- 2006 (Currency: RMB)

Financial Indicators	2002	2003	2004	2005	2006
The main business income	1,384,761,083.78	1,399,612,634.81	1,020,766,574.02	839,898,693.45	979,934,924.23
Gross profits	54,971,406.68	56,938,525.71	52,893,116.66	25,588,412.90	-100,517,693.01
Net profits	8,590,083.94	5,312,278.58	21,484,940.51	11,160,145.97	-96,214,072.86
Net profits after extraordinary items	8,343,004.22	-35,993,523.19	2,169,751.39	-5,217,418.26	-111,852,700.66
Earnings of each share	0.023	0.014	0.058	0.030	-0.20
Net assets earnings ratio (%)	0.89	0.54	2.15	1.08	-10.37

Sources: Zhejiang China Light & Textile City Group Co., Ltd (2002-2006) The Annual Report in the Year

2002-2006, <http://www.zjctc.com.cn/china/news/dqbg>.

8.4.3 The re-emergence of the local government

Market mechanisms alone were unable to efficiently coordinate the frenzied and speculative trading of the business booths within the Shaoxing Light Textile City. The deficiency of market mechanism needed to be complemented by regulation and control from local government. Thus, in April 2006, '*Various Suggestions on Developing China Light Textile City*' (*Jinyibu zuoda zuoqiang zhongguo qingfanchen de ruogan yijian*) was issued by Shaoxing Municipal government. It specified that China Light Textile City would be developed into an 'International Textile Capital'

(*Guoji fangzhi zhidu*). Meanwhile, Keqiao would be developed into 'A City of Modern Business and Commerce' (*Xiandai shangmao zhichen*) through nurturing tertiary industries on the basis of specialised textile wholesale market.

The local government has been negotiating with Jinggong Group on the equity transfer within the market since 2006 and Jinggong Group signed an agreement of intention with Shaoxing County Government that it intended to transfer 72,694,114 shares to Shaoxing Light Textile City Development and Construction Company, which was established by Shaoxing County State-owned Assets Investment and Operation Company in June 2003. If Shaoxing County State-owned Assets Investment and Operation Company had transferred the remaining 13,275,639 corporate shares to Zhejiang Jing Gong Group Co., Ltd at the transfer price of RMB4.08 at the beginning of 2006, Jinggong Group's 19.55% equity would have been worth at least RMB 297 million. Although the equity transfer has not been concluded, China Light Textile City, owned by Jinggong Group, has been included in the overall planning of Shaoxing County by the municipal government.

In order to avoid the assets depreciation experienced by previous owners of storefronts and booths after the local government's participation in the upgrading of the textile wholesale market, the renovation of Shaoxing Light Textile City has adopted differential strategies. The new market is not simply replicating, but complementing the old one. The local government continues to attract new entrants. The local government has invested RMB 2 million to renovate and expand the market from the previous 600,000 square metres to 1.6 million square metres in 2006. The newly-added one million metres, consisting of the south and north markets, are wholly controlled by the local government. The specialised wholesale market, which was owned by the Jingong Group, has become part of south market. It has not been separated in the overall plans. After the completion of the new development, the south market will mainly deal in cloth while the north market will trade in light textiles. If the equity transfer is successful, the light textile market will be able to enjoy more

favourable policies from local government in terms of tax exemptions and improvements in the business environment.

Moreover, Shaoxing County government issued a series of favourable policies to encourage new businesses in the newly-built market in terms of rent, tax, export rebates and so on. In particular, the new entrants could enjoy the lowest rents for business booths within the market. The annual rent of the standardized business stores within the new market and Qianqing Light Textile Raw Material Market would be between RMB 10,000-20,000 in 2007 and 2008. The daily rent of business stores in the new international trade district would be between RMB 0.8- 2.5 per square metre (Zhejiang Province Market Chronicles Codification Committee, 2000).

8.5 Conclusion

My fieldwork in Shaoxing textile cluster has shown that the dynamic interaction between the public sector and the private sector has been embedded within the growth of local private textile firms and the upgrading of textile cluster. The SOEs are still the best choices for the local private firms that intend to climb up the value chain and participate in the large-scale capital-intensive PTA programmes. An effective alliance with the SOEs allows private entrepreneurs to acquire necessary licences of entry and respond to the changes in the regulatory framework. In addition, the alliance helps them to obtain bank loans and manage business risks more effectively. Without the alliance with the state-owned Huan Lian Kong Gu, it was impossible for Zhejiang Zhanwang Holding Co., Ltd. and Zhejiang Gabriel Holding Co., Ltd., the two large-scale private firms in the cluster to obtain the necessary licences of PTA programmes from NDRC successfully. Local entrepreneurs have made it possible to forge the strategic alliances with the SOEs, make entry to the capital –intensive petrochemical industry and promote the successful vertical integration of synthetic fibre industry in Shaoxing textile cluster.

The equity change of Shaoxing Light Textile City from the public to private in 2002

led to the development of the market being brought to a standstill in 2004. The main reason was that the local government of Shaoxing County ceded their dominant role in the development and upgrading of the specialized wholesale market. The government plays an important role in fostering the long-term planning and implementing the corporate strategy on a more rational and scientific basis. Thus, in 2006, the municipal government reemerged as an important player in the market, alongside the private shareholders. The effective combination between government control and market power have proved to create a better commercial environment and reduce the business costs of the specialised textile wholesale market.

The case study has demonstrated that the successful development of private economy in China does not simply mean the complete retreat of public sector, but is the coevolution between the public sector and the private sector. Though state intervention has reduced dramatically, the presence of the state remains great because the public sector is still extensive. The state still plays a significant role in privatization and institution-building process. Post-socialist transformation in China is still closely related to a great increase in the degree of organizational and institutional diversity. It is the interaction between social network, entrepreneurship and specialised wholesale market that has led to the great success of Shaoxing textile cluster.

Chapter 9 The Socks Cluster in Yiwu: Case of Entrepreneurship and Internationalisation of Specialised Wholesale Market

9.1 Introduction

As a county-level city located in the middle part of Zhejiang province, Yiwu has an area of 1,105 square kilometres with a population of 1.67 million, among which 1 million are mobile who are not permanent residents but are there to do business. In 1988, Yiwu County was changed into Yiwu City. Since China's adoption of the open-door policy, Yiwu has been making unremitting efforts to implement the strategy of developing the city through promoting commerce and to foster a market system based on trade in 'small commodities', thereby promoting regional economic development and realizing a historic transition from a traditional agricultural county to a prosperous modern commercial city. Yiwu has become the biggest distribution and exhibition centre of small commodities in China nowadays. The turnover of Yiwu China Commodities City Group Co., Ltd reached RMB 288.5 million in 2005 (Yiwu Yearbook Leading Group of Editing Office) (Table 9.1).



Figure 9.1 The location of Yiwu City, Zhejiang Province

Source: www.Yiwu-China.org

The output of silk socks, cotton socks and stocking trousers reached 5 billion pairs with a sales volume hitting RMB 6 billion, accounting for 40% of total output of those commodities in China in 2006. The annual output of a number of large-scale socks enterprises including Yiwu Langsha Socks Co., Ltd, Yiwu Mengna Socks Co., Ltd, Yiwu Fenli Socks Co., Ltd and Yiwu Baonas Socks Co., Ltd has surpassed RMB 100 million (Yiwu Commercial Newspaper, 2006). The Yiwu socks cluster has played a very important role in local economic development. Meanwhile, it has become one of the most important socks production bases in China.

Table 9.1 The turnover of Yiwu China Commodities City Group Co., Ltd
(RMB 100 million)

Year	Turnover	Percentage Change
2001	212.0	9.8%
2002	230.0	8.5%
2003	248.3	8.0%
2004	266.9	7.5%
2005	288.5	8.1%

Source: Yiwu Statistics Bureau (2007), *Yiwu Statistics Yearbook 2006*.

9.2 The fieldwork in Yiwu socks cluster

I interviewed Yiwu Municipal Government Strategic Decision-making Committee, Yiwu China Commodity City Co., Ltd, Yiwu socks association and Yiwu thirty-two firms in Yiwu socks cluster, including the five biggest socks companies in the world (Yiwu Langsha Socks Co., Ltd, Yiwu Mengna Socks Co., Ltd, Yiwu Fenli Socks Co., Ltd, Yiwu Baonas Socks Co., Ltd and Yiwu Chinehigh Socks Co., Ltd.), twenty-three small and medium-sized socks companies, two socks ironing factories, one socks package design company and one company dealing in the spare parts of hosiery machines in the spring of 2007. Among the thirty-two sample companies, all the large-scale socks companies with the number of employees exceeding 1,000, with the exception of Yiwu Baonas Socks Co., Ltd. had been established before 1995. The majority of small and medium-sized socks companies were established during 1995-2000 when the specialised wholesale market in Yiwu witnessed a rapid expansion (Table 9.2). The proportion of socks enterprises with more than one hundred employees has risen rapidly, indicating that many family workshops in the rural areas have developed in the past decade (Table 9.3).

Table 9.2 The time period of establishing the researched socks companies

The Establishment time	Before 1995	1995-2000	2000 till present	Total
Number of socks company	8	18	6	32

Source: Compiled by the author.

Table 9.3 The size distribution of the researched socks companies

The firm size (the number of employees)	Less than 100 (<100)	101-500	501-1,000	More than 1,000	Total
Number of socks company	6	16	4	6	32

Source: Compiled by the author.

9.3 The role of entrepreneurs

Entrepreneurs in the Yiwu socks cluster have played a typical market-finding role defined by Kirzner (1973) and, to some extent, an innovation role as defined by Schumpeter (1934). Yiwu city does not own abundant natural resources nor has it sold industrial foundations associated with heavy state investment. However, the local people in Yiwu have been good at grasping market opportunities and undertaking entrepreneurial activities, which has led to the rapid growth of the socks cluster there.

9.3.1 Make institutional innovation through self-help institutions

All the socks enterprises researched indicated that the entrepreneurs in the Yiwu socks cluster originated from the grassroots in rural areas. They started their socks

businesses from the scratch. Yiwu is not rich in natural resources, but the local people have traditionally been sensitive to market opportunities and have the courage to put their business plans into practice. The local people have, since the Qing dynasty, a long tradition of peddling and selling brown sugar in exchange for rooster feathers around the neighbouring rural areas. At the beginning of the 1980s, some entrepreneurs began to pursue their peddling business across a wider area in China, contributing to the spatial expansion of the local specialised wholesale market and the dramatic increase of domestic socks sales. Others became booth-keepers at the local wholesale market, engaged in the introduction of products manufactured in various industrial clusters along the coastal provinces, mainly in Wenzhou, Zhejiang province and Guangdong province, to the rest of China (Zhang, 1993).

Gradually, more and more booth-keepers started to undertake production by themselves. They mainly ran small-scale family workshops in the 1980s but started to set up modern large-scale companies through capital investment in the mid-1990s. Zong Guying, general manager of Zhejiang MengNa Knitting Co., Ltd. (hereinafter referred as MengNa) told me in my field of Yiwu socks cluster.

“I borrowed RMB 2,000 from my father and brother to undertake a socks business at the Yiwu specialised wholesale market (Yiwu China Commodity City) at the age of 16 in 1986. My family were also doing business in the market at that time. Later I had my own booth there. One Taiwan boss, who was running a joint venture in Guangdong province, appointed me his exclusive agent in the Yiwu market because of my honesty and diligence. I thought that it was a good opportunity to show my ability and started the exclusive sales of socks, enjoying a total sales value of RMB 500,000 in 1993, with one dozen pairs of socks making a profit of RMB 7-8. However, when the Taiwan boss terminated his exclusive rights agreement, I made up his mind to set up a socks production base in Yiwu on my own. At that

time, there were already about 200 family socks workshops and one small socks factory had only about ten sets of imported gauge knitting machines. I invested RMB 550,000 to set up his own socks factory. Since then, MengNa has become one of the largest hosiery manufacturers in China with 12,000 employees and 5,300 sets of heavy and fine gauge knitting machines in 2007. Total investment reached US\$262.5 million with an annual production capacity hitting 600 million pairs. Annual sales reached US\$187.5 million, among which exports amounted to US\$ 90 million.

MengNa socks have become one of the best-sellers in China, America, Germany, Italy, Denmark, Spain and Russia. MengNa and YuanZiDan have become two famous brands in Zhejiang province. Up to now, MengNa has established 36 marketing centres and 300 exclusive shops in China. Additionally, MengNa has been trying to set up its subsidiaries in other provinces to increase the scale of production at a lower cost. In January, 2005, MengNa established Jiangxi MengNa Socks Co., Ltd at Yingtan industrial park, Jiangxi province, East China with 600 employees. The construction of a new workshop was launched on 31 December, 2006. New investment reached RMB 360 million and the new workshop will cover an area of 10 million square metres. The number of employees is expected to hit 3,500. The local government in Jiangxi has granted a series of favourable policies to MengNa, including tax exemptions, the use of land and so on.”

Langsha Group has also become one of the biggest socks enterprises in China. At the beginning of the 1990s, the main shareholders of Langsha Group Holding, namely three brothers Wen Guangrong, Wen Rongjin and Wen Rongdi, entered into the development, production and sales of socks and knitting underwear. Weng Rongjin,

general manager of Langsha Group, told me in the interview that he also worked as an agent for a socks company in Guangdong province, South China before 1995. The business became one of the biggest in the specialised wholesale market in Yiwu in 1995. The marketing network covered the whole of China contributing to the rapid growth of the company later on. After finishing the capital investment, Wen Rongjin decided to set up Langsha Group's own socks factory after realizing that Yiwu would become one of the main socks marketing centres in China on the basis of the large-scale specialised small commodities market.

9.3.2 Make business expansion through adopting a diversification strategy and utilizing the capital market

My fieldwork has shown that more and more socks enterprises in the cluster have started to implement diversification strategies to extend their production lines, expand their businesses and improve their competitiveness. Langsha Group has grown up successfully from a single socks company to a diversified business group covering underwear, cosmetics, medicine and investment. The group has diversified its scope of business with the utilization of the capital market.

Langsha Group Holding was established in April, 2005 with registered capital of RMB 70 million. It is mainly a family business and owns several subsidiaries. Wen Guangrong, who owns 33.33% of the equity, works as general manager of Langsha Knitting Company and deputy general manager of Langsha Group Holding. Wen Rongjin, who owns 33.34% of the equity, acts as chairman of board of Hong Guang Knitting Company, Langsha Knitting Company and executive director of Langsha Group Holding; Wen Rongdi, who owns 33.33% of Langsha Group Holding, works as chairman of board of Langsha underwear company and Langsha cosmetics company, general manager of Langsha Group Holding and Hong Guang Knitting Company (Figure 9.2). The core enterprises include Langsha Underwear Company and Langsha Knitting Company. Langsha Underwear Company was established in 2006 with registered capital of RMB6.6 million. The main business is the making and marketing

of knitting underwear products. Langsha Knitting Company was established in 1995 with registered capital of RMB 14.6 million, among which Hong Guang Knitting Company holds 51% equity and Langsha International Company owns 49% equity. The main business is the making and sales of all types of medium and high-quality socks. The other subsidiaries include Hong Guang Knitting Company, Langsha International Company, Shanghai Langsha Company, Langsha Real Estate Company, Langfei Cosmetics Company, Langsha Tuopu Company, Lifu Textiles and Knitting Company. Shanghai Langsha mainly deals in the marketing of knitting and textile products, daily necessities and cosmetics. Langsha Cosmetics is engaged in the production and marketing of washing powder, perfumes, shampoo and skin-care products. The business scope of Lifu Textiles and Knitting Company includes the production and marketing of synthetic fabrics. It completed its third-stage industrial park covering 1,000 *mu* (about 66.67 hectares) in 2006.

With the rapid development of the capital market, more and more private firms in China wanted to be listed to reduce their costs of financing. However, there were (and still are) quota restrictions laid down by CSRC on the number of IPOs in any one year. Thus some entrepreneurial private firms, to include Langsha Group, entered the capital market by ‘buying a shell’: the group successfully went public by taking over a state-owned listed company with poor performance, the Sichuan Changjiang Packaging Holding Co., Ltd, ‘ST Chang Kong’ (600137) listed on the Shanghai Stock Exchange with headquarters in Yibing, Sichuan Province, on 1 September, 2006.

Wen Rongjin, Chairman of Board, Langsha Group described how the group became a listed company in the interview in 2007. Yibing State-Owned Assets Management Co., Ltd, authorized by Sichuan State-Owned Assets Supervision and Administration Commission, signed an agreement on equity transfer with Zhejiang Langsha Group Holding Co., Ltd (Langsha Group Holding) that 34.67 million state-owned shares valued at RMB 70 million would be transferred to Langsha Kong Ku, accounting for 57.11% of total equity of ST Chang Kong. ‘ST Chang Kong’ changed its main

business from specialised packaging paper and cement paper bags into knitting underwear. Langsha Group Holding aimed to strengthen the competitiveness of Langsha Underwear Company with the help of the capital market so as to strengthen the brand reputation of the Langsha product line, making Langsha Underwear Company one of the most competitive underwear making and marketing enterprises in China. The gross profit margins associated with underwear are as high as 30%-40%, but those resulting from socks manufacture are only 20%-30%. Apart from underwear, the other products of Langsha Group Holding can still enjoy favourable tax policy from the local government. Meanwhile, Langsha Group Holding took responsibility for floating the non-tradeable shares and undertook the assets restructuring of ‘ST Chang Kong’.

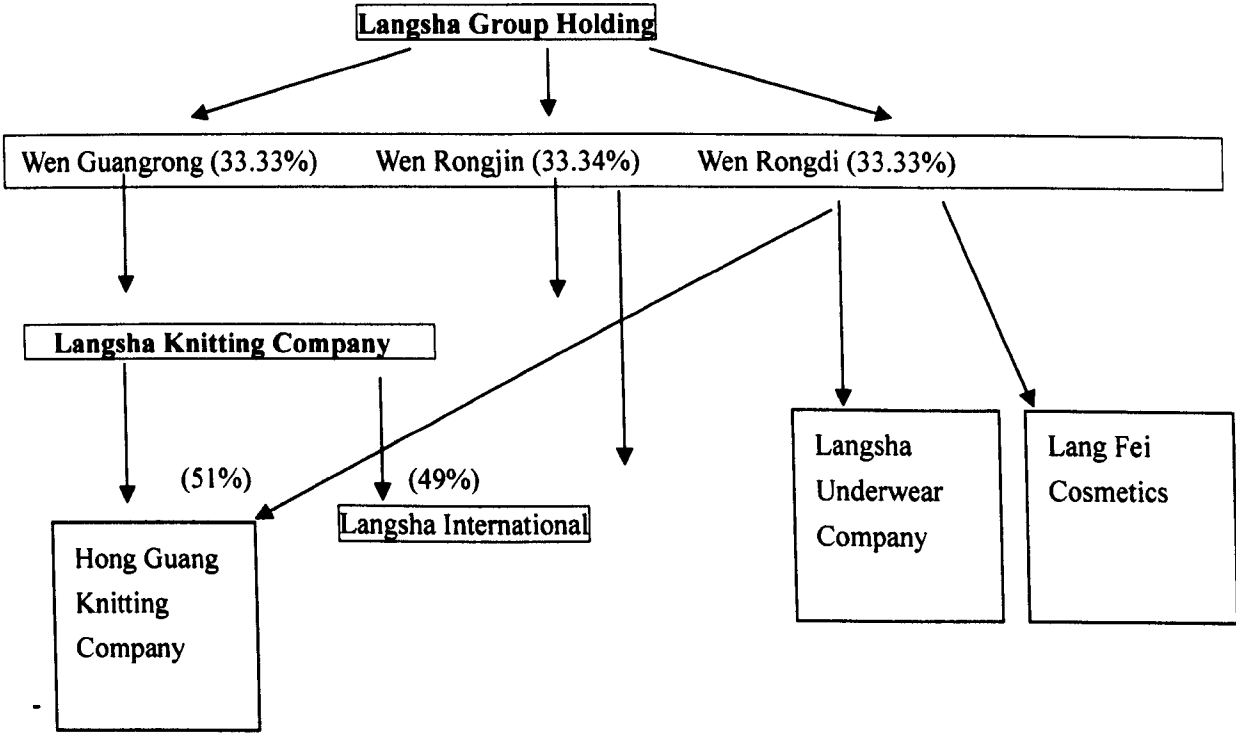


Figure 9.2 The organisation of Langsha Group Holding
 Source: Compiled by the author.

The total assets of Langsha Underwear Company amounted to RMB107.1945 million and the net assets hit RMB6.86218 million in 2005. The transaction price was identified according to the audited net assets of Langsha Underwear Company on 31 October, 2006. The non-public offering shares cannot be traded or transferred within the following three years after entering into the account of Langsha Group Holding. At the end of the restrictive period, these shares will be allowed to be traded on the

Shanghai Stock Exchange. 'ST Chang Kong' sold 95% equity of Zhong Yuan Paper Company, its subsidiary, to Yibing State-Owned Assets Management Co., Ltd. On 8 November, 2006, 'ST Chang Kong' signed the *Agreement on Equity Transfer of Zhong Yuan Paper Company* with Yibing State-Owned Assets Management Co., Ltd. Sichuan State-Owned Assets Supervision and Administration Commission approved the agreement. By 30 September, 2006, the gross assets of Zhong Yuan Paper Company amounted to RMB 11.71868 million, but the net assets were negative RMB 4.71591 million yuan. It incurred a loss of RMB 3.0268 million. The price of the equity transfer was zero.

In recent years, the annual sales volume of the Chinese underwear market has been increasing by 15-20%. In 2005, the sales volume of underwear was over RMB50 billion. Langsha Underwear Company has a substantial production capacity with the advantages of a strong brand and marketing network. It was expected that Langsha Underwear Company would be able to realize business income of RMB 139.20 million with net profits of RMB 12.1220 in 2007. Meanwhile, Langsha Group Holding made a promise that the annual growth rate of net profits of 'ST Chang Kong' would be guaranteed to be not to be less than 25% after deducting the non-recurring gains and loss in 2008 and 2009. That is, the net profits will not be less than RMB 14.0025 million in 2008 and RMB 17.5031 million in 2009. In addition, if the net profits are less than RMB 11.2020 million, RMB 14.0025 million, RMB 17.5031 million from 2007 to 2009 after restructuring, Langsha Group Holding will make compensation to ST Chang Kong in cash. Since the main assets of ST Chang Kong involved the Zhong Yuan Paper Company, the original assets and debts were removed completely after restructuring. Thus profitability was to be improved as bad assets would be stripped off. The net assets of the company will rise from negative RMB591.9818 million yuan to RMB 70 million by 2009.

On 22 November, 2006, ST Chang Kong issued a proposal for share-trading reform- 2.5 shares for every 10 shares, which was approved at a general meeting on 4 January,

2007. On 20 December, Yibing municipal government subsidized the ST Chang Kong RMB 18.6673 million yuan so as to make up the deficits and achieve surpluses. From January to September, 2006, the main business income of the company reached RMB 10.9937 million, incurring a loss of RMB7.3623 million. The loss was reduced compared with the same period in 2005, but the company would have continued to make further losses without undertaking the share-trading reform. On 12 April, 2007, 'ST Chang Kong' transferred the stock ownership of 'Yibing Zhong Yuan Paper Co., Ltd' to 'Yibing State-owned Assets Operating Co., Ltd'. On 13 April, 2006, 'ST Chang Kong' resumed trading on the Shanghai Stock Exchange and the share price rose by 849.30%. The opening quotation was only RMB14.36 while the closing quotation reached RMB 68.16. Langsha Group Holding was already the party with real control over 'ST Chang Kong'.

The opening quotation for the shares of 'ST Chang Kong', whose profits were RMB 284 million in the first quarter of 2007 after Langsha's going public through buying a shell, was RMB 14.36, the upper limit for auction bidding (100% increase over the original price). The second transaction price hit RMB 29.74, another 100% increase while the third transaction was already RMB 40 with the appreciation margin of 447.10%. In the following one hour's transaction, the share price fluctuated around RMB 40. The most surprising fact was that the turnover rate within the one hour reached 48.14%, which was as high as the turnover rate of the newly-listed shares on the first day. The high turnover rate led to the rapid rise of the share price at 10:38 am, which rose from RMB 44 to RMB 85 within 18 minutes with the appreciation margin of 1083.84% over its original price. Unbelievably, the share price had risen so fast that there was no sell order for one period. The phenomenon emerged only when the shares reached their limit, but there was no change to the limit on the first day of resumed trading. According to Tianlang 50-L2 software on the basis of level-2 stock quotation at Shanghai Stock Exchange, the lowest selling order amounted to only RMB 217,900 and there were only 44,000 selling orders at the share price of RMB 50 each (the Shanghai Stock Exchange, 2007).

Since 'ST Chang Kong' had only 21.75 million tradeable stocks after the share-trading reform, the tradeable value was about RMB125 million at the share price of RMB 7.18. Yet the trading of the shares was highly manipulated by institutional investors with inside information. Thus, if 'ST Chang Kong' was valued at the closing quotation at the end of share-trading reform, investors could recover their cost after selling 22.24% of shares calculated on a turnover value of RMB 557 million. The first and second largest selling orders were made by a stock trading company in Yibin, Sichuan Province, West China, which was the place of registration of 'ST Chang Kong'. Such institutional investors could earn a lot of money as long as they sold 30 percent of shares. And if it were not for the suspension of trading by Shanghai Stock Exchange on the morning of the first day of trading, such investors would have been able sell their shares very smoothly.

On the A share market, investors usually buy shares, wait for good news from the listed company and then pushes up the share price to attract small investors while selling the shares at the same time. The performance of 'ST Chang Kong' on the secondary market exhibited similar signs: sending good news, pushing up share prices, buying shares by small investors and concentrated selling orders. Sizeable quantities of shares exchanged hand at prices between RMB 34 – 40 with a turnover of 4.3417 million shares, accounting for 32.42% of the total turnover on 13 April, 2007. If the costs to investors were only RMB 6 and the shares were sold at RMB 30, the profits could exceed 500%. Even if the investors failed to sell all of their shares, and there was a continuous fall in the share price, it would still take three weeks (15 trading days) to reduce the share prices from RMB 68.16 to RMB 31, allowing substantial opportunities for making profits.

When small investors realized that the net profits of RMB 284 million made by ST Chang Kong were recorded mainly for accounting purposes, they realised that the share price of RMB 85 would never occur again and would go on a continuous downward trajectory. In fact, the profits of 'ST Chang Kong' in the first quarter of

2007, earned largely from the debt restructuring at the end of 2006, did not reach RMB 284 million. After 1 January, 2007, the relevant creditors exempted the debts. According to the new accounting rules, the earnings of RMB 284 million had to be included in the current profit or loss. Otherwise, the profits of 'ST Chang Kong' in the first quarter of 2007 would have been only RMB 13 million and the earnings of each share only RMB 0.214. The biggest winners of the skyrocketing share prices of 'ST Chang Kong' were the main shareholders of Langsha Group Holding, the Wen brothers. According to the closing quotation on 13 April, 2007, the market value of Langsha Group Holding reached RMB 2093 million with an investment surplus of over RMB 2000 million. The rate of growth of the share price was as high as 2890% on the first trading day.

On 24 April, 2007, 'ST Chang Kong' issued 101,063 million common shares to purchase 100% equity of Zhejiang Langsha Underwear Company with each share at a price of RMB 6.79. When the equity of additional stock issue is listed in three years time, it is likely to appreciate at least ten-fold. The general meeting of shareholders agreed that 'Sichuan Changjiang Packaging Holding Co., Ltd' should be renamed 'Sichuan Langsha Group Holding Co., Ltd'. On 30 May, 'ST Chang Kong' was renamed 'ST Langsha' at Shanghai Stock Exchange (Table 9.5).

9.3.3 Integration of indigenous brands with the global value chain (GVC) and the forging of local-global linkages

Up to now, few socks enterprises in China have promoted their products in overseas market using their own brand names. The basis of brand internationalization is that the brand should face overseas consumers directly, but most Chinese socks exports have till now been made through original equipment manufacture (OEM), separating producers from overseas consumers. Yet without brand internationalization, the Chinese producers have realised they are in a weak position to learn the tastes of overseas consumers, respond to market changes appropriately and conduct efficient international marketing. Thus, the entrepreneurs in the Yiwu socks cluster are now

trying to expand into overseas markets with their own brands.

Table 9. 4 The share price of 'ST Chang Kong' after assets restructuring
from 13 April to 25 May, 2007 (Currency: RMB)

Date	Opening Quotation	Highest	Lowest	Closing Quotation	Trading Volume	Trading Value
13/ 04/2007	14.36	85.00	14.36	68.16	131,722	55,669.40
20/ 04/2007	64.75	64.75	64.75	64.75	802	519.20
23/ 04/2007	61.51	61.51	61.51	61.51	38	23.30
24/ 04/2007	58.43	58.43	58.43	58.43	22	12.80
25/ 04/2007	55.51	55.51	55.51	55.51	92	51.00
26/ 04/2007	52.73	52.73	52.73	52.73	115	60.60
27/ 04/2007	50.09	50.09	50.09	50.09	78	39.00
30/ 04/2007	47.59	47.59	47.59	47.59	129	61.30
01/05/2007	47.59	47.59	47.59	47.59	129	61.30
08/05/2007	45.21	45.21	45.21	45.21	518	234.10
09/05/2007	42.95	42.95	42.95	42.95	537	230.60
10/05/2007	40.80	40.80	40.80	40.80	823	335.70
14/05/2007	38.76	38.76	38.76	38.76	1,271	492.60
15/05/2007	36.82	36.82	36.82	36.82	1,539	566.60
16/05/2007	34.98	38.66	34.98	38.66	97,098	35,299.70
17/05/2007	40.59	40.59	36.73	40.59	99,910	39,374.30
18/05/2007	38.56	42.49	38.56	39.90	58,017	23,577.20
21/05/2007	38.20	39.70	38.18	38.69	35,814	13,898.00
22/05/2007	38.29	39.40	38.19	38.98	31,708	12,318.30
23/05/2007	38.60	38.63	37.40	37.60	38,689	14,634.60
24/05/2007	37.30	37.30	35.72	35.96	43,508	15,756.10
25/05/2007	35.73	37.76	35.73	37.76	12,244	4,585.30

Sources: <http://stock.business.sohu.com/q/hp.php?code=600137>

Table 9.5 Stock ownership change of 'ST Chang Kong' after assets restructuring

(Unit: Share)

Types of Shares	Before Issue		New Issue	After Issue	
	Quantity	Ratio	Quantity	Quantity	Ratio
1. Common shares with sales conditions	38,961,288	64.17%	10,106,300	49,067,588	69.29%
Langsha Group Holding	30,708,971	50.58%	10,106,300	40,815,271	57.63%
Other common shares with sales conditions	8,252,317	13.59%		8,252,317	11.65%
2. Other common shares without sales conditions	21,750,000	35.83%		21,750,000	30.71%
Total shares	60,711,288	100.00	10,106,300	70,817,588	100.00

Sources: <http://business.sohu.com/20070516/n250045436.shtml>

Langsha aims to become one of the first-class socks producers throughout the world. In 2000, the brand reputation, market share and production scale of Langsha were ranked the first in the socks industry throughout China. Meanwhile, the headquarters of Langsha was moved into their new site covering about 200 *mu*. (about 13.3 hectares) and the trademark 'Langsha' was listed as 'Famous Brand in China' by the State Industrial and Commercial Bureau on 8 February 2002. Langsha became the first famous brand in the socks industry of China. After Langsha had solidly established its brand domestically, it set itself a new objective of developing a famous international brand. Nowadays, Langsha is trying to expand its marketing network into international markets, producing own-brand products appropriately designed and targeted for different parts of the world. The fraternal entrepreneurs owning and managing Langsha are doing their best to promote the internationalization process with marketing strategies using its own brand. At present, Langsha is trying to accommodate western culture in its own brands in launching them into international markets. The Wen brothers are trying to achieve the largest global market share for Langsha and enjoy a strong reputation in the global socks industry.

Since 2004, the exports of MengNa have been ranked first among Chinese socks

companies and the company has become one of the biggest socks suppliers to the American market. The entrepreneurs in MengNa began their current sponsorship of the 2008 Beijing Olympic Games with US\$ 5 million on 1 March, 2006. It was the first private enterprise to be chosen as an exclusive supplier for the 2008 Beijing Olympic Games. Although the Olympic sponsorship has involved heavy expenditure for the company, their entrepreneurial owners hope to make good use of the opportunity to expand their global horizons and improve the global image of the MengNa brand.

9.3.4 Innovation and technological progress through the introduction of advanced equipment

The entrepreneurs of the Yiwu socks cluster have promoted technological progress mainly through introducing advanced technologies from developed countries. In 2006, there were over 1,400 stocking-making enterprises in Yiwu with 60,000 stocking-weaving machines, 40,000 of which were the latest models in the world. Langsha, MengNa, Fenli, Bonas and Chinehigh are the currently five largest socks enterprises in the world. They have made substantial investment in introducing the latest socks-making machines from developed countries. Their scale economies and cost advantages have made the core firms in the socks cluster famous national brands in China. For example, when it was first established, Langsha decided to develop its own brand and aimed to introduce the first-class equipment, attract first-class talents and become a first-class enterprise. With the introduction of advanced socks-making equipment from Japan, Italy and the United States, the daily capacity of socks production reached 1 million pairs.

MengNa has also been sticking to the strategy of specialization and innovation. It has made great investment in technological progress by introducing new technologies. In May 1994, the company invested US\$2.3 million to introduce 78 sets of Lonati fine gauge knitting machines from Italy and 4 sets of finishing equipment from Japan. A new workshop covering over 5,000 square metres, was also established. The annual

production capacity reached 13 million pairs and the sales volume hit about US\$5.2 million in 1995. In order to keep track of international market, the company sent 39 engineering technicians to Italy for training in 2003 and 2004. In order to learn the latest development of technology and expand its international business, it also established representative offices in Italy, Germany, England, Japan, Russia and the United States.

In addition to quota restrictions, Chinese socks exporters are facing many other trade barriers involving technical, environmental and labour standards. The MengNa group obtained Worldwide Responsible Clothing Production (WRAP) certification granted by Cal Safety Compliance Corporation (CSCC) in the United States in 2003 and 2004. It satisfied detailed investigations into its enterprise equipment, production capacity, employee welfare, human rights and environmental facilities carried out by the leading American retailing giants including Kmart, Walmart and the strict audit of Marks & Spencer in the United Kingdom in 2005, making it possible for MengNa socks to enter the EU market.

9.4 The growth of the Yiwu socks cluster and the local specialised wholesale market

The formation and development of the Yiwu socks cluster are closely linked to the world's largest specialised market- the Yiwu China Commodities City – the development of which has been completely determined by the local government. The Yiwu municipal government has played an important part in the internationalization of the specialised wholesale market, leading to the upgrading of the local socks cluster through information diffusion and collective learning mechanisms. The development of the Yiwu socks cluster has followed the growth path of the local specialised market.

In addition, the Yiwu socks cluster and the specialised wholesale market have also promoted the rapid growth of the neighbouring Datang socks cluster, consisting of 12

natural town-like rural settlements. To some extent, the Datang socks cluster can be regarded as an important part of the Yiwu socks cluster. Datang Town is located in the central and western part of the Zhuji area, which is one hour's ride from Yiwu. Over 4,800 million pairs of socks are made in Datang every year with an annual output value of RMB 8,000 million. The socks industry has created about 90 percent of the GDP in the township of Datang. The majority of socks are marketed through the specialised market in Yiwu (Figure 9.3).

The specialised wholesale market has gone through three stages of development in the past twenty-six years, namely an agglomeration market, a wholesale market, an exhibition and trade market (Table 9.6). The socks market comprises a significant part of Yiwu China Commodities City.

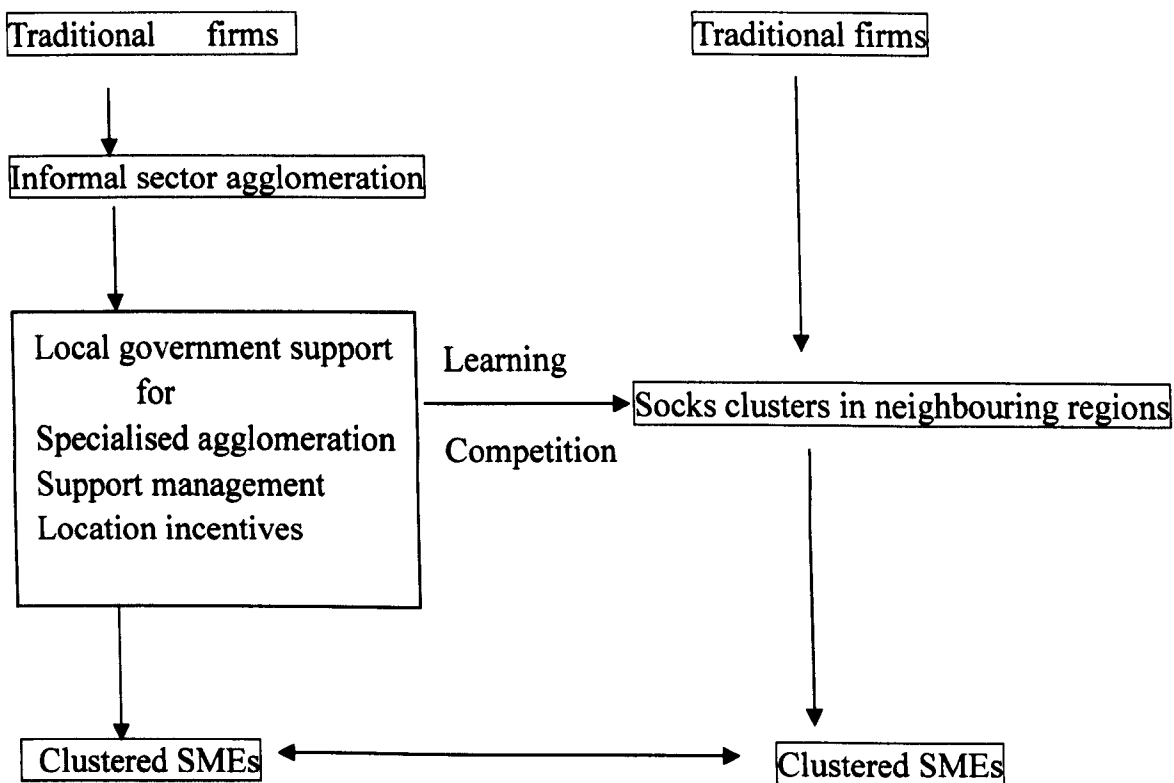


Figure 9.3 The Yiwu socks cluster and the local specialised wholesale market
 Source: Compiled by the author.

9.4.1 An agglomeration market (1982-1991)

Like other wholesale markets in the small- and medium-sized cities of China, Yiwu China Commodities City also experienced the stage of agglomeration from 1982 to 1991, during which the market was moved three times. The market was expanded, the product upgraded and the environment improved each time, with the number of booths increasing from 750 to 10,500 units. Before 1982, transactions were mainly conducted periodically for the people in urban and suburban areas. The commodities were mostly daily necessities and agricultural products. This 'periodic' market was one of the main transaction places in many Chinese small-and medium-sized cities with relatively limited traders, commodities and trading volumes (Zhejiang Province Political Consultation Historical Data Committee, 1997). However, the radiation of the market was gradually strengthened during this stage. The target consumers of the market were now farmers as well as urban and suburban residents. The market in Yiwu served about 3 million consumers in rural areas and neighbouring counties, 50 million people in Zhejiang province and some towns in Anhui, Fujian, Jiangxi and Jiangsu provinces in 1983. After the third move in 1987, the reputation of market spread to the whole of East China and neighbouring provinces with about 200 million target consumers. Yiwu China Commodities City targeted about 900 million farmers in China after the fourth move in 1991 (Table 9.6). In addition, the quality of commodities was gradually improved. The commodities were mainly daily necessities for farmers including threads, clothes, sewing needles, kitchen wares and so on produced by SOEs during 1983-1988. The market was a great help in increasing the cash flow of those SOEs. In 1988-1991, the number of family workshops with marketing booths in the specialised market increased considerably. Meanwhile, a lot of clothing factories were set up at Dachen Town, known as the home of shirts in China, producing over 500,000 shirts every day at that time - one out of seven shirts in China was made there. Some specialised villages with family workshops also emerged, including the handbag village, the thread and belt village and so on. The family workshops, which produced socks, ornaments, toys, clothes, cosmetics, thread and belts, expanded rapidly, creating some famous trademarks and brands at both

provincial and national level. The means of transaction were relatively primitive at that time. The market opened early in the morning since many clients were used to making procurement in the morning and going back home with small commodities in the afternoon. Most transactions were concluded in cash. The businessmen usually brought the procured commodities back home by themselves.

9.4.2 The wholesale market (1992-2000)

The biggest difference between an agglomeration market and a wholesale market is that the typical means of transaction in the agglomeration market was a one-time deal concluded on the spot in cash. The Yiwu China Commodities City had the following features in the second stage: Firstly, the positioning of small commodities on the market was different. The small commodities available on the specialised market were mainly from small- and medium-sized enterprises which pushed sales of their products through the wholesale market and trade fairs. They usually went to the wholesale market to look for one general agent or set up a marketing centre on their own. The Yiwu China Commodities City became their best choice. The marketing centre at Yiwu China Commodities City penetrated into the national market. The sales volume increased dramatically after many enterprises entered the market. Sometimes the sales volume of one marketing centre in Yiwu was equal to that of several marketing centres in other cities. As a result, enterprises were able to develop and launch more new products onto the market and make more profits. Many enterprises achieved great success after setting up a marketing centre in the market (Zhejiang Province Market Chronicles Codification Committee, 2000).

Secondly, the means of transactions improved a lot. As clients made more procurement, it was impossible for them to bring back the total procured commodities on their own. Thus, most clients made selections at the specialised market, issued one bill of lading and then went to the warehouse or the factory of seller to obtain the commodities. The transactions were mainly concluded through the combination of booths in the specialised market and warehouses. As long as the clients sent their

commodities to the specified shipping agent, the commodities could get to their correct destination. When the loss of commodities occurred, the shipping agent would make full compensation.

Thirdly, with increasing procurement, the clients needed to make more payments. It was risky to carry large amounts of cash and payments were increasingly made through cheques, debit/credit cards or remittance in banks. Moreover, market radiation increased constantly. As the Yiwu China Commodities City became famous around China, it aroused the attention of businessmen in the regional wholesale market which included second-tier wholesalers. Therefore, urban and rural small shops, some shopping centres in the big and medium-sized cities and businessmen in the second and third-tiered wholesale market increasingly made their procurements at Yiwu China Commodities City which became the first-tier wholesale centre of small commodities in China. The number of foreign businessmen also increased greatly year by year. The specialised wholesale market started to attract businessmen from Southeast Asia, the Middle East, East Europe and East Asia in this period.

9.4.3 The exhibition and trade market (2002-present)

The exhibition and trade market is mainly for displaying commodities, integrating negotiations, contract signing and e-commerce. It is nicknamed 'daily exhibition'. The Yiwu International Trade City, first launched in 2002, created the opportunity for a new integrated business pattern involving display, negotiation, contracts and e-commerce, creating a new trading pattern for the wholesale market in China.

Zheng Yongjun, Independent Board Member of the Yiwu China Commodities City, described the latest generation of wholesale market in my interview as follows.

“The exhibition and trade market has combined the advantages of a large-scale shopping centre, a wholesale market and an exhibition hall. When Yiwu International Trade City was planned in the first half

of 2000, it was designed with notions of 'modernization, internationalization, information, exhibition and humanization'. The overall effect has been created with warm colours, reflecting the atmosphere of transactions area. The outer front is a combination of yellow, white and blue colours with a glass wall. The whole market has a streamlined pattern. Each district of the market, which has a streamlined pattern of 120 metres X 86 metres, is connected with other districts by a trapezoid middle hall. The whole market is composed of 21 rectangles with the connection of middle halls. The length of the whole market is 2.5 kilometres and its width is more than 120 metres. The total area reaches 1.7 million square metres. Each store within the specialised market is designed to international standards, covering 9-14 square metres. Each district is surrounded by a path offering equal opportunities to each store. Horizontal and vertical transportation leads in all directions. Vertical transportation includes escalators, lifts and stairs. There are also driveways along the side of the market from the first to the fourth storeys. The platform lorry can go to each storey. The whole market is spacious and comfortable, all the samples are displayed in order, and the large-scale exhibition hall is full of all kinds of commodities."

Yiwu International Trade City also serves as a commercial platform for small-and medium-sized enterprises and buyers. The growth of production enterprises in the industrial cluster involves making more innovations and launching more new products onto the market. There are four main marketing channels for production enterprises in the industrial clusters in Yiwu: (a) producing the components as subcontractors for large-scale enterprises, with small firms' growth dependent upon the business expansion of large-scale enterprises, (b) marketing commodities through the specialised wholesale market as the producer. There is the clear division of labour among this type of enterprises which have formed an industrial cluster through

producing all kinds of components intensively in one region. The final products will be completed through assembling different components. (c) Organizing the production according to the orders from all kinds of exhibitions home and abroad. The production varies with the volume of orders. (d) Creating one general agent or distributor at the wholesale market. The foreign businessmen from more than 200 countries and regions, mainly the small- and medium-sized buyers, usually make the procurement of dozens of or even one hundred standard containers by each businessman every year. Some foreign businessmen used to conduct trade in the border cities of China, ask the clustered firms in China to produce commodities with their own brands or make the procurement at the Guangzhou Foreign Trade Fair. When they found that some commodities were from Yiwu, they came to the International Trade City to make procurement at more reasonable prices.

9.5 The role of local government

Yiwu China Commodities City, the biggest wholesale market around the world, has maintained its leading position throughout the past fifteen years. The firm support of local government has been indispensable to its rapid development and has made that development its first priority in the overall economic development of Yiwu.

9.5.1 The market resources have been firmly controlled by the local government, which has been making full use of administrative means to adjust and allocate market resources.

The specialised market has gone through three stages including the agglomeration stage, the wholesale stage and the exhibition and trade stage. It has been moved five times and expanded nine times in the past twenty-six years (Table 9.4). Each move and expansion has reflected the collective wisdom and forward-looking strategy of the local government.

Table 9.6 The development of Yiwu China Commodity City (1974-2007)

Year	Number of wholesale markets by generation	Total number of booths in wholesale market	Total transaction volume of wholesale market (million yuan)	Measures to promote the development of wholesale market
1974	Two periodic markets			Partially deregulation
1982	One first-generation market, one periodic market	705	3.92	The 'Four Permissions', 'Five supports'
1984	One second-generation market	1,870	23.21	Developing the county by fostering the development of commerce (<i>Xin Shang Jian Xian</i>)
1986	One third-generation market	5,500	100.29	
1992	One fourth-generation market	16,000	2,054	Encouraging businessmen from commerce to manufacturing (<i>Yin Shang Zhuang Gong</i>)
1993	One fourth-generation market	16,000	4,515	The establishment of a market-managing company (Zhejiang China Commodity City Shareholding Co., Ltd)
1995	Two fifth-generation markets	34,000	15,200	
2000	More than three fifth-generation markets	34,500	19,289	The promotion of foreign trade
2002	One sixth-generation market; more than three	42,000	22,998	The group was listed on Shanghai Stock Exchange and the first-phase

	fifth-generation markets			of International Trade City was lauched.
2004	Two sixth-generation markets; more than fifth-generation markets	50,000	26,687	The second-phase of International Trade City was lauched.
2007	Three sixth-generation markets; more than fifth-generation markets	56,000		The third-phase of International Trade City Under Construction.

Sources: Yiwu Statistics Bureau, *Yiwu Statistics Yearbook 2006*. The author's fieldwork in July 2005, August 2006 and April 2007.

The launch of the small commodities wholesale market in 1982 was a bold and risky decision. The farmers in China were strictly prohibited from undertaking any commercial activities up to 1983. However, Yiwu Municipal Government had partially allowed peddling since 1963. It issued 7,000 licences to peddlers to carry out the business of exchanging rooster feathers for brown sugar. In 1982, the local government put forward 'Four Permissions' (*sige xuke*) and 'Five Supports' (*wuge zhichi*), which provided a shortcut for the economic development in Yiwu. The farmers in Yiwu were allowed to undertake four types of business, namely, engaging in commerce in the urban area, undertaking long-distance logistics, competing with SOEs and opening the commodity market. Afterwards, the informal markets on the urban streets were replaced by one regular wholesale market in a special transactions area. The small commodities wholesale market was launched four years earlier than the implementation of a national policy abandoning price controls over small commodities. It was in these four years that Yiwu China Commodities City expanded its scale with more than 5,500 booths. The small commodities were sold to the whole of East China and neighbouring provinces. The economic strategy of 'developing the

city through prospering commerce' attached primary importance to the role of specialised wholesale market in the economic development of Yiwu.

The Yiwu China Commodities City became the biggest specialised wholesale market with the widest diffusion effect in China at the beginning of 1990s. While the market used to be operated and administered by the local industrial and commercial administration bureau, in order to implement the strategy of 'developing the city through prospering commerce' effectively, Yiwu China Commodities City transformed its operating system. Zhejiang China Commodities City Shareholding Co., Ltd was established by the municipal government in 1993, with Yiwu's mayor becoming chairman of the board, while at the same time, the management and ownership of the market was separated. This transformation of the operating system at the Yiwu China Commodities City took place three years earlier than the rest of China.

After the management and ownership of the market was separated, an industrial and commercial sub-bureau, a police unit, a national tax bureau and a local tax bureau were established within the market, enforcing their respective powers delegated by the local government. The organizer of Zhejiang China Commodities City Group Shareholding Co., Ltd was principally responsible for market construction and development, the maintenance of market order and the undertaking of property management. As a result, the market environment was improved considerably and the Yiwu China Commodities City attracted many foreign businessmen from the Middle East, South Korea and south-eastern Asian countries.

This specialised wholesale market has been crucial to the economic development of Yiwu. In 1999, the Yiwu Municipal Government established the Market Development Bureau, responsible for market planning, market development and the division of labour among the different markets so as to promote the orderly and smooth development of the market as a whole. With its rapid development, the municipal

government also set up the Construction Supervision Department of the International Trade City and sent one member of the municipal government committee to oversee the construction of the large-scale project. In order to meet the demands of the rapid development of China Commodities City, the market was expanded to cover 32.4 square kilometres. The construction of the International Trade City involved detailed planning, sequential implementation and further development of supporting facilities to allow the market to enjoy an international reputation. After the first district of the International Trade City was opened, it attracted foreign businessmen from 212 countries (Yiwu Governmet Office, 2006).

9.5.2 Long term support from local government for businessmen within the specialised wholesale market.

The Yiwu municipal government has issued a series of favourable policies to support the businessmen within the specialised wholesale market. In 1991, the local government implemented a policy of promoting industrial development through commercial prosperity and coordinating joint development between trade and industry. The industrial parks established in 1994 laid a solid foundation for the rapid growth of local socks enterprises.

The rent of each booth at the knitting market (Huangyuan market) used to be RMB80 each month and the annual rent is still RMB960 up to now. The industrial and commercial administrative expenditure is RMB480 every year and the leasing length is 5-8 years. The management fee is only charged at cost. The national and local taxes are levied according to the regulations. The booths on the market can be leased and transferred freely, but they must go through certain procedures. The long-term consistent policies applied by the local government have fundamentally promoted the stability of the market (Yiwu Governmet Office, 2006).

In 2002, the supporting favourable policies of local government were carried out to further attract business to the market. But since the business booths within the

International Trade City were popular among businessmen at home and abroad, including foreign buyers, trading companies, domestic and overseas production enterprises and businessmen in the previous specialised markets and streets, demand for them greatly exceeded their supply.

Thus, the Yiwu Municipal Government conducted a detailed analysis of the demand for the business stores within International Trade City and made an investigation concerning the wholesale knitting market and its neighbouring specialised streets. The businessmen who had conducted their business for more than two years were allocated one business store within the International Trade City, covering nine square metres. If the owner in the wholesale knitting market had leased his booth for more than two years, both parties could have half a business store respectively. The large businesses in the specialised street could apply for one business store within International Trade City according to the level of national and local taxes they had been paying each month to the government. Businesses paying a monthly tax of less than RMB300 were allowed to have half a business store within the International Trade City; a monthly tax between RMB300-800 one business store, a monthly tax between RMB801-1,600 two business stores and a monthly tax of more than RMB1,600 three business stores. Those SMEs in the industrial cluster that were within the scope of business called for, but which failed to meet the required duration of doing business in the market or the specialised street, were granted one bidding opportunity for one business store within the International Trade City. The SMEs and trade companies of industrial clusters were able to participate in open bidding for the remaining business stores (Yiwu Government Office, 2006).

The leading committee of the Yiwu Market Bureau, together with the local industrial and commercial bureau, national and local tax bureau and Commercial City Group (the previous China Commodities City Shareholding Co., Ltd), made a strict inspection to check if those businessmen, SMEs in the industrial clusters, trade companies and overseas businessmen met the necessary criteria. When complaints

were received, investigations were carried out immediately. Those who failed to meet the criteria were not granted permission to operate within the market. All the business stores within International Trade City were leased with the same rent. It was one of the most important support policies adopted by the local municipal government.

More recently the municipal government has made great efforts to improve the investment environment and has spent RMB130 million on technological innovations. The local government has been guiding, adjusting and standardizing economic development. It has strengthened its role in infrastructure construction and foreign business management, including the simplification of customs procedures, commodity inspection procedures and other elements of red tape for overseas businessmen residing and operating in Yiwu. The local government has played an important role in stimulating regional economic growth and the internationalization of the local economy.

As the local government issued favourable policies to promote the development of wholesale market, the business community also helped the local government to solve many difficult social problems. The prosperity of wholesale market played an important role in the adjustment of the local industrial structure, the rapid development of tertiary industry, the acceleration of urban and rural commodity circulation as well as the improvement of economic awareness of local businesses and residents. And organizers and businessmen in the wholesale market began to make suggestions to the local government on ways in which the implementation of relevant new policies could promote the further upgrading of the market.

9.5.3 Coordinating relevant government bureaux with each taking its own responsibility

At some other specialised wholesale markets in China, several different departments of the local government were given responsibility for managing market development, and the resulting rivalry amongst those departments often led to an abuse of

administrative power which was counterproductive to further market development. Yiwu Municipal Government adopted a business model of managing the wholesale market by one single entity. It has proven to be a great success. In the first ten years after the specialised wholesale market was established, the organisation, operation and management of the specialised wholesale market were mainly dealt with by Yiwu Industrial and Commercial Bureau. As explained above, In 1994, Yiwu was the first city to separate management from ownership of the specialised wholesale market. Yiwu China Commodity City Group mainly dealt with the business development, real estate management and market cultivation. The industrial and commercial bureau, the security bureau, the national tax bureau and the local tax bureau fulfilled their own responsibilities while cooperating in the overall management of the market. Once any conflicts arose, the Yiwu Municipal Government intervened to coordinate the different bureaux and ensure orderly and smooth development of the market (Yiwu Yearbook Leading Group of Editing Office, 1994).

9.5.4 The creation of a competitive environment through rational division of labour, the classification of industries into specific markets (*Hua Hang Gui Shi*) and the agglomeration of the commodities of the same type in one area (*Feng Lei Ji Ju*).

The Yiwu Municipal Government undertook a rational division of labour, classified the market according to different industries and categorized clusters of small commodities by the use of administrative means, with market forces acting purely as a supplement. The competitive advantages of the specialised wholesale market have thereby been strengthened.

(a) Encouraging a rational division of labour. There are a lot of specialised wholesale markets in the large and medium-sized cities in China. Some are scattered, some deal in the same category of commodities, some are prosperous while others are sluggish, some operate as bazaars while others deal mainly in retailing with limited wholesale business. Those wholesale markets without obvious competitive

advantages were poorly placed to develop rapidly. At the beginning of the 1990s, there were five specialised wholesale markets in the urban area of Yiwu, including Huangyuan Small Commodities Market, Huangyuan Clothing Market, Danxi Road Cotton Market, Xinma Road Food Market and Chenzhongxi Road Agricultural Market. In order to strengthen their respective specialities, Yiwu Municipal Government reorganized each market. Vegetables, fruits, rice, flowers and marine products were traded in the agricultural market; candy, wine, stir-fried nuts and subsidiary foodstuffs in the food market; shirts, cowboy clothes series, bedding, knitting and weaving products and ordinary clothes in the clothing market; belts, ornaments, buttons, zippers, underwear, cosmetics, umbrellas, cases, electronic appliances, daily necessities and shoes in the small commodity market. The local industrial and commercial bureau issued business certificates respectively according to the specialised industries in the five markets, which laid a solid foundation for the development of each market. Afterwards, Yiwu Small Commodity Market was renamed 'China Commodity City' by the State Industrial and Commercial Bureau. In 1996, Yiwu Municipal Government decided to reorganize the cotton market at Danxi Road, the food market at Xinma Road and the clothing market at Huangyuan market, forming the present wholesale knitting market and the Bingwang market dealing in clothes and textiles. In order to improve the market environment and establish a first-class international market, Yiwu Municipal Government moved the crafts, ornaments, toys and flowers to the first-stage of International Trade City on 28 September 2002; hardware, electronic appliances, clocks and watches to the second-stage of International Trade City on 22 October, 2004; stationery, cosmetics, zippers, buttons also to the second-stage of International Trade City in September, 2005. The division of labour among different markets was, as a result, partially completed ((Yiwu Yearbook Leading Group of Editing Office, 2005).

(b) Classifying the industries into specific markets. Clustering the same type of commodities into one section has not only created a market environment with fair competition, but has also strengthened market competitiveness. At the beginning of

the 1990s, the Yiwu Industrial and Commercial Bureau noticed that the business of several booths engaged in the same type of commodity in the specialised wholesale market, was especially thriving. They realized that industrial agglomeration within the market and the clustering of the same type of commodities within the same area could attract more business and make the commodity price of same type more comparable, helping to create a fairer competitive environment. The Yiwu Industrial and Commercial Bureau undertook a mandatory classification of industries at the Huangyuan market of Yiwu China Commodity City. At the beginning, some businessmen objected to these rules since they thought that profit margins would be much thinner if commodities of the same type were put together and prices became more transparent. If some businessmen violated the rule, however, the Yiwu Industrial and Commercial Bureau ordered them to correct their behaviour and after strict implementation and fine-tuning of the rules in the following three to five years, the businessmen finally accepted the new state of affairs.

When the production enterprises want to establish a general or sole agent in the wholesale market, they usually try to find the businessmen with the strongest capability, the largest sales volume and the best reputation in the specialised section. If they want to set up their own marketing place, they usually try to identify one business booth in the specialised section so as to take advantage of the clustering effects and the advantages of classifying industries into the specific market respectively. In addition, classifying industries into specific wholesale markets has greatly added to the convenience of the overall market for foreign businessmen, who are more easily able to compare the price, quality, style and reputation of businessmen within one section of a specialised market before they make their purchases. Moreover, classifying industries into specific markets has greatly facilitated both business operations and procurement, improving the reputation of businessmen and the satisfaction of buyers.

(c) Agglomerating the commodities of the same type in one area. The local government has recently made further segmentation of one broad category, strengthened more specialised sub-categories of commodities and adopted a more scientific commodity classification. The increasing reputation and market influence of Yiwu China Commodity City has attracted more and more foreign businessmen to come to Yiwu to make procurements. When Yiwu International Trade City called for business in 2002, there were over 5,000 business households in the ornament industry, which was a sub-category of the arts and handicrafts industry. However, it was impossible to arrange the ornaments industry on one storey. Under the guidance of the local municipal government, the Yiwu China Commodity Group divided the ornament industry into seven sub-categories including ceramics, head ornaments, jewelry ornaments, tourism arts and crafts, wedding arts and crafts, decoration arts and crafts, crystal and photo frames. The new classification has not only helped the same commodities to improve their display, but has also created a better environment for the agglomeration of further sub-category commodities.

9.5.5 Internationalizing the specialised wholesale market

When it was first established at the beginning of the 1980s, the Yiwu China Commodity City mainly targeted 900 million farmers in rural areas. It became a national market in 2000 and an international market in 2002. Since then, it has become an international distributing centre, circulation centre and international trade platform for SMEs around China as well as a magnet for small- and medium-sized buyers at home and abroad.

Yiwu China Commodity City has expanded its international market in recent years. Since the millennium year, the annual growth rate of exports has been over 40%. Commodities have been exported to 212 countries and regions. About eight thousand foreign businessmen make procurement at the market every year. The number of containers sent abroad from Yiwu reaches more than one thousand every day. In 2005, the exports to Asia accounted for 39.68%, Europe 27.32%, America 17.32%, Africa

11.62% and Oceania 2.58%. Now the volume of international trade in Yiwu exceeds that of domestic trade (Yiwu Yearbook Leading Group of Editing Office, 2005).

Why can Yiwu China Commodity City attract buyers around the world? Firstly, they can enjoy high profit margins with the quality of commodities there improving greatly in recent years. The high and medium-quality commodities have met the needs of ordinary consumers abroad. With expected high profit margins, many foreign businessmen have chosen Yiwu China Commodity City as one of their favourite places for making procurement in China. Since the mid-1990s, some Korean buyers have been making procurement in Yiwu and re-exporting Chinese commodities to Europe and the United States because they are familiar with the sales system in China. Now there are more than 3000 regular Korean businessmen in Yiwu (He, 1995). Secondly, there is ample room to select commodities. More than 340,000 types of commodities are available at Yiwu China Commodity City and different industries have been strictly classified into specific markets (see above). For example, there are about 3,300 ornament business stores and more than 100,000 types of ornaments available at Yiwu China Commodity City. Foreign buyers are able to choose their favourite commodities after making comparisons in terms of price, quality, style and technology. Thirdly, foreign businessmen can save procurement time. They used to make their purchase in China in one of two ways. Either they placed an order with samples at trade fairs in the big cities of China. Dozens of containers were ordered for several series of commodities requiring one big warehouse to store these commodities. With the faster upgrading of commodities, their stock increased rapidly. The alternative was to order the commodities with producers directly. Since foreign businessmen rarely placed an order a single commodity only, they had to contact several enterprises and spend as much as one month in China every time they wanted to make purchases. However, foreign businessmen can finish their procurement, packaging and delivery of commodities within one week at Yiwu China Commodity City. Indeed, many foreign businessmen make free advertisements for Yiwu China Commodity City, encouraging the previous Chinese enterprises they had placed an

order with to market their products in Yiwu. Such enterprises could thereby establish business relationships with more foreign buyers after moving to Yiwu. Consequently, their business was expanded rapidly. Fourthly, Yiwu China Commodity City has been enjoying a good reputation for reasonable prices and high quality. The defective commodities can be returned and exchanged. Should any losses occur in transportation, compensation can be made in full by the logistics company. Therefore, foreign businessmen trust the businessmen trading at Yiwu China Commodity City and are doing more business there as a result.

9.6 Conclusion

My fieldwork in the Yiwu socks cluster demonstrates that its success has been closely related to the changing nature of the public-private interface. The positive interaction between the entrepreneurship, the local wholesale market and the local government has led to the success of socks cluster. The specialized wholesale market has also become the driving force of internationalization of local industrial clusters with the firm support of government at different levels.

In contrast to the development paths of rural industrialization in other areas of China, the Yiwu municipal government started its economic development with the construction of the specialised wholesale market. The expansion of market size, the evolution of market structure, the extension of market sequence, the strengthening agglomeration and radiation functions of wholesale markets have generated a series of critical institutional innovations and led to the rapid growth and upgrading of the socks cluster. For example, too many types of commodities concentrated in a confined space will usually cause a chaotic environment that can hurt the efficiency of transactions. The local public sector solved the problems involved successfully. Yiwu Industrial and Commercial Bureau, as a member of the managing committee of the Yiwu market, worked out a plan named *Hua Hang Gui Shi*, namely classifying a large number and type of commodities by industry and location, promoting the rapid development of specialised wholesale market as a whole. In spite of the initially

strong resistance from booth keepers, they successfully carried out the plan. Consequently, the competition among the booth keepers became even stronger, and every booth keeper was forced to further specialise in their own segment of commodity, stimulating the further development of the specialised market and local industrial clusters.

The great success of specialized wholesale market attributes to the active planning, support and policy intervention by the local government from the very beginning. However, the relationship between the local government and socks firms has changed from the traditional perspective. The government can offer a more healthy and standardized market environment and platform. In the past, the socks firms in the cluster usually went to the government for help when they were in difficulties. Nowadays they can communicate with the local government more actively. In addition, they can make suggestions on the implementation of new policies so as to improve their service and strengthen the affinity to the government. In my interviews, most of firms within the socks cluster think highly of the support policies of the local government.

Therefore, the rapid development of the private economy in China does not necessarily imply the complete retreat of the government. It is the government that creates appropriate rules and institutions to allow the market to operate smoothly and efficiently. The specialized wholesale market in Yiwu is a typical example of a quasi-market institutional arrangement in economic transition in China that led to the rapid growth of socks firms in the cluster and upgrading of the whole cluster along the global value chain. The public-private interface has to be evolving constantly to promote the regional economic development.

Chapter 10 Conclusions

10.1 Introduction

Chinese society is undergoing unprecedented social and economic reform. This thesis has focused on one small aspect of this great transformation- the development of textile and clothing clusters in China. At present, China is known as the ‘workshop of the world.’ My research has examined the institutional dynamics of cluster development in a transitional context recognizing that the public-private interface has served as a special, constantly evolving, institutional arrangement leading to the rapid development of industrial clusters in China.

In this final chapter, this thesis firstly discusses the research findings that address the research questions and serve the research objectives originally identified in the introduction. Secondly, it summarises the contribution of this research to the theory of institutional change through co-evolution between the public sector and the private sector in the course of cluster development.

10.2 The unique institutional factors leading to the rapid development of industrial clusters in China

The unique institutional factors leading to the rapid development of industrial clusters in China include hybrid ownership, public entrepreneurship and the specialised wholesale market.

- **Hybrid ownership**

The thesis argues that hybrid ownership is one stepping stone to the growth and development of textile and clothing clusters in China. The transformation of ownership in China has been a complex process characterized by the spontaneous emergence of a newly private sector, the gradual privatization of SOEs by the state using various means and the interaction between institutional legacies and state

strategies in an uncertain environment leading to the emergence of new organisational forms. There is still a continuum of ownership forms within industrial clusters in China, ranging from private forms to public ones. The hybrid ownership usually involves a multiplicity of heterogeneous owners as well as a fuzzy border between public and private forms with the development of interwoven types. When the large-scale state-owned textile enterprises were restructured in the 1990s, the assets were diluted into new factories and plants. The former public enterprise was usually turned into a joint stock company yet still kept the controlling shares of the new company. In these public holding companies, state-owned organisations such as banks and foreign investors could also enjoy some share ownership. SOE managers could also buy shares in the new companies or establish their own private firms and integrate them within the holding companies as suppliers or customers.

The case study evidence indicates that the growth of the Ningbo textile and clothing cluster has relied on the capital accumulation and technological improvement of the TVEs which grew up in the 1980s. The successful restructuring of SOEs and collective enterprises in 1990s promoted the rapid development of clustered firms and formation of the industrial cluster. Nowadays, the property rights of large-scale clustered firms such as the Youngor Group and Shanshan Group are still fuzzy even when they have been listed on the stock exchange for a decade. Besides, both of the specialised wholesale markets (Yiwu China Commodities City and Zhejiang China Light & Textile Industrial City) are listed companies with the interwoven ownership dominated by the government. According to my fieldwork evidence, it was the fuzzy property rights that nurtured the initial entrepreneurship crucial to the formation of the textile and clothing clusters.

The thesis also emphasizes that it has not been the ownership and property rights *per se* that mattered to the rapid growth of textile and clothing firms in the industrial clusters, but the functional ownership and property rights that could be realized through the management of socio-political equity under the precise contextual

circumstances of China in transition.

- **Public entrepreneurship**

Entrepreneurship is at the core of the local industrial networks. The fieldwork evidence indicates that under the quasi-market system identified, entrepreneurs in the industrial clusters can play a market-seeking role as defined by Kirzner and can contribute to an innovative role as defined by Schumpeter. But entrepreneurship here takes the form of *public* entrepreneurship, interpreted in my research as the activity of economic agents who can cope with institutional uncertainty through networking, creating new organisational forms and cooperating with local and national government effectively.

The case studies have shown that the successful implementation of diversification strategies by large-scale clustered firms is closely related to the nature of public entrepreneurship. As well as the need to be in control of resources, technology and personnel, as in market economies, Chinese entrepreneurs are also expected to control external relations with potential market partners and local politicians. In short, they need to command social capital based on personal relations with economically valuable partners and political capital, i.e. personal relations with politicians. The growth path of clustered firms in China has depended crucially on the ability of entrepreneurs to weave new networks with government officials. As one special institutional arrangement, *public entrepreneurship* has enabled entrepreneurs in the textile and clothing clusters of Zhejiang to overcome ideological uncertainties associated with economic transition.

It has been, and remains, essential for entrepreneurs in the textile and clothing clusters in Zhejiang to maintain strong ties with local officials and business partners if they are to diversify their businesses successfully. Broader, if weaker, ties with a more heterogeneous group of business partners and politicians are of great help to entrepreneurs when they are attempting to obtain land, capital and entry to strategic

sectors in that local government can grant them favourable policies. The severe market entry barriers associated with administrative permits for private investment in certain sectors has restrained market competition while the lack of formal institutions for property rights protection and contract enforcement has led to high transaction costs. Public entrepreneurship has mediated these difficulties, becoming a critical stepping stone for the growth of clustered firms in China as a result.

- **The specialised wholesale market**

This thesis argues that the specialised wholesale market can be regarded as one of the unique quasi-market institutional arrangements ‘with Chinese characteristics’ that have played a vital role in the development of textile and clothing clusters in China.

Firstly, interaction between specialised markets and family workshops has contributed to the emergence and growth of industrial clusters in China. The specialised market, which has accelerated the rural industrialisation process, has been an institutional innovation associated with the commodity circulation system distinguishing industrial clusters in China from those in Italy. The clustered firms in Italy mainly concentrate on production and the products are sold through professional agents. Even if there are physical wholesale markets, they are mainly located in tourist cities on a small scale with a high division of labour among clustered firms in Italy and with the separation of production and sales, performed as they are in Italy by specialised firms. Additionally, the operational costs of retail stores with some scale are high, so the small-scale clustered firms usually do not participate in the establishment of their own marketing networks there.

The prosperity of the specialised wholesale market in China indicates that industrial clusters are still developing and that the division of labour within the cluster is not complete. The evidence of my fieldwork reveals that Zhejiang province has been renowned for ‘small merchandise, big markets’. The development of specialised markets first took place in the province at the beginning of the 1980s. Many township

enterprises and family businesses gathered together to push sales of their products onto the market. In the late 1980s, with the transformation of township and village enterprises, the model was spread to the whole province. The development of the specialised market has become a typical outcome of the commodity circulation system in the rural areas of Zhejiang province in a specific historical period, offering reliable distribution channels for family workshops and promoting the rapid growth of local SMEs. Family workshops have also contributed to the prosperity of specialised markets since large amounts of commodities supplied by family workshops at low prices have enabled them to gain competitive advantage. Family workshops, which subsequently became clustered firms, laid a solid foundation for the formation of industrial clusters.

Thus, the case study evidence illustrates that the specialised wholesale market has played an important part in the formation and growth of industrial clusters in China. For example, Yiwu China Commodity City and Shaoxing China Light & Textile City have been closely connected with the socks cluster in Yiwu and the textile cluster in Shaoxing. The trading volumes of these specialised markets account for huge shares of total industrial output of the relevant cities or counties where the specialised markets are located. Specialised markets engage in the wholesaling business, supplying a bridge between thousands of scattered producers, retailers and consumers. They not only streamline the circulation of commodities, but also save the time and costs of producers and retailers in their search for suitable buyers and suppliers of commodities. The upgraded specialised markets are usually modern and spacious. The layout of samples is distinctive with higher and lower grades goods clearly distinguished.

Secondly, the development of textile and clothing clusters has also been associated with the upgrading of specialised wholesale markets in China. The specialised market provides a trading system with relatively lower trading costs than organisation within the enterprise can achieve. Firstly, the specialised market offers a formal marketing

channel for a large number of small-scale production firms within the industrial cluster, achieving external economies of scale through collective marketing. Secondly, the specialised wholesale market facilitates the reduction of transaction costs. Since the specialised wholesale market accumulates a lot of information on price, quality, market demand and supply of relevant industries, the clustered firms can organize production rapidly according to up-to-date market information and feedback from the sales agents. The buyers and sellers, who obtain relatively complete market information at lower information search costs, can conclude transactions within a short time. Moreover, the fixed marketing booths within the specialised wholesale market can reduce the opportunism of sales agents and help them to establish implicit contracts based on trust through multiple repetitive transactions, saving transaction costs and reducing the risks of uncertain transactions with the supervision and implementation of contracts. The specialised market has driven the rapid growth of clustered firms in terms of capital accumulation.

It can be expected that the specialised wholesale markets in China, as the intermediary between manufacturers and retailers, may disappear gradually with the rapid development of information technology. Manufacturers may well leap over the wholesale markets and contact their potential buyers directly through Business-to-Business (B2B) platforms. However, as a unique institutional arrangement, the specialised wholesale market will not diminish in China in the short run. The widespread use of the internet actually promotes the flow of information and allows wholesalers to provide the latest market information to their potential clients, creating more business opportunities for clustered firms. Meanwhile, the large-scale wholesale markets in China have also set up digital wholesale markets on the internet. My case study evidence has shown that Yiwu China Commodity City and Shaoxing China Light& Textile City created Yiwu China Commodities E-city and Shaoxing Textile City Online respectively. These digital cities enable buyers to search for the commodities they are interested in and supply the latest market updates of each commodity. The integration of the physical and digital markets has improved the

competitiveness of the specialised markets in China. Most of buyers still come to the wholesale market to place orders after they have surfed the digital markets.

China's accession to the WTO has altered the landscape of China's wholesale markets. *Administrative Measures on Foreign Investment in Commercial Areas* issued by the Ministry of Commerce in April 2004 lifted the restrictions on foreign wholesale enterprises, including the restrictions on location, quantity, equity ratio as well as market entry thresholds including minimum assets and annual sales. In addition, the restrictions on foreign investors to conduct wholesaling in the areas of chemical fertilizers, processed oil and crude oil were removed in 2007. A lot of overseas wholesalers are making use of the golden opportunity to enter the profitable Chinese market and increase their exports there while increasing their imports from China to their home markets, leading to further prosperity of the specialised market. Meanwhile, a lot of international organisations including the United Nations have also set up their purchasing centres within the specialised wholesale markets in China. The rapid growth of specialised wholesale market will eventually foster the further upgrading of industrial clusters.

10.3 The public-private interface and the development of the textile and clothing clusters in China

This study has shown that the public-private interface is a unique endogenous institutional arrangement embedded within the processes of economic transition in China, to include the growth and upgrading of industrial clusters. It is an interactive and dynamic process at the very heart of relations between the public and private sectors, associated with ownership changes brought about by changing ideological and political factors. I argue, as a result of my fieldwork in Zhejiang province, that the public-private interface associated with cluster development rests on the interactions between social networks, entrepreneurship and the specialised wholesale markets. The development of industrial clusters is closely related to the formation and evolution of the local industrial network. Social networks are the foundation for the formation and

upgrading of local industrial networks. Typical social networks can be seen as important assets within the Chinese business system. They are regarded as exogenously given or a remnant of Chinese traditions and are claimed to lie at the core of China's cluster development within the private sector.

My empirical research in the *Ningbo* clothing cluster, the Shaoxing textile cluster and the Yiwu stocking cluster shows that the development of the private economic sector has depended critically upon activism within the public sector in the past 25 years and continues to do so. The clothing cluster in Ningbo has developed on the basis of specific, *local*, social and economic conditions. In the initial period of development, some community members with entrepreneurship and market consciousness took the advantage of their social networks, gained advanced clothing-making skills and grasped market opportunities from their fellow villagers in Shanghai. With the support of local government, they established collective clothing firms. The capital accumulation and technological achievements of TVEs and SOEs in the 1980s and early 1990s laid a solid foundation for the formation of the Ningbo clothing cluster and the growth of clustered firms there. Meanwhile, entrepreneurs accelerated institutional innovation and technological innovation with the help of local government. My case study evidence has shown that the quality of the public-private interface still matters when the clustered firm is undertaking a diversification strategy. Some of the famous clustered firms including the Youngor Group, the Shanshan Group, and the Progen Group have grown out of collective legacy through public entrepreneurship to become large-scale public listed companies undertaking diversified business to include finance, real estate development and high-technology. The successful implementation of these diversification strategies has been dependent on the firm support of local government in areas of financing, land use and technological improvement. In the course of business expansion, these large-scale clustered firms have continued to participate in the restructuring of SOEs located in northwestern China, thereby realizing successful vertical integration strategies, and have undertaken equity participation in local state-owned banks.

This study has also demonstrated that the specialised wholesale market is an appropriate focal point to observe how local private and public sectors have interacted. In contrast to the transaction markets in other developing countries, most of the industrial clusters in Zhejiang province have developed on the networks of the specialised wholesale markets. A large number of important actors have taken part in business there, including the producers, buyers, and public sector-controlled managing committees. The formation and development of the stocking cluster in Yiwu is closely related to the world's largest specialised market (Yiwu China Commodities City), whose development has been completely dependent upon the activities of local government. The municipal government in Yiwu has played an important part in the internationalisation of the specialised wholesale market, leading to the upgrading of the local stocking cluster through its information diffusion and collective learning mechanisms.

The Shaoxing synthetic fibre cluster is another case study closely related to a specialised wholesale market known as the Zhejiang China Light & Textile Industrial City, which was previously state-owned yet listed on the Shanghai Stock Exchange in 1997. My fieldwork evidence has shown that the failure of overall privatisation of Zhejiang China Light & Textile Industrial City indicates that a specialised wholesale market cannot always achieve successful outcomes without the active support of local government. The role of local government is itself a hybrid of public and private agents because even some local government officials also run their own businesses or grant favours to the clustered firms. The support of local government is of great significance to the development of industrial clusters. Subsequently, the Shaoxing Municipal government invested RMB 2 million yuan in 2006 to renovate and expand the market, regaining its controlling shares. Meanwhile, the clustered firms in the textile cluster of Shaoxing are still facing many administrative thresholds in the course of moving from labour-intensive downstream industries to capital-intensive upstream industry. Some clustered private firms have started to produce the upstream materials such as PTA after forming strategic alliances with the SOEs. The case

studies indicate that the expansion of clustered firms partly depends on alliances with SOEs or on participation in the restructuring of SOEs so as to gain the market entry and utilize the capital market.

Therefore, the growth and upgrading of clothing and textile clusters in China has been closely linked with shifts in the nature of the public-private interface, which has evolved alongside ideological change and economic transition. Although the Chinese economy is increasingly characterized by private companies rather than SOEs, my research into the Ningbo clothing cluster, the Shaoxing textile cluster and the Yiwu stocking cluster suggests that the public sector has continued to play a crucial role in the expansion of clustered firms and the upgrading of industrial clusters, and that, if the Chinese economy is to continue to enjoy fast *and* sustainable growth rates in the coming decades, it must continue to do so.

10.4 Theoretical implications: Institutional change through co-evolution between the public and private sector in economic transition

The cases studies in my research have demonstrated that the three types of economic regimes discussed in chapter one and chapter six - the Neo-classical state; the Developmental State and the Corporatist State - have coexisted at different layers of government in recent times: For example, the clustered firms experienced a Developmental State at the city level. The interviews in Ningbo City, Shaoxing City and Yiwu City, have shown that the city-level municipal governments make blueprints for industrial development and exercise rights to decide on the use of land for industrial as opposed to commercial or residential purposes and to allocate certain areas for the construction of industrial parks. The leading clustered firms, which are important for local economic development, can usually enjoy the privileges to land use and lower tax rates. Therefore, the city-level municipal government has great power to control the local economic development.

However, some subordinate township governments play the role of the Neo-classical

State for the local clustered firms, which experience little public interference in their economic activities. The highest expected returns in the form of taxes and income from land sales are often used as the main criteria for allocating industrial sites amongst competing uses because local economic performance is highly correlated to the promotion of local government officials. Moreover, as the interviews have further shown, other local governments, including the subordinate township government and the City-level municipal government, may well negotiate with certain individuals and groups to include the entrepreneurs or managers of clustered firms over the feasibility of establishing firms over which the local administration keep control or establishing local industrial parks. In this case, the local government exhibits features of a Corporatist State.

Therefore, I would finally like to argue that the theory of local state corporatism fails to explain the rapid growth and upgrading of textile and clothing clusters in China in transition. The public-private interface is a dynamic process of institutional embeddedness, deembeddedness and reembeddedness since the above three forms of economic regimes have coexisted and evolved from one form to another in the past three decades alongside ideological changes at the centre associated with the shifts of emphasis implied in the movement from Mao Zedong thought, through Deng Xiaoping's open-door policy and Jiang Zeming's three represents to Hu Jintao's scientific development - as discussed in the introduction - and adjustments in macro-economic policies in China implied at each stage. For example, the Developmental State paradigm in the 1980s gave way to Local State Corporatism (Oi, 1999) and even the Neo-classical state to some extent in the 1990s. However, with the further development of clustered firms and their adoption of diversification strategies in the new millennium, the governments at various levels have exhibited mixed features of the above three economic regimes with the Developmental State paradigm still dominant.

This thesis argues that the rapid development of the private sector in China does not

necessarily mean the complete retreat of the state. The rapid development of the private sector in China has been and will continue to be critically supported and promoted by the government at different levels. It has been within a framework established by the state that private clustered firms have been given the wherewithal to flourish and become internationally competitive, providing them not only with an appropriate business, legal and ideological framework, but also with crucial services without which they would have struggled to do so. It is important to see the public sector as a crucial component of any future industrial cluster development. The developmental state orientation is still remarkable in the course of cluster development and upgrading in China in transition. However, the interaction between the public sector and the private sector has been changing constantly to meet China's contemporary developmental needs.

The case studies in the thesis have shown that the development and upgrading of the textile and clothing clusters in China have witnessed extraordinary institutional change through co-evolution between the public sector and the private sector. The co-evolutionary perspective offers a conceptual frame that can be fruitfully exploited for analyzing 'fundamental change' (Nelson *et al.*, 1994). The research has added to the literature on industrial clusters in transitional economies within the overall approach of institutional economics. As for methodology, I argue that recent research on economic transition has attached too much importance to the macro-level quantitative data with an emphasis on institutional change and economic growth based on the neo-classical growth model. The interviews at the local level in China in my research have offered a valuable source for identifying new agents of institutional change, their motivations, the dynamic change of organisations and the business environment for successful cluster development in the Chinese economy in transition.

Appendix 1

The Interview Outline

1. Describe the history, ownership, business strategy and *organizational change* of your company.
2. What are the business partners of your company?
 - History
 - Ownership
 - Business strategy
3. How important is your social network for the success of your firm?
4. How has entrepreneurship contributed to the success of your company?
5. Under what conditions did your company forge the alliances with your business partners?
6. Why did you establish the alliance?
7. What are your objectives of business alliance?
8. What problems do you want to solve with the partnership?
9. Do your partners provide access to political resources or further business contacts (*guanxi*) in China?
10. How does the government at different hierarchies (the subordinate, local, provincial, central) influence or contribute to your business operation?
11. How did the political and economic actors agree upon certain new institutions in the end?
12. Is globalization or fierce competition the main factor that has led to the public-private partnership? If not, what are other factors?

Appendix 2 List of interviewed enterprises in Ningbo clothing cluster from 2005-2007

Interviewed Enterprises	Interviewees
1. China-Base Ningbo Foreign Trade Co., Ltd	Manager of Import & Export Dept 3
2. Ningbo Better Garments Making Factory	General Manager
3. Ningbo Jehson Textile Import & Export Corporation	General Manager
4. Ningbo Louse Group	Manager
5. Ningbo Orlando Dole Garment Co., Ltd	General Manager
6. Ningbo Peacebird Group	Vice president, Former Director at Economic Reform Committee of Ningbo Municipal Government
7. Ningbo Progen Group	Director of Administrative Office
8. Ningbo Xin Ming Da Knitting Co., Ltd	Manager, workers
9. Ningbo Yinzhou Hua Yun Garments Co., Ltd	General Manager
10. Ningbo Yinzhou Hongbao Garment Accessories Factory	Manager
11. Ningbo Yinzhou Xintai Garment Accessories Factory	Manager, workers
12. Ningbo Youngor Group Co., Ltd	President, Board member
13. Ningbo Youngor Childwear Co., Ltd	Deputy Manager
14. Ningbo Youngor Song Yong Clothes Co., Ltd	General Manager
15. Shanshan Group	General Manager

Appendix 3 List of interviewed enterprises in Shaoxing textile cluster from 2005 to 2007

Interviewed Enterprises	Interviewees
1. Heng Can Group	Production Manager
2. Zhejiang China Light & Textile City Group Co., Ltd	Board Member
3. Zhejiang Congheng Group	Board Member
4. Zhejiang Dolis Group Co., Ltd	President
5. Zhejiang Henyi Group	Chairman of Board
6. Zhejiang Hualian Sunshine Petro-Chemical Co., Ltd	Chairman of Board
7. Zhejiang Jing Gong Group Co., Ltd	President
8. Zhejiang Rongsheng Chemical Fibre Group	Vice President
9. Zhejiang Yuan Dong Synthetic Fibre Group	General Manager
10. Zhejiang Yue Hong Group Shareholding Co., Ltd	Production Manager
11. Zhejiang Zhanwang Holding Co., Ltd.	Production Manager
12. Zhejiang Gabriel Holding Co., Ltd.	Marketing Manager

Appendix 4 List of interviewed enterprises and organisations in Yiwu socks cluster from 2006 to 2007

Interviewed Enterprises	Interviewees
1. Yiwu China Commodity City Co., Ltd	General Manager/ Independent Director
2. Yiwu Langsha Socks Co., Ltd	General Manager
3. Yiwu Mengna Socks Co.,Ltd	General Manager
4. Yiwu Fenli Socks Co., Ltd	Manager
5. Yiwu Baonas Socks Co., Ltd	Manager
6. Zhejiang Chinehigh Socks Co., Ltd	Manager
7. Zhejiang Jiaoli Socks and Cothing Co., Ltd	Manager
8. China Yiwu Jinri Socks Co., Ltd	Manager
9. Zhejiang Linda Knitting Socks Co., Ltd	Manager
10. Zhejiang Fulida Socks Co., Ltd	Manager
11. Yiwu Chaolong Socks Co., Ltd	Manager
12. Heng Hui Socks Co., Ltd	Manager
13. Yiwu Jian Li Co., Ltd	Manager
14. Yiwu Qi Hang Socks Co., Ltd	Manager
15. Yiwu Jin Lu Da Socks Co., Ltd	Manager
16. Yiwu Bai Kang Socks Co., Ltd	Manager
17. Yiwu Xin Lu Socks Co., Ltd	Manager
18. Yiwu Xing Fa Knitting Socks Co., Ltd	Manager
19. Yiwu Yin Xiang Socks Co., Ltd	Manager
20. Yiwu Mei Da Mei Socks Co., Ltd	Manager
21. Yiwu Jiao Xiang Socks Co., Ltd	Manager
22. Yiwu Hai Chao Socks Factory	Manager
23. Yiwu New Era Socks Factory	General Manager
24. Yiwu Yujie Socks Ironing Factory	General Manager
25. Yiwu Shou Jian Socks Ironing Factory	General Manager

26. Yiwu Hu Die Hua Socks Co., Ltd	Manager
27. Yiwu Bangde Socks Co., Ltd	Manager
28. Yiwu Da Yu Socks Co., Ltd	Manager
29. Zhejiang Bailong Knitting Co., Ltd	Manager
30. Zhejiang Hualite Knitting Socks Co., Ltd	Manager
31. Yiwu Fu Long Socks Co., Ltd	Manager
32. Yiwu Shui Juan Packaging Company	Manager
33. Yiwu Jie Bao Mechanical Equipment Co., Ltd	Asistant manager
34. Yiwu Socks Association	Director
35. Yiwu Municipal Government Strategic Decision-making Committee	Director and consultants

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