

## Chapter 8

# From Transfer to Hybridisation? The Changing Organisation of Taiwanese PC Investments in China

Jinn-yuh Hsu

### **Introduction: Transfer versus Hybridisation?**

In the globalising economy, cross-border business networks are increasingly important and constitute the channels of capital, technology, people, and information flow. Thus they usually have social and economic impacts on both home and host countries and regions. As the production networks grow transnational, divergent national business systems meet and organisational tension and contradiction arise. A key question is whether, in the process of transplanting, the practices of transnational production change or are changed in response to host country industrial environments and regulatory systems. The practices include those both internal and external to the firm. The former refers to the production systems, employment relations, and inter-divisional relationships, while the latter covers inter-firm and firm-government relationships.

Some scholars (Kenney & Florida 1993, Florida et al. 1998, Womack et al. 1990, Rutherford 2000) predict that common institutional configurations and ways of organising the economy will emerge as globalisation and direct competition between different production systems lead to the survival of the most efficient economies. Under these circumstances, inward FDI serves as a transmission vehicle for the best practices of the investing regions. Thus their organisational configurations and business strategies will remain as intact as possible so that they can insulate themselves from local disturbances, and even subdue the local industrial complex. In contrast, scholars such as Hollingsworth (1997, 1998), Abo (1994, 2000), Boyer (1998) and Zeitlin (2000) have argued that as investing firms get embedded into host environments in complex ways, constraints, amongst other things, are placed on their behaviour. Hybridisation occurred where forms became separated from existing practices and recombined with new forms and new practices.

Both theoretical threads agreed on the existence of divergent national business systems, but disagreed on the transformation of organisational configurations in the process of cross-border investment. While those who believe that the

transfer thesis points out the deliberate dis-embeddedness in the new institutional environments of the incoming firms, the proponents of the hybridisation thesis stress that the imperative re-embedding of inward FDI in the host social system is a critical process. On the one hand, although Kenney & Florida (1993) observe that the Japanese transplants are capable of isolating themselves from the American 'bad' environment and imposing better practices on the existing systems, it is still an open question as to how these transplants can change the industrial conventions that have long been influential in host regions. Based on the concept of social embeddedness, Hollingsworth persuasively demonstrates the possibility of firms harnessing the links with their surrounding institutions, thus creating hybrid forms of business systems. However, it is not clear why the foreign firms have to infuse their better practices, in most instances, with the lousy ones in the alien social spaces.

Rather than engaging in the sterile debate on whether hybridisation occurs or not, we would take the transplanting in the globalisation process as one of firm-territory de-coupling and re-coupling (Jessop 2000). In other words, the attention should focus on how the firms respond strategically to the divergent local institutional environment and the corresponding organisational reshuffling. We argue that the interplay of four elements at the regional level constituted the divergent local institutional systems, which led to different profit strategies, business models, and organisational configurations (Storper 1997, Whitley 1992). The four elements include: industrial system, government policy, market operation, and labour regime. First, industrial systems vary in accordance to the standing conventions, which legitimate the exploitation modes of resources and constraints (Saxenian 1994, Storper 1997). Second, government policies and subsidies carry divergent levels of capabilities to shape the context for the market mechanism to operate, while the constituted market further restructures the state autonomies in different localities (Evans 1995). Third, the market is the socially and culturally embedded field where firms and institutions interact to allocate resources and realise profit (Block 1990). Finally, the different regulations and activities of the local labour markets shape the different industrial trajectories in different regions, and consequently create the limit and the potential for firms to exploit and transform it (Peck 2000). Investigating the difference in the interaction patterns in the divergent regions will illustrate the rich varieties of production worlds in the geographical industrialisation process of the Taiwanese capital-China localities connection. We argue that geographical strategies always constitute part of the key competitive advantage for the multinationals (McKendrick et al. 2000).

As a matter of fact, although the transfer thesis and hybridisation argument stand respectively on the rival extremes of the theoretical spectrum of organisational transformation, the real situation would be much more complicated than their predictions. As Boyer (1998) argued, a multiplicity of transformations occur when the transplants attempt to apply the same principles to spaces which are divergent and heterogeneous in terms of natural resources, economic organisation, skill competence, governing regime, and market formation. The process of transplanting is full of learning by trial and error in the construction of supply chains, the development of labour regimes and the engagement of market probing. After investigating the

literature on the convergence of production systems in the global economy, Gertler (2001) concluded that the final consequence will depend on the degree of similarity in the institutional environment between the transplants and their host regions. However, and as a matter of fact, the power relations between them will be more influential in the development of cross-border diffusion of industrial systems. The various levels of bargaining power possessed by the transnational corporations and their host regions would lead to divergent forms of transplanting. Those transplants with superior performance will diffuse widely and, in contrast, those with inferior or equal operation will assimilate themselves with the local standard. The geographical spread of hybridisation will accordingly vary depending on the struggle between the transplanting profit strategies and the hosting societal constraints. As a result, multiple forms of hybridisation and transfer will occur, from the complete diffusion of the same productive and organisational routines and the adaptation of part of the old principles in combination with the host ones, to the innovation of new industrial systems in the host regions, as Boyer (1998) demonstrated.

This research aims to explore the changing organisation of Taiwanese PC (Personal Computer) investors in China in the light of the debate between transfer and hybridisation theses. A number of vital concerns will be attacked: how exactly did the organisational reshuffling process happen as the Taiwanese investors met the Chinese contexts? How do Taiwanese investors exploit the diversity between the regional institutional environments in order to handle the uncertainties and opportunities in their Chinese operations? In what sense does the transplanting industrial system take advantage of geographical strategies to transform itself? How do the divergent local institutional mechanisms work for the transformation of the cross-border production system, and how should we evaluate them appropriately? Finally, as most of the inhabitants of both Taiwan and China share the same culture and language, but simultaneously live under contrasting socio-economic systems, how does the institutional similarity and difference affect the developmental patterns of cross-border investments? Among these issues, the role played by *guanxi* (interpersonal ties) in Chinese business practice will be tackled first in the following section.

### **The Role of Guanxi: Organisational Buffer versus Cultural Advantage**

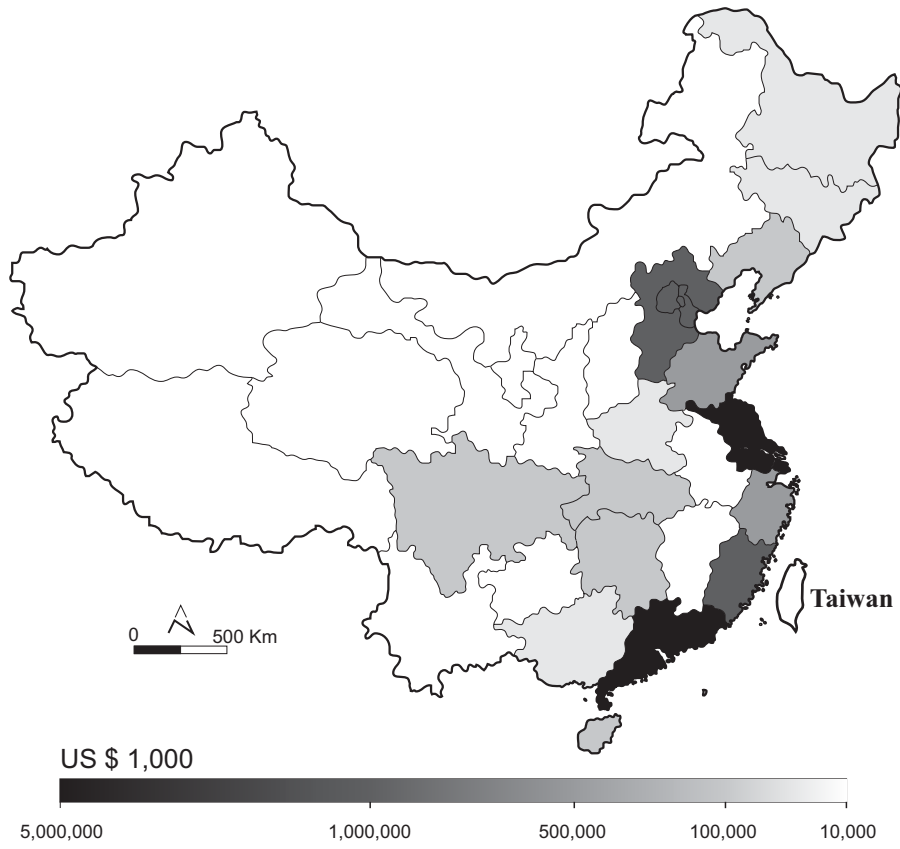
As for the role of cultural affinity in the governance of cross-border investment, two contrasting perspectives are at stake. Hsing (1998) demonstrated that Taiwanese small and medium-sized enterprises (SMEs) took advantage of the cultural affinity with Chinese local cadres and built up alliances with them by exploiting ethnic Chinese connections. He argued that Taiwanese SMEs, being familiar with the norms and practices of *guanxi* in China's social context, and mostly in combination with bribery or 'gift economy', could soon become insiders, building up friendships and providing an efficient way for the Taiwanese capital to obtain information, raise capital, reduce labour costs, and enforce contracts.

In contrast, Wu (1997) preferred the concept of interest conflict and power

bargaining over cultural similarity in explaining the interactions between Chinese local authorities and Taiwanese investors. Rooted in new institutionalism, he argued that cross-border Taiwanese investments should be taken as part of the reorganisation of global production networks and that they had to solve the problems of governance in the divergent institutional environments. The Chinese local cadres, particularly those in the Pearl River Delta (PRD) Region, were painted as the rent-seekers, who exploited the autonomous powers granted by the central government through its reform policies to prefer some investors to others. Under these circumstances, Taiwanese investors could not but establish *guanxi* with the local government and pay extra fees above the nominal tax to avoid trouble from the local authorities.

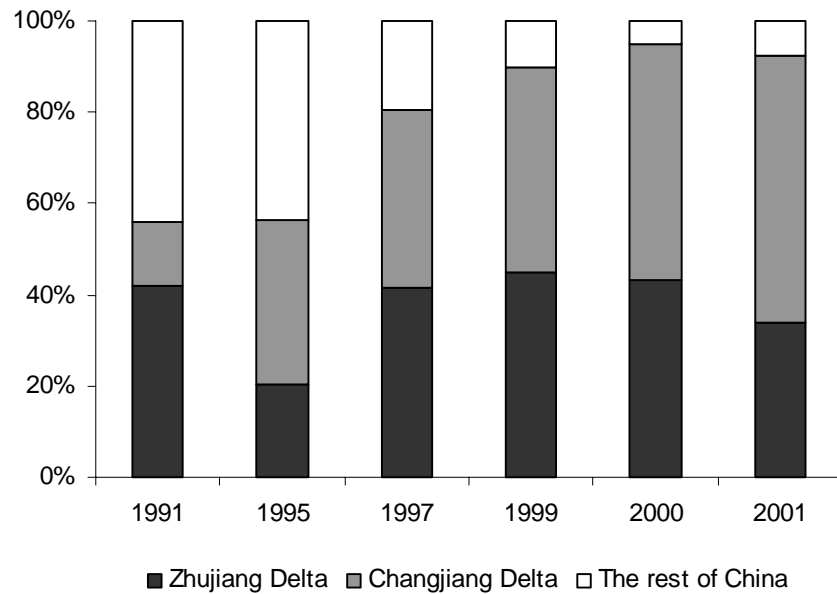
In fact, the wisdom of new institutionalism cast light on the solution: it argued that the outcome of the interactions between the state, market and social connections, such as *guanxi*, could vary dramatically, from unproductive rent-seeking to advantageous relational assets. For Taiwanese investors, the socio-economic space of China is both a land of cheap labour and a potential market, and a place of turbulent institutions and dull practices. As a consequence, it makes sense for the Taiwanese small-medium-sized investors who lack capital to do nothing but utilise the informal institutions such as *guanxi* manipulation to keep their supposedly superior intra-firm management and inter-firm production system intact in the initial stage (cf. Yeung (1998), and Wong et al. (1998) on Hong Kong transnational corporations in Southeast Asia and China).

This chapter investigates these issues using a case study of the cross-strait investments made by Taiwanese informatics industrial firms in the Shanghai region in the Yangzi River Delta (YRD). The choice of the informatics industries, including mainly PC peripherals and components, is based on the observation that since the early 1990s, it has become one of the most strategically important cross-strait investment sectors. Moreover, most of the research on cross-strait investments, such as Hsing (1998) and Wu (1997), have so far concentrated on the traditional sectors, such as shoes, garments, and toys. This study will update the theoretical understanding and empirical findings. Finally, Taiwanese electronics firms have clustered geographically in two regions, mainly the PRD and the YRD respectively (Figure 8.1). Diverging from the geographical patterns demonstrated by the traditional sectors, which concentrated in the PRD region, Taiwanese PC investors chose towns in Southern China in the first wave of investments in the late 1980s, and after the mid-1990s, the investors gradually moved to Eastern China (see Figure 8.2). While most accounts of cross-strait investments are based on the case studies conducted in the PRD (Hsing 1998, Wu 1997, Cheng 1999), this chapter hopes to provide a preliminary comparison of firm behaviour in a divergent institutional context.



**Figure 8.1 The locations of Taiwanese electronic investors in China, in investment value volume**

*Source:* China's Third Industry Survey, 1997.



**Figure 8.2 The geographical patterns of Taiwanese electronics cross-strait investments in the 1990s**

*Source:* Statistical Reports of Cross-strait Investment, the Investment Commission of Ministry of Economic Affairs, various years.

In the next section, the methodology will be described before the empirical details. Next, we will portray the geographical patterns of the cross-border investments. The remainder of this chapter will tackle the changing organisation of cross-strait investment. The discussion will evolve around the changes in the multiple governance mechanisms at various levels, including labour regimes, material input control, inter-firm subcontracting and the reorganisation of cross-border production chains. Finally, a theoretical dialogue with the hegemonic discourses of institutionalism, predominantly the thesis on social embeddedness or soft institutionalism (MacLeod 2001), will be considered. A deliberation on cultural turns in economic geography and the study of informal institutionalism (Wang 2000) and *guanxi* (Smart 1999, Yeung 1998) in Chinese business will conclude the chapter.

## Methodology

This chapter is based on the findings of an ongoing research project that started in January, 2001. In the research process, the researchers spent about two months on four field trips and conducted about 40 interviews with Taiwanese PC sector (including PC component, peripherals and system house) investors, managers and two local government agencies. The selection of the sampled firms was based on the database published by key investment consulting companies such as the Capital Group (2001) and a special issue by the noted Taiwanese technology business journal publisher, *Business Next* (2000), which was widely believed to keep more accurate data on the 'real' investments made by Taiwanese high-technology firms'.<sup>1</sup> In the database, the items and locations of the major investments in the PC sector were listed (Table 8.1). Accordingly, six key PC system firms, including Acer Peripherals (PC peripherals maker), Foxconn Electronics Group (precision machinery), Inventec (notebook computer maker), Delta Electronics (switch power supply), Quanta (notebook computer maker), and ASUS (motherboard maker) were identified because of their recognition as relatively large in investment amount and ability to attract subcontractors to follow in cross-strait activities. All of the targeted firms were on the list of the top 50 Taiwanese electronics firms (including mainly semiconductor and PC firms).<sup>2</sup> After contacting them, the latter two declined to be interviewed. Among the other four key firms, two (Acer Peripherals and Inventec) chose the YRD as their first location in their Chinese investment, and the other two firms had set up plants in the PRD before they moved their core operations northward.<sup>3</sup> In the course of the interviews, the subcontractors for leading firms were added to the interview list, making the final number of firms 39. Company profiles of the firms interviewed are shown in Table 8.2.

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1 Due to the 'don't rush, be patient' policy stipulated by former president Lee Teng-hui, many Taiwanese investors, particularly high-technology firms, choose to register in third countries such as the Cayman Islands as foreign companies prior to engaging in their Chinese investments, rather than report to the government. Thus it is generally alleged that the official cross-strait investment records are less accurate than those kept by the investment consulting companies.

2 Among these 50 firms, 26 belong to the category PC industry, and 15 of them have engaged in FDI in China.

3 Delta Electronics entered Dongguan in the PRD in 1992 to start producing power supply and expanded to five plants there. Since acquiring 400 acres of land in Shanghai in 1999, it has set up its research center there and expects to invest in 12-15 plants to produce high value-added product in the YRD in the next 5 years. Similarly, Foxconn started its Chinese operation in Shenzhen and Kunshan in 1993 and expanded to 23 plants after 8 years. It has established its R&D unit in Shanghai in cooperation with a local Shanghai laser research center.

Table 8.1 Key PC sector cross-strait investments

Region	Location	motherboard	PC systemhouse	Notebook PC	PC component	monitor	Disk player	Other PC peripherals
PRD	Shatoujia	Elite						
	Shenzhen	Elite-Huandian-MSI	Acer-Huashen		Honyun-System-Xieyi-Foxconn-Enlightcop			Zhimau-Hanping
	Guangzhou	Advantech	FIC		Guangbau-Enlightcop			Xuli
	Longhua	AOpen						
	Huiyang	Lunghua						
	Huizhou				Lixin Juxiang Zhenfa			
	Shijie	AOpen	Acer-Xiangfeng Mitec					
	Zhongshan							
	Shunde	Elite-Gigabyte MSI-Youtung- Yintai-Chengchi			Guangbau-Delta-Honyun- Xinju-Xieyi-Shutle-Fuyie Xuande-Enlightcop-Juxiang	Guofeng Liteon-ADI	Liteon-Yinchun	Xuli-Mustek-Genius- Yuncheng-Lianchang
	Dongguan							
	Shanghai	ASUS- Advantech	Mitec, Huanda- Tatung	Inventec-CLEVO- Quanta	Delta-System-Jinbau- Foxconn-Juxiang	Tatung		
	YRD	Wuxi				Guangbau		
Changzhou					Zhenfa			
Suzhou		ASUS-Abit			Lixin-Enlightcop-Juxiang	AcerPeripherals, Metchi	Acer Peripherals	Umax-Lianchang
Wuxian								
Hangzhou					Foxconn			Zhongshan
Kushan		Advantech- Yuangang Gigabyte-EPOX	Mitec, FIC	Compa-Inventec Twinhead	Jinbau-Foxconn-Xuande- Tongxie, Logitech			
Ningpo								
Nanjing		Lunghua	Tatung	Inventec-CLEVO Huayu	Delta			
Wujiang		Advantech	Acer	CLEVO	Xuande Xuande Guangbau-Delta	ADI-Tatung		Microtek- Global View
Beijing								
Dandong								
Tianjin			Heda					
The rest of China	Shenyang							
	Xiamen	Huandian						
	Wuhan		Twinhead					
	Xian		Inventec					
	Chengdu			CLEVO				

Source: adapted from *The Capital Group (2001) and The Business Next (2000)*



**Table 8.2 The company profiles of interviewed PC firms**

	<b>Main business</b>	<b>No. of employees</b>	<b>location of operation</b>
<b>Delta</b>	power management, video display, component, networking, electro-mechanic	>10,000 (group)	Dongguan (P) <sup>4</sup> Kunshan (Y), Shanghai (Y)
D1 <sup>5</sup>	screw nuts	about 200	Dongguan (P), Wujiang (Y)
D2	plastics	N.A.	Dongguan (P), Kunshan (Y)
D3	plastics	<500	Shunde (P), Wujiang (Y)
<b>Foxconn</b>	Computer components, cable, electro-mechanic parts	>10,000 (group)	Shenzhen (P), Kunshan (Y)
F1	electronic parts	N.A.	Dongguan (P), Kunshan (Y)
F2	electronic parts	N.A.	Shijie (P), Kunshan (Y)
F3	plastics	350	Kunshan (Y)
F4	molding development	150	Kunshan (Y)
<b>Acer Peripherals</b>	PC peripherals, monitor, mobile phone machinery, molding	8,000	Suzhou (Y)
A1	machinery, molding	2,000	Dongguan (P), Shenzhen (P), Shanghai (Y)
A2	molded cable, adapter	N.A.	Shanghai (Y)
A3	precision machinery	800	Shenzhen (P), Shanghai (Y)
A4	plastics	N.A.	Shanghai (Y)
A5	plastics	N.A.	Wujiang (Y)
A6	screw nuts	about 500	Guangzhou (P), Wujiang (Y)
A7	wire harness	N.A.	Wujiang (Y)
A8	plastics	about 800	Dongguan (P), Wujiang (Y)
A9	Silicon anode cap, focus pack	N.A.	Wujiang (Y)
A10	plastics	about 700	Shunde (P), Wujiang (Y)
A11	electronic parts	N.A.	Huizhou (P), Wujiang (Y)
A12	electronic parts	about 500	Dongguan (P), Wujiang (Y)
A13	cables	N.A.	Wujiang (Y)
A14	electronic parts	about 1,000	Dongguan (P), Kunshan (Y)
A15	plastics, electronics	N.A.	Kunshan (Y)
A16	plastics	N.A.	Suzhou (Y)
<b>Inventec</b>	notebook PC, sever system, wireless internet appliance, translator machine	>5,000	Shanghai, Kunshan (Y)
I1	electronic parts	N.A.	Kunshan (Y)
I2	electronic parts	N.A.	Kunshan (Y)
I3	wire harness	about 700	Dongguan (P), Kunshan (Y)
I4	precision machinery	N.A.	Shanghai (Y)
I5	molding	about 200	Shanghai (Y)
I6	plastics	N.A.	Shenzhen (P), Shanghai (Y)
Microtek	scanner	>1,000	Wujiang (Y)
Logitech	mice	>1,000	Suzhou (Y)
WUS	PCB products	about 1,500	Kunshan (Y)
FIC	motherboard	>5,000 (group)	Guangzhou (P), Kunshan (Y)
Compal Electronics	notebook PC	>3,000	Kunshan (Y)
ADI	monitor, LCD screen	>1,000	Dongguan (P), Wujiang (Y)

4 P connotes PRD. Y indicates YRD. A number of firms have plants outside of both regions, such as Xian, which are not included in the table.

5 For anonymity purposes, the first character "D" means subcontractor or supplier of Delta group. The rest can be reasoned by analogy.

In addition to in-depth interviews, government publications, business surveys and journal reports provided valuable material for this research. However, in order to avoid turning the research into a collection of business anecdotes, the researcher has been particularly careful about drawing conclusions from these reports. The researcher double-checked with the relevant people or agencies before making the final judgments.

### **The General Location Patterns: From PRD to YRD**

By the mid-1990s, a decade after Taiwanese SMEs first went to China, the majority of the cross-strait investments shifted from traditional sectors, such as garments and footwear, to informatics industries, particularly PC components and peripherals.<sup>6</sup> An acute labour shortage and relatively high costs triggered the emigration of Taiwanese PC industries, starting with the most labour-intensive and price-sensitive keyboards and PC mice to power supply units, and then to motherboards and monitors.<sup>7</sup> In undertaking cross-strait investments, a series of governance and coordination issues posed themselves for Taiwanese PC firms, the first question coming to mind being the location of the new plant. As Figure 8.2 demonstrates, most Taiwanese PC firms chose the PRD and the YRD as their destination. In fact, the locale of Taiwanese investments has shifted from the former to the latter since 1997, when China's membership in the WTO was assured.

The acquisition of overseas Chinese FDI in China has been extensively explained (Hsing 1998, Wang 2000, Lin 1997, Smart 1998). According to the Ministry of Foreign Trade and Economic Cooperation (1999), from 1979-98, the sources of FDI in China concentrated highly in the Great China Circle, including Hong Kong, Taiwan and Singapore. In total they accounted for over 70 per cent of the total FDI in China. At the same time, most of these ethnic investments went to the culturally and geographically proximate open-door regions, such as Guangdong and Fujian.

After 1997, following the negotiation of membership in the WTO, the opening of China's market to foreign companies was assured. The YRD, particularly Shanghai City and its neighbouring region, was assessed as a better location as a market centre than its counterpart in South China. From a strategic perspective, it makes sense to make one's presence felt in the area. In addition, the role of the international procurement offices (IPOs) of key PC buyers, such as Dell, IBM, and

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6 The production value of Taiwan's PC sector reached 3,380 billion US dollars in 1998, and over 29 per cent of the value was created by Taiwanese investors in China (Wall Street Journal, Oct. 21, 1998). In addition, the ratio of made-in-Taiwan PC products declined from 72 per cent in 1995 to 52.7 per cent in 1999, and the portion of made-in-China PC products rose from 14 per cent to 33.2 per cent in the same period (MIC, 2001).

7 According to Chung (1997), the estimated cost savings (including material cost, direct labour and indirect labour) to Taiwanese PC companies ranged from 22 per cent in mouse production, to 8 per cent in monitor making, in comparison with offshore manufacturing in China in 1993. The range was between 16 per cent and 4 per cent, compared with Malaysia.

Compaq, is critical in organising the spatial division of labour for the PC production chains.<sup>8</sup> It is recounted that major Taiwanese PC motherboard and notebook producers rush to cluster in the YRD (Zhuang et al. 2001).

According to a recent survey conducted by Taiwan's major electronics industrial association, Taiwan Electricity and Electronic Manufacturer Association (TEEMA, 2001), the YRD ranked as the top priority, but the PRD region the lowest, even lower than the South Eastern Region (including Fujian Province) and North Eastern Region (including Liaoning Province), on the recommendation list for Taiwanese investment. In terms of investment environment, the survey classified the towns and cities in the YRD, such as Wujiang, Kunshan and Shanghai as category A cities (the most highly recommended), and put most PRD cities, even Shenzhen and Guangzhou, in the category D (the least recommended). In conclusion, the survey attributed the results to the lack of a stable legal system and social environment in these PRD cities. Furthermore the frequent disputes on tax and customs issues in the region were deemed most annoying for Taiwanese investors.

The survey was echoed by Mr. Lee of Goda Membrane Switch Co., a PCB maker who possessed plants in Dongguan and Suzhou. He expressed concern about the capriciousness of the local policies in the PRD region.

Sometimes the local government people came to us and required us to pay extra fees for something strange like urban beautification, or to sponsor their travel. We did not worry about bribery or gift sending as we might count them as costs, and we could make decisions if we could cover them in the business operation plan. But unexpected fees or requirements were beyond our calculation, and we could not invest under such uncertainty. Not complying with their requirements could mean penalties, even imprisonment. We could not afford it.<sup>9</sup>

In fact, as Hsing (1998) demonstrated, the lax legal system can grant extra incentives for cross-border investment. Thus, how to take advantage of the system and at the same time keep their core operation intact became the primary consideration for Taiwanese investors. An 'export enclave' strategy was adopted.

### **Transfer and Institutional Dis-embeddedness: The Export Enclaves**

Encountering the new institutional environments, Taiwanese investors had to re-establish their own production networks and effective governance systems. To work these out, they assessed the possibility and limitation of local sourcing and

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<sup>8</sup> In a questionnaire conducted by Taiwan's Ministry of Economic Affairs, 81.9 per cent of the interviewed Informatics firms agreed that the huge potential market in China was the key pull factor for Taiwanese investors. In addition, 73.5 per cent of the respondents thought requests by the International Procurement Offices (IPO) of the key buyers were one of the major forces pushing them to move operations across the Strait (MOEA 1999).

<sup>9</sup> Interview with Mr. Lee, L-P, Vice General Manager, Goda Membrane Switch Co. June 26, 2001.

adjustment. More often than not, Taiwanese investors came across the following concerns as they transplanted part of their operations to China.

First of all, the local institutional regulations and enforcements are critical for Taiwanese investors to set up and operate their business. Among the institutional regulations, the tax and custom rules raise most anxieties for the inward investors.<sup>10</sup> According to China's state laws, foreign investors can be exempted from between 15 and 24 per cent of income tax, depending on whether they locate their plants in the special zones or high and new technology zones (Gu & Zhau 1998). Even the incentives to attract foreign capital were well defined in the law (tax free for the first two years and half tax reduction for the following three years, *li-ang-mian-san-jian-ban*). The final deals between the foreign investors and local governments vary depending on the bargaining powers of both sides (Li & Yeung 1999). Most Taiwanese investors relocate their plants to China for the tax and land subsidies at an initial stage. According to a survey, over 58 per cent of Taiwanese investors are engaging in OEM business and mainly export to the US market, although the share that targets the local market is rising as China gradually opens up its market (MOEA 2001). They usually import raw and intermediate inputs from overseas, mainly Taiwan, then process and assemble the products, and finally export them to the final markets.<sup>11</sup> As these investors enjoy preferential dealings, they are not allowed to sell products locally without special permission, otherwise they will be charged with smuggling, which is severely punished in China, even with the death sentence. More to the point, when the business firms are suspected of smuggling, the owners are arrested first, before a series of frightening investigations take place. As a result, the foreign investors have to carefully manage the material inputs and pay the additional tax if they wish to sell the products locally.<sup>12</sup>

To handle the tax and customs issues, Taiwanese investors usually take some measures to avoid getting into trouble. In the early stage, Taiwanese investors mostly chose to adopt joint ventures with local Village and Township Enterprises (VTEs) and let the latter take charge of dealing with the administrative matters, as they are usually part of the administration. In spite of a local counterpart who

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10 According to a survey, complaints about customs and tax administrations as the most bothering offices in China rank number one (76.3 per cent) and number two (60.8 per cent) among Taiwanese investors, much higher than number three (15.2 per cent), which is the labor bureau (MOEA 2001). Mostly the investors applied customs based on the contracted prices, but they were paid the market prices, which were typically higher than the contracted ones. This led to disparities between the custom tax accounts and company financial ones, and frequently incurred criminal charge of tax evasion.

11 In the late 1980s, most Taiwanese imported inputs from Taiwan to China for processing. As more materials were gradually sourced locally, the ratio of imports from Taiwan declined to about 30 per cent in 1998. However, most critical and high value intermediates were still being imported from Taiwan. See discussion later.

12 In accordance with the laws on special economic zones, all final products have to be exported in order to qualify for business tax breaks. They are also only allowed to be sold locally with the special permission of the governments at the same time being levied the 17 per cent business tax.

occupies a number of positions such as vice president and manager, these are in most cases powerless at running the joint venture. In other words, it is a kind of 'fake joint venture, real foreign direct investment' (Wu 1997). These VTEs were paid in dividends or other benefits in returns, and thus meant extra costs to Taiwanese investors.

Besides the hassles related to the tax and customs systems, Taiwanese PC firms have to attack the problems of reconstructing the logistic supports and production system. Generally speaking, they had two options to choose between: either outside sourcing or inside making. For Taiwanese SMEs, the conventional wisdom led them to conceive of vertical integration, which might not be the best policy in the volatile new economy. Accordingly, they included a number of key parts in their own operations and subcontracted most of the components to makers whom they trusted. The case of Acer Peripherals exemplifies this point.

Acer Peripherals expanded its overseas operation to Suzhou in 1994.<sup>13</sup> In the beginning, they tried to find qualified local subcontractors for production purposes, but soon they gave up the idea and contacted their original partners in Taiwan. As indicated by Mr. Pan, the former vice president of Acer Peripherals (Suzhou), who was in charge of the early plant construction and operation:

I was instructed to reconstruct the 'industrial infrastructure' in Suzhou as soon as possible. The infrastructure meant the collaborative manufacturing system. To get the job done, I travelled to Suzhou and the neighbouring cities, even to Ningpo in Zhejiang Province which was noted for good moulders, to find if any qualified industrialists could become parts of our subcontracting system, but I failed to get qualified persons. Their moulding technical level could not match our precision requirement. In spite of a number of local component makers that could offer lower prices than our original ones, the key criteria of a successful subcontractor included not only cost down, but also the capability of engaging engineering change to match our demands. I estimated that the competent subcontractors would not be available within the next 3-5 years.<sup>14</sup>

Local sourcing was often taken as the best policy for multinationals to optimise resource allocation and save costs (Dunning 1993). In fact, Taiwanese investors like Acer Peripherals tried to source locally at first, but they had to resort to other options, as the local environment could not make the necessary skills and quality available.

The alternative was to move the whole subcontracting system altogether. This strategy was dubbed 'the hen brought little chickens together'.<sup>15</sup> Acer

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13 Before the China subsidiary, Acer Peripherals set up another plant in Malaysia in 1989. The product groups included CRT monitors, LCD monitors, LCD projectors, DVD players, telecommunication system, and cellular phone products.

14 Interview with Mr. Pan, J-S, Deputy Managing Director, Darfon Electronics (Suzhou) Co. May 23, 2001

15 In fact, this strategy was adopted by other core PC makers, such as Inventec Group, a top notebook computer maker in Taiwan, who brought more than 40 subcontractors to visit sites before settling in Shanghai in 1997. The subcontracting firms regularly meet to discuss issues concerning law interpretation, tax matters, labour control and other management problems. They dubbed the meeting the 'Inventec Association'.

Peripherals asked more than 20 subcontracting partners to visit the potential sites in 1993, and finally 14 decided to follow along. These subcontracting firms consisted of specialists in precision machinery, plastic ejection, cable assembly, and even varieties of screws. All of them clustered in the Wujiang Economic Development Zone, within one-hour driving distance of Suzhou. Most of the subcontractors had more than 5 years' working relationship with the core firm, Acer Peripherals. The long-term stable relationship helped Acer Peripherals convince the collaborators to move together, though there were not any written documents to guarantee the success. As Mr. Hsu of KuoLeng Electronics Co., a screw maker partner of Acer Peripherals, pointed out,

Acer Peripherals approached us and asked if we would like to follow them to China in 1993. More than 80 per cent of our capacity was ordered by them, and if they moved, and we did not move together, I was not sure if we could find the replacement orders....They did not have to give us any written promise, and we knew each other well. They trusted our capabilities, and we were not easily replaced.<sup>16</sup>

The previous social relations persuaded the subcontracting firms to make the move, and helped the core firms to copy the supply chains quickly in the alien land. In this sense, the social embeddedness in Taiwan was transferred across the Strait and worked well in sustaining production networks in China without outside disturbance.<sup>17</sup>

On the whole, the subcontracting relationship was not exclusive, but could be extended to other PC makers. Under such an arrangement, over 70 per cent of the components for Acer Peripherals still came from its original Taiwanese subcontractors in 2001, according to Mr. Pan. This verified the copying of the decentralised industrial system in Taiwan. In fact, more component subcontractors were gradually drawn to the core firm's geographical orbits than the latter mandated; otherwise, the former would lose its business. As a result, almost the whole Taiwanese 'chicken nest' moved to the YRD. One exception, which is still left in Taiwan, was certain R&D jobs such as the moulding process and products with high precision requirements. This was because local Chinese technical skills could not satisfy the requirements. The trend of attracting more subcontractors across the Strait led the share of material and intermediate input procurements of Taiwanese investors from donor country to decline from 27.04 per cent in 1993 to 18.2 per cent in 1998 (Kao 2000).

The efforts to transfer the production system also appeared in the aspect of labour regulation. Most Taiwanese PC investors, particularly those in the PRD, hire people from rural areas (*ming-gong*), mostly young women in their twenties or less,

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<sup>16</sup> Interview with Mr. Hsu J, General Manager, KuoLeng Electronics Co., June 25, 2001.

<sup>17</sup> Strategies of lead firms to 'convince' their home suppliers to follow are very common in the automobile industry (Japanese carmakers going to the US or Europe, German carmakers going to the US all took the same strategy). This seems to be a general strategy in sectors where a dominant lead firm has sufficient demand power over its suppliers.

and pay them in the range of RMB 400 to 700 per month (Zhu 2001). Even those located in the YRD, which was noted for its previous industrial bases of State Owned Enterprises (SOEs), purposely avoid recruiting experienced workers, and choose to employ labour from other rural regions, such as Anhui Province, Hunan Province, and even the North of Jiangsu Province (*Subei*). By doing so, Taiwanese investors could 'produce' labour at their will, and circumvent the constraints of the existing industrial practices in the collectivist SOEs. A number of interviewed managers listed the 'bad habits' of the veteran workers, including irresponsibility (*chi-da-guo-fan*), opportunism, laziness, and gaining extra advantage at the public's expense.

We would like to hire a novice, rather than an old hand with 'bad habits'. As far as an old hand was concerned, you had firstly to let him/her forget the traits that he/she had lived with for a long time. It was much more difficult than teaching an employee from nothing.<sup>18</sup>

To control and train labour effectively, each Taiwanese PC investor dispatched numerous cadres (*Tai-Gan*) from the mother company to the subsidiaries in China.<sup>19</sup> These expatriates generally played the roles of both overseers and taskmasters in the factories. They were the pillars of the Taiwanese inward firms, and alleviated the frictions accrued in the acclimatisation process. They fundamentally transferred their technical skills and industrial practices to the new plants. Besides labour control in the shop floor, most Taiwanese investors constructed bulky dormitories to house their workers from other towns, and imposed strict rules, such as curfew, to discipline their off-duty lives.

By and large, Taiwanese investors chose to respond to the tensions caused by the process of transition in the alien institutional environments in China in the late 1980s to the mid-1990s strategically. They played *guanxi* games with local governments to form a buffer as insulation from external turbulence. They moved core business to 'sound' institutionalised regions, adopted fake joint ventures to attack the annoying tax and customs issues, organised collective associations to voice their discontent, implanted entire subcontracting chains, and sent out cadres to manage the labour training and regulation issues. Since most Taiwanese PC investors came to China to take advantage of cheap labour for export, compliance with the mandates from the key buyers (IPOs) of the global production chains may be the best way to govern the cross-strait investments, so that the competitive production systems can be kept as intact as possible. In other words, they adopted dis-embedded strategies to prevent local interruption, and in so doing, they could enjoy the benefit of substantial

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18 Interview with Mr. Lee M, Vice President, WUS Printed Circuit Group, December 5, 2001.

19 The number of expatriates varied in different scales and sectors of firms. Basically, the larger the firms, the more overseers were needed. Also the more sophisticated the sector, the more taskmasters required. According to the report, 72.1 per cent Taiwanese inward companies had less than 5 Taiwanese managers, 19.1 per cent less than 10, and only 0.3 per cent over 20 cadres from Taiwan (MOEA 2001).

tax subsidies and low labour costs, and remained spontaneously competitive in the production systems.

### **Hybridisation and Institutional Re-embeddedness: The Emergent Local Market**

The situation changed as China's market emerged confidently and gradually opened to foreign investors after the mid-1990s. Exploring the huge internal China market became the mandate for Taiwanese investors to survive and to prosper. Accordingly, their management and operation systems evolved around different principles than those previous 'enclave' strategies. At the same time, China's institutional environments had been under reform since the National State Council (*Guo-Wu-Yuan*) acted on a series of corruption scandals in the coastal cities and promised to attack the issue of barriers to trade under the new Premier Zhu in 1998. Tax and customs administrations were reshuffled and there was some evidence of a gradual shift from personal particularism to impersonal universalism in the most developed areas in China, such as the YRD (Guthrie 1998).<sup>20</sup> At the same time, the local governments in the YRD have learnt from the previous bargaining experiences with foreign investors to recognise that improving their efficiency in administrative procedures and the spirit of 'ruling by law' is more critical than hardware infrastructure construction for attracting foreign investments (Chang & Chiu 2000). In the new situation, Taiwanese investors started to look seriously at the growth potential of the largest market in the world.

A number of issues obstructed the road to China's market for Taiwanese PC SMEs. First of all, they had to solve the tax and customs matters as they shifted from export orientation to local targeting. In accordance with the rules, the foreign investors should pay back the tax subsidies, which were exclusively granted to export processors, and a clear distinction should be made between materials for exports and those for the local market; otherwise, they would be considered to be smuggling. In practice, it was more than likely that the investors mixed together the materials, machinery, people and the like, and got into serious troubles. Consequently, some Taiwanese investors prefer to set up new autonomous companies to be responsible for local marketing<sup>21</sup> or at least split off the local marketing division from other departments in the firm organisation.

In order to build up good relations with local key customers, it is vital that the primary mission for the inward investors be to capture the opportunities to

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20 Yang (2002) cast doubts on the argument about the decline of *guanxi* in China, and insisted that the practice of *guanxi* might be replaced by a legal system in some economic areas, but it would arise in others. Nevertheless, she agreed that the dynamic evolution of the institutional environment, particularly the establishment of a stable legal system, would increasingly gain influence in the business practices in China.

21 For example, the Sky Hawk Computer Group established a new company to take charge of its business with key local customers, such as the Legend Computer and Haier Group.



transform themselves. The transformation appeared in two aspects: on the one hand, subcontracting to the major electronics groups in China, such as Legend Computer, might help the Taiwanese SMEs to penetrate the local market, which was seemingly open but really carried mountains of barriers. On the other hand, the collaboration could also extend to new differentiated product development, which might meet the local demand. Let us take the collaborative project between Taiwan's First International Computer (FIC) Group and China's Legend Computer Group as an example. To facilitate the collaborative project, FIC sent out a team of several key engineers to Legend's new plant in Shanghai to develop new products such as notebook computers. In return, FIC established a stable subcontracting relation with the largest local computer group in China (*China Times*, Jan. 9, 2002).

Another famous instance was the joint ventures made by Foxconn Group with promising start-ups founded by local engineers to access the emerging product areas in wireless telecommunication, as China's innovation base was believed to be more competitive than its counterpart in Taiwan. These investments were to target new product development and to enhance the innovative activities for the Foxconn Group in China (*China Times*, Jan. 29, 2002). In a sense, they were different from the fake joint ventures observed in the previous stage. The Foxconn Group also expanded its business operations in the YRD to cope with the new opportunities and challenges in China, and created good relations with China's government by setting up communist party office in its plants.

The local market imperative is not just confined to Taiwanese investors' usual practices as subcontracting partners for key PC buyers, but also extended to envision the possibility of metamorphosing as own brand-name (OBN) makers with a high profit margin. Becoming an OBN producer was a totally new and knotty practice for most Taiwanese PC investors, who were long well-noted for their hidden OEM factories in the global production networks (Lin 2000). It required not only production capabilities, which most Taiwanese PC investors knew quite well, but also marketing competence, which consisted of the tacit knowledge of local tastes, specific standards, and exact regulations, to make headway into the long-fortified Chinese market. Besides collaboration with local customers like the FIC-Legend case, a number of Taiwanese investors had to recruit local talents who had better sales experience to run the newly-added marketing division. Acer Peripherals hired a group of local managers, including some who spent several years in State Owned Enterprises, to strengthen its task force in carving out a Chinese market, according to Mr. Lee, the CEO (Zhuang 2001). Inventec Group was also noted for its early establishment of local innovation teams to develop products (e.g. translator appliance) and sold the products locally. As Mr. Huang, vice president of Inventec (Shanghai) indicated,

We had been OEM partners for key international electronics buyers for a long time. We could never dream of creating our own brand products until we arrived in Shanghai. But selling products in China was not a piece of cake, even though we Chinese shared the same culture. So, we hired qualified local people with product design capabilities and marketing experiences to lead the division. They usually

needed guidance in the beginning, but they could adjust themselves very quickly.<sup>22</sup>

After localisation efforts, a number of Taiwanese investors started their own brand of products, such as Acer Peripherals switching from a member of Acer group to BenQ brand maker. Quanta Computer, the largest notebook maker in the world, sold its products under the name of Getac in China, and Inventec Group promoted its Okwap cellular phones in the domestic market in 2001. Adding new divisions such as R&D and marketing resulted in the reshuffling of the organisational fields of the inward investors. Taiwanese investors perceived the local institutional environments more as resources than as constraints in the previous export-orientation stage. They had to tap these resources by opening up firm boundaries and they absorbed the nutrition by behaving like local companies. In other words, this involved the process of organisational de-coupling and re-coupling, and engendered governance tensions within the organisation and with outside institutional arrangements. It is still too early to tell the trend of organisation-institution interaction between Taiwanese investors and China's emerging market. In fact, other possible trajectories taken by Taiwanese investors still exist, if the promised opening of China's market is not realised in the future. It might force Taiwanese firms to withdraw from the hybridisation attempt, and return to the OEM model. Boyer (1998) called this 'aborted hybridisation'. The result will depend on the power relations and negotiations between the transplanting firms and local institutional environments, which include the industrial system, government policy, market operation, and labour regime.

### **Conclusion: Reflections on Institutionalism and Territory-Firm Nexus**

It is widely recognised that firms should not just be conceived as legally bounded entities and owners of property assets, but also as institutions with permeable and highly blurred boundaries, or in Dicken & Malmberg's term (2001), 'networks within networks'. In the networking process, the firms opened up their boundaries and tapped into the surrounding networks, and created certain realms of firm-territory interaction. Dicken (2000) even dubbed the nexus as the process of 'placing firms and firming places', and Schoenberger (1999) called it 'firm in region and region in firm'. All of the literature assumed that the hybridisation of the firm and geographical organisations would occur naturally once the intra-firm networks were grafted onto the inter-firm and firm-space ones. However, such an assumption could not hold, as firms should be regarded as economic units with power (Maskell 2001, Prahalad & Hamel 1990, Teece & Pisano 1994), which could mobilise their resources to colonise their threatened environment without transforming themselves. In this regard the most appropriate theory of the firm for economic geography is one that takes the firm seriously by identifying its internal competences and its clear boundaries in the process of institutional (re)embeddedness, rather than just viewing the firm as social networks with blurred limits. By doing so, it is possible to bring the

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<sup>22</sup> Interview with Mr. Huang P., Vice President, Inventec Group (Shanghai), August 16, 2001.

firm back in as an agent with a different proactive capacity or power structure and then further decode the peculiarity of the firm-place nexus in different times and geographies (Hudson 2001, Yeung 2002).

This paper also validated the flexibility of small firms in relocating their investments. Most of the foreign investments, other than overseas Chinese, took advantage of their scale advantage to utilise cheap labour and explore the market in mainland China (Wang 2000). In contrast, the small Taiwanese investors had to build up interpersonal relations with local cadres in the host PRD region to avoid the turbulence from the enviroing institutions, and gain a foothold in the risky but profitable land. However, while market opportunities opened for the small Taiwanese PC investors, they adopted new organisational configurations to meet the new situation. At the same time, these small firms were alert to PDR regional lock-in as the onetime institutional flexibility became an institutional barrier, and could not adjust itself to meet the firms' demands. It seemed the change in environment affected these small firms severely, and the liveness of the latter allowed them to escape from the turbulence caused by the former. While Romo et al. (1988) predicted that large firms with monopoly power were better candidates than small ones to migrate elsewhere, as they could easily embed themselves in each regional economy, the Taiwanese small PC investors demonstrated their fluidity by not letting themselves be detained by sunk cost.

From the perspective of regional development, this also demonstrated the limit of a number of endogenous theories that prioritised social capital and institutional thickness over power relationship and political economy (Lovering 1999, Fine 2001). This research demonstrated that different modes of institutional embeddedness could create various effects in divergent times and geographical scales: Taiwanese PC SMEs took advantage of *guanxi* or flexible citizenship (Ong 1999) as relational assets in the beginning of the cross-border investment at the international level and buffered themselves from the disorders in the state regulation in the PRD, and they moved to comply with the formal regulations and made use of the YRD's regional advantage on the domestic level as China's internal market emerged. The key issues for the regions here were not to establish much thicker institutions, but to learn to monitor the firm-region interaction by experimenting with institutional adjustment (Sabel 1996).

In brief, this research resonated with the arguments asserted by Gertler (2001:20) that 'any revised theory of firm practice must take adequate room for individual, collective and corporate agency within the firm'. Based on the understanding that the firm is a competence-creating agent, this research has shown that cross-border PC investors have adopted divergent strategies to disconnect and reconnect with hosting regions with the goal of strengthening the firm's core competence. As a result, the latter changed the regional development of the firm's investments (firming place) and imbued the firm with the regional stamp (placing firm). Transfer and hybridisation, in this analytic vein, could be geographically sensitive strategies for firms, as reflexive agents, to protect and to reinforce their competence in the evolution of the firm-territory nexus.

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