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Focus China

The New Challenge for Japanese Management

Edited by René Haak and Hanns Günther Hilpert

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LIST OF ABBREVIATIONS

ADB	=	Asian Development Bank					
AFTA	=	ASEAN Free Trade Area					
APN	=	Asia-Pacific Network for Global Change Research					
ASEAN	=	Association of South East Asian Nations					
EFTA	=	European Free Trade Agreement					
EU	=	European Union					
FDI	=	Foreign Direct Investment					
FIEs	=	Foreign Invested Enterprise					
GATS	=	General Agreement on Trade in Services					
GATT	=	General Agreement on Tariffs and Trade					
GDP	=	Gross Domestic Product					
GNP	=	Gross National Product					
IBRD	=	International Bank of Reconstruction and Development					
ICT	=	Information and Communication Technology					
IDA	=	International Development Association					
IJV	=	International Joint Venture					
IMF	=	International Monetary Fund					
IPO	=	International Procurement Offices					
JBIC	=	Japan Bank for International Cooperation					
Jexim	=	Export and Import Bank of Japan					
JPY	=	Japanese Yen					
LDP	=	Liberal Democratic Party					
METI	=	Ministry of Economic, Trade and Industry (Japan)					
MITI	=	Ministry of International Trade and Industry (Japan)					
MNE	=	Multinational Enterprise					
MOF	=	Ministry of Finance (Japan)					
NIE(s)	=	Newly Industrializing Economy(ies)					
NTB	=	Non-Tariff-Barriers					
ODA	=	Official Development Aid					
OECD	=	Organization for Economic Cooperation and Development					
OECF	=	Overseas Economic Cooperation Fund					
R&D	=	Research & Development					
RMB	=	Renminbi					
SITC	=	Standard International Trade Classification					
SME	=	Small and Medium Enterprise(s)					
SOCB	=	State Owned Commercial Bank					
SOE	=	State Owned Enterprise					
TQC	=	Total Quality Control					

TRIMs	=	Trade-Related Investment Measures				
TRIPS	=	Trade-Related Aspects of Intellectual Property Rights				
TT	=	Technology Transfer				
TV	=	Television				
TVEs	=	Township and Village Enterprises				
UNCATD	=	The United Nations Conference on Trade and Development				
US	=	United States				
USD	=	US-Dollar				
WIR	=	World Investment Report				
WTO	=	World Trade Organization				

Foreword

The economic relationship between Japan and China was the centrepiece of a research project carried out by the Business and Economics section of the German Institute for Japanese Studies (DIJ) between 2000 and 2002, focusing in particular on corporate strategies, international management and human resource development. As a result of this research "Focus China – The New Challenges for Japanese Management", assembles up-to-date research by a number of European, American and Japanese scholars. The book presents an analysis and an evaluation of the various microeconomic aspects of the Sino-Japanese relationship. By focusing on competitive strategies, investment, economic and business co-operation as well as management activities and strategies and other topics, this book will help to close a gap in the landscape of Sino-Japanese literature on the microeconomic level. It will be a useful, if not an essential tool for students, scholars and managers doing business in Japan and China.

The German Institute for Japanese Studies (DIJ) in Tōkyō, founded in 1988, is one of Germany's foreign research institutes and is concerned with research on contemporary Japan. The Institute is thus a manifestation of the awareness in Germany of the need to obtain a better understanding of Asia and Japan in particular. To this end, the DIJ conducts research in the fields of the humanities, the social sciences and the economy of modern Japan, as well as in the area of Japanese-German relations (www.dijtokyo.org). In January 2001, the DIJ organized, in cooperation with the Fujitsu Research Institute (FRI), an international conference in Tōkyō entitled "Japan and China: Economic Relations in Transition". We would like to extend our thanks to Mr. Toshihiko Fukui, former Chairman of the Economic Research Center from the Fujitsu Research Institute (FRI), currently President of the Bank of Japan, and Mr. Dennis S. Tachiki, former Senior Economist at the Fujitsu Research Institute (FRI), currently Professor at Tamagawa University, Tōkyō, for their hospitality and friendly co-operation in the course of this conference. The majority of contributions in this volume are based on presentations from this conference.

I would like to thank all those who contributed to this volume and made its publication possible; special thanks are due to Hanns Günther Hilpert, former Senior Research Fellow at the Business and Economics section of the German Institute for Japanese Studies (DIJ), now Senior Research Associate at the German Institute for International and Security Affairs, Berlin, and René Haak, Deputy Director and Head of the Business and Economics Section of the German Institute for Japanese Studies who conceived the original idea for this book and who efficiently oversaw the editing.

> Irmela HIJIYA-KIRSCHNEREIT Director, German Institute for Japanese Studies Tōkyō, December 2003

INTRODUCTION

René HAAK and Hanns Günther HILPERT

At the start of the new century, China is probably the most interesting but also the most risk-laden market in Asia. The reasons for this lie in the interaction between various economic, social and political factors. Since 1980 China's economy is growing at 8–10% per year – an unprecedented achievement even in East Asia.

The foundations for this economic development were laid in the economic and political reforms of the late 1970s and a more open attitude towards the rest of the world. In recent years, the economic dynamism has been spurred by foreign direct investment and the increase in trade that this has initiated. The Chinese government continues to rely on increasing public investment, which also stimulates growth. Joining the WTO has brought further impetus to this development.

China is not a consistently uniform economic area. Manufacturing, commerce and buying power are concentrated mainly in the coastal regions, where virtually all leading multinational companies have established a presence. In the North-East lie the old heavy industry areas. The modern technology and service centre Shanghai is developing in the East and, since the formation of the first special economic zones, the dynamic economy of the southern regions is developing along the lines of the former British Crown Colony, today the Special Administrative Region, Hong Kong. Personal income is rising, particularly in the industrial centres, and new groups of buyers with a lot of money to spend need to be supplied with high-quality consumer goods. Both Western and Japanese companies trading on a global basis can no longer leave China as a production base and as a market out of their strategies.

New forms of business organization and logistics systems along with changes in market requirements and international competition environments have been the key factors behind the changing patterns of geographical organization in globally active Japanese companies. These companies have established sophisticated models for production based on various technologies. Ever widening product ranges, increasing numbers of variants, the establishment of system suppliers, decreasing manufacturing penetration and accelerated market consolidation through mergers and strategic alliances are characteristic of development at the beginning of the 21st century – also in China. Development, which overall is

speeding up, is particularly apparent in the shrinking life cycle of new products in the Chinese market. No major Japanese company can seriously afford to neglect the Chinese market in the long-term if it wants to maintain its position in global competition.

It is clear that the two most important economies in East Asia are Japan and China. Despite the dynamic growth of its economy over the last 20 years, China still has a long way to go to catch up with Japan. In industrial and technological terms, Japan is still the dominant economy in East Asia, although China closes the gap somewhat each year. The Sino-Japanese political, economical and cultural relationship has a long history, which has not always been free of tension. Particularly in the 20th century, the relationship between the two nations went through difficult periods and even led to military confrontation.

At the beginning of the 20th century, China was made to feel Japan's superior strength in its desire for regional dominance. Japan made territorial claims and asserted rights of sovereignty. The goal of Japan's policy in the 20s and 30s of the last century was to subjugate its neighbour and exploit the abundance of raw materials, beginning in 1922 when troops were dispatched to Shandong, continuing with the establishment of the Manchukuo puppet state and finally erupting into open war against China in 1937.

As Japan expanded aggressively into China, Japanese businesses invested in production and service facilities in order to profit from the rich resources of the country. In this phase of entrepreneurial interest in China, the Chinese market was not the crucial attraction for Japan. From a business point of view, the priority was to create the conditions for meeting the demands of the Japanese market which were determined to a not inconsiderable extent by the consequences of Japanese expansion. With its catastrophic defeat in August 1945 Japan had to withdraw from the Chinese mainland. All investment was lost. After World War II, there was no reconciliation between the two countries. On the contrary, the tensions between China and Japan continued. For Japanese businesses, China appeared to be closed as a market and as a supplier of resources for many years, if not decades to come. Particularly for Japan, with its dearth of raw materials, this important source for rebuilding seemed no longer accessible. Japanese companies had to realign; the United States of America became a valuable and reliable partner in the recovery of Japanese companies and the Japanese economy.

China took a different path. Having become communist in 1949 it aligned itself with the Soviet Union with which it signed a friendship and assistance treaty directed against Japan in 1950. With the San Francisco Peace Treaty (1951) and the security agreement signed at the same time with the USA, Japan was locked into a bilateral alliance. The outbreak of the Korean war intensified the confrontation between the Communist and the non-Communist camps considerably. Japan established diplomatic relations with Taiwan, but not with the People's Republic of China (PRC), which was not a signatory to the San Francisco peace treaty.

The U.S. policy of containment for China was circumvented by the Japanese business community as early as the 1960s. Resourceful Japanese companies recognized early on the opportunities offered by business relationships with Chinese companies. China was again seen as a business proposition. Private trade relations in the interests of both sides were revived. In 1964, this entrepreneurial activity even resulted in the unofficial opening of trade bureaus, which Japanese policymakers did not refuse to approve. At this early stage in the renewed business rapprochement, the state did not provide collateral for business relations nor did it guarantee loan commitments.

During this period, the Japanese government upheld the principle of separation of politics and business (seikei-bunri) towards the PRC. Japanese companies were intended to profit from the relations with China, but without acknowledging the politics of the Chinese leadership. A change in Japanese policy towards China only took place at the beginning of the 1970s, when in July 1971, the American President Richard Nixon travelled to China and revived the political dialogue between the USA and China. The political leadership in China was also interested in settlement with Japan. Since the 1950s, Japan had been achieving high rates of economic growth; some of the Japanese companies were about to become world leaders. China saw in Japan a potential source of advanced production technology and modern items of equipment for the development of its own technology and economy, which could only be exploited if relations were normalized. Official development aid (ODA) by Japan, which China implicity understood as a form of compensation, perhaps even as a kind of tribute, was only available after the political relationship between the two countries improved. The aid from Japan was not considered as voluntary support but was seen in relation to the Japanese war debt. As China had foregone formal reparation under the peace treaty of 1978, for the atrocities carried out by the Japanese during the war in China.

From the Chinese point of view, the Japanese development aid and the associated influx of private investment capital are welcome. However, the Chinese government regards the Japanese commitment to co-operation with a certain amount of scepticism, assuming that Japan is trying to make permanent the foreign trade and technological dependency relationship that exists between Japan as an industrialized country and the developing countries of East Asia. From the Japanese point of view, the interests of Japanese companies in the development aid are served by profitable exports and direct investment. From an economic point of view, Japan's interests lie in a peaceful relationship so that the economic interaction between Japan and China can continue to develop. It should not however be forgotten that the different assumptions and interests associated with the Japanese development aid to China only removed tension between the countries temporarily. Indeed, the aid was in many cases the source of bilateral conflict.

The high point of the normalization policy was the signing of a joint declaration by the Heads of Government of Japan and China, Kakuei Tanaka and Zhou Enlai, on 29 September 1972. With this declaration Japan recognized the PRC as the only legal Chinese government and both sides agreed to exchange ambassadors. This was a big step diplomatically, which was intended to have long-term positive effects on the economic relations between the two countries. After 23 years, diplomatic relations were resumed with the Chinese mainland. Japanese-Chinese relations underwent further normalization on 12 August 1978 with the signing of a peace and friendship treaty. Japanese and Chinese companies also profited from this political development.

With the establishment of diplomatic relations in 1972 and the signing of a long-term trade agreement, which followed, an expansion in trade volume rapidly became apparent. Economic development in the last 20 years has been favourable to the development of trade on both sides. Also the Declaration on Building a Friendship and Co-operation for Peace and Development in 1998 was import for the development of the Sino-Japanese relationship. Although development of bilateral foreign trade is subject to periodic fluctuation, the increase in exports and the intensification of financial and technical co-operation show that there is considerable economic potential on both sides. This applies both to opening up the Chinese market by Japanese companies and to the growing competitiveness of Chinese products in Japan or in other Asian markets. There is a clear trend: the increasing integration of the two economies. Japanese and Chinese companies are the driving forces behind this development. They face each other across a changing competitive environment, which is posing new challenges to corporate creativity and ability. How do Japanese companies react to the challenges and opportunities offered by China?

In Chapter 1, **Jörg Raupach-Sumiya's** article "Chinese Firms as Emerging Competitors of Japanese Firms" provides a comprehensive overview of China's growing international competitiveness in manufacturing and of the possible implications for Japanese management and for Japanese industry as a whole. It explores the key question of "What are the potential competitive advantages of Chinese firms vis-à-vis Japanese firms?" By applying Michael Porter's concept of "National Competitive Advantage" in his analysis, Jörg Raupach also investigates the question of which sectors of industry will experience increased competitive pressure with China's continued involvement and looks at the issue of potential strategies that Japanese companies can develop to respond successfully to the changes in the competitive environment.

Economic and technological competition between businesses and, viewed from a broader angle, between countries, plays a crucial role in the economic development of a country. It results in new product and process innovations, stimulates advances in management thinking and in the development of successful competition and market strategies. However, co-operation also forms a fertile base for economic development. The relationship between China and Japan in the area of economic, technological and scientific collaboration has also revived since the mid-1970s. Foreign direct investment was a driving force behind the rapid economic development in China in the 1980s and 90s. However, this investment should not be considered in monetary units alone. At the same time, it is an important source of technology and knowledge transfer, one of the main reasons why China was opened up after the collapses, the upheavals and depredations of the Cultural Revolution.

China's opening occurred after Deng Xiaoping announced a new economic policy at the end of 1978. Step by step, Chinese cities and regions were offered as attractive locations for foreign investment. Over the last 20 years, the regional distribution of Japanese foreign direct investment has shifted focus. North America and Europe now receive less, East Asia has gained. Within East Asia there have also been changes. First it was the NIEs, then the ASEAN states and later increasingly China forms the centre for Japanese direct investment abroad. These regional shifts within East Asia are in line with the flying geese model in which the comparative advantage moves from more developed countries to countries which are in the process of catching up. This is a standardized sector-based development pattern from import to export, typical for an industrial catch-up process. When production starts, protected in the early stages against competing imports, the proportion of imports to domestic market supply fall continuously, possibly until the country can meet domestic demand itself. As soon as an adequate level of international competitiveness has been achieved, the country starts exporting, allowing the companies to build up more production capacity which is accompanied by economies of scale and contributes not inconsiderably to strengthening their competitiveness. In a dynamic correlation, the countries also "flying" in the flock of geese on the one hand force the leading countries out of the traditional sectors, whilst on

the other hand they lose their own position to their pursuers. This is a very dynamic process in which benefits conferred by location and the availability of competitive advantage in the sectors involved are not fixed, but move from country to country. The economic and technological operations of many Japanese companies in China has not exactly slowed down China's path through the "flying countries". In the early 1990s, the Japanese indulged in a real China euphoria, which was demonstrated by the very high sums Japan invested directly in China peaking in 1995. However, in the second half of the 1990s this entrepreneurial euphoria faded away. Even before the Asian crisis in 1997–98, business success in the Chinese economic arena was assessed with caution. A fall in direct investment indicated scepticism. Factors contributing to economic restraint included practical and legal problems in day-to-day business activities in China, rising costs, profits on the low side and doubt whether all the necessary reforms in state-run businesses and in the banking system could be successfully concluded. Despite these reservations, China remains for the mid and longterm one of the most promising target regions for Japanese companies. As a matter of fact China's entry into WTO gave once more rise to a forceful upswing of Japanese direct investment in China.

Japanese businesses have in recent years subjected their strategies to review. The strategy they had pursued for years – to use China mainly as a cheap location for production – seems to have reached its limits. Japanese businesses are focusing increasingly on the Chinese consumer market. Business efforts are no longer directed at the mass market; specific niches frequently seem to promise more.

In Chapter 2, "Japan's Manufacturing FDI in China – Its Characteristics in Comparison", Shigeki Tejima examines the development of Japanese direct investment in China in the 1990s. He analyses the particular characteristics of this development and draws comparisons with other target regions for Japanese business. He also investigates the question of how shifting production out of Japan will work in the future. In this context he looks at the hollowing out problem (kūdōka). Kūdōka will become increasingly acute as more and more industrial production is moved to China. Manufacturing abroad is a fixed component in international Japanese companies allowing them to remain in global competition. Hollowing out in manufacturing (monozukuri no kūdoka) is seen as a particular problem in Japan in the last decade. Koizumi's government is attempting to counteract this development, making efforts to attract foreign investment to Japan in order to strengthen the home manufacturing base. The goal is to double direct investment within five years and make Japan an attractive location for foreign companies. Foreign business is seen as the key to reviving the domestic economy.

The establishment of new dynamic businesses in fast-developing economies such as South Korea, Taiwan, Hong Kong and Singapore together with the increasing presence of businesses operating on a global basis from Japan and other Western industrialized countries are examples of the rapid changes the corporate world has undergone in recent years. The collapse of the planned economies in Eastern Europe, the economic re-alignment of the PRC and the evolution and consolidation of large unified economic entities such as the European Union (EU), the North American Free Trade Agreement (NAFTA) and the ASEAN states have all drawn new features on the economic map of the world. Key words such as internationalization, globalization and interculturality now characterize this process, which is challenging management anew to maintain or gain competitive advantage. It makes demands on the strategies and organizational concepts of international companies, but also offers numerous opportunities for entrepreneurial creativity.

The increasing speed of globalization will have a substantial effect on the way Japanese companies do business. Against the background of this development, the Chinese market presents Japanese businesses with many challenges and opportunities. From the Japanese SME point of view, the best place to which to relocate manufacturing processes seems to be in North East China (Manchuria). Greater Shanghai and the region around Beijing and Tianjin have also met with interest on the part of Japanese management in recent years. Particularly in North East China, the potential labour force required by mechanical manufacturing processes is available on a sufficient scale. Due to the size of the population in the North Eastern provinces of China, real wages are unlike to rise as quickly in the mid-term as in other economic centres in China. Furthermore, North East China is geographically closest to Japan. It comes as no surprise therefore that the north of the country became the preferred location for investment for Japanese SMEs in the 1990s.

In Chapter 3, "Sōgō Shōsha Quo Vadis? The Strategies of the Japanese General Trading Houses in the Chinese Market", **Hanns Günther Hilpert** is looking at the activities and strategies of the Japanese general trading houses entering the China market. Since the $s\bar{o}g\bar{o}$ shōsha, which is a special type of firm unique to Japan, are shaken by structural change and are fighting for survival in the transforming Japanese and the globalizing world market, their activities in their in strategic terms foremost important foreign market, have a wider meaning. Hanns Günther Hilpert is first presenting the rationale of the $s\bar{o}g\bar{o}$ shōsha within the framework of institutional economics and then analysing their China business, namely its foreign trade, investment, infrastructure development, retail and wholesale activities. He concludes that the $s\bar{o}g\bar{o}$ shōsha do adapt to a

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changing world first by vertical integration into trade, second by becoming a more specialized company, third by focussing on investment and fourth by localization abroad. All these moves can be notably observed in China. The actions mentioned above make the $s\bar{o}g\bar{o}$ $sh\bar{o}sha$ become more and more an investment holding company and thus increasingly resembling to a western firm type. However, by virtue of their integral trading function, the $s\bar{o}g\bar{o}$ sh $\bar{o}sha$ is likely to differ permanently from the Western firm types.

In Chapter 4, **Shōichi Itō** deals with the "Human Resource Management in China". One of the key factors for business success in China is focused human resource management, orientated towards the specific requirements of the competitive environment. Shōichi Itō examines human resource management in Japanese subsidiaries in China, including how various types of employees are recruited and developed. In his analyses and accounts, he refers to investigations that he carried out in Japanese companies in Beijing and Shanghai.

In Chapter 5, "Playing the China Card: The China Strategy of the Taiwanese Electronics Industry and the Japanese Response up to 2000", **Douglas B. Fuller** examines the emerging strategies for China in the two largest segments of Taiwan's electronics industries (personal computers and integrated circuits). In this contribution Douglas B. Fuller focuses on the challenges and opportunities that these emerging strategies represent for Japan's own electronics industry. The Taiwanese and Japanese strategies for dealing with competition and using technology are compared.

In Chapter 6, "Risk and Motivation in Sino-Austrian Joint Ventures in China", **Christian Hirt** and **Ursula Schneider** analyse different models for external trade and their implications for joint ventures involving partners from both developed and emerging economies. They ask in how far experience in Sino-Western joint ventures, which are discussed in detail in their article, are relevant for Japanese companies operating in China.

Chapter 7 contains a detailed discussion of "Japanese-German Business Collaboration in Third Markets – The Case of China" by **René Haak.** The Chinese market is open and growing rapidly offering promising opportunities for German and Japanese businesses. Under these circumstances, German and Japanese management needs to decide whether a strategy based on co-operation can enable them to succeed in one of the most difficult markets in Asia. The central question is whether third market collaboration offers a promising basis for Japanese and German companies to work together, particularly in the dynamic and difficult markets in China. Entering the market in the form of a business collaboration between a German and a Japanese company represents just one possible approach, but one which can be promising under certain framework conditions and provided certain requirements are fulfilled.

Chapter 7 will provide the reader with an understanding of the complex theoretical context in which Japanese-German business collaboration takes place and investigate the reasons German and Japanese management give for working together. The article also focuses on the question of where areas of conflict arise in working together and on determining the role played by trust in Japanese-German third market collaboration. In order to answer these basic questions, René Haak analyses and evaluates the theoretical dimensions of collective internationalization strategy, especially third country collaborations and findings from research on Japanese-German business collaboration in China.

In Chapter 8, "The Trust Factor in Chinese-German Joint Ventures: Implications for Japanese Co-operative Ventures in China", **Harald Dolles** and **Niklas Wilmking** discuss the role of trust in international joint ventures. The particular challenge for research here is how trust is established and maintained in the relationships between international joint venture partners and their staff. Based on a detailed theoretical examination of the phenomenon of trust in international joint ventures – they differentiate between the roles of calculative, cognitive and normative trust in international joint ventures – they look in detail at the special role of trust in China and educe the implications for research in this subject area from their investigations.

1 Chinese Firms as Emerging Competitors of Japanese Firms

Jörg RAUPACH-SUMIYA

INTRODUCTION

'Aiwa's low-price strategy undercut by Chinese rivals' (*The Nikkei Weekly* 6 March 2000, pp. 1 & 19). 'The principle of competition is awakening the sleeping lion' (*Nikkei Business* 29 November 1999, pp. 6–7). Headlines like these in leading Japanese newspapers and magazines are an expression of rising concerns about the emerging competitiveness of China. While the discussion on the admission of China to the World Trade Organization (WTO) was dominated by growing hopes and expectations among the industrialized countries for easier access to the huge Chinese market, a growing number of observers have pointed to the potential of China's becoming an economic superpower and formidable global competitor. It is the objective of this chapter to provide a comprehensive overview of China's growing international competitiveness in manufacturing and to speculate on possible implications for Japan's industry. The key issues addressed are:

- What are potential competitive advantages of Chinese firms vis-à-vis Japanese firms?
- In which industries can a growing competitive pressure by Chinese firms be expected?
- What are possible counter-strategies of the respective Japanese industries?

The analysis proceeds in four steps. In the following section, empirical evidence for China's growing competitiveness is given by referring to empirical data on trade and factor endowments. It is shown that China's advance to the world's tenth largest trading nation and its recent strong export performance in manufactured goods can be explained by growing competitive advantages not only in respect to labour-intensive industries but increasingly also in (human) capital- and scale-intensive industries.

The next section attempts to provide a theoretical explanation of China's growing competitiveness in industrial goods. Using Michael Porter's concept of 'National Competitive Advantage' it is argued that China has moved to the threshold of the investment-driven development stage backed by two mutually enforcing mechanisms of advancing national competitive advantage: First, processing trade that serves as an important mechanism for factor advancement in labour cost-intensive industries. and second, domestic reforms that have led to factor advancement in (human) capital-intensive industries by releasing domestic competitive forces. In the fourth section four various examples are given for Chinese industries and firms that are emerging or have already emerged as formidable competitors on global markets. While Chinese competitiveness is mostly recognized for labour cost-intensive industries like textiles, consumer electronics or home appliances, particular attention is given to growing Chinese competitiveness in (human) capital-intensive industries like steel or shipbuilding. The fifth section analyses these developments from the perspective of Japan's industry. Following the analysis of patterns and trends in Chinese-Japanese trade, possible future scenarios and counterstrategies for Japan's industries are reflected upon. While being still quite speculative in nature, it is argued that especially in labour- and capital-intensive assembly industries, Japanese companies are confronted with an increasing Chinese competitiveness derived from low labour costs, good product quality, and state-of-the-art manufacturing and product technology. This growing competitive threat is likely to force Japanese manufacturers to continue to move to overseas production and internationalization of procurement, thereby accelerating the 'industrial hollowing-out' of Japan's supplier and manufacturing base. In respect to (human) capital- and scale-intensive industries like steel, petrochemicals or automobiles, a different scenario is drawn, and we argue that in these industries the formation of strategic alliances between Japanese and Chinese firms are a sensible strategic response. In the last section, the main findings and conclusions are summarized.

Empirical evidence for the growing competitiveness of China's industry

Since the economic reform process started in 1979, the People's Republic of China has not only emerged as the world's tenth largest trading nation, but exports have developed into a major engine for economic growth and – even more impressively – manufactured goods nowadays account for the dominant share of China's exports. The membership of China in the World Trade Organization will only accelerate these trends and further enhance China's position on global export markets.

Beginning in 1979, the economic reform process with its strong focus on foreign trade and investment resulted in a transformation of China from an isolated, self-sufficient economy to one of the world's largest trading nations (Chan, Tracy and Wenhui 1999, pp. 35–50). Between 1978 and 1997, China's foreign trade grew twice as fast as world trade at a nominal average rate of 15.5 per cent, and trade volume jumped from USD 78 billion to USD 324 billion. Accounting for a mere 0.75 per cent of world trade in 1978, this share rose to 4 per cent in 1998. As a result, China's development has become more and more dependent on foreign trade, with the share of foreign trade rising from 9.8 per cent of GDP in 1978 to 35.7 per cent in 1996 (Zhang, X. 2000, p. 2).

Exports developed at an even faster pace during this period and became the most important engine for growth. The share of exports rose from 4.6 per cent of GDP in 1978 to 19 per cent in 1998, an increase by a factor of 18.9 times in terms of nominal value (Chan, Tracy and Wenhui 1999, p. 2). The export drive was accompanied by a remarkable shift in its composition by commodities. Prior to the reforms, primary products like petroleum or foodstuffs accounted for two thirds of China's exports. However, since 1985 manufactured goods developed into the dominant export category accounting for 85 per cent of exports in 1995. Until 1992, textiles, clothes and footwear dominated Chinese export structure, but since the mid-1990s electrical machinery (for example, household appliances), telecommunication equipment (for example, switching equipment) and electronic products have emerged as the most important export items (ibid., pp. 13-18). In 1999, electric appliances and electronics surpassed clothing as the single most important export category, accounting for 16.9 per cent of total export value (The Nikkei Weekly 28 February 2000, p. 21).

China's WTO-membership is expected to accelerate these developments. The World Bank, for instance, projects an increase of China's share in world trade from 3 per cent in 1992 to 10 per cent by 2020, making it the world's second largest trading nation after the United States. Following the World Bank's assumptions, Chinese exports are expected to grow at an average annual rate of 10 per cent, almost twice as fast as world trade as a whole. In this scenario, China advances to become the world's largest exporting nation by 2020, with a 9.8 per cent share in world exports (The World Bank 1997, pp. 29–31).

The emergence of China as a leading export nation and the significant structural changes in the composition of its exports towards manufactured goods have recently stimulated broader academic research on the sources of China's growing international competitiveness. In his study, Zhang demonstrates by means of econometric modelling and testing that the patterns of China's trade and production and their development since 1978 reflect the underlying comparative advantages of China. In the study, tradable commodities are classified into five groups based on the Chinese Industrial Classification of the National Economy to reflect differences in relative factor intensity: agricultural goods, natural resource goods (primary commodities), physical capital-intensive goods, unskilled labour-intensive goods, human-capital intensive goods (see Figure 1.1) (Zhang, X. 2000, pp. 36–46).

Agricultural goods (13)	Natural re- source-intensive products (6)	Unskilled labour-intensive products (14)	Physical capital- intensive products (15)	Human capital- intensive products (14)
Paddy rice	Coal	Sugar, tobacco, alcohol	Petroleum refining	Household chemicals
Wheat	Crude petroleum	Other processed foods	Coal products	Medicines
Other grains	Ferrous minerals	Cotton textiles	Inorganic chemicals	Agricultural machinery
Oil-bearing crops	Non-ferrous minerals	Wool textiles	Chemical fertilizers	Industrial equipment
Cotton	Non-metallic minerals	Hemp textiles	Organic chemicals	Power station equipment
Other industrial crops	Timber	Silk textiles	Other chemicals	Household mechanical/ electrical goods
Vegetables		Knitted goods	Chemical fibres	Railway equipment
Fruits		Other textiles	Plastic articles	Motor vehicles
Forest products		Clothing/ leather goods	Cement	Ships
Wool and hides		Furniture	Glass	Other transport equipment
Meat, eggs, milk		Paper	Ceramic products	Other engineer- ing products
Fish		Cultural/sport- ing goods	Iron	Electronic products
Others		Rubber manufac- turers	Steel	Household electronics
		Other building materials	Non-ferrous metals	
			Metal products	1

Figure 1.1: Classification of industries

Source: Zhang, X. (2000, p. 67–9).

Each of the classified industrial sectors are then analysed in regard to their sector-specific international competitive strength by applying the so-called net export performance ratio (NEPR) as a criterion for measurement. The NEPR indicates the sector-specific trading position of a country relative to the rest of the world and is defined as net exports of a commodity as a percentage of a commodity's world exports divided by a country's export share in world exports. In other words, the NEPR puts a country's export share of a specific commodity into relation with that commodity's overall share in world exports. A positive NEPR implies that a country is a net supplier in a specific sector with exports being larger than imports in this category; a NEPR larger than 1 implies that the share of a country's overall share in world exports of a specific sector is larger than a country's overall share in world exports. Such a result can be interpreted in a way that a country has a sector-specific competitive advantage against the rest of the world (*ibid.*, pp. 54–64).

The analysis of China's export structure based on the classification of tradable commodities reveals that sectors predominantly applying unskilled labour dominate China's exports with a 45.4 per cent share (see Figure 1.2).

However, since the mid-1980s the category of human capital-intensive sectors has significantly increased its share to 29.8 per cent, thereby advancing to the second most important export category. On the other hand, natural resources and physical capital-intensive sectors have diminished in their importance for Chinese exports. Further analysis of sector-specific NEPRs provides evidence for a remarkable shift in Chinese competitive advantages in the 1980s and 1990s (see Figure 1.3) (*ibid.*, pp. 70–3).



Figure 1.2: Composition of China's exports by commodity type (1978–1996)

Source: Zhang, X. (2000, p. 55)



Figure 1.3: Net export performance ratio by commodity type (1978–1995)

Source: Zhang, X. (2000, p. 70–3)

- China's competitive advantage is highest, though declining remarkably in unskilled labour-intensive industries like textiles, garments, toys or rubber products.
- China's competitive advantage has diminished in agriculture and natural resource-based industries such as oil or minerals.
- China is improving its international competitive position in selected physical capital-intensive industries like pig iron, coal products, plastic articles, cement or inorganic chemicals, and – even more remarkable – in selected human capital-intensive sectors such as household appliances, electronics, ships, energy and power generating equipment, railway equipment or agricultural machinery.

Zhang further demonstrates that China's actual competitiveness in exports as reflected in the sector-specific NEPRs is firmly rooted in distinct underlying cost- and productivity-based comparative advantages of China. He does so by applying the so-called domestic resource productivity (DRP) concept that allows the assessment of a country's comparative advantage based on the neo-classical notion of factor endowments and comparative cost or productivity advantages (*ibid.*, pp. 82–9). A negative DRP implies a sector-specific resource- and cost-based comparative disadvantage and a positive DRP indicates a sector-specific resource- and cost-based comparative advantage against the rest of the world. The higher the deviation of DRP from zero, the bigger the comparative advantage or disadvantage. The results for China's sector-specific DRPs and

their development over time provide strong evidence that China's actual, sector-specific competitive position in exports are in line with specific cost- and productivity-based advantages, while distortions caused by China's economic system are on the decline (*ibid.*, pp. 172–200). The results reveal a declining resource-based comparative advantage in agriculture and natural resource-based industries, a strong increase in unskilled labour-intensive sectors, and a significant improvement in physical capital-intensive and human capital-intensive industries.

From the results of Zhang's study, which are supported by other studies as well (for example Yoshitomi 1996, pp. 53–69), it can be concluded that China's emergence as a leading export nation with a growing competitive advantage also in capital-intensive industries and manufactured goods can be explained by improvements in a sector's specific-cost and productivity position. The key question is what factors initiated and facilitated these improvements. To do so, Porter's concept of national competitive advantage provides a suitable theoretical framework (Porter 1990).

Theoretical explanations for China's growing competitiveness in industrial goods $% \left({{{\rm{A}}_{{\rm{A}}}}} \right)$

THE PORTER CONCEPT OF 'NATIONAL COMPETITIVE ADVANTAGE'

A country's competitive strength in a specific industry is closely related to the characteristics of the national environment. It results to a large extent from a continued process of upgrading national competitive advantages and requires that the national environment foster competitive improvements and innovation. According to Michael Porter, a country's national competitive advantages is determined by a set of national attributes that shape the competitive environment for national industries and firms (Porter 1990, pp. 71–128). Porter isolates four determinants of national competitive advantage.

• Factor conditions: This attribute refers to the country's endowment with factors of production such as human resources, land, natural resources, capital, knowledge, and infrastructure. Porter discriminates among different types of factors, distinguishing basic and advanced factors (that is unskilled labour versus highly educated human capital) as well as generalized and specialized factors (that is wide skills versus narrowly specialised skills). Most important for national competitive advantage and long-term economic development are the endowment with advanced and specialized factors, and the rate at which these factors are created, upgraded and further specialized.

- Demand conditions: The characteristics of home demand, its size and rate of growth, as well as the structure of demand, the degree of demand segmentation, and the degree of sophistication, independence and uniqueness of buyer needs have an important impact on the nature of competition, the rate and speed of investment and innovation efforts of an industry. National competitive advantages emerge as domestic demand conditions compel firms to innovate rapidly, to invest into new technologies and to enhance productivity and economies of scale and scope.
- Related and supporting industries: Strong supplier industries support the formation of sector-specific national competitive advantages as they produce inputs that are widely used and important to innovation. Close working relationships between world-class suppliers and industry often create a self-enforcing process of innovation and upgrading. Similarly, the presence of strong related industries that produce complementary products and services or share activities in an industry's value chain fosters co-operation and the spread of competitive advantages. Linkages among strong industries through vertical buyer-supplier relationships or horizontal, complementary relations based on shared customers, technologies or activities lead to a clustering of specific highly competitive industries in a nation (*ibid.*, pp. 148– 54). Mutually supportive industry clusters are crucial to national economic development as they maintain competitive dynamics in a nation.
- Firm strategy, structure, and rivalry: The context in which firms are created, organized and managed as well as the nature of domestic rivalry shapes the goals and strategic behaviour of firms, their attitude towards investment and innovation, and their entrepreneurial motivations. National competitive advantages arouse from the competitive context within which firms act by creating a more or less fertile environment for innovation and upgrading of skills.

Within the Porter concept the role of the government in shaping national competitive advantage is confined to influencing the four determinants by either fostering or impeding through its policies the competitive dynamics and innovative pressures in a nation's industries.

The individual determinants combine into a dynamic, mutually reinforcing system (the 'diamond') forming distinct patterns in a country's national competitive advantages. Their interactions also determine the rate and direction of upgrading advantages and the innovation process that lay the foundations for economic development and sustainable competitiveness (*ibid.*, pp. 144–8). Upgrading is essential for the competitive development of national economies as a nation moves towards more sophisticated sources of competitive advantage and towards positions in high-productivity, higher value-added industries. It requires mechanisms for continued factor creation and advancement, motivated people, intense domestic rivalry, demanding buyers that insist on upgrading, as well as a capacity for new business formation (*ibid.*, pp. 560–2). By taking such a dynamic perspective on competitive advantage, Porter's concept allows to view nations as differing in the respective stage of competitive development due to different positions in regard to the four determinants of national competitive advantage, Porter distinguishes four stages of economic development (*ibid.*, pp. 543–60):

- Factor-driven stage: At this stage of economic development rich endowments with basic factors (such as low-cost, unskilled labour, natural resources) are the main source of national competitive advantage based on factor costs.
- Investment-driven stage: While endowments with basic factors are still important, domestic market conditions characterized by high growth and intensive price competition are the key source for competitive advantage. They trigger aggressive investment by firms to builtup economies-of-scale and motivate them to upgrade basic factors, to absorb and improve new (often foreign) technologies, and to seek productivity gains that enhance their cost advantages.
- Innovation-driven stage: National competitive advantage in this stage is derived from a strong capacity to rapidly advance process and product technologies, to differentiate by supplying specialized and sophisticated products and services that meet the needs of demanding and anticipative buyers, and to generate innovations by utilizing deep industrial clusters.
- Wealth-driven stage: This stage is characterized by a decline in a nation's capacity to strive for innovation causing under-investment and a deterioration of national competitive advantage.

Porter's theoretical framework seems suitable to explain (at least partially) the emergence of China as a leading trading nation with a growing competitive edge also in the field of manufactured goods and in (human) capital-intensive industries.

CHINA AT THE THRESHOLD TO INVESTMENT-DRIVEN STAGE OF ECONOMIC DEVELOPMENT

China's emergence as an important trading partner is attributable to a significant transition of China's economy that, at its core, derived from

the advancement and qualification of factors and from the release of domestic competitive forces in the course of economic reforms. As a result, it can be argued that China is moving from a factor-driven stage of development towards the next stage of investment-driven economic development where national competitive advantage is shaped by domestic demand conditions and intensifying domestic rivalry. Two mechanisms are at work that serve as catalysts for factor advancement and the adoption of investment-driven strategies, and have lead to the emergence of large, competitive domestic industries: First, processing trade led by the influx of foreign direct investment, and, second, growing domestic competition and entrepreneurship from China's enterprise reform and new business creation.

The abolishment of the state monopoly on foreign trade, the decentralization of responsibilities and increased competition among the Foreign Trade Corporations, the relaxation of controls over tradable commodities, the price reform of tradable commodities, the building of a foreign exchange market with (partial) convertibility, or the promotion of foreign direct investments by means of establishing Special Economic Zones (SEZ) are important milestones that encouraged foreign trade and investment and pushed forward China's integration into the world economy (Zhang, X. 2000, pp. 6–30). In particular, foreign direct investment (FDI) has become a major driving force in the development and transformation of the Chinese economy (Li and Li 1999, pp. 9–11, 204–18). The surge in FDI not only helped to overcome bottlenecks in capital supply but also contributed significantly, though in a regionally unbalanced fashion, to China's technological progress, improvements in enterprise management and work organization, to the creation of employment opportunities and income, and to the rapid growth of exports.

According to China's Statistical Yearbook, foreign-controlled firms accounted for 14 per cent of China's domestic production in 1998, which is equal to half of the production by state-owned enterprises (SOE). The role of foreign invested enterprises in external trade is even bigger. Since 1985 the share of foreign invested enterprises in Chinese exports rose from a mere 1 per cent to 40 per cent in 1998 (*ibid.*, p. 214). The main driving factor for this development is the rapid surge in processing trade, whereby foreign companies either establish own manufacturing plants in mainland China or form subcontracting alliances with local partners, supply equipment and materials for processing in China, and re-export the finished goods to world markets. Led by foreign investment from Hong Kong, Taiwan, and increasingly from the United States and Japan, processing trade has rapidly developed in labour-intensive, light manufacturing industries like garments or electronic components, which de-

mand capabilities for small-lot, large-variety production, and for highly flexible, timely design and delivery on demand (Naughton 1997, pp. 3-37). Initiated with the shift of manufacturing and procurement from Hong Kong to the southern provinces of mainland China, small and highly flexible small companies have mushroomed and developed into open and highly flexible, transnational subcontracting networks. Sometimes labelled the 'China Circle' these networks are now an integral part of the electronics and other global industries. Although independent development efforts are limited, processing trade has initiated a powerful process of technology transfer, of accumulation and upgrading of domestic manufacturing capabilities and quality in China. As a result of increasing global cost-driven competition, foreign manufacturers continue to shift production and procurement of products with more and higher value-added to China (Nikkei Business 17 July 2000, pp. 26-40). Therefore more and more assembly plants and subcontractors with world-class manufacturing practices, top-notch quality, yield levels and productivity have been established on Mainland China (Nikkei Business 27 March 2000, pp. 8-9). Examples being found in plastic moulds (Nikkei Business 20 September 2000, pp. 49–50), audio-visual and office equipment like video tape recorders or copiers, and electronic components like condensers or electric motors (Nikkei Business 27 September 1999, pp. 36-49). Besides lower labour costs, foreign manufacturers cite higher flexibility to adjust production, the possibility to run manufacturing over the whole year, 24hours-a-day, and high flexibility and fast responsiveness as important reasons for shifting production to China.¹ In addition, facility investment cost can be reduced sharply, because many high-cost, capital-intensive and heavily automated processes can be replaced by low-cost, labourintensive processes due to China's ample supply of low cost labour.

The growth of FDI-initiated processing trade has been accompanied by a surge in new business creation of smaller enterprises or collective or communal township and village enterprises that participated actively in export growth (Zhang, X. 2000, pp. 54–6). While the record regarding the absorption of foreign technology in the case of SOEs has received only mixed appraisal (for empirical studies, see Shen 1999; Shi 1998), the managerial spill-over and demonstration effects for rural Chinese firms as a result of processing trade are considered to be substantial (Chan,

¹ The author is well aware of the fact that despite all progress in liberalisation and economic reform, formidable obstacles like uncertainties in the legal system, limitations to the enforcement of law, bureaucratic arbitrariness, and labour problems still hamper foreign trade and direct investment. Nevertheless, the achievements and progress should not be underestimated.

Tracy and Wenhui 1999, pp. 25–32). As will be shown below, some of the firms have grown rapidly, have strengthened their own, independent R&D functions, and are in the process of internationalisation of their operations.

A second, though less visible and clear mechanism of factor advancement that is bringing China to the edge of an investment-driven stage of economic development relates to China's enterprise reforms. Despite the slow and time-consuming process and the load of remaining problems, particularly in regard to the reform of the large SOEs, significant progress in market and enterprise reform has led to increasing domestic competition.² Initial reform initiatives succeeded in shifting from a centrally planned material allocation system to a increasingly market-based system of decentralized contracting, while the price liberalisation measures and the permission of market entry by non-state firms have resulted in increased competition on product markets. This process can be divided into two phases (Zhang, J. 2000, pp. 15-24). First, the pre-1989 period characterized by growing market size and rapid entry, and, second, the post-1989 period featuring a rising level of industry concentration and scale economics. During the 1980s China saw a rapid entry of the nonstate sector into most manufacturing industries, stimulated by a fastgrowing market demand and the existence of geographically fragmented, underdeveloped rural markets. Many small firms, township and village enterprises emerged, heavily concentrating on manufacturing of building materials, machinery (for example home appliances), textiles, and foodstuffs. However, due to the fast growing, though highly fragmented market demand, plant scales of production remained below minimum efficient capacity causing diseconomies of scale. Since the recession of the late 1980s, these diseconomies are in the process of correction, by creation of economies-of-scale and by an increase in the industry concentration ratio. This process increases the competitive pressures on firms, enforces structural change and leads to a selection of strong, financially sound 'winners' and weak, loss-making 'losers', which can often be found among the large SOEs. It is supported by government policies to promote mergers, industrial groups and amalgamation of plants, while at the same time encouraging SOEs to spin-off non-core business units and plants, thereby fostering the emergence of private firms.

Progress in regard to enterprise and ownership reform was slower and achieved through a series of small, modest steps, as the Chinese govern-

² The author is, again, aware of the many remaining obstacles and problems that are slowing down reform, particularly in regard to privatisation, management accountability, corporate governance, and the restructuring of large SOEs.

ment resisted the temptation of full-fledged privatisation of its SOEs (for details, see Liu 2000; Nolan and Wang 2000; Child 2000; Kueh 1999; Nyaw 1999). Enterprise reform was approached from two sides: Firstly, as part of the policy of 'grasping the large and let go of the small' mainly the large and very large SOEs in selected industries received continued protection and support, while the survival of smaller SOEs was left to increased competition with communal and collective township and village enterprises, and private firms. At the same time, the government engaged, secondly, in various measures of enterprise reform in order to improve SOE management, to enhance productivity, and to accelerate structural change in industries. Most notable are attempts of management reform focusing on increased managerial accountability and autonomy in decision-making regarding production, investment, marketing, personnel and the like (for example contract responsibility systems, director responsibility systems), and on improvements of incentive schemes for managers and employees (for example internal contract systems). In addition, recent measures to diversify ownership forms (for example stock ownership by managers, joint stock companies) and forms of corporate finance (for example SOE listing on foreign stock exchanges) (Nihon Keizai Shinbun 28 September 2000, p. 7) need to be mentioned. In combination, these modest steps in enterprise reform have led to a spread in modern management practices based on stricter financial control, more transparent responsibilities, as well as cost and quality consciousness. While private firms are taking the lead in management reform, state-of-the-art management practices are being increasingly implemented also among stateowned firms and have resulted in the emergence of excellently managed, highly entrepreneurial large SOEs (Child 2000, pp. 45-6; Nihon Keizai Shinbun 4 July 2000, p. 10).

The two mentioned mechanisms of factor advancement, processing trade and enterprise reform, are mutually reinforcing each other and have created a powerful process of new business formation, rapid market expansion and increased domestic rivalry among different firms and business formats. Through internationalisation foreign management know-how is absorbed also by domestically oriented firms, while large and rapidly growing domestic markets, particularly in consumer goods, are developing, thereby encouraging strategies of aggressive investment and market entry by newly created firms. Backed by China's considerable pool of technical engineers and its growing number of qualified employees, the conditions for an investment-led process of economic development are emerging under which national competitive advantage is more and more shaped by domestic demand and market conditions as well as improvements in factor skills. In the following it will be shown in which industries these developments are most visible.

Emergence of competitive Chinese industries and firms

A key ingredient for gaining national competitive advantage during the investment-driven stage of economic development is the emergence of large, rapidly growing domestic markets characterized by a high potential for economies-of-scale and by intense domestic competition. An increasing number of industries in China, both in light, labour-intensive as well as in heavy, (human) capital-intensive industries, are showing these patterns of demand-driven industrial expansion and are producing a growing number of highly competitive and entrepreneurial firms.

Emerging Chinese firms in light, labour-intensive Manufacturing industries

China's large-scale, fast growing consumer goods industry is probably the best example for the increasing international competitiveness of Chinese firms in manufacturing. Within a decade, China has emerged as a leading producer and market for durable consumer goods and commands a leading share in products like transportation equipment (for example motorcycles), home appliances (such as refrigerators, washing machines, air conditioners), audio-visual equipment (such as television, video tape recorders), information processing and communication equipment (such as personal computers), and the supporting supplier industries (such as electronic components). China is already the largest producer of air conditioners and colour televisions (TV), but is also rapidly expanding its share in modern consumer electronics and information technology (IT) goods such as mobile phones, hard-disc drives and digital video disk (DVD) recorders (*The Nikkei Weekly* 31 July 2000, p. 21) (see Figure 9.4).

China is also likely to quickly emerge as the world's largest market for mobile communication and internet services, thereby further pushing ahead IT-related manufacturing industries. China already boosts more than 60 million subscribers of mobile telephones, making it the second largest market after the United States (*Nihon Keizai Shinbun* 22 June 2000, p. 8), and the number of internet users is expected to increase from 600 000 in 1997 to 20 million by the end of 2000, and to 300 million by 2005 (Jian 2000b). As an anticipation of these developments, the Zhongguancun district in Beijing is already drawing the attention of the global IT indus-



Figure 1.4: Chinese world production share in selected consumer goods*

Source: Nikkei Weekly (31.7.2000)

try as a world-class manufacturing and R&D base for IT products and software, and has attracted the investment by leading multinationals like Microsoft Corporation or Intel Corporation to seek access to the vast pool of highly qualified, but low cost engineers (*The Nikkei Weekly* 26 June 2000, p. 24).

While foreign companies may have initiated these market dynamics by means of processing trade, a number of highly competitive Chinese firms, many of them still state-owned, has emerged, the most known companies being the Haier Group Company (Haier), the TCL Holdings Co., Ltd (TCL), the Konka Group Co., Ltd (Konka), the Chunlan Corporation (Chunlan) or the Midea Holding Co., Ltd (Midea) Corporation in the field of home appliances and consumer electronics, Legend Holdings Ltd (Legend), Founder Holdings Ltd (Founder) and the Stone Group Co., Ltd (Stone) in the field of computers and software, and the China Qingqi Group Co., Ltd (Qingqi), Sundiro Co., Ltd (Sundiro), and again Chunlan in the field of motorcycles and light trucks. The common features of these firms are modern, state-of-the-art management practices in finance, marketing, human resource management, a world-class manufacturing base with strong quality orientation, and an aggressive investment and brandoriented marketing strategy targeting global markets.
CONSUMER ELECTRONICS

The Chinese TV industry produced almost 35 million colour TV sets in 1998, equal to about 24 per cent of world production, and has recorded an average annual growth rate of 13 per cent since 1992. In 1999, production grew by 21.9 per cent to 42.6 million units (Nihon Keizai Shinbun 13 June 2000, p. 7). The lion's share of production is for the domestic market with only 9 per cent going into exports. With only a 3 per cent share of imports and a market share of 15 per cent by foreign-invested firms, the industry is dominated by Chinese firms commanding an 82 per cent market share (Ōhara 2000, p. 30). The Chinese TV industry developed rapidly during the 1980s, and in 1989 over 90 manufacturers crowded the market. The recession of 1989 as well as countermeasures by the government to curb the overheated demand resulted in substantial overcapacity and increased price competition (Marukawa 1999, pp. 128-31). Nowadays, the industry is consolidating and building up scale economics with the top three firms, Haier, TCL, and Konka holding a more than 40 per cent market share (MRI 2000, p. 50).

A similar situation prevails in the air conditioning industry. With a production of 8.5 million sets in 1997, China has a dominating 41 per cent share of world production (Marukawa 1999, p. 122). The industry grew at an average annual rate of 40 per cent since 1992 driven by domestic demand that consumes 81 per cent of production. Chinese firms dominate the market with a 70 per cent market share. Although Japanese-Chinese joint ventures like Shanghai Hitachi Electrical Appliances Co., Ltd, Shanghai Sharp Electronics Co., Ltd or Shanghai Mitsubishi Elevator Engineering & Technology Co., Ltd rank among the top five manufacturers, Chinese firms hold a 70 per cent share of the market and the two Chinese firms, Haier (27 per cent) and Midea (9 per cent), are the dominating market leaders (Ōhara 2000, p. 30). The same is true for other industries in the field of home appliances like refrigerators, washing machines, or electric fans, as well as in the field of audio-visual equipment (Marukawa 1999, pp. 121-7). These industries are suffering from extensive overcapacity causing aggressive price competition, but with maturing demand, product quality and brand image are increasingly becoming important parameters for competition.

Haier is one of China's most outstanding companies and a top brand in durable consumer goods, manufacturing over 9000 products in 42 product categories such as home appliances and electronic consumer products. Haier is a large, state-owned enterprise with a sales turnover of about USD 3.2 billion and more than 20 000 employees. Founded in 1984 as the Qingdao Refrigerator Factory, the company started with 800 employees, importing refrigerator production technology from Germany. Haier has achieved its dominant market position due to strenuous efforts in manufacturing and quality improvements and from aggressive investment into a direct sales and service network of about 20 000 outlets (Nihon Keizai Shinbun 31 July 2000, p. 7). Haier's development can be divided into three stages. After building a brand image throughout the 1980s in refrigerators by implementing total quality control management, it rapidly diversified into new product areas in the field of consumer durables, electronic consumer goods and information processing and communication technologies throughout the 1990s. Since 1996 Haier has been striving to become a global player by aggressively expanding into overseas markets, and aiming to enter the top 500 list of Fortune magazine at the beginning of the next century. Exports account for 10 per cent of sales turnover, but Haier already enjoys double-digit market shares and a wellestablished brand recognition in the United States, Southern Europe and the Middle East, particularly in the field of small- and medium-sized refrigerators and air conditioners. Since 1996, Haier has established manufacturing plants in Indonesia (1996 for washing machines), in the Philippines (1997 for refrigerators), in Malaysia (1997 for washing machines), in Iran (1998 for washing machines) (Ōhara 2000, p. 32–3). In March 2000, Haier opened its first production facility for compact refrigerators in the United States, where it commands a 20 per cent market share in smalland medium-sized refrigerators. The plant has an annual manufacturing capacity of 300 000 units. Further manufacturing sites are planned for Italy, Ukraine and Angola. The development of the Haier group has received increasing worldwide attention supported by articles in wellknown publications like the Financial Times and Fortune magazine. Haier's efforts to become a truly multinational electronics company are supported by increased, independent efforts in R&D.

TCL and Konka are similar cases in the field of consumer electronic products like TV and video tape recorders, and Chunlan or Midea in the field of air conditioners and household appliances.

PERSONAL COMPUTERS

China's semiconductor industry is still two or three generations behind foreign technology, highly fragmented and too small in scale, and therefore depends heavily on imports and local manufacturing by foreigninvested companies like Motorola Inc. or NEC Corporation to meet rapidly growing demand (Marukawa 1999, pp. 95–6). However, it has succeeded in overcoming foreign dominance in the personal computer (PC) market with the emergence of fast growing, highly competitive Chinese manufacturers like Legend, Founder or Stone (Huchet 1997, pp. 256–7; *The Nikkei Weekly* 26 June 2000, p. 24). In China's rapidly growing PC market, estimated at about 6.8 million units in 1999, Legend (21.5 per cent) and Founder (8.4 per cent) have managed to grab the top market shares away from long-time leading vendors from the United States, Taiwan and Japan.

Founded by eleven engineers in 1984 as a spin-out of the Chinese Academy of Science, Legend is a child of the entrepreneurial climate in the Beijing high-tech district Zhongguancun and its abundant human resource base of well-educated technicians. It is still a state-owned enterprise with a 60 per cent share by the Chinese Academy of Science, but 40 per cent is held by management and employees. Legend began as a monopolist distributor of foreign-branded computers and computer peripherals, but with the establishment of a number of joint ventures in Hong Kong and the Shenzen special economic zone, it quickly integrated into the world's electronics industry (Naughton 1997, pp. 27-8). Hong Kong Legend, its listed Hong Kong joint venture, more than quadrupled its annual sales turnover since 1996 reaching HK\$ 17.5 billion in 1999, while reporting even higher growth in profits. While its monopolistic position for the distribution of foreign branded computers in China has been a major source of revenue, the integration of Legend as a design and manufacturing company within the global electronics industry (China Circle') has been the key contributor to growth and profitability. In 1989, Legend began with the design, manufacture and distribution of motherboards in Hong Kong as well as started to provide systems integration products and services for large corporate and government clients in China. In 1990, Legend began the design, manufacture and distribution of its own line of PCs under the Legend brand, and in 1994 started the manufacturing of printed circuit boards. Since 1997, Legend computers are the number one selling brand in China, and in 1998 the one millionth Legend computer left the production line, symbolising the fast development of China's information technology industry. In fact, Legend is now one of the leading computer brands in the Asia-Pacific region and the largest PC maker in Asia outside Japan with a 9.1 per cent production share (The Nikkei Weekly 26 June 2000, p. 24). While PCs account for over half of the turnover, Legend offers a full range of hardware, software, components (motherboards), accessories as well as system integration, application and internet-related services. Much of Legend's success is due to open access to, and integration with, international markets, since the company still relies heavily on the import and assembly of key components and access to foreign technology. Nevertheless, its efforts to upgrade its manufacturing capabilities, product quality, as well as own

research and development efforts have strongly contributed to Legend's growing international reputation as a leading, multinational manufacturer of information technology. Above all, Legend is recognized as a company that has adopted best management practices and operates almost completely like a private enterprise independent from state interference. The management organization at Legend is, like that of Founder or Stone, an example for a modern form of governance in China that balances state ownership with managerial autonomy and non-bureaucratic practices (Child 2000, pp. 43–4). These high tech enterprises have emerged by transfer of scientific staff and advanced technologies from public institutions, but management has secured commercial freedom and the ability to formulate and execute their own strategies almost independently as long as the business and technology targets are achieved. The public owners claim fees rather than ownership rights as payments and surpluses are basically re-invested as retained earnings. Furthermore, access to global capital markets, for instance by means of listing on international stock markets, puts these firms under growing pressure for transparency and performance.

MOTORCYCLES

The Chinese motorcycle industry is another example of a rapidly growing domestic industry that has nurtured highly competitive manufacturers that nowadays seek to expand globally. The advance of China's motorcycle industry follows the typical pattern of national development. By first accommodating to a huge, underdeveloped market that could not yet afford automobiles, it succeeded to establish scale economics and large, efficient producers that now seek expansion on overseas markets. The Chinese motorcycle industry has increased its production by more than ten times since 1985 and produced 10 million units in 1997, thereby accounting for an estimated 50 per cent of global production (Marukawa 1999, pp. 117–9). Driven by domestic demand that consumed 99 per cent of the production, the industry grew rapidly at an average annual rate of 28 per cent. Since the beginning of economic reforms, the number of motorcycle manufacturers increased from 20 to 130 in 1996 backed by buoyant demand. While price competition remains a strong feature of the industry, competition is more and more driven by factors like service capabilities, brand image and product reliability.

The Qingqi Group is China's largest manufacturer of motorcycles, with an annual production capacity of 1.8 million units and a top selling brand 'Mulan'. Like most Chinese motorcycle manufacturers, Qingqi has relied on technical licensing from Japanese suppliers (Suzuki Motors Corporation) and in the 1990s engaged in Sino-Japanese manufacturing joint ventures. However, the company has developed its own brands in lower class segments by upgrading its manufacturing capabilities and establishing strong service networks. In 1994 it was the first Chinese motorcycle manufacturer that received the ISO 9001 certification for manufacturing quality management. Qingqi started exports in 1988 and now operates sales subsidiaries in six countries (Hong Kong, Pakistan, Sri Lanka, Myanmar, Romania, Uganda) (Ōhara 2000, pp. 33–4). In 1997, Oinggi opened its first overseas manufacturing plant in Pakistan, followed in 1998 by a manufacturing subsidiary in Lithuania. In these plants motorcycles are assembled based on the principle of complete knockdown (CKD) manufacturing. Qingqi exported about 11 000 motorcycles, thereby accounting for 60 per cent of all Chinese motorcycle exports, and its export share of sales turnover reached 30 per cent including exports of components for CKD assembly. While Qingqi has a strong market position on its domestic market due to high brand recognition and a strong sales and service network, its position on international markets is still weak as compared to the Japanese brands from Suzuki Motors Corporation, Honda Motor Co., Ltd, Yamaha Corporation or Kawasaki Motors Co. Nevertheless, large economies of scale and continued efforts to upgrade manufacturing, development and quality management capabilities represent the company's strong potential for advancement on the global market scene. Other Chinese firms like Hainan Sundiro Motorcycle Corporation, one of China's Big Three in the motorcycle industry, may well follow suit.

Emerging Chinese firms in heavy, (human) capital-intensive manufacturing industries

Compared to the rapid growth and growing global competitiveness of China's light, labour-intensive manufacturing industries, scale- and (human) capital-intensive heavy industries are considered to lack international competitiveness due to low quality, low productivity and high cost. After all, these industries are at the heart of China's ailing state-owned sector that suffers from diseconomies of scale, industry-wide overcapacity, low productivity and operational inefficiency, massive debt due to widespread soft-budgeting practices, and above all from excess employment and huge social obligations such as pension liabilities, social security payments, or housing and education costs (for details, see Jian 2000a, pp. 47–65; Liu 2000, pp. 35–63, Nolan and Wang 2000, pp. 9–34; Nyaw 1999, pp. 31–45). Much of the success of China's economic reforms and open-door policy as well as China's social stability depend on the suc-

cessful restructuring and revitalization of China's state-owned sector, but it must progress in a socially acceptable way. On the other hand, China's past investments in human capital and technology and its technical intelligence in heavy manufacturing represent hidden potentials for scale economics and quality improvements to generate future growth by correcting past misallocations of resources (Yoshitomi 1996, p. 66). Despite the many structural deficiencies in China's huge, state-dominated heavy industries, progress has been made and a number of well-managed, competitive firms have been emerging particularly in the steel, shipbuilding, oil-refining and machinery industry.

IRON AND STEEL

In 1996, China became the world's largest producer of crude steel; in 1999 its annual output was 123 million tons and its global production share was 15.7 per cent. As China is also the largest producer of coal, with an output of almost 700 million tons in 1997, China has basically the potential to be a self-sufficient steel producer (Marukawa 1999, pp. 56-9). However, further analysis reveals a fundamental quality problem that results in high dependence of China on imports of high quality steel and iron ore (Gang 2000; Marukawa 1999, pp. 75–7). Although China produces about 250 million tons of iron ore, only about 30 per cent is suitable for melting in modern blast furnaces. To meet production targets, China imports about 45 to 50 million tons of iron ore. Despite strong efforts to modernize its manufacturing technologies, such as investment into continuous casting, China still mainly produces low value-added steel products like bars, but lags behind the world's top steel producers from Japan, Korea, the United States or Germany in higher quality steels like rolled sheets or stainless steel, as well as in regard to semi-finished and finished steel products. It is assumed that still only 20 per cent of China's steel output meets international quality standards. Therefore, China continues to import about 10 million tons of high quality steel annually.

The main reason for this situation is China's highly fragmented industry with hundreds of small, inefficient producers that lack cost-efficient economies-of-scale and modern, integrated steel-making technology. At the same time, a small number of world-class steel manufacturing companies have emerged that are aggressively expanding exports and have developed into formidable competitors on world markets. Presently there are four Chinese steel producers that rank among the top 30 producers in the world, each of them possessing an annual production capacity of over six million tons thought to be the minimum requirement for highly efficient steel manufacturing.

Among them, China's largest and the world's seventh largest steel maker, the Shanghai Baogang Group, is considered to be one of the most competitive steel firms in the world with an annual output of 16.7 million tons (1999). The predecessor of Shanghai Baogang Group, the former Baoshan Iron & Steel Corporation, was established in 1978 and fostered as a model factory under the Chinese government policies to modernize its iron and steel industry. In 1998, it absorbed the Shanghai Metallurgical Holding Corporation and the Meishan Iron & Steel Corporation and was renamed into Shanghai Baogang Group. The group, with 14 500 employees, reported an annual sales turnover of USD 3 billion and a 50 per cent increase in net profits to USD 180 million for 1999. Exports amounted to 1.56 million tons or about 9 per cent of the output and are mainly targeted to other Asian countries. In March 2000, the aggregated exports of rolled steel topped 10 million tons, worth over USD 3 billion, and Baogang has emerged as a strong competitor for large-scale international projects winning, for instance, oil and gas line projects in Russia, Israel, India, Sudan and Venezuela. However, it is not merely the size of the group that is drawing the world's attention but increasingly the technological capabilities, and the growing share of higher value added, high quality products. The Shanghai Baogang group is a comprehensive steel producer offering a full range of steel products with various specifications such as high grade steel sheets for automobiles, oil tubes and pipes, plates for shipbuilding, stainless steel, electrical steel, steel bars for construction, as well as tin plates, silicon steel and other high tech, high value added products. The group has continued to invest heavily in the most modern steelmaking technologies, often based on licensing agreements and technical co-operations with leading foreign manufacturers like the Nippon Steel Corporation. Its manufacturing sites are considered to be global and state-of-the-art, and have attained ISO 9001 certification. Equally intensive are its efforts in research and development that have resulted in a range of newly developed products such as O5 surface deep drawing sheet, high strength structure steel, fingerprint-resistant galvanized steel sheet and high strength steel for tubing and casing.

Shipbuilding

A similar situation prevails in the shipbuilding industry. In 1999, China became the third largest shipbuilding nation after South Korea and Japan, accounting for 10.4 per cent of the order intake (Lloyd's Register 2000). However, like the iron and steel industry, the industry is widely fragmented and crowded by more than 500, mostly small-scale shipbuilders (BfAI 1999). Similar to other state-dominated industries, the

industry as a whole suffers from overcapacity, high cost manufacturing due to inefficient cost control management, limited technological capabilities, as well as excess employment (Nakatsuka 2000). Due to a lack of large scale, heavy duty shipyards, China's shipbuilders have mainly concentrated on building smaller size, low value-added ships like bulk transporters which meet domestic demand for coastal and river transportation, while having only limited capabilities to built large-size or special purpose, high value-added ships like multi-purpose ocean container carriers, very large and ultra-large crude carriers (VLCCs, ULCCs), Liquefied Petroleum Gas (LPG) tankers or passenger cruising ships (Marukawa 1999, pp. 139–40).

However, next to a growing importance as an international repair site for ships, the Chinese shipbuilding industry drew worldwide attention when in the beginning of 1999 news spread of a large-scale order by the Dalian New Shipyard received from Iran to built five ULCC vessels in the class of 300 000 DWT (deadweight tons) (Nakatsuka 2000, pp. 8–9).

The order symbolises the efforts by the Chinese government to upgrade its international competitiveness by reorganizing the industry and by investing heavily into the modernization and expansion of its capacities. The investment and modernization strategy focuses on the three leading shipbuilding groups, the China State Shipbuilding Corporation (CSSC) under central state control with three large shipyards in Shanghai (100 000 DWT), Jiangnan (100 000 DWT) and Hudong (80 000 DWT), the CISC group with three large shipyards in Dalian (New Dalian with 300,000 DWT and Dalian with 80 000 DWT) and Tianjin (80 000 DWT), and the GSI group in Guangzhou (60 000 DWT). At present, six largescale shipyards with a capacity between 150 000 to 700 000 DWT are under construction, implying a significant increase in China's capability to built modern, large crude carriers. In particular, the completion of the new shipyard of the CSSC group near Shanghai, expected throughout the year 2002, is receiving worldwide attention, as it will rank among the world largest shipyards with a dock size of 470 meter x 80 meter, as well as one 900 tons and two 600 tons heavy duty cranes (KSK 1999, p. 45). Forecasts for the development of the global shipbuilding industry until 2005 expect that China will maintain its position as the world's third largest shipbuilding nation, also due to the fact that the expansion plans by the state-owned shipping fleet China Ocean Shipping Corporation warrants a stable base load for China's shipbuilders (*ibid.*, pp. 46–8, 59). It is expected that, despite the various structural problems, China's shipbuilding industry will be able to meet the needs of the global shipping industry in terms of facilities, capacities, as well as increasingly also in terms of technical capabilities (Nakatsuka 2000, pp. 9–10).

MACHINERY AND ENGINEERING

The machinery and engineering industry is yet another large, state-dominated pillar industry considered to be of strategic importance for China's industrial and technological development but suffering from similar structural problems. Particularly since the mid 1990s, the slowdown in capital investment has caused a sharp decline in production and triggered drastic, industry-wide restructuring, for instance, by means of mergers (Marukawa 1999, p. 108). Generally, China's machinery industry is lagging decades behind the advanced machine building nations like Germany or Japan, and it is questionable whether the high managerial, economic and technical targets for the machinery industry as set in China's vision for 2010 are realistic (KSKK 1997, pp. 39-45). However, because of the diversity of the industry, it is difficult to draw general conclusions. China has a well-developed position in basic machine technologies such as agricultural equipment, non-NC (numerically controlled) machine tools, compressors, boilers or diesel engines, and has produced companies like China Yuchai International Ltd (Yuchai Machinery) that are praised for their modern state-of-the-art management practices, entrepreneurial spirit, manufacturing and product technologies (Child 2000, pp. 45-6). Yuchai Machinery is China's largest producer of medium and heavy-duty truck engines with an annual output of 50 000 units, sales revenues totalling RMB 500 million and over 7000 people. Founded in 1951, it was turned from a state-owned company into a listed joint venture stock company in 1992 and awarded with the ISO 9001 certificate in 1996.

Also, the advancement of the power generating and civil engineering industry is increasingly being recognized. While China still depends heavily on imports for large-scale power generating plants, it has started to export smaller plants. Companies like Harbin Power Equipment Company or Dongfang Electric Corporation are advancing on international markets, although they are still significantly smaller in scale and technologically inferior compared to the world's top power generating firms (Nolan and Wang 2000, pp. 27–8). However, the recent news of a large-scale Chinese order for a 300 000 kW nuclear plant from Pakistan (*Nihon Keizai Shinbun* 18 August 2000, p. 1) and other Chinese orders for international projects in civil and plant engineering underline China's growing international competitiveness.

Dongfang Electric Corporation, for example, is one of China's three giant enterprises specialised in power plant equipment, and it designs, manufacturers, and markets a wide range of power generating equipment such as hydro units for hydro power stations, turbo generators,

alternating and direct current electrical motors and controlling equipment for power plants. With an annual production capacity of more than 3300 megawatt in thermal generating units and 960 megawatt in hydro generating units, the company accounts for one third of China's production. The group comprises five wholly owned manufacturers, Dongfang Electric Machinery Works, Dongfang Steam Turbine Works, Dongfang Boiler Works, Dongfeng Electric Machinery Works and Zhongzhou Steam Turbine Works, more than 30 specialised companies, 10 stock companies and more than 100 associated enterprises. The group has established regional companies in over 20 cities in China and branches or liaison offices in Canada, Pakistan, Bangladesh and Iran. Thermal units are exported to Pakistan, Bangladesh, Indonesia and Iran, and hydro units to the United States, Canada, Turkey, Syria, Philippines and former Yugoslavia. It is also engaging in joint ventures and co-operations with leading foreign manufacturers like Westinghouse Electric Corporation, Hitachi Ltd and Siemens AG.

OIL AND PETROCHEMICAL

The situation in China's oil and petrochemical industry is even more severe than in other heavy, capital-intensive industries, and the solution of its many structural problems is not only a crucial element for China's successful industrial development, but has far-reaching implications for the world energy and material markets.

In recent years, China has rapidly emerged as one of the world's largest oil producers, raising its annual output from a mere 0.5 million barrels per day in 1970 to almost 3 million barrels per day in the mid-1990s (Priddle 1996, p. 118). However, output growth has levelled off ever since, while oil consumption continues to surge, causing increasingly serious shortages in supply. Since China turned into a net importer of oil in 1993, the shortage in supply is expected to rise to 80 million tons by 2010 raising fears about sharp increases in the world's oil prices (Marukawa 1999, p. 45). Similar bottlenecks exist in regard to oil refining capacities and conversion facilities due to structural deficiencies (Priddle 1996, p. 120). Until the late 1980s, the Chinese refining industry was largely isolated from international markets, and the nature of its refining facilities that were designed to process China's predominantly heavy, waxy, lowsulphur crudes posed constraints to the domestic use of oil energy. With the rapid growth of demand from southern provinces, China faced increasing bottlenecks in the supply of petroleum products and since 1992 has emerged as a net importer.

One major reason for the structural deficiencies in China's oil refining and petrochemical industries relates to the form of industrial organization that prevailed until the major reforms that began in 1998 (Marukawa 1999, pp. 45, 51–2). Until then, the industry was segregated into an oligopoly of three major upstream companies for oil exploration, and several downstream companies concentrating on refining and conversion into petroleum products. By means of mergers and business swaps, two giant, regional groups of integrated oil exploring, refining and converting companies were created in 1998, the northern group under the leadership of the China National Petroleum Corporation (CNPC), and the southern group under the leadership of the China Petrochemical (Group) Corporation (SINOPEC). The objectives were, among others, first to create comprehensive Chinese majors that are able to compete globally with the world's leading oil companies, second to intensify domestic competition among strong, integrated oil companies, and third to introduce drastic management reforms by shutting out state influence. While there are basic doubts remaining about the success of management reform, visible progress has been made in recent years. According to a recent Nikkei Weekly report, both CNPC and SINOPEC enjoy a lifting in the global ranking from rank sixteenth to rank eleventh (CNPC), and from rank twentieth to rank seventeenth (SINOPEC) in the annual evaluation of the world oil companies conducted by Petroleum Intelligence Weekly, a major US trade journal (The Nikkei Weekly 29 May 2000, p. 24). Both companies are aggressively investing in exploration of new oil fields, also abroad, and into the modernization of their facilities. In April 2000, CNPC listed one of its subsidiaries, Petro China, on the stock exchanges of Hong Kong and New York. Although the initial public offerings did not meet the expectations due to remaining doubts among investors, the listing itself is a major step towards management reform, enhanced transparency and management accountability. Other well-managed energy companies are expected to follow suit in an attempt to tap into international capital markets for funding of their ambitious modernization and capital investment plans. For example, nine leading Chinese petrochemical firms are in the process of establishing new capacities for ethylene production totalling 1.3 million tons by the year 2005, among them large-scale projects by the Shanghai Petrochemical Company (250 000 tons), the Yangzi Petrochemical Company (250 000 tons), and Yanshan Petrochemical Company (210 000 tons) (KSKK 2000, pp. 90-2, 102-12). Similar ambitious expansion plans exist also for polypropylene, polyethylene and other key basic petroleum materials. However, these plans are dwarfed by the huge investment projects of the world majors in China. The BASF AG and BP Amoco plc. are investing into a new ethylene plant, each with a capacity of 600 000 tons to be completed in 2004 and 2005, respectively. Royal Dutch Shell is investing in several joint ventures to built a ethylene plant with a capacity of 800 000 tons, a plant for low-density polyethylene with a capacity of 300 000 tons, a plant for high-density polyethylene with a capacity of 150 000 tons, and a plant for polypropylene with a capacity of 240 000 tons, all of them to be completed by the year 2003.

From the above findings, it can be concluded hat China's competitiveness in heavy, capital- and knowledge-intensive manufacturing industries is less advanced and obvious when compared to light, labourintensive industries. Most sectors suffer from serious structural problems due to the dominance of large, state-dominated firms. Nevertheless, visible progress is being made through industry-wide reorganization, managerial and enterprise reform, as well as technical co-operations and joint ventures with leading foreign companies. The build-up of economies-ofscale, the modernization of facilities, and the upgrading of product technologies enjoy top priority within the reform process that – combined with the entrepreneurial spirit of capable managers – has resulted in the emergence of well-managed Chinese firms with a clear international orientation. These firms also capitalize on the high level of past investments into technologies and human capital.

IMPLICATIONS FOR JAPAN'S INDUSTRY AND POSSIBLE STRATEGIC RESPONSES

What are possible implications of these developments in China's manufacturing industries for Japan's industry? And what are possible scenarios and counterstrategies for Japanese firms? In the following, an attempt is made to provide some possible, though speculative clues to these issues.

The Sino-Japanese relationship is characterized by a long history of political rivalry and growing economic interdependence, and exerts a crucial influence for political stability and economic prosperity in Asia (Hilpert and Haak 2002). During the 1990s economic relations between both countries have become even closer and intertwined as a result of the growth in trade, foreign investment, technical cooperation and technology transfer. Trade volume between China and Japan has surged over the past 20 years, but almost tripled between 1990 and 1998 (Hilpert 2002). Foreign direct investment (FDI) from Japan to China increased by eight times between 1990 and 1995, though the prolonged economic stagnation of Japan's economy caused a decline since 1996 (see Chapter 2). Neverthe-

less, the level of Japanese FDI flows into China after 1996 is still four times higher than in 1990. For Japan, China is the second most important export destiny, the second most important source of imports, and the second most important recipient of FDI. China is Japan's most important site for overseas production by Japanese manufacturers, and the most important recipient of official development aid (ODA). For China, Japan is the most important source of imports, and the second largest export market and source of FDI.

Further analysis of Sino-Japanese trade relations reveals a growing intensity, interdependence and degree of integration of both economies since the early 1990s:

From China's point of view, its regional trade structure has gradually shifted towards a growing weight of trade with Japan, reflected in the growing relative importance of the Yangtze delta and the Bohai gulf as a regional export base (Chan, Tracy and Wenhui 1999, pp. 127–47).

Since the 1990s Japan has emerged as the leading importer of Chinese manufactured goods following the growth in overseas production of Japanese firms in China and the sharp increase of processing trade. While in the 1985 raw materials and foodstuff accounted for 60 per cent of Chinese exports to Japan, their share declined to less than 20 per cent in 1998, as manufactured goods increased their share to 80 per cent (see Figure 1.5).



Figure 1.5: Composition of Chinese exports to Japan (1985 vs. 1998)

Source: OECD, Foreign Trade by Commodíties (in brackets SITC)

Since 1989, Japan has consistently recorded a trade deficit with China totalling USD 17 billion in 1998. Apparel and footwear are the main sources for the trade deficit, but manufactured industrial goods like communication equipment, office machines, or optical goods contribute a significant and growing portion (see Figure 1.6).



Figure 1.6: Composition of Japan's trade deficit with China (1998)

Source: OECD, Foreign Trade by Commodíties (in brackets 2-digit SITC classification)

Chinese products have gained a large and growing share in Japan's import market (see Figure 1.7). China not only dominates markets like apparel, footwear or toys, where Japan is heavily dependent on imports, but has succeeded in gaining strong footholds in competitive segments like electronics, where import penetration has been low. China has achieved a far stronger position in Japan's import market than the United States or Europe that have traditionally struggled hard to gain access (Chan, Tracy and Wenhui 1999, pp. 142–4).

From these findings it can be concluded that complementary rather than intra-industrial trade still remains the basic feature of Sino-Japanese trade relations, but that there is a marked shift towards manufactured goods. Chinese products are competitive not only in traditional light manufacturing industries like textiles or toys, but increasingly in labourintensive, assembly-based industries like electronics, communication equipment or optical goods (Hilpert 2002, pp. 45–8).

For Japan, these industries are still important in terms of scale, employment and global market position, where it maintains a formidable





Source: JETRO, White Paper on International Trade, 2000.

manufacturing and supplier base. Despite Japan's strong position in and focus on technology-intensive, high value-added product segments, the revenue and profits generated from high volume, cost-competitive market segments still exert a significant influence on the overall economic performance of many companies in industries such as home appliances, consumer electronics, communication equipment, office equipment, trucks, agricultural machinery or motorcycles.³ Although Japanese firms in these industries have aggressively shifted production facilities to lower-cost production sites overseas, mainly to Southeast Asia and recently to China, they are increasingly vulnerable to China's growing competitiveness. Not only China's labour cost advantages but also enhancement of product quality, improvements in manufacturing management, and growth in productivity are important factors that have caused a relative decline of Japan's competitiveness vis-à-vis China and that may well lead to a head-on rivalry with Japanese firms, not only on global markets but increasingly also on Japan's home turf.

³ A good example is the home appliance industry. Home appliance products still account for a significant share of business with most of Japan's comprehensive electronic manufacturers – like Hitachi Ltd, Toshiba Corp., Matsushita Electric Industrial Co., Ltd, Sharp Corp. or Sanyo Electric Co., Ltd – and are responsible for their eroding profit position. Instead of retreating from these business segments, as General Electric Corp. has done, Japanese firms are trying to maintain their positions in an effort to secure employment (see *Nikkei Business* 13 November 2000, p. 12).

Japanese firms in these industries do not have many strategic options to respond to this threat (for a comprehensive analysis of Japanese strategies towards China, see Haak 2002, pp. 158–73). Being hesitant to retreat from these business fields, they are accelerating their move to overseas production, adding more and more products and components with higher value-added. Production in Mainland China is assuming a growing importance in the context of this strategy. For example, leading companies – like Sony Corporation, Sharp Corporation, Sanyo Electric Co., Funai Electric Co., Ltd in audio-visual equipment, like NEC Corporation or Fujitsu Corporation in computers and communication equipment, like Canon Inc., Ricoh Co., Ltd or Seiko Epson Corporation in office equipment, like TDK Corporation, Murata Electric Co., Ltd, Taiyo Yuden Inc. in electronic parts, or like Toray Industries, Inc. and Teijin Ltd in textiles are embarking on large-scale production of key components and products in China (Nihon Keizai Shinbun 6 August 2000, p. 11; Nikkei Business 27 September 1999, pp. 36–49; Nikkei Business 27 March 2000, pp. 8–9; Nikkei Business 17 July 2000, pp. 26-40). In these increasingly global industries China is becoming the strategic market and manufacturing site, as other foreign companies are taking similar strategic moves, and as Chinese firms are building up scale. Global competitive success for Japanese firms seems to depend more and more on the successful management and integration of the Chinese operations into their global organization (for a detailed analysis of Japanese management of Chinese operations, see Legewie 2000).

The ongoing overseas shift of production facilities and procurement by Japanese manufacturing firms has had severe consequences for Japan's large supplier industries. While the process of industrial hollowingout started in the mid-1980s as a result of the rapid appreciation of the Japanese ven, it is likely to further accelerate in the nearer future as many labour-intensive, assembly-based industries are losing their global competitiveness. These trends are increasingly visible in manufacturing industries like casting (for example for machine bodies), dies and mould making (for example for metal and plastic parts) (Kanemura 2000, pp. 32-6) or in processing and subcontracting industries like parts machining or (sub)assembly (for example printed circuit boards). The strategic challenge for Japanese suppliers and subcontractors is to increase competitiveness by moving abroad by themselves or by engaging in international alliances or networks, or to retreat from their traditional business by developing independent, proprietary know-how, technologies and own products.

A different scenario seems likely for the scale- and (human) capitalintensive, heavy manufacturing industries like steel, shipbuilding, paper, cement, oil refining and petrochemicals, machinery and civil engineering, or automotive, because of the peculiar strategic positioning of these industries in both countries.

From Japan's perspective, these sunset industries were the backbone for its rapid economic and technological development, but domestic demand in these industries is maturing and in some cases declining. Most of these industries suffer from excess capacity and low capacity utilization as well as from overspreading their business portfolio into unprofitable segments. Despite their technological leadership position in many of these industries, cost competitiveness is declining and international competition, particularly from South Korea and from multi-national firms, is on the increase. In addition, industries like oil refining or petrochemicals are suffering from diseconomies of scale due to uncompetitive capacities and low plant utilization. Other industries like automobiles, cement or paper are faced with a global wave of concentration. Most companies that operate in these industries are engaged in massive restructuring efforts such as streamlining their business portfolios as well as reengineering of their processes and cutting capacities (Matsui and Suzuki 1999; Matsui, Suzuki and Ushio 2000). Corporate restructuring efforts in these industries increasingly involve industry-wide, structural change across company boundaries, as business alliances, tie-ups with foreign firms as well as mergers and acquisition become more and more common (Raupach-Sumiya 2000, pp. 23–40).

At the same time, the Chinese market is one of the few remaining markets where future growth can be expected. In order to sustain the global market position, it is essential for Japanese firms in these industries to gain a strong foothold on the Chinese domestic market. Otherwise, their own existence and industrial base seems endangered.

From the Chinese point of view, the heavy manufacturing industries are of an even higher strategic importance. The success of China's enterprise reform, sustained economic development and social stability depend to a large extent on the ability to enhance the competitiveness and efficiency of these mainly state-dominated, large-scale industries. It is, therefore, no surprise that the Chinese government, in its ninth Five Year Plan for the year 1996–2000 and in its 15 Year Perspective Plan, has declared petrochemicals, construction, steel, automotive and machinery as pillar industries that are at the center of Chinese reform efforts and industrial policy. The presence in these industries of substantial economies of scale as well as their scope for significant vertical integration advantages has led the authorities to encourage the building-up of large enterprises within them (Child 2000, pp. 33–5; Marukawa 2000). Without doubt, these industries and enterprises will continue to receive massive governmental protection and support despite all efforts within the WTO talks to enhance free, market-based competition in China. At the same time, much of the success of the reforms and modernization efforts depends on continued technology transfer, cooperation and investment from foreign partners. Therefore, it seems likely that China will continue to try to link market access and foreign direct investment to the transfer of technology, management and skills.

When taking the strategic situation of both Japan and China into consideration, a growing economic interdependence between both economies seems to be emerging as the interests of both nations and their industries are tied to each other. The ability to sustain Japan's competitiveness and global market position in these industries largely depends on access to the Chinese market. Conversely, the ability of China to upgrade its technological and managerial base and to secure the success of its economic and enterprise reforms depends on the willingness of foreign companies to continue to invest in China and to transfer technologies, capabilities and know-how. Due to its regional vicinity as well as its leading technological position in key, heavy manufacturing industries, Japan appears to be the logical strategic partner. Therefore, the emergence of Sino-Japanese industrial alliances may well be a realistic scenario for important scale- and (human) capital-intensive, heavy manufacturing industries like steel, shipbuilding, petrochemicals, civil engineering or automobiles.

While the benefits for China are more or less obvious, alliances with Chinese firms could also be attractive for Japanese firms. In addition to better access to and insight into the Chinese market, the active pursuance of alliances enables them to better control the flow of know-how and technology, in particular if WTO membership assures the transparency and enforcement of contract law. Alliances with Chinese firms better enable Japanese firms to contain a growing competitive threat by China's firms by means of engagement. Furthermore, such alliances may exploit potentials for intra-industrial specialization with both partners concentrating on specific segments, products or processes. Such alliances can become an integral part of Asian-wide alliances or networks involving Japanese, Korean, Taiwanese and Chinese firms. The alliance between Nippon Steel Corporation and Pohang Iron & Steel Co., Ltd (Posco) of South Korea may well serve as a model. This comprehensive tie-up between the world's largest and second largest steel manufacturer, among others, aims for the establishment of joint ventures in China. Although not explicitly stated, China's largest steel firm, the Shanghai Baogang group, with whom both companies have longstanding cooperative ties, may well play an important role within this strategy. Such an arrangement serves two strategic purposes: access to the Chinese market and containment of a growing Chinese rival.

This argument is, agreeably, quite speculative as firm empirical evidence is still lacking. For the purpose of its verification – or dismissal – it seems worthwhile to closely watch developments in other heavy manufacturing industries like oil refining, petrochemicals, cement, paper or shipbuilding, and strategic moves of large Japanese manufacturing enterprises.

SUMMARY

This paper attempted to provide a comprehensive analysis of China's growing international competitiveness in manufacturing and speculated on possible implications for and strategic responses by Japan's industry. The main arguments can be summarized as follows:

Despite the progress of economic reforms, China's advancement to the world's tenth largest trading nation and growing competitive success in manufactured goods, China remains a developing country with huge structural problems. Nevertheless, the reform process in China has liber-ated potentials and competitive forces that have led to the emergence of large, domestic-growth industries and competitive, well-managed firms, both in labour-intensive, assembly-based industries as well as in scale-and (human) capital-intensive, and heavy manufacturing industries. Increasing competition on China's domestic markets and continued foreign technology transfer encourage the advancement of resources and factors, thereby enhancing Chinese competitive advantages in manufacturing.

Japan's assembly industries are likely to face increasing competition by Chinese firms, which will accelerate the internationalisation of procurement and the shift to overseas production in China. This will further accelerate the process of 'industrial hollowing-out' of Japan's supplier and subcontracting industries. Strategic alliances between Japanese and Chinese firms are a likely scenario in scale- and capital-intensive industries in the wake of the growing economic interdependence between China and Japan.

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Shanghai Baogang group: http://www.baosteel.com

TCL Holdings Co., Ltd: http://www.tcl-elec.com

China Yuchai International Ltd: http://ns.mei.cei.gov.cn/enterprise/ ycjq

2 JAPAN'S MANUFACTURING FDI IN CHINA – Its Characteristics in Comparison

Shigeki Tejima

JAPAN'S MANUFACTURING FDI IN CHINA

TRENDS OF GLOBAL FDI TOWARDS CHINA

One prominent characteristic of global FDI flows in the 1990s was the accelerated mutual FDI among developed countries, mainly through cross-border mergers and acquisitions. On the other hand, the share of developing countries within the world total of FDI inflows stagnated, after reaching its recent peak in 1994 (41 per cent), although annual FDI flow itself to developing countries continuously increased in terms of current US dollars (Table 2.1).¹

Another prominent characteristic of the 1990s was the concentration of inward FDI to the developing world in some specific countries. In Asia, global FDI concentrated on China. Whereas in the 1980s Singapore's and Malaysia's inward FDI alone often exceeded the FDI flow to China, in the 1990s global FDI to China skyrocketed, leaving other countries at a relatively stagnant level. In the late 1990s China received more than USD 40 billion per year while the country's share of FDI in all developing countries considerably declined throughout the 1990s.

¹ All years mentioned in this section are calendar years (from 1st January to 31st December respectively), unless otherwise indicated.

	1994	1995	1996	1997	1998	1999	2000
World	256.0	331.1	384.9	477.9	692.5	1075.0	1270.8
(*)	145.1	203.5	219.7	271.4	483.2	829.8	1005.2
(**)	104.9	113.3	152.5	187.4	188.4	222.0	240.2
(***)	41.0	34.2	39.6	39.2	27.2	20.7	18.9
L. America	30.1	32.3	51.3	71.2	83.2	110.3	86.2
Asia	68.6	75.3	94.4	107.2	95.6	99.7	143.5
China	33.8	35.8	40.2	44.2	43.8	40.3	40.8
(****)	32.2	31.6	26.4	23.6	23.2	18.2	17.0
Hong Kong	7.8	6.2	10.5	11.4	14.8	24.6	64.5
Korea	1.0	1.8	2.3	2.8	5.4	10.6	10.2
Singapore	8.6	8.8	10.4	13.0	6.3	7.2	6.4
Thailand	1.3	2.0	2.3	3.6	5.1	3.6	2.4
Malaysia	4.6	5.8	7.3	6.5	2.7	3.5	5.5
Indonesia	2.1	4.3	6.2	4.7	-0.4	-2.7	-4.6

Table 2.1: Global FDI inflow by host region and economy (billion USD)

Notes: (*) All developed countries, (**) All developing countries (***) Share of developing countries in the world (****) Share of China in developing countries

Source: (UNCTAD) WIR2001 for 1995–2000, WIR2000 for 1994 WIR: World Investment Report

Figure 2.1 shows that global FDI inflow in China increased rapidly in the 1990s and most of it was disbursed in the form of new equity capital investment up to 1996. However, since 1997 the amount of new equity has declined to some extent, and reinvested earnings and 'other FDI flows', i.e. parent companies' lending to their affiliates, have considerably increased. Enlarged reinvestment through retained earnings by overseas affiliates means that the affiliates' business has become successful and profitable. This general change for the better is an interesting indication of global FDI trends in China, while Japanese affiliates in China are showing continuously unsatisfactory profit performances, a pattern that will be referred to later.

It is noteworthy that the economic growth rate of GDP in China and the FDI inflow into China went through a similar trend in the 1980s and the 1990s. They were especially close in the period from 1995 to 1997, but they diverged exceptionally in the years 1990 and 1994 when China's GDP growth declined sharply. The recent high level of FDI inflow into China seems to have spurred the domestic economic growth rate of the host country.





TRENDS OF JAPAN'S FDI INTO CHINA

China is one of the most important destination countries for Japanese firms. China figured as the largest recipient country of Japan's FDI flows among all Asian host countries from 1993 to 1996 according to the notification statistics provided by the Japanese Ministry of Finance (MoF; see Table 2.2).² The peak was reached in 1995 when the annual flow amounted to JPY 432 billion. The relative importance of ASEAN countries as the destination of Japanese outward FDI for building up regional manufacturing networks weakened in the beginning of the 1990s, while China's importance as a recipient country increased. However, after 1995, Japan's FDI flows to China decreased year by year and were surpassed by Japan's flows to Thailand, Korea and Indonesia for some or all of three years (1997, 1998 and 1999), according to the MoF statistics (Table 2.2). It is noteworthy that these three countries, which were severely hurt by the Asian crisis, received a higher volume of FDI from Japanese firms than China, which was only slightly affected. In comparison to the global FDI inflows to China, Japanese FDI to China shows some obvious differences (Table 2.2 and Figure 2.2):

² All years mentioned in Table 2.2, 2.3, 2.4 and 2.6 and in Figure 2.2 are fiscal years (from 1st April to 31st March respectively), unless otherwise indicated.

	1989	1990	1991	1992	1993	1994	1995
China	587	511	787	1381	1954	2683	4319
Indonesia	840	1615	1628	2142	952	1808	1548
Thailand	1703	1696	1107	849	680	749	1196
Malaysia	902	1067	1202	919	892	772	555
Philippines	269	383	277	210	236	683	692
Singapore	2573	1232	837	875	736	1101	1143
Hong Kong	2502	2610	1260	966	1447	1179	1106
Taiwan	662	653	554	376	343	292	439
Korea	799	419	357	291	289	420	433
Asia	11003	10343	8107	8316	7672	10084	11921
USA	43691	38402	24671	17993	16936	18016	21845
North A.	45485	39958	25763	18972	17591	18525	22394
UK	6989	9959	4945	3853	2946	2259	3332
Europe	19727	20975	12832	9176	9204	6525	8281
Latin A.	6991	5289	4547	3525	3889	5499	3741
Total	90339	83527	56862	44313	41514	42808	49568
	1996	1997	1998	1999	2000		
China	2826	2438	1363	838	1099		
Indonesia	2720	3086	1378	1024	457		
Thailand	1581	2291	1755	910	1034		
Malaysia	644	971	658	586	256		
Philippines	630	642	485	688	506		
Singapore	1256	2238	815	1073	468		
Hong Kong	1675	853	770	1083	1034		
Taiwan	587	552	287	318	563		
Korea	468	543	387	1093	899		
Asia	13083	14948	8357	7988	6555		
USA	24789	25486	13207	24868	13413		
North A.	25933	26247	14011	27629	13562		
UK	3873	5054	12522	13070	21155		
Europe	8305	13749	17937	28782	26974		
Latin A.	5008	7775	8274	8295	5783		
Total	54094	66229	52169	74390	53690		

Table 2.2:Japan's outward FDI flow to the world
(unit: one hundred million JPY)

Source: Ministry of Finance

First, Japan's FDI in China had two booms (Figure 2.2). The first one peaked in 1987 and the second one in 1995, while the global trend did not



Figure 2.2: Japan's FDI in China

indicate any boom in the 1980s. During the second peak, Japan's FDI to China reached its highest level so far. The first peak was heightened by non-manufacturing FDI and the second peak was mainly achieved by manufacturing industries (Figure 2.2). The occurrence of two FDI booms in that period means that Japanese firms have longer commitments and more experience in local operations in China than other countries.

Second, Japan's FDI to China sharply declined in the period from 1996 to 1999. Japanese firms seem to have become rather cautious, after the huge investments in the mid-1990s. A substantial amount of (Japanese) manufacturing capacities had already been built up, and Japanese investors continuously suffered from the unsatisfactory profit performances of their affiliates in China, as will be argued in the next section. On the other hand, global FDI into China did not show such a sharp decline in the late 1990s, and the volume of reinvested earnings has increased since 1997, as mentioned above. Additionally, the policy change by a Chinese government oriented toward 'more national treatment', or 'equal treatment' for both foreign and Chinese firms, as well as China's unclear procedure for repayment of value added taxes, prompted lower Japanese FDI in China. Furthermore, the stagnation of the Japanese economy and the weak Japanese yen has to some extent discouraged Japanese FDI in China.

PROFIT PERFORMANCE AND FDI FLOW

Compared to other Asian host countries (Table 2.3), the Japanese manufacturing companies' Chinese affiliates show an exceptionally unsatisfactory profit performance. Generally speaking, Japanese partners in other Asian countries, both ASEAN countries and NIEs, have achieved better profit performance than non-Asian host countries. Only the profit performance in China was worse than the performance in non-Asian host countries.

	NIEs	ASEAN	China	USA/Cana	da EU	Latin	America
1991	3.12	3.15	-	2.93	-	-	
1992	3.34	3.19	-	2.55	-	-	
1993	3.31	3.15	2.88	2.29	2.61	-	
1994	3.04	3.2	2.83	2.35	2.65	-	
1995	3.17	3.15	2.75	2.52	2.91	-	
1996	3.24	3.2	2.55	2.88	2.81	2.89	
1997	3.31	3.21	2.65	3.07	2.99	3.16	
1998	3.29	2.76	2.67	3.14	2.99	3.05	
1999	3.07	2.74	2.61	2.97	2.78	2.67	
2000	3.11	2.99	2.73	3.04	2.75	2.68	
2001	3.06	2.82	2.85	2.8	2.67	2.7	
Notes:	Five-sta	age evaluati	on 1: uns	atisfied 2: s	lightly unsa	tisfied	3: avera

Table 2.3: Profit performances of Japanese affiliates by region

Notes: Five-stage evaluation 1: unsatisfied 2: slightly unsatisfied 3: average 4: slightly satisfied 5: satisfied Source: JBIC

Unfortunately, after the Asian crisis, the profit performance of Japanese affiliates in other Asian countries also deteriorated, although it was still better than in China up to 2000. One compelling reason for the unsatisfactory profit performance in China lies in the motives of Japan's manufacturing FDI in China. Japanese firms in China are more concerned about preserving or increasing their local market share in China than in other Asian countries. With that objective, Japanese firms are relatively less sensitive to their Chinese affiliates' current profitability than elsewhere in Asia, where they have become even more export-oriented after the Asian crisis. Preserving the local market in China can be a more important target for Japanese parent companies over the medium- and long-term than the current profit performance of local affiliates in the host country over the short-term period.

However, even if their Chinese businesses are much more concerned with market expansion than profitability, Japanese investors do respond to the profit performance of their affiliates in host countries, albeit with some time lag. Thus, one reason for the shrinking FDI flow of Japanese firms to China in the years 1997 to 1999 was the continuous unsatisfactory profit performance of their local affiliates in the late 1990s. The same situation occurred in North America in the late 1980s and early 1990s: first Japanese FDI flows expanded drastically (in the late 1980s), then the profit performance of the local (US) affiliates deteriorated, and finally the FDI flow dropped suddenly and sharply in the early 1990s as a result of unsatisfactory profit performances. Since FY 1995 the Japanese FDI in North America has shown an upward trend after the recovery of Japanese affiliates' profitability.

It is noteworthy that profitability in China improved in both 2000 and 2001. In fact, profitability in China was slightly better than that of ASEAN countries in 2001. The improved profitability in those years may stimulate more FDI in China than ASEAN countries in the near future.

JAPAN'S FDI IN ASEAN COUNTRIES IN COMPARISON TO CHINA

In some cases, China competes with ASEAN countries as a location for manufacturing and exporting networks serving local markets, Japan and third countries. China has an advantage in manufacturing costs due to abundant human resources, a substantial accumulation of supplier industries and a rapidly developing local market. However, the Japanese manufacturing industry has already accumulated a substantial FDI stock in the ASEAN countries, which also have specific local advantages. Therefore, sometimes FDI in China may be substitutive to FDI in ASEAN countries. In the global perspective, throughout the 1990s, China firmly established its position as the dominant host country in Asia and surpassed the ASEAN region in the mid-1990s (Table 2.1). This general picture is mirrored, to some extent, by the pattern of Japan's FDI flow in Asia as well. However, as argued before (Figure 2.2), in the late 1990s the leading position of China as the recipient of Japan's FDI was regained by some ASEAN countries, although in 1999 and 2000, Japan's FDI in China surged again.

The location advantages of China – supplying favourable manufacturing and exporting conditions – are connected with its recent WTO membership. Moreover, China is attracting Japan's FDI with its improving profit performances. Concurrently some other Asian host countries, such as Thailand, Taiwan and Korea, have had recent increases in Japan's FDI in either 1999 or 2000. What are the future prospects of Japan's FDI in China? According to the periodical questionnaire of the Japan Bank for International Cooperation (JBIC), China has always been considered promising. In the most recent survey of 2001, China preserved her position as the most promising country in the world for Japanese manufacturing firms over both the medium-term and long-term period (Table 2.4). The location advantages of China include its potential for high economic growth in the future and low costs of production, raw materials and intermediate goods.

Table 2.4–1: Most promising countries over the medium-term (up to three years)

	1995	1996	1997	1998	1999	2000	2001
Rank							
1	China	China	China	China	China	China	China
2	Thailand	Thailand	USA	USA	USA	USA	USA
3	Indonesia	Indonesia	Indonesia	Thailand	Thailand	Thailand	Thailand
4	USA	USA	Thailand	Indonesia	India	Indonesia	Indonesia
5	Vietnam	Vietnam	India	India	Indonesia	Malaysia	India
6	Malaysia	Malaysia	Vietnam	Philippines	Vietnam	Taiwan	Vietnam
7	India	India	Philippines	Malaysia	Malaysia	India	Taiwan
8	Philippines	Philippines	Malaysia	Vietnam	Philippines	Vietnam	Korea
9	Singapore	Singapore	Brazil	Brazil	UK	Korea	Malaysia
10	UK	UK, Taiwan	Taiwan	UK	Brazil	Philippines	Singapore

Table 2.4-2: Most promising countries over the long-term (up to ten years)

	1995	1996	1997	1998	1999	2000	2001
Rank							
1	China	China	China	China	China	China	China
2	Vietnam	India	India	USA	USA	USA	India
3	India	Vietnam	USA	India	India	India	USA
4	USA	USA	Vietnam	Indonesia	Thailand	Thailand	Thailand
5	Indonesia	Indonesia	Indonesia	Thailand	Vietnam	Indonesia	Vietnam
6	Indonesia	Thailand	Thailand	Vietnam	Indonesia	Vietnam	Indonesia
7	Myanmar	Malaysia	Brazil	Brazil	Brazil	Malaysia	Brazil
8	Malaysia	Myanmar	Philippines	Philippines	Malaysia	Brazil	Taiwan
9	Philippines	Philippines	Malaysia	Malaysia	Philippines	UK	Malaysia
10	UK	Mexico	Myanmar	UK	Mexico	Taiwan	Philippines

Source: JBIC

In the same JBIC survey of 2001, other Asian countries, such as Thailand, Indonesia, Malaysia, Taiwan, India, Vietnam, Korea, Singapore and Philippines, were ranked among the top ten promising destinations of Japan's FDI flows. Those countries also have local markets with considerable potential for the future, low production cost (excluding Taiwan, Singapore and Korea), as well as export bases to third countries and part supply bases to assembling companies in the Asian region. Those Asian countries are competing with China as a host country for Japan's FDI.

Moreover, according to this author's interviews in January 2002 with the managers of Japanese affiliates, officials of the Japan Chamber of Commerce, Japanese and Western city banks, governmental agencies and research institutes in Singapore, Malaysia, Thailand, Hong Kong and China,³ there is considerable optimism about the competitiveness of their own industries, their competitive power as host countries to attract inward FDI and expanding business opportunities between China and ASEAN.

On the other hand, managing directors of Japanese affiliates in ASEAN countries are seriously worried about future potential competition between their products – both final goods and spare parts – made in ASEAN countries and those made in China. As argued above, Japanese firms have already built up their international (intra-regional) production networks in ASEAN countries, especially in the electric and the electronic industries and automobile industries. Japanese affiliates in ASEAN are confident of their competitiveness in the automobile industry and also in more capital intensive and technology intensive fields of the electric and electronic industries. However, they are cautious, especially in the electric and the electronic industries, in respect of three issues. First, they are struggling in competition with labour-intensive parts and final goods with China. Second, in the near future they may also be struggling in capital and technologically intensive parts and final products because of China's growing competitiveness. Third, the Japanese parent companies may invest more in China and less in ASEAN countries in the future because of better business opportunities in China.

Interestingly, Japanese affiliates in Hong Kong and China have largely similar ideas regarding these three issues. In fact, Japanese parent companies must develop some kind of comprehensive policy of reallocation or

³ These interviews were conducted in January 2002 with the managing directors of Japanese affiliates in Singapore, Malaysia, Thailand, Hong Kong and China and with experts in the research institutes, governmental agencies, Japanese and Western commercial banks as part of the research regarding the effects of a growing China on Southeast Asia.

reorganisation of their Asian networks in both ASEAN regions and China to avoid economic and political risks in both areas and to minimize the huge 'sunk costs', which have already accumulated by heavily investing in ASEAN regions in the past.

INDUSTRIAL AND REGIONAL CHARACTERISTICS OF JAPANESE FDI IN CHINA

Geographic characteristics

Geographically, Japanese affiliates in China used to concentrate in some specified areas in North and South China, but there has been a gradual shift from North China (Liaoning) and South China (Guangdong) to East China (Shanghai, Jiangsu). Table 2.5 indicates that the number of Japanese firms located in Shanghai increased in the period from 1994 to 1999 about six-fold from 404 to 2,553 firms, in Jiangsu about nine-fold from 158 to 1,326 firms. On the other hand, in Liaoning and Guangdong the increase of Japanese affiliates was less than three-fold in the same period.

(unit: numbers of firms)

	1994	1998	1999
Beijing	253	871	884
Tianjin	118	706	719
Shanghai	404	2305	2553
Chongqing	11	77	78
Jiangsu	158	1288	1326
Zhejiang	54	641	652
Shandong	83	951	971
Liaoning	698	2006	2016
Guangdong	307	770	806
Hubei	11	149	145
Henan	11	143	141
Sichuan	19	50	52

Source: Mitsubishi Research Institute

Within China, local governments compete severely for foreign investment. The attractiveness of Shanghai and Jiangsu for example stems, first, from having the largest local market for consumer goods in China, second, from their national and / or local development zones, which provide well-prepared economic and social infrastructure and, third, from well-trained human resources. They also have advantages because of their supporting

industries – a well-developed local machinery industry and many township and village enterprises (TVEs) which can support the local business of Japanese firms. Moreover, a recent accumulation of many affiliates of Taiwanese manufacturing firms and Western and Japanese enterprises has resulted in the formation of an effective production and sales network in the region, which is only behind in the Guangdong area but rapidly catching up. Therefore, many Japanese firms from the home appliance electronic industry, the personal computer and the semiconductor industry are operating in Shanghai and Jiangsu to serve local markets.

On the other hand, Guangdong is an advantageous location because of its huge accumulation of parts companies, both foreign and local, amounting to more than 40,0000 companies and their networks spread over the Guangdong and Hong Kong area. These supplier networks, many of which are Taiwanese affiliates, offer a great variety of intermediate goods with high quality at a low cost. Their products are often the most competitive of all Asian products. Many Japanese affiliates in Asia, which have international procurement offices (IPO) in Singapore and in Hong Kong, have often found out that the parts procured in the Guangdong and Hong Kong area are of higher quality and cheaper than the products made in other Asian regions. As argued above, the recent situation brought about by China's growing economy may change the picture of the international (intra-regional) production sales networks throughout the entire East and Southeast Asian regions.

Research and development (R&D) activities are handled well in the Beijing area and in Eastern China (Shanghai, Jiangsu). New products suitable for the local markets are developed here using the local, highly qualified human resources.

Industrial characteristics

Japanese firms from several machinery industries, such as the electric and the electronic industry (electric machinery industry), as well as other types of industries, including the textile, the industrial machinery and the transportation equipment (automobile) industry have continuously invested in China (Table 2.6 and Figure 2.3). Especially the electric and the electronic industry invested heavily in China, reaching its peak in FY 1995. After FY 1995, the industry drastically reduced its FDI in China, but in FY 2000 they sharply increased their investments again. The textile industry's FDI in China typically reflects the location advantages of China: an abundant labour force at low cost and of high quality. Japanese FDI in the (industrial) machinery industry and the service industry also showed an increase in FY 2000, the most recent year under review.
Υ.	1991	1992	1993	1994	1995
Foodstuff	26	37	77	137	137
Textile	95	155	268	349	455
Timber & pulp	2	4	48	10	68
Chemical	15	25	110	106	138
Iron & non-iron	16	38	91	164	347
Machinery	39	65	265	137	463
Electric machinery	167	246	386	516	904
Transportation machinery	12	41	98	233	370
(Manufacturing)	420	838	1587	1942	3368
Commerce	9	31	64	156	249
Service	255	283	143	215	173
Real estate	22	85	47	146	261
(Non-manufacturing)	311	467	315	632	851
Grand total	787	1381	1954	2683	4319
	1996	1997	1998	1999	2000
Foodstuff	207	118	105	29	23
Textile	212	274	47	31	30
Timber & pulp	44	36	10	4	6
Chemical	98	161	153	100	66
Iron & non-iron	203	180	94	48	46
Machinery	319	232	114	44	95
Electric machinery	445	518	163	74	357
Transportation machinery	280	122	178	104	99
(Manufacturing)	2032	1857	1027	603	840
Commerce	146	124	44	72	62
Service	287	179	97	102	167
Real estate	195	131	45	3	15
(Non-manufacturing)	749	549	313	198	256
Grand total	2828	2438	1363	838	1099

Table 2.6: Japan's FDI flow in China by industry

(unit: one hundred million JPY)

Source: Ministry of Finance

Quite generally the performance of Japanese affiliates in China depends heavily on the respective industry's characteristics. In some products of the home electronics industry, the Chinese market has already grown to one of the largest markets in the world, and the local Chinese firms in this industry have become internationally competitive. A typical example is the colour TV industry. Chinese firms were able to absorb effectively the know-how of Japanese manufacturing



Figure 2.3: Japan's FDI in China by industry

firms by means of direct or indirect technology transfer, and now they are competing with Japanese firms (and their affiliates) not only in the Chinese market but also in the Southeast Asian market. In addition to their good access to lower labour cost, Chinese firms can utilize lower priced spare parts than Japanese parts. Those Chinese parts are produced locally by Chinese firms and provide an acceptable quality to local markets because of direct or indirect technology transfer by Japanese firms. Therefore, a large-scale Japanese investment in China in this field cannot be expected.

Although China's personal computer market is still relatively small, it is growing rapidly. In this industry, Chinese firms are not yet as competitive as in the home appliances industry, but Western rivals are formidable competitors for Japanese firms. Therefore, also for this industry, a largescale Japanese investment cannot be expected.

However, in 2000 and 2001 Japanese firms in the electric and the electronic industries invested in China in order to compete with their Chinese, Asian and Western rivals in many fields and also to reorganise and strengthen their production and sales networks in Asia.

Japanese automobile firms are still lagging behind Western firms in setting up local manufacturing plants in China. However, Toyota, Honda and other Japanese automobile firms have become more active recently to serve a potentially huge market of China. Some Japanese automotive parts makers have already invested in China and are prepared to supply parts to Japanese assembling firms in China.

Advantages and disadvantages of China as a host country in comparison with ASEAN countries

ADVANTAGES

In many cases, Japanese affiliates in Southeast Asian countries have realized that the production costs of parts and components in China are lower than in Southeast Asia and that the product quality is also better in China. Generally speaking, this situation is valid for labour-intensive industries but, as argued above, the same situation may develop in the capital and technology intensive industries in the near future. Furthermore, the actual and potential size of the local consumption market is also larger in China. All these advantages suggest that there will be more FDI in China than in Southeast Asia in the near future.

DISADVANTAGES

However, there are also some disadvantages in the Chinese investment environment, namely the lack of flexibility, transparency and predictability of its economic policy, including its FDI policy. On the other hand, the ASEAN countries have made considerable efforts to stimulate inward FDI by taking a more liberalized FDI policy with bilateral and regional actions. For example, investment liberalization gained momentum along with the regional ASEAN Free Trade Agreement (AFTA) and the ASEAN Investment Agreement (AIA) schemes. Thus through the Japanese and Western firms' efforts to build up an exporting automobile industry in Southeast Asia, FDI flows to those countries increased. For example, the Mazda-Ford joint venture in Thailand is running a successful export operation. In China, Japanese firms can enjoy the advantage of low production costs, but they have to bear substantially larger policy uncertainty risks than Southeast Asian countries. China's participation in the WTO may decrease these risks to some extent. But if the accession to the WTO means trade liberalisation in the first stage, it may do more to stimulate trade than FDI into China. Only over the long term will China's WTO accession result in an increase in both trade and investment.

According to some Japanese firms, another disadvantage of China is the relatively long 'lead-time' from order to supply compared to Southeast Asia. This disadvantage may be serious in some specified industries.

Additionally, it is noteworthy that the international competitiveness of local Chinese firms has grown to be formidable for Japanese firms in both the Chinese and the Southeast Asian markets. Therefore, Japanese firms will have to rebuild their own networks in Asia, considering both the advantages and the disadvantages of the different host countries as well as taking into account the positive effects from their technology transfer, which is indispensable for the success of the Japanese production system, and the risk of fostering rivals through technology transfer, as will be explained in the next section. The new possibility of integrating ASEAN markets with the Chinese, Korean and Japanese economy is the newest factor to be considered.

FIRM-SPECIFIC ADVANTAGES OF JAPANESE FIRMS AND ITS TECHNOLOGY TRANSFER

TECHNOLOGY TRANSFER AS AN ENGINE FOR DEVELOPMENT

Technology transfer through FDI is a major engine to stimulate the economic development of host countries. Technology transfer is indispensable for developing countries' industrial capacity over the long term, while FDI inflows seem to have a more direct relationship with GDP growth through domestic capital formation and export (promotion). On the other hand, FDI carries new technology and science for new products as well as managerial resources and financial resources. The effects of technology transfer on the economic development are realized over quite a long-term period.

Questionnaire survey about the technology transfer through FDI

To consider the importance of the effects of technology transfer through FDI on the economic development, the author conducted a questionnaire survey at Japanese and European firms and their affiliates in ten Asian countries and regions (China, Vietnam, Thailand, Indonesia, Malaysia, Singapore, Philippines, Hong Kong, Taiwan and Korea) as a joint research work with Professor H. Mirza and his team at Bradford University. In the following, some major findings will be discussed along with a short explanation of the survey methodology.

The three technology categories $\!\!\!^4$

Traditionally, technology transfer refers to innovative new products and / or production process (in the chemical and pharmaceutical indus-

⁴ The World Investment Report 2001 (pp. 157–9) presented a little different but similar idea of the three concepts of technology transfer: product-related technology, process technology and organisational and managerial know-how.

tries), to related techniques used to operate and / or to utilize the new technology well, and to the basic capability of R&D to create new products and / or production processes. We define this technology transfer as the first technology category. This type of technology is realized when FDI is more profitable than the export of the same technology or the export of equipment including the same technology. Using overseas production, the parent company tries to yield a high enough return as quickly as possible so as to compensate for the R&D expenditure on the new products. Thus, the parent company expects to gain high enough profits by utilising the location advantages of the host country. In many cases, host countries are able to manufacture the new products at lower costs and / or provide large markets for them. Naturally the parent company tries to avoid the spillover of the technology before obtaining enough profit to compensate for their R&D expenditure. However, even in that situation, technology will spread to the host countries gradually through retired employees of the overseas affiliates and the partners of joint ventures. Therefore, even in this case, we can expect an impact from technology transfer.

However, it is noteworthy that there is another type of technology transfer having to do with managerial and organisational production systems in mature industries, such as the automobile industry and the electric and the electronic industry, which diminish transaction costs or problems arising in the mass-production system à la Henry Ford. This technology transfer is defined as the second technology category.

This type of technology is deeply related to the firm-specific advantages of Japanese manufacturing companies. Japanese firms in these mature manufacturing industries have developed and preserved a strong international competitiveness by fostering stable and long-term transactions in labour markets and the intermediate goods markets in order to minimise the sum of the market transaction costs and the intra-firm transaction costs (Tejima 2000a, 561–6). Quality control systems, stock (inventory) control systems and effective control systems of suppliers, supported by the lifetime employment system, job-rotation system and multi-functions of skilled labours are technical devices that effect the basic principle of preferring the long-term transaction to the short-term opportunistic profit.

The basic assumption is that Japanese manufacturing firms are relatively more advantageous in this second technology category than in the first technology category. Therefore, Japanese firms are assumed to be relatively more eager to transfer the second category than the first category. On the other hand, Western (European and American) companies are assumed to be more advantageous in the first technology category and relatively more eager to transfer the first category than the second category. The third technology category encompasses personnel and employment systems and is quite different from the first and the second technology category explained above. This third category is important because it provides the basis to proceed in the first two technology categories. For example, a similarity in the personnel and employment systems may be the prerequisite for the technology transfer of the second category.

The results of the survey

The questionnaire was sent to 569 Japanese parent companies (90 Japanese firms responded), to 955 European parent firms (26 European firms responded) and to 1500 overseas affiliates owned by Japanese and European firms (46 affiliates responded, of which 38 firms were Japanese-owned). Table 2.7 shows a summary of the survey's results.

First, as Table 2.7 shows, Japanese firms are relatively more positive about transferring the second technology category than the first technology category (statistically significant by X test) and European firms are relatively more positive about transferring the first category than the second category (statistically insignificant by X test). Therefore, the author's assumption is confirmed at least as far as Japanese firms are concerned. The results for the European firms, however, may be unreliable, because of the extremely small sample.

Table 2.7: Technology transfer by evaluation of parent companies and their affiliates

(1) Products / production process (category 1)

	Japanese parent		European parent		Affiliates in Asia	
	No. of firms	Score	No. of firms	Score	No. of firms	Score
Products/process	83	3.4	26	3.8	45	3.6
Adaptive technology/skill	83	3.2	26	3.8	45	3.5
Technology for inno- vation	82	2.3	26	2.8	43	2.9
others	0	0	0	0	1	5
	248	2.9	78	3.5	134	3.4

(2) Production / supply chain system (category 2)

	Japanese parent		European parent		Affiliates in Asia	
	No. of firms	Score	No. of firms	Score	No. of firms	Score
Process control system	81	3.2	25	3.2	43	3.3
Quality control system	80	3.4	25	3.7	45	3.3
Inventory control sys- tem	81	3	25	3.4	45	3
Facilities maintenance	79	3.4	25	3.4	45	2.9

Facilities layout	80	3.2	25	3.1	45	2.6
Customer-supplier system	80	3	25	3.5	45	3.3
Sales/distribution system	81	2.8	24	3.6	44	0
Other	0	0	0	0	0	
Average	562	3.1	174	3.4	267	3.1

(3) Human resource management system

	Japanese parent		European parent		Affiliates in Asia	
	No. of firms	Score	No. of firms	Score	No. of firms	Score
Recruitment system	87	2.4	25	2.3	45	2.1
Employment system	87	2.4	25	2	45	2.4
Promotion system	87	2,5	25	2.4	45	2.4
Payment system	87	2.4	25	2.4	45	2.2
Training schemes	87	2.6	25	2.7	45	2.6
Employee participa- tion	87	2.6	25	2.8	44	2.6
Reporting system	87	2.7	25	3.8	45	3.2
	0	0	0	0	0	0
	609	2.5	175	2.6	314	2.5

Notes: Five-stage evaluation for (1) and (2) 1: Never transferred 2: Transferred on a case by case basis 3: Transferred if criteria met 4: Normally transferred 5: Always transferred

Five-stage evaluation for (3)

1: We only follow local HRM practices 2: Parent practice transferred on a case by case basis 3: Parent practices transferred if criteria met 4: Parent HRM practices normally transferred 5: Parent HRM practices always transferred

Source: Own survey and research

Second, Japanese and European parent companies and their affiliates commonly recognize that they are eager to transfer or to receive the first category and the second technology category but not the third category. Actually, the insufficient transfer of the third category may be especially problematic for Japanese firms, because the second category requires such a close relationship between Japanese management ways and local employees as is true for Japanese parent companies, as argued above. Third, those three parties (Japanese and European parents and their affiliates) also commonly recognise that parents companies are eager to transfer the technology of the innovative new products and / or production process (the first technology category) and related techniques to operate and/or utilise the new technology, but are not so positive about transferring basic R&D capability for creating new products and/or production processes to local firms because of the lack of local capacity in host countries. The responding affiliates affirmed that they could realise a higher product quality, lower production costs, a more punctual delivery timing and more competitive new products because of their having received the technology transfer of the second technology category, but they still did not possess enough capacity in creating new products because of the insufficient technology transfer of the first technology category.

THE SURVEY'S IMPLICATIONS

Generally speaking, the effects of the transfer of the second technology category on the affiliates, local firms and local companies are excellent because the second category's nature is guite opposite to the first category. The technology of the second category has to be spread as far as possible to all related participants, including the employees of their affiliates and to the local parts suppliers because it is absolutely necessary to widely diffuse the technology for the success of the local operation. In some cases, Japanese firms do the training of local employees and send Japanese engineers to their affiliates and local suppliers with no or very little compensation. The process of the technology transfer is both very expensive for Japanese parent companies and very beneficial to local firms and host countries. Thus in some cases, Japanese firms have contributed to fostering rival firms in host countries. This in fact happened in the United States through the revitalisation of the US automobile firms and some electric and electronic firms after local manufacturing had been begun by Japanese firms.

Presently, similar things are happening in China. Japanese local production in China has contributed substantially to fostering competitive Chinese firms, especially in the field of the electric and the electronic industry. In other words, China is an exceptional example of the successful transfer of a second technology category in a developing country. In this sense, Japanese firms are facing the dilemma of choosing between their affiliates' success and promoting the local rivals through their technology transfer. This is an important issue for Japanese firms in their decisions regarding new investment destinations.

FUTURE PROSPECTS

It will be absolutely necessary for Japanese firms to continue shifting their production bases from Japan to Asia, primarily to China and Southeast Asia. They will have to manufacture higher value-added products in Asia, while the Japanese headquarters will have to concentrate more on R&D. Japanese production and sales networks in Asia have to be reorganised by Japanese parent companies and their affiliates in Asia, taking into account the advantages and disadvantages of China, the ASEAN countries and the Asian NIEs. Those advantages and disadvantages are still changing, but China's participation in the WTO and ASEAN's acceleration of regional trade liberalisation, including the possibility of 'forging AFTA with Japan, China and Korea' will, no doubt, increase the competitive advantages of both parties. Japanese firms may have to reorganise and integrate their production and sales networks spread over the whole East and Southeast Asian regions, as argued above. Future networks will be guite different from the current networks in ASEAN countries, which mainly comprise Japanese affiliates, because the supporting industries in China, which are currently growing, include many other foreign affiliates, especially Taiwanese.

Finally, but nevertheless important, the recent acceleration of Japanese FDI in China may result in the hollowing out (kudōka) of the Japanese economy by shifting competitive industrial sectors from Japan to foreign countries. It is inevitable that Japanese firms will rely on international production and sales networks rather than on domestic production and sales networks in order to stay alive and competitive against their rivals under the accelerated pace of globalisation. However, if the pace of the shift of manufacturing sectors from Japan to Asia is too rapid, it may actually cause some difficulties for Japan's domestic sectors. In other words, in the worst case scenario, Japanese manufacturing sectors may lose their conventional advantages in mature industries through rapid change of the social and economic structure in Japan and through the accelerated shift of domestic manufacturing sectors to foreign countries while not being able to obtain new advantages in R&D capabilities in information, communication and other advanced technologies. In order to avoid such a disastrous situation, both Japanese firms and Japanese public sectors will have to follow a long-term strategy, which will allow Japanese companies to develop new competitive advantages without damaging their own firm-specific advantages. They should invite more inward FDI in Japan while positively achieving outward FDI in China, ASEAN and the rest of the world.

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3 Sõgõ Shõsha Quo Vadis?

The Strategies of the Japanese General Trading Houses in the Chinese Market

Hanns Günther HILPERT

INTRODUCTION

The existence of general trading houses with huge transaction volumes, acting as traders, investors and project organizers in domestic and foreign markets is one of the remarkable features of the Japanese economy. However, shaken by the current changing domestic and international environment and by the aftermath of the bursting of the financial bubble, their future as a unique type of firm lies in doubt. Since foreign trading activity is the well-known special feature of these so-called sögö shōsha,¹ their performance as international traders and as actors in foreign markets will most probably determine their future existence. As China is probably the strategically most important foreign market for Japanese business at present, Chinese performance and Chinese expertise are of crucial importance for them. Indeed, the sögö shōsha have been playing a prominent role in the Sino-Japanese trade and economic relationship. Their eminent status is demonstrated by some illuminating facts:²

- They handled about ten per cent of all Sino-Japanese trade in 1999;
- They own minority shares in about every fifth Japanese manufacturing investment in China;
- They initiated, promoted and sometimes co-financed virtually all large Japanese infrastructure projects in China;

¹ As members of the Japan Foreign Trade Council (JFTC), the 17 trading companies are officially called sögö shösha. However, the focus of economic and business research as well as of the Japanese public is limited to the eight largest trading companies among them, namely Mitsui & Co., Ltd. (*Mitsui Bussan*), Mitsubishi Corporation (*Mitsubishi Shōji*), Itöchu Corporation (*Itöchū*), Sumitomo Corporation (*Sumitomo Shōji*), Marubeni Corporation (*Marubeni*), Nisshō Iwai Corporation (*Nisshō Iwai*), Tomen Corporation (*Tomen*) and Nichimen Corporation (*Nichimen*).

² The following figures are rough estimates based on official statistics, private business information sources (Kaigai Shinshutsu Kigyō Sōran) and direct information from the sōgō shōsha.

- They have subsidiaries and offices all over China;³
- The leading sogo shosha have intimate contacts to the very top ranks of Chinese politics (metropolitan, provincial) and business, including leading political figures like Jiang Zemin and Zhu Rongji.

The sogo shosha are evidently well connected to the domestic Chinese networks. In the Chinese market they are influential, effective and successful agents for Japanese, and at times non-Japanese companies. As a result, the activities and strategies of the sogo shosha in China are not only interesting per se, their performance in the difficult Chinese market environment is also relevant for the theoretical analysis of the sogo shosha. Their achievements in China may shed some light on their future as an international trading company. Thus this paper is basically on two levels. In the first general part - drawing from the rich sogo shosha literature - the rationale of the sogo shosha type firm will be considered in a rapidly changing business environment. The second special part will deal with particular questions related to China. The main questions of the paper are: What is a sogo shosha per se? What are its main functions? What are its core competencies? With special reference to China it will be asked: What are the main economic activities of the sogo shosha in China? Which role do they play in the Sino-Japanese trade and investment relationship? What are the recent activities and strategies of the sogo shosha in China?

Methodologically the following contribution is based on the ample sogo shosha literature, on the current information from newspapers, journals, business information directories, and above all on empirical fact finding at the sogo shosha firm level. For the latter purpose open-structured interviews have been carried out by the author with representatives of the sogo shosha in Tokyo and Beijing from May to July 2000.

The sōgō shōsha in the face of structural change

WHAT IS A SÕGÕ SHÕSHA?

The advantage of inter-firm partition of labour provides in general terms the reason for the existence of profit-seeking trading companies which balance supply and demand spatially, inter-temporally, quantitatively and qualitatively. International trading companies specialize in trading in for-

³ To be more precise: There are sogo shosha offices in Beijing, Changchun, Chengdu, Chongqing, Dalian, Fuzhou, Guangzhou, Haikou, Harbin, Hong Kong, Kunming, Nanjing, Nantong, Ningbo, Qingdao, Shanghai, Shenyang, Shenzen, Tianjin, Wuhan and Xiamen.

eign markets and in assuming the specific risks of foreign trade. They are a common phenomenon in all capitalist economies. But what is the difference between the sōgō shōsha and the international trading companies in other countries? In comparison the sōgō shōsha have three main characteristics:⁴

First of all the sheer size is evident (for a statistical overview see Table 3.1). In the annual Forbes lists of the world largest companies (i.e. the years 1999 and 2000) the three leading sögö shösha (Mitsui Bussan, Mitsubishi Shōji, Itōchū) can be found in the top ten ranking (by turnover) together with Wal-Mart, the bigger automotive manufacturers and the big international oil companies. The next three big sögö shōsha (Marubeni, Sumitomo Shōji, Nisshō Iwai) follow close behind, being listed among the top twenty.

Sōgō Shōsha	Trading transactions in million USD	Net income in million USD	Number of employees (Japan/overseas)	Number of offices (Japan/overseas)
Mitsui Bussan	128 162	346	7 159/ 3 543	34/89
Mitsubishi Shōji	127 309	253	7 556/ 3 437	45/117
Itōchū	114 408	-1302	5 254/ 2 200	19/150
Sumitomo Shōji	103 457	-340	5 436/ 2 756	34/158
Marubeni	96 438	154	5 344/ 2 398	27/154
Nisshō Iwai	68 692	-96	2 964/ 1 754	32/136
Tomen	27 008	-890	1 702/1 072	17/42
Nichimen	26 961	-28	1 418/ n.a.	15/94

Table 3.1: Key corporate data of the sogo shosha (31.3.2000)

Source: Annual Reports 2000.

Apart from the simple fact that they are traders, the other particular feature of the sōgō shōsha is their low degree of specialization. Usually foreign trading companies are specialized in certain products, markets or services. However, this is not the case with the Japanese *general* trading companies:⁵ Their range of trading products includes raw materials, energy, food, textiles and apparel, chemicals, plants and machinery, vehicles and various consumer products, or as Marubeni has put it 'everything from mineral water to satellites' (http://www.marubeni.co.jp). Beyond trade the sōgō shōsha are active in many other service sectors like trade finance and insurance, transport and logistics, and the organization and coordination of investment projects. Moreover, they have invested in mining, in the energy

⁴ For a detailed description of the sögö shösha business: Eli 1977; for a more recent overview: Nakatani 1998.

⁵ See the English meaning of the Japanese term ' $s\bar{o}g\bar{o}$ ' = synthetic, comprehensive and ' $sh\bar{o}sha$ ' = trading company.

sector, in telecommunications, in the media, in financial services, in wholesale and retail trade as well as in overseas manufacturing plants on their own right. According to the claims of the sōgō shōsha, the virtue of the wide scope of business activities and functions is the increase of profitable business opportunities and the diversification of risks.

Another striking feature of the sogo shosha is their presence not only in the major business centres worldwide but also in the more important emergent markets. In economies that are just about to open up to the international economy, e.g. Indochina, Central Asia and the Russian Far East, they conduct market research, they venture into resource exploration projects and they pioneer virtually any (potentially) profitable business. The sogo shosha's business operations are characterized by economies of scale, a global reach, switch trading, a handling of products repeatedly along the value-added-chain, and synergy effects through an integrated organizational structure. Usually the sogo shosha trade in their core business activities with standardized or bulk products, they handle large transaction volumes or recurrent lots, so that transactions costs can be held low and their famous 'razor-thin margins' can be offered. There are other business transactions, however, such as the Japanese import of luxury items, of highly sophisticated machinery, or the overseas infrastructure business, where the sogo shosha show a remarkable preference for high value-added and high margins. In any case due to the global network and the wide range of products and functions, the business structure and organization of the sogo shosha are very complex (Gödeke 1991, Roehl 1983).

The third characteristic feature of the sogo shosha company type is their unique existence in Japan. The business activities and functions as well as the organizational structures of the sogo shosha are closely connected (and related) to the particular features of the business system and the cultural setting of Japan. The sogo shosha are integrated into the manufacturing supply networks and the distribution system of Japan, they play an essential role in the horizontal business groups (keiretsu), and they are an integral part of the so-called iron triangle of politics, ministerial bureaucracy and business. Historically their emergence is closely related to severe market failures during Japan's early industrialization period. Their success is connected to the catching up and industrialisation process. Since the early stages of Japan's industrialization the sogo shosha were able to secure the sourcing of raw materials and energy as well as the supply of technological strategic inputs, and they successfully developed export markets overseas for their Japanese industrial customers, so that the latter could specialize solely on manufacturing.6

 $^{^{\}rm 6}\,$ That is probably why Kojima and Ozawa named their 1984 published work on

THEORETICAL EXPLANATION

The well-known special features of Japanese economic history and of Japanese culture, e.g. Japan's late-comer status, Japan's business practices and cultural values – the uniqueness of these being widely accepted in the economic and business literature – provide a plausible theoretical explanation for the sogo shosha phenomenon in Japan and their commercial success (Yoshihara 1982). However, a historic and cultural approach of this kind fails to identify and analyse the relevant determinants explaining the rationale of the sogo shosha in a common theoretical framework. Such a common theoretical framework is the necessary prerequisite for a comparison between the sogo shosha and trading companies from other countries. Mainstream neoclassical theory still cannot provide such a general framework. Closest to the required common logical and comparative analysis of the sogo shosha is the theory of institutional economics. Central to the institutional analysis of the sogo shosha is the notion of transaction costs.⁷ The existence of transaction costs in foreign trade can be put down to information asymmetries, the specific risks of foreign trade, protectionism and other 'structural' foreign trade impediments. High and scale-intensive transaction costs in foreign trade are generally a constitutive feature of foreign trade (Schmidt-Trenz 1990, p. 74). Whereas in the West foreign trading institutions were gradually built up and trading knowledge was accumulated step by step, historically Japan had to face high foreign trade transaction costs in an abrupt way. At the beginning of industrialisation the high transaction costs of foreign trade were a prohibitive barrier for Japanese manufacturing companies acting far away from the world market. Major parts of the Japanese manufacturing industry could only get access to world supply and sales markets with the active help of the sogo shosha, which had accumulated a significant expertise in foreign trade ranging from the mere trade operating know-how to the intimate knowledge of foreign markets.

Furthermore, by centralizing the industrial demand from Japan, the general trading houses were able to gain considerable purchasing power

the sõgō shōsha: Japan's General Trading Companies – Merchants of Economic Development.

⁷ The analysis of transaction costs goes back to Ronald Coase and his early work on the theory of the firm (Coase 1937, pp. 386–405). Based on Coase's analysis Oliver E. Williamson has developed a refined and complex model of transaction cost economics (Williamson 1985: chapters 1–3). Furthermore it is notable, that Roehl and Gödeke argue explicitly that the sogo shosha have the specific capacity to save transaction costs in the Japanese economic and cultural setting. See Roehl 1983, pp. 388–414; Gödeke 1991, pp. 33, 43.

in world markets. With growing export and import volumes, the mutual business relations (between the sōgō shōsha and their Japanese customers) grew increasingly close and intensive, and the complexity of the executed transactions also increased. This is one reason why the sōgō shōsha, not the Japanese banks, supplied the manufacturing industry with trade financing facilities to export to and to invest in overseas markets. In later stages the sōgō shōsha advanced even to organizers and promoters of raw material exploration and infrastructure development overseas (Kojima and Ozawa 1984, pp. 11–32). The sōgō shōsha played another important role in export and trade insurance, since only the sōgō shōsha in their function as an insider of the trade transactions could guarantee explicitly and implicitly the payment of the delivery (Sheard 1992, pp. 238–47). In summary, the sōgō shōsha were able to offer virtually all services needed in international business in an integrated manner and by doing so were able to attain considerable economies of scope.

Under the theoretical assumption of bounded rationality and opportunistic behaviour, the business relations of the sogo shosha to their Japanese suppliers and customers can be situated somewhere between the antipodes of market transaction and corporate hierarchy. From the institutional analysis standpoint they constitute an intermediate, often relational form of a contractual relationship characterized by the existence of long-term (implicit or explicit) contracts between the firms involved and a low degree of vertical integration within the firms. Such contracts do not take into account all future contingencies of business relationships, they are informal, implicit, not legally binding and imbedded in social and personal relations (Williamson 1985, p. 123). By virtue of the close ties of the sogo shosha to their business partners they ideally combine the advantage of low transaction costs with the advantages of market exchange, namely low internalization costs. Not surprisingly the sōgō shōsha are especially capable of realizing low transaction costs in business activities that deal with standardized products, with products handled in large lots or repetitively and with products moving through the production cycle (Roehl 1983, pp. 388–98). The notion of relational contracts is not unique to Japan, but the spread and the sophistication of closed networks in the industrial supply chain and in the distribution sector is not matched by economic systems outside of Japan. The widespread Japanese business culture of group orientation, consensual behaviour and the importance of personal relationships permanently secures the stability of once-established (confidential and reciprocally based) business relations. Within such well-established business relations the tendency to opportunistic behaviour is remarkably lower than elsewhere. Instead, confidence, loyalty and cooperativeness are more widespread (Aoki 1984, pp. 3–43; Gödeke 1991, pp. 126, 131, 158–63). Being insiders in trade transactions and having established an intimate relationship with their (Japanese) customers, it comes as no surprise that the sōgō shōsha perform many more business functions than just trade and trade finance. They provide and process market information, they handle transport, logistics and storage, they are active in wholesale and retail operations in Japan and abroad, and they even organize and participate in various investment projects abroad.

STRUCTURAL CHALLENGES

The above description of the sōgō shōsha as the universal foreign trader for Japanese business may have been correct until the mid-1980s. Since then, however, the sōgō shōsha have been facing increasing structural challenges and are struggling for survival. The three main challenges the sōgō shōsha have to cope with, are (1) the fading away of the traditional Japan-centred trading business, (2) the current industrial shift away from sunset industries, and (3) the pressing need for an internal restructuring.

(1) Most important from a theoretical point of view, the relational contract relationship between the sogo shosha and the Japanese manufacturing industry has come under increasing stress. Along with the appreciation of the ven in the second half of the 1980s, the Japanese manufacturing industry invested heavily in North America, in Europe and in Asia, and internationalized their purchasing, production and sales functions. Former export firms turned into multinational companies. When manufacturing firms reorganized their international activities in a way that minimized their transaction and internalization costs, the former relationship with the sogo shosha was increasingly substituted by the vertical integration of the formerly external manufacturing and distribution capacities into the existing firm hierarchy. By doing so the manufacturing companies were able to save substantial transaction costs. The sogo shosha, however, were losing significant shares of their former core business and were compelled to seek new business opportunities. This decline of core business increased even more in the 1990s when globalization trends intensified the competitive pressure on the manufacturing sector, the domestic economy of Japan stagnated, and technological innovations (the internet) made it easier to by-pass the middlemen (Nakatani 1998; Söderberg 2000).

(2) A fundamental industrial change in the Japanese economy, which started already in the early 1980s, put additional pressure on the sogo shosha to restructure. The relative weight of the product groups that were

the traditional focus of the sōgō shōsha trading activities, namely raw materials, energy, iron and steel, industrial machinery, chemicals, declined in Japan's foreign trade as well as in world trade. The sōgō shōsha's foreign trade in high-technology-goods, however, remained markedly small. Along with its systemic decline of business transactions with the Japanese manufacturing industry, this sectoral shift explains why the sōgō shōsha's share in Japan's total trade declined substantially over the 1990s. This decline was especially pronounced on the import side (Naka-tani 1998; Söderberg 2000).

(3) In retrospect, it may have been an unfortunate coincidence that the economic Heisei boom from 1986 till 1991 concealed the structural problems of the sögö shösha. The sögö shösha invested heavily in the Japanese stock exchanges and real estate markets by means of special investment funds. At the height of the asset bubble some sögö shösha raised about a third of their profits from financial and real estate activities. When the bubble burst, the turnover of all sögö shösha virtually collapsed. Compared to the base year of 1990 the total turnover fell to 65 per cent, on average, in 1995 and to 58 per cent, on average, in 1999 (see also Table 3.2). The long stagnation of the Japanese economy in the 1990s and the 1997 Asian crisis aggravated the financial situation of the sögö shösha even more. At the end of the decade the sögö shösha were trapped in a spiral of contracting operating income (with coincidently fixed overheads), increasing depreciation volumes as a consequence of financial losses, and an deteriorating credit rating.

Sōgō Shōsha	Return on equity on 31 March 2000 in %	Debt earning ratio on 31 March 2000 in % (net)	2000 sales transac- tions share of 1990 Sales transactions	Risk positions on 31 March 2000 in billion JPY*
Mitsui Bussan	5,38	400	72,4	262,4
Mitsui Bussan	5,38	400	72.4	262.4
Mitsubishi Shōji	0,60	410	75.3	366.2
Itōchū	n.a.	1200	59	451.8
Sumitomo Shōji	5,80	390	55.5	424.4
Marubeni	0,61	1030	53.8	581.5
Nisshō Iwai	5,90	1420	54.6	455
Tomen	n.a.	n.a.	42.4	n.a.
Nichimen	n.a.	n.a.	46.3	n.a.

Table 3.2: Key financial characteristics of the sogo shosha (FY 2000)

Note: Risk positions consist of investments in Indonesia, Korea, Russia, Thailand, PR China, in real estate, and in venture capital in the information industry. Source: Company information for Bōeki Kishakai (May 2000) and in annual reports.

RESTRUCTURING AND RE-INVENTING

Thus the restructuring and consolidation process, which was overdue since the mid-1980s, got off to an effective start only towards the end of the 1990s at a time when the whole Japanese business system was experiencing a period of comprehensive regulatory and institutional change and the Japanese economy faced a sustaining state of stagnation.

Two general trading houses, namely Kanematsu and Tomen, had to ask their creditors for debt forgiveness and eventually were forced to carry out severe restructuring. Kanematsu more than halved the number of their employees, eventually lost the status of sōgō shōsha and was downgraded to that of a senmon shōsha (i.e. specialized trading company). At Tomen the new major shareholder, Toyota Tsushō, the trading company of the Toyota Group, acquired a domineering influence. But also the larger sōgō shōsha were not able to circumvent their own restructuring. In the post-bubble era no company was immune to financial breakdown. Financial analysis makes clear that all sōgō shōsha show a low return on equity and a high debt earning ratio (see Table 3.2). Compared to former highs, share prices are very low.

This triple challenge of the fading away of the traditional Japancentred trading business, the current industrial shift away from sunset industries, and the pressing need for an internal restructuring made the need for a new strategic focus of the sōgō shōsha all the more urgent. To be sure some restructuring had already started in the 1980s, though unfortunately consisting mainly of a much too hasty drive for diversification at that stage. The strategic decisions taken at the end of the 1990s were not homogeneous, so that in the current process of change and restructuring the former uniform notion of the sōgō shōsha is becoming more and more blurred and diverse. Nevertheless there is a parallel pattern of restructuring, namely diversification, vertical integration into the wholesale and retail sector, a streamlining of the domestic and the international activities, and an internal reorganization.

All sögö shösha have entered into new business fields. Generally it is claimed that the focus is on the information industry and on telecommunications. The bigger companies ventured already in the 1980s into satellite communication, in the 1990s they expanded into mobile communication and information services. In the new century they are establishing internet portals for e-commerce and they are pioneering the internet business throughout Japan. However, in spite of this new strategic orientation and some first bold moves, the new economy still plays a subordinate role in the sögö shösha's total business activities. Another major focus, at least for the larger companies, is the field of financial services – in spite of the heavy losses incurred as a consequence of the burst bubble. There is significant activity in the trading of money, securities, futures and commodities, the project finance of large construction and infrastructure ventures overseas, the issuing of venture capital funds and in the leasing of airplanes, vehicles and machinery. Another important field of diversification is the media sector, most notably in the case of Itōchū, Mitsui Bussan and Sumitomo Shōji.

Trading is the true core competence of the sogo shosha. Being an integrated ('sōgō') trading company, the sōgō shōsha have always been both foreign and domestic traders. In the 1990s, by means of further vertical integration into the domestic trade, they were in the process of strengthening their market position in Japan even more. In the current consolidation of the Japanese distribution sector they are actively expanding market shares and are becoming a more and more dominant actor. Itōchū, Mitsubishi Shōji and Sumitomo Shōji ventured into the retail sector by taking capital shares in convenience store chains, specialty stores or even department stores. In that way they aim to control the whole distribution chain, an effort that seems to have been quite successful already in the area of food imports to Japan. The sogo shosha owe their recent success in the Japanese wholesale and retail sector partly to their innovative logistical expertise. Beyond mere trading they are capable of providing sophisticated supply chain management functions. Thus customers from the retail sector and from the manufacturing industry can outsource these functions, cut purchasing expenses - saving transaction costs – and concentrate on their core business.

The diversification process is being checked by the pressing need to restructure. Under the scrutiny of financial markets it is neither advisable nor feasible to be engaged in the whole scope of industry any longer. Orientation to profit making, concentration on core competencies and specialization are the key words mentioned in the corporate mission statements of virtually all general trading houses. Mid-term business plans with strategies aimed at improving profitability have been set up. The plans include both defensive moves, such as curbing of personnel expenses including staff reductions, general cost cutting, amalgamations and liquidation of assets as well as more offensive decisions to expand into the fields of the chosen core competence. For example Mitsubishi Shōji and Nisshō Iwai are merging their steel divisions. Nisshō Iwai acquired or merged with Nichimen's profitable IT subsidiaries, its building material and pulp and paper divisions. Itochū aims to concentrate primarily on information and multimedia industries, consumer and retail related industries, financial services and natural resource development. Thus Itōchū is still handling quite an extensive menu of activities, while actively pulling out of former established business fields. As a consequence Itōchū no longer claims to be a sōgō shōsha that trades universally in any type of product.

Although the current process of financial and organizational restructuring is certainly driven by the financial markets' demand for increased profitability, this course could ultimately change the appearance of the sōgō shōsha in a more fundamental way. By losing their integrated ('sōgō') function, the sōgō shōsha no longer seem to be general trading houses. They are becoming more and more specialized and are more and more active in non-trading areas. But if the sogo shosha are no longer general and trading companies, what are they? What will be the outcome of the current transition? It is certain that in a competitive market environment companies must concentrate on their core strengths and rid themselves of the burdensome rest. But even though the sogo shosha have developed into multi-functional and multi-divisional companies, notably in their structural composition and profitability, they still have to do considerable re-inventing and streamlining. Judging from the past, the sōgō shōsha's chances of survival are not so poor. They have a proven capability of adapting to changing situations and of moving into hitherto uncharted waters. Being active in world markets they know what it is like to be exposed to competitive pressure. Thus, they are less vulnerable to deregulation in Japan than other Japanese industries. It can be expected that the sogo shosha will continue their current struggle to restructure, redefine relationships and re-invent. Of course, the likely outcome of this process is difficult to foresee. A change is highly probable in the organizational realm. In future the sogo shosha may become an investment holding company, and in fact some companies have already officially stated this objective of organizational change. Investment holding companies have been allowed since a legal change in the 1990s, but a transformation of this kind does not make much sense for the sogo shosha because taxes cannot be paid on the basis of consolidated accounts in Japan.

WHY IS CHINA SO IMPORTANT?

If organizational change into holding companies is feasible, it is evident that in the current transitional process the sogo shosha are drawing nearer to a type of firm that has been a well-established form in the Western business world for some time. But getting closer is not the same as being the same. It is hard to imagine that the sogo shosha will not continue to be a unique type of firm. Above all the sogo shosha will always depend on its universal presence and its international trading activity. The central role the sōgō shōsha play in the Japanese economy depends crucially on its linkages to the outside world. Domestic trade and international trade (consisting of export, import and offshore trade) support each other and the interaction of both is synergetic. In fact the share of domestic trade in the sōgō shōsha's total operations has hardly changed over the last 20 years. It amounted to 45.7 per cent in 1980, 40.8 per cent in 1990 and 46.3 per cent in 1999.⁸

In this respect it is obvious why China is so important for the Japanese trading houses. The Sino-Japanese trade relationship has become the most important one in East Asia in quantitative terms and has even grown to be the most dynamic of the region. For the Japanese economy China is, next to the US, the second most important import source and, after the US and Taiwan, the third export destination. For China, Japan is the most important trading partner. Furthermore, China has become the most important location worldwide for direct investment of Japan's manufacturing industry and is the major pull factor of the much-lamented hollowing-out of Japanese industry. Attracted by the cheap labour and the promise of a big market, Japan's small and medium-sized enterprises are flocking to the China coast. But China is also a difficult and risky location to do business, and Japan's smaller manufacturing companies suffer generally from a lack of knowledge and a lack of human and financial resources for success in overseas markets. It is well known that the China investment environment is characterized by high risks as well as political and legal uncertainty (Hilpert and Haak 2002, pp. 5–8).

To put it in theoretical terms, more than anywhere else China seems to be a place where high and scale-intensive transaction costs impede a successful market entry (of a Japanese enterprise). The sōgō shōsha can be a natural partner for Japanese business to overcome these hurdles. Thus, mindful of the potential high future proceeds as traders and middlemen in China, the general trading houses have invested heavily into China so as to acquire their own specific China expertise. By building up a substantial amount of transaction specific capital they may eventually gain a fair share of the future China business. On the other hand, the sōgō shōsha's clients, Japanese small and medium-sized enterprises, may enjoy specific competitive advantages due to the presence and the activities of the sōgō shōsha in China.

⁸ However, the composition of international trade changed within this period. Most notably the share of offshore trade increased considerably in the 1980s, but fell somehow over the 1990s (1980: 11.7 per cent; 1990: 28.2 per cent; 1999: 23.0 per cent). The 1980 and 1990 shares are taken from Abaco 1993: p. 75; the 1999 shares are calculated from the figures stated in the sogo shosha's 2000 annual reports.

Further to the transaction cost based arguments, there is also a supreme strategic reason for the importance of China. If China can sustain its high economic growth rates, the world's highest concentration of production and income will be located on the Chinese coast, which is situated just next door to Japan. To deal properly with this sea change in the Asian and the global economy will be a matter of survival both for individual companies and for Japan as a whole. If in this changing environment, a sögö shōsha does not have expertise on China, how can it hold up its cherished integrated function?

Sõgõ shõsha business activities and strategies in the China market $^{9}\,$

Historically the sogo shosha trading activities with China reach back to the end of the nineteenth century, a period when the expanding Japanese textile and apparel industry's needed secure cotton supplies from abroad. In the first half of the twentieth century the sogo shosha's trade with China expanded in the course of Japan's economical, political and military advance in Asia. After the end of the Second World War the sogo shōsha's business with China fell to a minimum along with the general collapse of Sino-Japanese trade. During the Cold War only Nichimen kept trading with Mainland China under its own name and had maintained a representative office in Beijing since 1959. All the other sogo shosha, being compelled to decide whether to trade with the People's Republic of China or with Taiwan (Republic of China), chose the latter as their more important trading and business partner. In March 1972 six months before Japan and the People's Republic of China resumed diplomatic relations, Itochū was the first sogo shosha to establish formal trade relations with the mainland. Soon afterwards the other sogo shosha followed suit. Over the next years one after the other attained the official status of a 'Friendly Trading Company'. The trade with China expanded rapidly and so did at a later stage the direct investments and the physical presence in China. An overview of the sogo shosha's activities in quantitative terms at the start of fiscal year 1999/2000 is shown in Table 3.3 and their financial commitments in China in Table 3.4. Currently, China is the sogo shosha's second most important foreign market, next only to the US. For some trading companies China is already more important than the rest of Asia. Generally the representatives of the sogo shosha expect that the impor-

⁹ This section draws mainly on interviews conducted by the author with representatives of the sögö shösha in Tökyö and in Beijing.

tance of China for their total business will increase even more in future. As a consequence all sogo shosha have made considerable efforts to establish themselves in the Chinese market. The general optimistic assessment of China and the strategic aim of localization notwithstanding, the sogo shosha's strategic focus has decisively turned away from volume growth to an increase in profitability.

Company	Number of employees	Trading by type of trans- action in million USD	Trading by industries (Mio. USD)	Manufacturing in- vestments (million USD and numbers)
Mitsui Bussan	Japanese: 73 Chinese: 336	Exports to Japan: 1 500 Imports from Japan 500 Offshore trade: 1 900 Total trading volume: 3 200	Machinery: 900 Chemicals: 700 Iron & Steel: 600	Total amount: 220 Number of invest- ment projects: 106
Mitsubishi Shōji	Japanese: 64 Chinese: 410	Exports to Japan 1580 Imports from Japan 680 Offshore trade: 660 Total trading volume: 2 920	Machinery: 1070 Textiles: 610 Metals: 350	Total amount: 190 Number of invest- ment projects: 117
Itōchū	Japanese: 57 Chinese: 283	Exports to Japan: 1 100 Imports from Japan: 1 800 Offshore trade: 1 900 Total trading volume: 4 800	Machinery: 1600 Textiles: 1200 Energy and Chemicals: 900	Total amount: 400 Number of invest- ment projects: 240
Sumitomo Shōji	Japanese: 47 Chinese: 322	Exports to Japan: 1 170 Imports from Japan: 590 Offshore trade: 370 Total trading volume: 2 130	Electronic ma- chinery: 770 Iron & Steel: 390 Chemicals: 290	Total amount: 150 Number of invest- ment projects: 125
Marubeni	Japanese: 45 Chinese: 375	Exports to Japan: 900 Imports from Japan: 1 350 Offshore trade: 750 Total trading volume: 3 000	Machinery: 900 Plants: 400 Metals: 400	Total amount: 350 Number of invest- ment projects: 130
Nisshō Iwai	Japanese: 48 Chinese: 218	Exports to Japan: 670 Imports from Japan: 350 Offshore trade: 970 Total trading volume: 1 990	Raw Materials: 680 Machinery: 640 Energy: 160	Total amount: 100 Number of invest- ment projects: 83
Tomen	Japanese: 25 Chinese: 144	Exports to Japan: 220 Imports from Japan: 270 Offshore trade: 80 Total trading volume: 600	Chemicals: 200 Textiles: 180 Food: 110	Total amount: 50 Number of invest- ment projects: 37
Nichimen	Japanese: 27 Chinese: 166	Exports to Japan: 320 Imports from Japan: 500 Offshore trade: 360 Total trading volume: 1 180	Machinery: 490 Textiles: 200 Chemicals: 170	Total amount: 97 Number of invest- ment projects: 54

Table 3.3: Key data on the China business of the sogo shosha (as of 1.4.1999)

Source: Bureenzu of 11.9.1999.

Company	Investments	Credit lendings	Guarantees	Open positions (net)*
Mitsui Bussan	24.30	4,5	9,30	32.4
Mitsubishi Shōji	34.20	7,4	2,5	57.7
Itōchū	48.30	35.90	22,9	83.3
Sumitomo Shōji	24.30	0.80	11,7	26,9
Marubeni	32.50	47.0	94,4	146.4
Nisshō Iwai	24.0	55.40	5,6	44.4

Table 3.4: The financial commitment of the sōgō shōsha in China by item - in billion JPY -

Note: * Total of all investments, credit lendings, guarantees minus insured items. Source: Company information on Bōeki Kishaka (May 2000).

ORGANIZATION

In the beginning of the first decade of the twenty-fist century, prior to China's accession to the WTO, foreign and domestic trade are still belong among the non-liberalized business sectors in China. Consequently, the main part of the sogo shosha's Chinese exports and imports is still officially handled by headquarters in Tōkyō or Ōsaka. Still it is primarily the Japanese headquarters that are responsible for business investments in China. The sogo shosha's representative offices in Beijing and in various other cities are not yet officially allowed to trade on their own account; they may only negotiate on behalf of the company, i.e. the Japanese headquarters. However, there are fully owned subsidiaries in the bonded areas of Shenzen, Guangzhou, Shanghai, Dalian, Tianjin and Qingdao that are allowed to do business with other foreign subsidiaries within these special trading zones. Beyond this restriction the subsidiaries are also quite active outside of the bonded areas doing business with local companies. Such actions, though prohibited in the strict legal sense, are tolerated by the Chinese authorities. From 1993 till 1998 all sogo shosha set up China investment holding companies in China (Touzi Xing Gongsi), most of which are located in Beijing. In principle the investment holdings should take over the responsibility for all investments in China, at least for all newly established investments. However, under the current regulations these investment holding companies are obliged to hold at least a ten per cent share of each of its Chinese investments (so-called 'ten per cent rule'). This regulation has been set up with special regard to manufacturing companies. For a sogo shosha, however, whose investment strategy is usually only a minority share, the ten per cent rule is difficult to comply with. Therefore only a part of the sogo shosha's China investments are administrated by the new holdings. The actual role of these holding companies includes administration, information gathering, market research, business creation and, occasionally, payment and debt collection. In accordance with their strategic aim of localisation and in compliance with administrative deregulation in China, the sōgō shōsha will grant to the investment holding companies more and more responsibility in the operation of the China business.

FOREIGN TRADE

The development of the sogo shosha's Chinese foreign trade activities illustrate vividly the rapid volume growth and the change of industrial structure in the Sino-Japanese trade. In the 1970s and the 1980s the general trading houses mainly exported plant, machinery and chemicals from Japan to China and imported back raw materials such as oil, iron ore and food grains. This bilateral trade received its official blessing and some sort of state guarantee by the Sino-Japanese Long Term Trade Agreement in 1978. However, since the mid-1980s China has been increasingly exporting manufactured goods to Japan. Whereas the absolute value of China's energy, raw material and agricultural exports to Japan has remained at high levels, the more important export items are now labour and resource intensive manufactured products, amounting to a share of roughly 90 per cent of the total. The sogo shosha's exports to China mainly consist of iron and steel (plates, pipes), industrial plants and equipment, chemicals, industrial electronics (semiconductors, parts, machinery), telecommunication components, paper, vehicles and automotive parts. The main import items are food (rice, corn, fish and shellfish, various processed foodstuffs), textile and apparel, and raw materials (e.g. coal, coke, zinc, tin). Except for exporting and importing to and from Japan, the sogo shosha are also conducting China offshore trade. Most important are LPG (Liquefied Petroleum Gas) imported from Southeast Asia and apparel exported to the US and other third countries.

Beside the content change in China's export structure to Japan, equally impressive is the rapid volume growth of the Sino-Japanese trade over the last 30 years, originally instigated by the opening up of China. However, in the 1990s the sōgō shōsha's trade with China could not keep pace with the much more rapid increase of total Sino-Japanese trade. Apart from a strong position in China's textile, apparel and food exports to Japan the sōgō shōsha could not really gain a foothold in China's export of manufactured goods. Eventually their share of Sino-Japanese trade, which amounted to as much as 90 per cent in the 1970s and to about 50 per cent in 1995, fell to ten per cent in 1999 (Bureenzu 1999). The sōgō shōsha's weak trade performance in the import of manufactured goods from China should come at no surprise, because the consumer sector for the most part does not show the essential product characteristics that enable the general trading houses to handle transactions at low costs. Furthermore, at the end of the last decade both Chinese and Japanese import demand collapsed as a result of a cyclical economic downturn. In China the long phase of infrastructure and corporate investment ended in an abrupt way so that the Japanese export of plants, machinery and chemicals to China virtually broke down. On the other hand, the economic slump in Japan occurred amidst higher imports from China (as well as from other countries).

There is no doubt that the sōgō shōsha will continue to participate actively in China's foreign trade in energy, raw materials, agricultural products as well as in manufactured goods sector such as machinery, chemicals, textile and apparel. However, the profit margins in Sino-Japanese trade are generally thin, and the sōgō shōsha's relative importance in the Sino-Japanese (manufactured goods) trade will certainly not recover to its former highs. In order to attain an overall higher profitability, the sōgō shōsha will have to search for new sources of trade by expanding their trading business both upstream and downstream.

MANUFACTURING INVESTMENT

The first sögö shösha manufacturing investment into China occurred already in the late 1970s. However, until the early 1990s most Japanese investment in China had more symbolic than true business value. Nevertheless, the early investors were able to gather local market information and gain valuable experience. When after 1991 the Japanese investment boom eventually took off and China advanced to become the preferred investment location for Japan's manufacturing industry, the sögö shösha were very well positioned. The general trading houses already looked back on nearly 20 years of business experience in China. They ran offices in many locations and were well connected to political leaders. For a foreign investor they could be useful as an information provider, consultant, mediator, relationship broker, negotiator, trade-financier and even co-investor. By virtue of their specific China know-how they could offer various investment related services, such as:

 identifying an appropriate Chinese business partner, who (ideally) has basic technical expertise, access to Chinese distribution channels, the necessary political contacts at the local level, and who is above all trustworthy;

- personal networking with business and political partners at the metropolis and at the provincial level;
- securing access to raw materials, plant equipment and machinery, to spare parts from China, Japan or third countries;
- carrying out market research in China, developing distribution channels in China and/or re-exporting to Japan;
- securing trade credit and coordinating investment finance.

By virtue of their activities a sōgō shōsha is potentially able to help the foreign investor gain swift access to Chinese resources and get a first foothold in the Chinese market. Through a liaison with a sōgō shōsha the Japanese investor can be safeguarded at least against some of the many risks investment in China usually incurs. In their Chinese investment activities Japanese manufacturing companies still tend to choose the trading house of their own industrial grouping as their preferential cooperation partner, but this relationship is certainly not the determining factor in the selection process. Manufacturing cooperation outside the existing horizontal keiretsu group does occur in particular in cases of severe competition (Jaussaud 1999, pp. 102–9).

The competitive edge of the sogo shosha in their function as middleman for a potential Japanese investor may now be understandable, but what is the principal merit for the trading company to be involved in a direct investment? First of all, sogo shosha avoid losing a valuable customer if they act as co-investor. If a manufacturing company chooses to supply the Chinese market by manufacturing locally instead of importing the goods from Japan, the trading company is cut out of its former business. If the sogo shosha participates in the investment, however, it will attain the full information of all the trading activities of the newly established joint venture firm. Eventually it might be able to control the supply chain and the distribution activities and might earn a slim trading margin on both trading sides. Moreover when raw materials, machinery equipment or components are provided by a connected source, a sort of triangular business may become possible. A concrete example illustrates this point: Itochū is processing and packaging Chinese-grown peaches in a joint venture with a Chinese partner and with Dole Food Co. from the US. In this joint venture Itochu does not only earn a share of the profitable export of canned fruits to Japan but also imports Japanese steel plates, which are needed to manufacture the cans for the packaging. In that sense co-investing may be a strategy for promoting trade.

Secondly the sogo shosha invest in China out of strategic motives. The profit margins in trade are usually thin, and in the 1990s it was generally assumed that the expected investment income would raise profitability in

the long term. Related to the increased profit orientation was the particular consideration for localization in China. The enlargement and strengthening of the Chinese business base should help in gathering crucial local knowledge and serve as a vehicle to overcome the legal restrictions foreign trading companies face in China. It was hoped that new business opportunities could be created and that in the end the China offshore income would grow. In fact the sōgō shōsha expanded their manufacturing investments in China considerably in the mid-1990s. By far the most aggressive investor among them turned out to be Itōchū followed by Marubeni. Itōchū have invested in China up to now more than USD 400 million and held 240 investments in the year 2000, mostly in the textile and apparel and the food industry sector.

To be sure the sögö shösha's manufacturing investments in China did not fare any better than Western investment in China, on average. A lot of money has been wasted and the dreams of the large Chinese market proved in most cases to be an illusion. As most interview partners pointed out, there were many investments that should have been avoided in the first place, either because the project did not make sense economically or because it was struck by the severe market environment in China. Other reasons cited were selecting the wrong local partner, strong price fluctuations, the general bad paying morale and frequent breaches of contracts.

In the past the sogo shosha could have sustained such short-time losses at almost any cost, as their business strategy was aimed at increasing their market share. Apart from the traditional Japanese orientation to long-term profit making, there are also good local 'Chinese' reasons to hold on to an unprofitable investment. Pulling out of an investment in China may be quite an expensive affair. It not only costs additional disinvestments funds, it also incurs a loss of reputation in the political realm. All these caveats notwithstanding, in the new era of profit orientation and balance sheet restructuring the sogo shosha have to rid themselves of bad assets in China, too. Thus since 1999 all sogo shosha, with the notable exception of Mitsui Bussan, started to liquidate their most unprofitable Chinese investments in accordance with their various strategies to concentrate on chosen core competencies. Consequently, the overall financial status of the China investments improved in 1999 and again in 2000. Some companies even claim that on balance their investments have already yielded a small profit.

It has to be mentioned that at times a kind of compulsory disinvestment occurs. There are cases where the Japanese manufacturing partner firm pushed the sogo shosha out of the joint venture in order to manage the business more autonomously. These companies, after being helped to gain market access, no longer see the necessity of a mediator. Finally, it should not be forgotten that direct investments in China can also yield high and steady profits. Generally both the manufacturing of textile, apparel and food products for the Japanese market and the import of raw materials from South East Asia for processing and sale in China are regarded as highly profitable business investments. Apart from that there are also other true success stories in the field of market entry and development. Mitsui Bussan's joint venture with Toto Ltd. to manufacture sanitary facilities for the high-end hotel and real estate market or Marubeni's joint venture with Asahi Glass Co., Ltd., to manufacture LCD (liquid crystal display) glass for personal computers are exemplary cases in point. The sōgō shōsha will have to increase the number of such successful joint ventures and rid themselves of loss-making units if they want to attain their goal of increased profitability in China.

INFRASTRUCTURE PROJECTS

In the course of its industrialization China will constantly need new infrastructure for energy, transport, communication and utility systems to sustain its high economic growth rates. In fact in the 1990s China became the biggest market worldwide for new physical infrastructure. Since the sōgō shōsha have gathered considerable experience in the financing and coordinating of the building of industrial plants and infrastructure capacities in Southeast Asia, they were well equipped to become prime suppliers for China in these areas. As the sogo shosha are not engineering companies, their competitive edge is project coordination and project financing. The fact that China became the top receiver of Japanese ODA (overseas development aid) in the 1990s certainly helped the general trading firms to push ahead with their infrastructure business. It is a wellknown fact that the Tōkyō headquarters of most sōgō shōsha are within short walking distance to the Japan Bank for International Cooperation, the former Export-Import Bank of Japan, which is the government financial institution that governs Japanese ODA. But the sogo shosha do not have to rely on Japanese government finance alone. They have also succeeded in establishing close contacts to multilateral financing institutions such as the World Bank or the Asian Development Bank. Above all the sogo shosha are specialists for the private financing of infrastructure projects through so-called BOT or BOO schemes.¹⁰

¹⁰ 'Built-Operate-Transfer' (BOT); 'Built-Operate-Own' (BOO): Project responsibility and the financial risk lie in the hands of a private investment consortium which builds the facility or plant and then either operates it for a set period of

Infrastructure and plant building is the business line in which the sogo shosha cooperate the most with Western partners. In many cases non-Japanese companies posses a technical or organizational edge which cannot be matched by a Japanese supplier. Marubeni's project cooperations with Vivendi (France) in a BOT water supply project for Chengdu municipality, or with Sithe Energies, Inc. (USA) in a BOO coal power generation and distribution project provide concrete illustrations. In other cases the sogo shosha prefer foreign cooperation partners simply because they can offer the necessary engineering cheaper than their Japanese competitors. Sometimes project cooperation with foreign partners even opens up access to national government financing or insurance schemes of the foreign partner.¹¹ These various ventures show that the gradual untieing of Japanese ODA in the 1990s did not work to the disadvantage of the sogo shosha but possibly pushed out the less competitive Japanese engineering companies. The ability to react flexibly in a changing financing environment also enabled them to enter into new infrastructure areas in the 1990s. This was most notably the case with the cleaning up of environmentally damaged areas in selected Chinese municipalities. Obviously the sogo shosha hold a leading competitive edge in the financing, organization and coordination of large scale, highly complex industrial projects. Although industrial infrastructure construction activity dropped considerably in the late 1990s, it can be foreseen that this demand will resume again. Along with China's rapid economic growth the sogo shosha are well positioned to carry out many more infrastructure projects in future.

INDUSTRIAL PARKS

A special kind of infrastructure investment is the development of industrial parks, the marketing of these estates to foreign (mostly Japanese) companies and the possible operation of the parks. Leasing space to manufacturing investors is already a profitable business as such. Apart from being an industrial park administrator, the sõgō shōsha are in a very advantageous position to supply their different industry-related services,

time before transferring it to the local government body (BOT) or runs it permanently throughout its operating life (BOO).

¹¹ For example the Japanese government has agreed with the governments of France, Germany, the UK and the US that the respective national insurance agencies are authorized to insure the complete export value from both parties in the case of so-called third-country cooperations. On the topic of third country business cooperation, see Chapter 7.

such as transport, logistics, warehousing, maintenance and distribution to the tenants. Currently there are two major Japanese industrial park development schemes in China. The Dalian Industrial Park scheme was set up by Itōchū with the cooperation of Mitsubishi Shōji, Mitsui Bussan, Marubeni, Nichimen and Tomen among others. Mitsubishi Shōji and Mitsui Bussan have also joined the government of Singapore in the establishment of the Suzhou Industrial Park.

WHOLESALE AND RETAIL TRADE IN CHINA

China figures large in the overall company strategy of the sogo shosha to raise revenue from offshore trade. It has been recognized that profit margins are generally very high in China's domestic trade. For serving the general purpose of localizing in China the venture into manufacturing investment in China has not been particularly useful, as profits are absent or have remained quite low, on average. However, the sogo shosha should expect to fare better if they become active in business sectors which they handle successfully in the Japanese domestic market, such as transport and logistics, warehousing and, most importantly, retail and wholesale trade. As they already possess an extensive inner-Chinese office network, the sogo shosha are potentially well prepared for a rapid business expansion in these sectors. Thus it comes at no surprise that virtually all general trading houses are already successfully doing warehousing and logistic operations in their more important import businesses. These are steel import and processing (Itōchū, Marubeni, Mitsubishi Shōji, Mitsui Bussan, Nichimen, Nisshō Iwai, Sumitomo Shōji), LPG import and warehousing (Marubeni, Mitsubishi Shōji, Nisshō Iwai, Tomen) and semiconductors import (Tomen).

In principal the different domestic service sectors of China are still almost completely closed to foreign companies. But as the Chinese government is gradually opening up to foreign capital and know-how in the service sectors, prior to accession to the WTO, the sōgō shōsha are trying hard to be selected as the first foreign companies to enter these markets. In the trade business as well as in other service sectors there is usually only a very small number of Chinese companies (occasionally only one) that are assumed to be capable business partners for a possibly profitable market entry. Apart from the limited number of opportunities for market entry, the Chinese authorities also seem to appraise the first movers highly and tend to favour them open-handedly in the long run. Naturally, for the sōgō shōsha, the run for the first mover advantage is particularly distinct in the trade sector. In fact some of the sōgō shōsha have been quite successful in establishing a foothold in the foreign trade, the retail trade and the wholesale trade with China.

When the first foreign trade joint venture of China was set up in Shanghai in 1997, Mitsubishi Shōji had the privilege to participate. Dongling Trading Corporation, jointly established by Mitsubishi Shoji (27 per cent), Orient International Co. Ltd. of China (41 per cent), Continental Grain Co. of the US (22 per cent) and Shanghai Foreign Trade Corporation of China (ten per cent), possesses the license for the domestic purchase of exported commodities, for the internal retail of imported commodities, for all international trade including compensation trade, for the import and the export of technology and for processing and assembling of imported materials and parts. The company owns its own foreign exchange accounts and is even authorized to carry out customs clearance. There is only an important restriction for the trade of so-called 'strategic' goods (e.g. fertilizer, steel). Although Dongling Trading was established in order to boost China's industrial exports, its major business turned out to be the import of consumer goods. Dongling Trading has grown to be one of China's major corporations. Apart from Dongling there have been only two other approvals of foreign trade joint ventures of this kind in China, both considerably smaller. They are a foreign trading joint venture in Dalian, in which Daewoo Trading of Korea participates, and Cofcotianding Trading in Shenzen, which is a joint investment with Nichimen (39 per cent), André & CIE SA of Switzerland (ten per cent) and China Oil Seed and Fruit (51 per cent). Similar to Mitsubishi Shōji in the case of Dongling Trading, Nichimen was also the role model for the organizational structure of the newly established trading firm. Cofcotianding Trading is actively exporting food and textile products, and imports industrial and consumer goods. Cofcotianding Trading seems to have even established a first foothold in China's domestic trade.

In the Chinese retail sector the most visible sōgō shōsha is Itōchū, which has set up department stores together with Itō Yokado Co., Ltd. and a Chinese partner in Beijing and in Shanghai. In this booming business Itōchū is targeting foreigners and China's nouveau riche. Brand names are being built up for locally manufactured products such as Asahi Beer or Nisshin food products. On a somewhat smaller scale Mitsubishi Shōji is developing the Chinese retail market, too. Mitsubishi Shōji has opened three supermarkets in Dalian in cooperation with Daiei Inc. and Jafco Co., Ltd.

As the communist legacy of neglect for wholesale trade forms the background for the current backwardness and inefficiency of the existing Chinese wholesale trade system and since goods distribution in China is for the most part the responsibility of the manufacturer, the Chinese wholesale sector would be particularly difficult to develop for any newcomer. Thus most sōgō shōsha start with their import business and try to expand downstream by making use of their logistic and warehousing facilities. Mitsubishi Shōji has gone one step further. Making use of the food wholesale expertise of its Japanese affiliate Ryōshoku Ltd., Mitsubishi Shōji has set up food distribution centres in Shanghai and in Dalian. On-time delivery is guaranteed. Trading know-how is readily transferred to the Chinese retail customers, who receive a special business guide, Marubeni is running a food distribution system in Tianjin in a similar fashion.

Marubeni is also planning an even bolder venture in Chinese wholesale trade. A wholesale joint venture, which is supposed to possess full export and import licenses, has been established together with First Department Store of Shanghai. This joint venture incorporates the first foreign investment in the wholesale trade of China.

Apart from the above mentioned vertical integration into China's domestic trade there are also various other business activities within the framework of the sōgō shōsha's strategic drive for localization. Sumitomo Shōji, Nisshō Iwai and Itōchū have opened internet portals for e-commerce in China. Itōchū, Marubeni, Mitsubishi Shōji, Nichimen and Tomen are active in the field of real estate development. Itōchū has also issued a venture capital fund for internet technologies in China to the amount of USD 300 million. Marubeni is doing special consulting for successful state companies with respect to their restructuring process. They also advise on their export and import activities.

Conclusions

In the process of the internationalization of the Japanese economy the sögö shösha in their traditional function as transaction cost savers (for the benefit of their customers from the Japanese manufacturing industry) have lost much of their original raison d'être. Still they remain important if not indispensable partners for Japanese business. Pressured by scrutinizing financial markets, they are compelled to specialize on skills and markets, most notably on retail and wholesale trade. In their adaptation process the organizational structure of the sögö shösha tends to shift from a trading company to a sort of investment holding company. However, all business activities seem to depend in one way or other on the sögö shösha's links to global markets. Thus, their traditional foreign trade competence will remain crucially important for their survival. These general findings are reflected in the special analysis of the sögö shösha's

activities in China, which seems to indicate a general current structural change. Their former status as eminent middlemen in the Sino-Japanese relationship is declining. Their relative share in Sino-Japanese trade has been reduced over the years. Investment has been diversified and often restructured. All sögö shösha have undertaken considerable efforts to integrate vertically into China's domestic trade. In China the sögö shösha often become an investment holding company. It may be assessed that in the ongoing transformation process of the Japanese economy the sögö shösha firm type will have to adapt and to change to a more Western type. However, by virtue of their integral trading function, the sögö shōsha is likely to remain different from the Western types.

There are many interesting research topics on sögö shösha that can and should be investigated in future. At the theoretical level stylized categories for the 'Japanese sögö shösha type firm' and the 'Western investment holding type firm' should be developed so that institutional change can be empirically observed and possibly even measured. At the empirical level the individual efforts to carry out structural change are worth a closer look. Furthermore, the activities and strategies of the sögö shösha in other important foreign markets other than China should be assessed.

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COMPANY PROFILES

Itōchū Corporation: http://www.itochu.co.jp Marubeni Corporation: http://www.marubeni.co.jp Mitsubishi Corporation: http://www.mitsubishi.co.jp Mitsui & Co., Ltd: http://www.mitsui.co.jp Nichimen Corporation: http://www.nichimen.co.jp Nisshō Iwai Corporation: http://www.nisshoiwai.co.jp Sumitomo Corporation: http://www.sumitomocorp.co.jp Tomen Corporation: http://www.tomen.co.jp

4 HUMAN RESOURCE MANAGEMENT IN CHINA

Shōichi Itō

INTRODUCTION

Japanese direct investment in China increased rapidly in the 1990s, although the value of Japanese direct investment actually used started to decline in the second half of the decade. Especially investments of manufacturing industries expanded in the 1990s. As Japanese firms established their subsidiaries in China, they employed various management forms, including human resource management. This chapter examines human resource management of Japanese subsidiaries in China, including recruitment methods and human resource development based on the interview survey conducted by the author in Beijing and Shanghai in November 1997.¹ Various aspects of Japanese direct investment in China are also examined along with brief profiles of nine Japanese subsidiaries. This is followed by an investigation of recruitment methods and human resource development of different types of employees by nine Japanese subsidiaries.

DESCRIPTION OF JAPANESE DIRECT INVESTMENT IN CHINA AND PROFILES OF NINE JAPANESE SUBSIDIARIES

BRIEF DESCRIPTION OF JAPANESE DIRECT INVESTMENT IN CHINA

Japan's direct investment in North America and Europe declined in the 1990s, but in Asia it started to increase in 1991. One of the specific characteristics of Japan's direct investment in Asia is that the share of the manufacturing industry in Japan's direct investment in Asia is larger than that in other areas. After the strengthening of the Japanese yen starting in Autumn 1985, Japan's direct investment in Asia of its manufacturing industry increased first in the Asian NIEs, then in ASEAN 4 (Malaysia, Thailand, Indonesia and Philippines) and finally in China.

¹ In this paper, the author uses the case studies of nine Japanese subsidiaries discussed in Itō (1998b).

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In 1990 and 1991, Japan's direct investment in China was the second largest FDI, after Hong Kong, in terms of the actually used value (see Table 4.1). In 1992 it was the third largest, after Hong Kong and Taiwan, and in 1993 the fourth largest, after Hong Kong, Taiwan, and the US. Since 1994 Japan's direct investment has been between the second and the fourth largest FDI in China. In terms of both value and number, however,

	1990	1991	1992	1993	1994
Hong Kong	1.881,00	2.405,25	7.507,07	17.274,75	19.665,44
United States	455,99	323,20	511,05	2.063,12	2.490,80
Japan	503,38	532,50	709,83	1.324,10	2.075,29
Singapore	50,43	58,21	122,31	490,04	1.179,61
Taiwan			1.050,50	3.138,59	3.391,04
Germany	64,25	161,12	88,57	56,25	258,99
Korea			119,48	373,81	722,83
United Kingdom	13,33	35,39	38,33	220,51	688,84
France	21,06	9,88	44,93	141,41	192,04
Thailand	6,72	19,62	83,03	233,18	234,87
Total	3.487,11	4.366,34	11.007,51	27.514,95	33.766,50
	1995	1996	1997	1998	1999
Hong Kong	1995 20.030,37	1996 20.677,32	1997 20.632,00	1998 18.508,36	1999 16.363,05
Hong Kong United States	1995 20.030,37 3.083,01	1996 20.677,32 3.443,33	1997 20.632,00 3.239,15	1998 18.508,36 3.898,44	1999 16.363,05 4.215,86
Hong Kong United States Japan	1995 20.030,37 3.083,01 3.108,46	1996 20.677,32 3.443,33 3.679,35	1997 20.632,00 3.239,15 4.326,47	1998 18.508,36 3.898,44 3.400,36	1999 16.363,05 4.215,86 2.973,08
Hong Kong United States Japan Singapore	1995 20.030,37 3.083,01 3.108,46 1.851,22	1996 20.677,32 3.443,33 3.679,35 2.243,56	1997 20.632,00 3.239,15 4.326,47 2.606,41	1998 18.508,36 3.898,44 3.400,36 3.403,97	1999 16.363,05 4.215,86 2.973,08 2.642,49
Hong Kong United States Japan Singapore Taiwan	1995 20.030,37 3.083,01 3.108,46 1.851,22 3.161,55	1996 20.677,32 3.443,33 3.679,35 2.243,56 3.474,84	1997 20.632,00 3.239,15 4.326,47 2.606,41 3.289,39	1998 18.508,36 3.898,44 3.400,36 3.403,97 2.915,21	1999 16.363,05 4.215,86 2.973,08 2.642,49 2.598,70
Hong Kong United States Japan Singapore Taiwan Germany	1995 20.030,37 3.083,01 3.108,46 1.851,22 3.161,55 386,35	1996 20.677,32 3.443,33 3.679,35 2.243,56 3.474,84 518,31	1997 20.632,00 3.239,15 4.326,47 2.606,41 3.289,39 992,63	1998 18.508,36 3.898,44 3.400,36 3.403,97 2.915,21 736,73	1999 16.363,05 4.215,86 2.973,08 2.642,49 2.598,70 1.373,26
Hong Kong United States Japan Singapore Taiwan Germany Korea	1995 20.030,37 3.083,01 3.108,46 1.851,22 3.161,55 386,35 1.042,89	1996 20.677,32 3.443,33 3.679,35 2.243,56 3.474,84 518,31 1.357,52	1997 20.632,00 3.239,15 4.326,47 2.606,41 3.289,39 992,63 2.142,38	1998 18.508,36 3.898,44 3.400,36 3.403,97 2.915,21 736,73 1.803,20	1999 16.363,05 4.215,86 2.973,08 2.642,49 2.598,70 1.373,26 1.274,73
Hong Kong United States Japan Singapore Taiwan Germany Korea United Kingdom	1995 20.030,37 3.083,01 3.108,46 1.851,22 3.161,55 386,35 1.042,89 914,14	1996 20.677,32 3.443,33 3.679,35 2.243,56 3.474,84 518,31 1.357,52 1.300,73	1997 20.632,00 3.239,15 4.326,47 2.606,41 3.289,39 992,63 2.142,38 1.857,56	1998 18.508,36 3.898,44 3.400,36 3.403,97 2.915,21 736,73 1.803,20 1.174,86	1999 16.363,05 4.215,86 2.973,08 2.642,49 2.598,70 1.373,26 1.274,73 1.044,49
Hong Kong United States Japan Singapore Taiwan Germany Korea United Kingdom France	1995 20.030,37 3.083,01 3.108,46 1.851,22 3.161,55 386,35 1.042,89 914,14 287,02	1996 20.677,32 3.443,33 3.679,35 2.243,56 3.474,84 518,31 1.357,52 1.300,73 423,75	1997 20.632,00 3.239,15 4.326,47 2.606,41 3.289,39 992,63 2.142,38 1.857,56 474,65	1998 18.508,36 3.898,44 3.400,36 3.403,97 2.915,21 736,73 1.803,20 1.174,86 714,89	1999 16.363,05 4.215,86 2.973,08 2.642,49 2.598,70 1.373,26 1.274,73 1.044,49 884,29
Hong Kong United States Japan Singapore Taiwan Germany Korea United Kingdom France Thailand	1995 20.030,37 3.083,01 3.108,46 1.851,22 3.161,55 386,35 1.042,89 914,14 287,02 288,24	1996 20.677,32 3.443,33 3.679,35 2.243,56 3.474,84 518,31 1.357,52 1.300,73 423,75 323,31	1997 20.632,00 3.239,15 4.326,47 2.606,41 3.289,39 992,63 2.142,38 1.857,56 474,65 194,00	1998 18.508,36 3.898,44 3.400,36 3.403,97 2.915,21 736,73 1.803,20 1.174,86 714,89 205,38	1999 16.363,05 4.215,86 2.973,08 2.642,49 2.598,70 1.373,26 1.274,73 1.044,49 884,29 148,32

Table 4.1: Actually used foreign direct and other investment by country or territory (unit: million US\$)

Sources: China's Almanac of Foreign Economic Relations and Trade (various issues, in Chinese).
China's Almanac of Foreign Economic Relations and Trade, 1999 (in Chinese), pp. 288–292.
China Statistical Yearbook, 2000 (in Chinese), pp. 606–608.

the direct investment of Japanese firms in China was the second largest in 1992. It was the highest in term of value among Asian countries in 1996 and the second highest in 1997. This underscores the importance of the direct investment of Japanese firms in China, for both Japan and China.

An examination of the direct investment of Japanese firms in China by industry illustrates the specific characteristics of Japanese FDI in China. The manufacturing industry dominates Japanese investment in China; its share in total direct investment of Japanese firms in China was 59 per cent before 1989 and about 70 per cent in term of accumulated value in 1993. The number of local establishments of Japanese manufacturing firms in China increased rapidly in the 1990s, and their share of the total number of local establishments of Japanese manufacturing firms in China has exceeded 80 per cent since 1993. Textile and electrical and electronics industries are the most important among the various manufacturing industries, and both increased rapidly in the 1990s. Table 4.2 shows that industries such as machinery, electrical and electronics, and transport equipment were important in terms of value in 1996, with the electrical and electronics industries becoming most important in 1997. The major reasons why Japanese firms made direct investment in China may be the relatively low labour cost in China, the changes in the international strategies of Japanese firms in terms of international division of labour and the future prospects of China's market.

It is also worth examining commerce. Although the number of local subsidiaries of Japanese commerce firms is not large, their increase continued until some time in the second half of 1990s. This may have been caused by the introduction of foreign firms in the commerce sector as part of an effort to reform the Chinese marketing sector. On the other hand, the direct investment of Japanese service firms, including the hotel industry, which was important in 1980s, declined in the 1990s. In the case of the hotel industry, since the hotels served mainly foreigners and did not have much difficulty with foreign currency, they made a large amount of direct investment in China in the 1980s.

An examination by provinces shows that the most important destination of Japan's direct investment in China was Liaoning in the second half of 1980s, and the top five provinces and municipalities were Liaoning, Shanghai, Guangdong, Jiangsu and Shandong in 1991. The top seven shares of Japan's direct investment in China by province were Liaoning, Guangdong, Shanghai, Beijing, Jiangsu, Hainan and Shandong in terms of total values during the period between 1987 and 1991, and these shares were 29.0 per cent, 14.4 per cent, 11.6 per cent, 9.8 per cent, 8.2 per cent, 5.9 per cent, and 5.8 per cent, respectively. In contrast, the top seven shares of all foreign direct investment in China by province were Guan-

	1996			1997		
	Value	Share	Growth Rate	Value	Share	Growth Rate
Food	184	7,3	27,8	96	4,8	-47,8
Textile	188	7,5	-60,1	223	11,2	18,6
Timber Processing, Pulp	39	1,6	-45,1	29	1,5	-25,6
Chemical	87	3,5	-38,3	131	6,6	50,6
Steel and Non-Steel	180	7,2	-50,0	147	7,4	-18,3
Machinery	283	11,3	-40,9	189	9,5	-33,2
Electric and Electronics	395	15,7	-57,3	422	21,2	6,8
Transport Equipment	249	9,9	-35,5	100	5,0	-59,8
Other manufacturing	199	7,9	-60,4	176	8,9	-11,6
Manufacturing Total	1,804	71,9	-48,2	1,513	76,1	-16,1
Agriculture, Forestry, and Fishery	4	0,2	-63,6			
Mining and Quarrying	5	0,2	-37,55	1	0,1	-80,0
Construction	59	2,4	-33,7	65	3,3	10,2
Commerce	129	5,1	-50,6	101	5,1	-21,7
Banking and Insurance	20	0,8				
Searvices	254	10,1	41,1	146	7,3	-42,5
Transportation	-	0,8	-59,2	26	1,3	30,0
Real Estae and Others	173	6,9	-37,1	107	5,4	-38,2
Non-manufacturing Total	665	26,5	-25,3	447	22,5	-32,8
Branches	41	1,6	-60,2	26	1,3	-36,6
Total	2,510	100,0	-43,9	1,987	100,0	-20,8

Table 4.2: Japan's direct investment in China by industry (units: million US\$, %)

Source: JETRO Investment White Paper, 1999, p. 163.

dong, Fujian, Jiangsu, Shanghai, Shandong and Liaoning in terms of total values during the period between 1987 and 1991, and these shares were 35.4 per cent, 10.9 per cent, 8.9 per cent, 5.8 per cent, 5.4 per cent and 3.9 per cent, respectively. The main characteristic of Japan's direct investment in China by province was that it was concentrated in the Liaoning province in the second half of 1980s and that its shares in Guangdong and Fujian were not large. Japan's direct investment in China shifted to East China, including Shanghai and Jiangsu, in the 1990s and Guangdong in the second half of the 1990s. The percentage of Japan's direct investment in China by province thus changed in the 1980s and 1990s.

$Profiles \ of \ nine \ Japanese \ subsidiaries \ in \ Beijing \ and \ Shanghai$

The enterprise survey conducted by the author in Beijing and Shanghai in November 1997 was a part of a JITCO project concerning the training of overseas Japanese subsidiaries.² Nine Japanese subsidiaries are described in detail: three Japanese subsidiaries (A, B, and C) in Beijing and six Japanese subsidiaries (D, E, F, G, H, and I) in Shanghai, among the various Japanese subsidiaries surveyed by the author. Japanese subsidiaries A, B, D, H, and I belong to the electrical and electronics industries. Japanese subsidiaries C and G are part of the textile and apparel industry. Japanese subsidiaries E and F are in the transport equipment industries and produce parts for automobiles and motorcycles. As Table 4.3 shows, all nine Japanese subsidiaries were established in 1991 or later, and five of them were established in 1993 or later. Two of the nine Japanese subsidiaries have more than 1000 employees, four of them have between 600 and 900 employees, and the remaining less than 200 employees. Four of nine Japanese subsidiaries are wholly owned, and the remaining five have capital shares of between 40 per cent and 55 per cent.

The number of company A employees is about 890 (November 1997), including 18 Japanese staff in administration and technical divisions, and no Japanese staff in personnel management and marketing divisions. The number of company B employees was a little over 1400 in November 1997 and 929 in January 1996. Company B employees in 1997 amounted to 393 males and 1035 females, and their average age was 24 years old. Of these employees, 57 were university graduates and 76 junior college graduates.

	Year of Establishment	Number of Employees	Japan's Share of Investment
Α	1991	890	51,00%
В	1993	1,367	50,00%
С	1992	675	43,70%
D	1993	624	100,00%
Ε	1992	1,250	100,00%
F	1992	170	40,00%
G	1995	131	100,00%
Н	1993	660	55,00%
Ι	1996	69	100,00%

Table 4.3: Profiles of nine Japanese subsidiaries

² See Itō (1998b), pp. 82–122.

The number of company C employees was 675 in November 1997, with 120 employees in the head office and store and 555 employees in its own factory.

The number of company D employees was 624 in November 1997, of which 20 were males and 604 females. The average age of employees was 24.3 years old. The number of non-production staff was 35, including nine male employees, and 13 administration staff, of whom 3 are male employees. The number of company E employees was 1250, of which 870 are female workers, 1100 employees in the first factory and 150 employees in the second, located a 15 minutes' walk from the first factory. Company F employs 170, including 35 university graduates. The average age of the employees is 29 years old. Its workers are either junior high school or senior high school graduates.

The number of company G employees is 131, including 27 male workers and 104 female workers. There are 4 managers and 8 supervisors. The only Japanese member of the staff is the president of the company. The five engineers are either university or junior college level graduates, while the general workers are mainly junior high school graduates, whose ages are 18 and above. Some of the workers are senior high school graduates. Company H has a staff of 660, the average age being 22 years: for female workers 20 and male workers 32. A lot of workers are transferred from the state-owned enterprise, their local partner. The staff is made up of regular employees and dispatched workers, and the salary of the regular employees is much higher than that of the latter. Company H has to pay the welfare expenses for the regular employees but not for the dispatched workers. There are 150 regular employees who work in production as engineers and managers, and the contract period is between one and three years. In September 1997, company I had 69 employees, of which 41 were male and 28 female. The average age of the employees is 23 or 24 years old, and the average age of the general workers is about 21. There are two regular Japanese employees, and, because of the time needed to establish the company, seven to eight Japanese engineers (pressing, production technique for cutting, moulding, maintenance, production and guidance) are working in Shanghai temporarily. The staff of company I are local and mainly university graduates.

RECRUITMENT OF STAFF AND WORKERS AT NINE JAPANESE SUBSIDIARIES

This section examines the recruitment methods by ownership structure and according to general workers and staff, engineers, and managers.

Recruitment methods by ownership structure

In the case of joint ventures, employees were recruited with the help of their local partners when their companies were set up. In the case of wholly-owned subsidiaries, employees were recruited either with the help of local government or a state-owned dispatching company. Many Japanese subsidiaries rank experience as the most important criteria for recruitment. After the establishment of the Japanese subsidiary, hiring is done whenever necessary.

Company A is involved in a joint venture business, the local partner of which is in charge of recruitment of employees, including university graduates and students with graduate school degrees, who can change their family registration. En (2001) states that this role is one of three major advantages guaranteed by the local partner to company A.³ The general workers are contracted workers from outside Beijing and are supposed to go home after five years. In the case of company A, the educational levels of more than 500 workers are above that of senior high school graduates, and group leaders and technicians are junior college graduates. 170 engineers are highly qualified, having graduated from institutions such as Qinghua University and Beijing University. Although these engineers are excellent in terms of educational level, Japanese engineers still have the edge in terms of experience.

Company C is also part of a joint venture business. When it was set up, they recruited 555 employees recommended by their partner. Of its 555 employees, 300 have already been replaced. The local partner is a stateowned enterprise with twelve factories and 13,000 employees. They transferred a part of their employees to company C in order to reduce redundancy. Later, the trade union and employees of company C began to question this practice.

Company F is also a joint venture business. When it was established, they hired 40 experienced workers who came from state-owned enterprises or were unemployed. When they decided to hire, they recruited staff with two to three years' experience. Now they recruit new workers when necessary. They do not hire temporary workers, but use over-time if production is temporarily increased.

Company H is a joint venture and is located in the Budong district of Shanghai. It employs some 500 dispatched workers from a state-owned employment agency. The contract period for the dispatched workers is one year, and they are paid a monthly salary. The dispatched workers are from the rural areas of Shanghai.

³ See En (2001), pp. 156–7.

Company D is a wholly-owned Japanese subsidiary. For the recruitment of general workers, they have no difficulties since they have files of about 200 applicants recommended by their own employees. Annually, they hire a couple of university graduates. The local government supports their recruitment. At the beginning, with the permission of the local government, they tried to recruit 20 workers by advertising in wall newspapers and local Television (TV). Over 100 workers applied. They decided to employ 23 female workers, most of whom were high school graduates. Engineers, however, are scarce in the area.

Company E is also wholly-owned by its Japanese parent company. Their recruitment method is to hire recent graduates. With students from technical schools, it is possible to hire them as trainees for about half a year before graduation. In the case of general production workers, company E may recruit them by asking the labour department of the local government to advertise for them in wall newspapers, TV, and so on. They may participate in the local human resource market held by the personnel department of the local government for direct recruitment twice a year.

Company G is also a wholly-owned Japanese subsidiary. Two Chinese managers were hired in Japan as foreign students and were transferred to Shanghai. Initially they hired 80 employees. They recruited their employees and managers from Shanghai. The general local workers were recruited by putting notices in front of the main gate of their company. After interviewing the candidates, they made final decisions about hiring. To find the remaining staff and engineers, they advertised in Shanghai. Since then, they have recruited workers only as they were needed. General workers (apparel) are seldom recruited from the local area. They cooperate with the local township government and hire graduates from a textile school. The workers live in local farmers' houses.

The capital of company I is also wholly-owned by the Japanese company. Company I hired 11 employees: seven to eight engineers between the ages of 25 and 40 years with some experience, as well as interpreters, drivers, and workers in charge of customs. They do not have annual recruitment campaigns. Recent university graduates have had difficulties in finding a new job, because of a large number of redundant workers in the state-owned enterprises. The above-mentioned seven to eight engineers came from state-owned enterprises. They decided to work for company I because they felt that they could not use their ability fully in their previous work and were not satisfied with their salaries.

Recruitment methods for general workers

It is easy for Japanese subsidiaries to recruit general workers. When periodically recruiting recent junior or senior high school graduates, the high schools usually provide support. If the Japanese subsidiaries ask schools for trainee students before graduation, they may pay schools some of money for their students. They may also recruit contract workers through a state-owned employment agency.

An examination of the recruitment methods for recent junior high school graduates revealed that company B recruits junior high school graduates in cooperation with four junior high schools, and pays 100 yuans per graduate to each school. A junior high school educates a student for three years and selects a specific number of students to send to the company. The company pays 600 yuans to students during the trial period, of which 200 yuans are paid to the junior high schools. They do not recruit otherwise because of the high costs of advertising. An explanatory meeting for job applications is held every month. In addition, there is a human resource village, where companies can choose from about 40 to 50 applicants, paying 400 yuans for a stand where working conditions are explained and interviews made. After the final managerial level interview, they make a hiring decision. In company B, the probation period for new employees is three months maximum, and they hire about ten employees (about one per cent of their total employees) monthly. The contract period for each worker is one year.

In 1998, company C recruited about 20 recent graduates recommended by four textile and apparel schools in Beijing. Japanese managers of company C consider five per cent of their employees to be redundant. Almost no employee has quit, because once a general worker quits a company, he or she does not have many reemployment opportunities. In Beijing, young people are not eager to work in the apparel industry, and as a result the average age of their employees in 1997 was 34 years old. There were so many unemployed workers in Beijing in 1997 that companies were not allowed to recruit new workers from outside the city. In men's apparel, acquired skills are important, and a minimum of one year's experience is indispensable. Thus, it is easy for the industry to keep the high quality of their products if employee turnover is low. On the other hand, this practice raises production costs.

Company I hired ten general workers using labour contracts (dispatched workers and human resource dispatching contracts) through a developer company. They hired 50 workers by labour contract. The contract period for a general worker is usually two years, although some prefer one-year contracts. The contract period for staff is three years. In the case of company H, the contract period is one year, and the salary is paid to the dispatched workers monthly.

RECRUITMENT METHODS FOR STAFF, ENGINEERS AND MANAGERS

In general, it is often said that foreign subsidiaries, including Japanese subsidiaries, have difficulty in recruiting personnel in China.⁴ They may recruit the necessary office staff and engineers in various ways, such as distributing pamphlets to universities, providing scholarships to universities, using a human resource exchange centre, and so on. If a company is located in the suburbs of a major city, it may be difficult to recruit because qualified people may prefer to work in the urban areas instead of suburban areas.

To recruit students from outside Beijing, company B had to change the students' family register so they could stay in Beijing. This was only possible if the students had achieved an excellent grade at graduation. If the recruitee quits a state-owned enterprise, company B is willing to pay a fee (for example, 10,000–20,000 yuans) to a particular state-owned enterprise, and after that the recruitee is able to leave the state-owned enterprise. If company B recruited a student from school in 1992, they paid 5000 yuans to the school.

Company C hired about ten university graduates for management and accounting who did not help Japanese managers and other staff and workers when they were busy with their work and asked those university graduates to help their work. Those university graduates were hired through the contract with universities and had to work for company C for a minimum of one year. If they quit within a year, they had to pay a penalty to company C. Chinese employees see themselves as being recruited for a particular job not for a specific company and not for a different job.

Company E gave a scholarship to Shanghai University and had an opportunity to recruit students there on a priority basis. Company F recruited by advertising in newspapers and by using information provided by a human resource exchange centre, which provides this information at a low price. When a company decides to hire a worker through a human resource exchange centre, it pays a particular fee for each worker hired. They renew their contract every two years. In the case of company G, local managers and engineers command very high salaries. The com-

⁴ See Ma (2000), pp. 100–2.

pany has difficulties in hiring managers from the local area, because of the scarcity of this type of human resource.

Company H recruits fresh university graduates as engineers by providing public relation pamphlets to universities. The response is usually over one hundred applicants. Students start looking for opportunities in November, and company H examines the students on 1 December. Five students were then selected, and two or three of them started to work for the company. They also hire recent junior college or university graduates as engineers and other engineers when the need arises.

Company I participated in a human resource market in a park on Saturdays and Sundays, where companies rent booths. The fees vary depending on the location (600 or 700 yuans per booth). A job seeker pays one or two yuans to enter the park. More than half of visitors looking for jobs are already job holders. Companies may recruit workers, putting their recruitment advertisements in newspapers (a general newspaper and a human resource newspaper). They usually make a final decision about hiring after two interviews.

PROFILES OF EMPLOYEES OF JAPANESE SUBSIDIARIES

Ten percent of contracted workers leave company A annually because their contracts have expired. On principle, after a period of five years, they must return home as they are not allowed to continue to stay in Beijing. The employees seldom quit company A because of contract obligations.

Company C has only one local division director. In order to localise management, the company needs to let local employees influence their ways of thinking. Chinese employees tend to place a higher priority on individualism than on the company. When this company was established, they tried to change their employees' ways of thinking and get them to stop using the penalty and incentive pay system. They re-introduced the penalty system two years later and changed their system from an absolute equity system to a rational equity system. Six years have passed since company C built its factory. The equipment is the same as in Japan but labour productivity is only 80 per cent of that in the Japan factory. When this factory started, 12 Japanese instructors were sent from Japan, and only three Japanese instructors are working there now. The paper patterns of this factory are made by computer in Japan. At the moment, they are not using computers for making paper patterns in China, and for the future they are thinking of introducing computers for this purpose. In company C, they can achieve the same quality of products as that of Japan in terms of technique, but they cannot do planning and research. In the men's apparel industry, materials and design change every season, but they have difficulty adjusting production to these changes. They plan to prepare manuals as working guides and to divide the work into more narrowly and clearly defined parts.

In company D, resignations are rare but employees have been dismissed for failing to comply with company rules. For example, one worker was fired immediately for eating while working on the production line.

In company E, managers are university graduates, and supervisors are graduates of senior high school at least. The average age of the employees is 19.5 years. The educational structure is 55 per cent junior high school graduates, 42 per cent senior high school graduates or its equivalent and above, 2 per cent junior college graduates or its equivalent and above, 1 per cent university graduates. 60 per cent of workers on the production line are junior high school graduates. Workers with junior high school graduation and below may have difficulty with calculations. The company feels that the workers have slightly better attitudes and abilities than comparable Japanese workers. The subsidiary uses its parent company's qualifaction system of nine levels, and about three hundred employees hold one of these nine levels. They use Japanese in the managing staff meetings in which local managers also participate. They have a wage system which encourages the workers to continue to work for their company. The traineeship period lasts half a year. They have a labour contract system under which after three years they renew the contract.

Workers at company G have to have a work permit if they are not from Shanghai. Each company has a limit of the workers allowed from outside Shanghai. When they hire a worker, the trial period for each worker lasts three months, and the contract period is for two years. In company G, since the workers above a certain age have the tendency to think like the typical workers of state-owned enterprises, they prefer to hire the younger workers. The state-owned enterprises also tend not to release young workers. Those who are not young have difficulty in going along with economic reform and the open policy in China.

Company H is interested in hiring young employees because the older workers have experienced the planned economy and have difficulty adjusting to the market economy, although workers below 40 are better than those over 40. The production workers at company H are mainly junior or senior high school graduates, with a small number of junior college graduates. The engineers are either junior college or university graduates.

SPECIFIC RECRUITMENT METHODS OF NINE JAPANESE SUBSIDIARIES

The Japanese subsidiaries can be divided into two groups: joint venture businesses and wholly owned. In the first group, employees were recruited with the help of their partners when they established their company in China. In the second group, they recruited their employees with the help of the local government or using a state-owned employment agency. Many Japanese subsidiaries place emphasis on experience as the main criterion for hiring.

The employees can also be divided into two categories: general workers and other staff, including engineers and managers. In general, Japanese subsidiaries have little difficulty recruiting general workers, probably because there is an abundant supply in China. When periodically recruiting recent junior or senior high school graduates, Japanese subsidiaries may work in cooperation with high schools. If they ask schools to send their students as trainees before graduation, they may pay schools part of the money for their students. They may also recruit contract workers through a state-owned employment agency. Other staff, engineers and managers are recruited in various ways such as distributing pamphlets to universities, providing scholarships to universities, using a human resource exchange centre, and so on. It should be noted that if a company locates in the suburbs of major cities, it might be difficult to recruit staff and engineers, because the highly trained often prefer to work in urban areas. Companies may also utilize human resource markets held in parks for recruiting skilled personnel.

HUMAN RESOURCE DEVELOPMENT OF NINE JAPANESE SUBSIDIARIES

According to Koike (1989), the efficiency of Japanese manufacturing firms is highly valued because the workers are trained to respond to changes and problems arising on the production lines. These skills are attained mainly through on-the-job training (OJT), with the workers participating in appropriate off-the-job training (OFF-JT).⁵ Itō (1998a) states that Japanese top managers place emphasis on training, especially, OJT and continuous in-house training.⁶ In this section, we describe the human resource development of nine Japanese subsidiaries, including training, technology transfer, wage determination and personnel evaluation.

⁵ See Koike (1989), pp. 152–9.

⁶ See Itō (1998a), pp. 147–50.

GIVING THE EMPLOYEES OPPORTUNITIES TO OBTAIN DEGREES

Companies A and B give their employees opportunities to obtain degrees. Company A asks faculty members of Tsinghua University to come to their company to give lectures at the graduate school level, thereby enabling a group of employees to obtain an MS.⁷ The lectures are held after regular working hours. The employees have three years to earn the degree. All the educational costs for obtaining the degree are borne by the company. If employees fail to obtain MS, they have to reimburse the company. The employees also learn Japanese in order to read Japanese documents, and the company provides Japanese training courses to recent school graduates twice a week.

An employee in company B without at least a junior college diploma will not be promoted to a managerial position. Thus, the Japanese managers are thinking of demanding that section leaders and above obtain at least a junior college diploma. If they fail to get that diploma, they have to pay half of the educational costs. If they stay at the company after studying for a junior college diploma, company B will provide the support to them. The total costs of one million yuans (fourteen million Japanese yen) for the employees to obtain a junior college diploma, a twoyear study course, are borne by the company. Under this educational system, company B asked the correspondence university to educate just over one hundred and twenty employees on Mondays, and its employees were able to obtain a junior college diploma two years later if they passed the national examination.

Two stages for training employees by group

Since their founding in Shanghai, companies D and I have two stages for training employees. When company D was established, they had only four Japanese on the staff (the president, one in quality control, one in manufacturing and one in technology). They had difficulty communicating with their first 23 employees because of language differences, and, as a result, instructed them using gestures. The second group of employees they hired were trained by the first group, who also helped the Japanese instructors as interpreters. Daily, for one and half years after 3 pm, the president taught finance to the administrative staff.

⁷ En (2001) provides detailed information of the education and training system of company A and shows that company A put its emphasis on the skill formation of production line workers. See En (2001), p. 159.

In company I, Japanese staff instructed and taught 11 local staff members and engineers from the initial hiring, who, in turn, instructed and taught general workers. As a result of the training, the local employees were in a position to prepare metal frames for production.

GROUP-BY-GROUP TRAINING PROGRAMMES

Companies B, E, and F have group-by-group training programmes. Company B spends the largest amount of money for education and training per employee in their group of companies in China. This company has basic management training, management philosophy education and financial knowledge training for management. For general workers it has safety and sanitation education, quality improvement training, ISO 9001 and ISO 14000 education and 5S education. Company B does its training planning at the beginning of the year.

In company E, the candidates for middle management are university graduates and above, and their training is in development, quality control, manufacturing control, production control, assets control and sales management. Professional engineers are junior college graduates and above, and the training includes designing model framing, programming, production analysis and inspection. The training for production engineers is in maintenance of model framing, CNC (Computer Numerically Controlled) operation and the operation of specific equipment. The training period for production line supervisors ranges from a half year to one year, and training includes coiling machine operation and plastics technology.

In company F, the education and training committee is in charge of matters related to education, and it revises the textbooks for training once a year, adjusts the various matters associated with training, and examines the actual situation of human resource development in the company once a month. The education and training committee makes the training plan for personnel in production, including theoretical training, production site on-the-job training, and office work training. The education and training committee also gives new employees an introduction to their company, and in the case of press workers, makes company F's original textbook including such safety matters as helmet.

TECHNOLOGY TRANSFER

We examined the technology transfer of companies A, B, C, and E. Company A carries out its training programme on the basis of necessity. The workers receive training at the Japanese headquarters, factories and subsidiaries in Japan. They send some workers to Japanese subsidiaries in Singapore for training. In addition, they also send engineers from Japan to give training in technology and management.

Company B has its own independent training using instructors from Japan with training for employees after regular working hours, without overtime pay. The participants of this training can later be promoted to section chief or deputy section chief. The number of participants is 22. In addition, students are offered actual work experience in this company, with the student's school receiving half of the payment.

For the apparel factory workers of company C, seven workers were sent to Japan and received about two months of technological assistance in a partner Japanese company. Japanese top store managers of the company taught the system of their headquarters in Japan as a training for store workers for two weeks. After that, Japanese instructors were dispatched to Beijing to teach their store workers, but since there are differences between Japan and China in areas such as culture, customs and ways of thinking, Japanese managers still have many issues to resolve. They do personnel evaluations every half a year in Japan but every month in Beijing. Penalties and bonuses reflect this evaluation. The company does a working analysis and time analysis to assist the personnel evaluation and classifies the degree of difficulty and toughness of a job. At the beginning, their employees were against this evaluation system but by 1997 had accepted it.

In the factory work of company C, it is difficult to standardize sewing work because of the differences in materials and models, and it is difficult to differentiate workers' salaries. They currently use the value of production as the index for personnel salary evaluation. For store employees, they use the sales value as the index for salary evaluation. Absenteeism is also a factor.

In company E, training of local management personnel consists of sending just over two hundred employees to Japan for training and for learning, a practice they plan to continue. The training periods in Japan are one year for managerial candidates (university graduates and above), one year for the engineers in charge of technology development (junior college graduates and above), half a year for supervisors (senior high school graduates and above), and half a year for professionals (senior high school graduates and above).

OTHER ASPECTS OF HUMAN RESOURCE DEVELOPMENT

There are various aspects of human resource development of Japanese subsidiaries in China. For example, Japanese managers of Japanese subsidiaries in a particular industrial zone may have monthly workshop meetings for researching methods of human resource management. Company C places more importance on labour management than on technology guidance. The employees' attitudes and motivation have a large impact on labour productivity. This company has job rotation, and does job promotion and demotion annually.

Company E had been in operation for three years. Job rotation was considered a future issue. The managers and manager candidates expected that professional engineers would be shifted every three to five years, on principle. The purpose of job rotation is to increase flexibility, to avoid wrong practice, to divide authority, and human resource development. Since company E started operations in 1993, the maximum number of years that employees worked for the company was four years. They experienced some job hopping, with fluctuation rates in 1996 and 1997 of ten per cent and a projected 14 per cent, respectively. They expect that future job separation rates will be somewhere between 20 per cent and 25 per cent. The contract period for a general worker is three years, but one to two per cent of the workers with a labour contract will quit before.

At the beginning of company F's operations, all the managers (section chief and above) were Taiwanese, but they have made efforts at human resource development of local employees. Thirty employees remain among the 40 employees hired originally. They seldom refuse to renew labour contracts, but occasionally some employees refuse to renew labour contracts.

The basic part of education and training of company G is on-the-job training (OJT). In addition to classroom training, they provide training on various types of sewing machines and various types of clothes, in order to enhance skills. They provide basic skills training, but the skill of using sewing machines is basically obtained through experience. Their target for quality inspection workers is to train them for all stages of quality inspection. Company G gives employees opportunities to learn jobs beforehand, and for the purpose of quality control, also after starting them. They have recruited a local on-the-job training specialist. The employees of company G quit only because of their family matters, homesickness and so on. In company B, no employee had left the company because of marriage or child birth but some had changed jobs, especially those in charge of trade.

Company H experienced some difficulties with the disappearance of paper, garbage disposal and other differences in living habits. Company I provides the employees basic training during their three-month trial period.

WAGE DETERMINATION AND PERSONNEL EVALUATION IN JAPANESE SUBSIDIARIES IN CHINA

This section briefly examines the labour market situation in Shanghai in 1997. According to the Japanese top manager of company E, in the autumn of 1997, the state-owned enterprises did not have enough capacity to hire an additionally large number of workers because of the reform of state-owned enterprises. The demand for workers was not large enough to cover the supply on the labour market, and the hiring companies had the advantage in recruitment over the job seekers. As a result, wage increases slowed, the rate of increase expected to be below ten per cent in 1997.⁸ It is said, however, that the wage rate for fresh university graduates from excellent universities in Shanghai is more than 2300 yuans. Price increases are also stabilizing. There is an abundant supply of general workers but a lack of skilled human resources in Shanghai. Especially university graduates have a tendency to move toward urban areas, which implies a brain drain from local suburban areas. The declining size of the young population influences how parents educate their children; they now tend to spend more money on their children's education, which is improving the average educational level. This means that companies may have difficulties in recruiting general workers in future.

In company A's wage system, the monthly salary for university graduates is 3000 yuans (annual income divided by twelve). The salary payment system is a modified version of the Chinese payment system. The average ratio between the basic salary and the bonus (performance evaluation, determined by personnel evaluation) is one to one. The ratio between the basic salary and the bonus is somewhere between 0.5 and 1.5. The bonus is the equivalent of five months of basic salary and is paid every three months (January, before the Chinese New Year, May, and October). The basic salary depends on seniority, while the bonus is determined by a worker's performance evaluation by the company. The personnel evaluation is done by employers, including Japanese staff, every half year.

In company B, the average monthly salary of a general worker was 850 yuans in 1996 and was scheduled to increase to 906 yuans in 1998. The salary of a 23 year-old worker was 381 yuans as basic salary, 172 yuans as wages attached to a post, 150 yuans as wage based on job evaluation,

⁸ However, Ma (2000) states that employees with higher education are scarce in China and, as a result, the wage differential between staff and general workers is expanding, where office staff are more likely to have a higher education than general workers. See Ma (2000), pp. 163–4.

giving an overall total monthly salary of 906 yuans in 1998. The monthly salary for a worker on a three-month probation period is 80 per cent of the normal monthly salary. Quite a few quit during the probation period because of job hopping. Originally, the ratio between the basic salary and bonus was 1 to 0.5. Company B pays the bonus monthly because income tax is imposed monthly on individual income. The bonus differential determined by the personnel evaluation ranges between a maximum of plus 40 per cent and minus 40 per cent. The personnel evaluation of company B is not open, but they show the explanation in the salary specification. Since workers show their salary specifications to each other, the personnel evaluation is considered to be open. The personnel evaluation was done every three months in 1994 and has been done monthly since January 1995. The personnel evaluation is done on a relative basis consisting of ranks, A, B, C and D. Every January and July, personnel ranking is carried out.

In company C, the ratio between the fixed salary and bonus is 1 to 0.2 and above, and in 1998 this ratio was scheduled to be 1 to 2 and above. The purpose of this change is to keep only the employees who qualify for this change in the compensation system. In company D, the salary of workers who are senior high school graduates is 700 yuans per month and a bonus the equivalent of a two month salary per year. The bonus includes 15 per cent efficiency pay, and a productivity evaluation of each worker is done monthly.

Company E's wage consists of 50 per cent basic salary (service allowance, seniority wage, wage determined by age) and other allowances. The bonus is the equivalent of six months' salary and is paid to employees twice a year: in the month of the Chinese New Year and on the first day of August. Various types of allowances are determined differently. The personnel evaluation for a pay raise is done once a year in January. The average salary of a general employee is 785 yuans.

Company E takes the qualification system, education, seniority, Japanese language ability, experience, qualification of custom clearance, and various qualifications of a national level into consideration for personnel evaluation. They make every effort to collect objective data and make very careful personnel evaluations. The bonus is adjusted every three months. They adjust personnel evaluation for the non-production line employees once a year. The results of personnel evaluation are open to the employees. Company E strictly imposes penalties on employees who break the company's rules. The names of those who infringed the rules, the nature of the infringement and the penalty are open to the employees. According to company regulations, one investigation report (a written apology in Japan) means that only a 0.7 bonus ratio is paid to a particular employee, two reports mean a bonus ratio of 0.49 and three reports lead to disciplinary dismissal. The other systems of personnel evaluation include the award system on the company's anniversary day, the Japanese qualification system, expert system, the training system in Japan, support system for housing (only for production line chiefs), official travel allowance (by position), the kaizen and proposal systems, least absence and non-absence allowances, and so on.

In company F, the average wage rate is higher than those of nearby companies in the same industry. They have distributed a certain percentage of the profit to the employees since the end of 1997 (7 per cent in 1997). This included the special bonus to two employees whose suggestions made a big contribution to production cost reduction and bonus distributions to the other employees. They make basic wage adjustments annually in May. The adjustment depends mainly on the levels of education and skill (experience) and not much on seniority factors.

Company F gives employees a paper examination (about one page) on knowledge of 5S and 6S, and evaluation leads to three levels of qualification. Current ability evaluation are made every half year and consist of aggregating daily operation results, examining rates of finished products and the inferior products ratio, and paper test results. This evaluation leads to different bonuses among various employees. The amount of bonus for production line employees is the equivalent with one month's basic salary, and that of a section chief is the equivalent of 2.5 month's basic salary. The evaluation affects the pay raise, but in general it is almost the same among various employees, with some adjustment following basic points given to three levels of qualification. Personnel evaluation in company F is done using a personnel evaluation table which evaluates each item with a maximum of one hundred points, classifying these scores into five levels. The personnel evaluation table consists of ten items including achievement, ability and attitude. The motto of the personnel evaluation is "Openness, Fairness and Justice".

In company G, the basic factors of wage determination for office workers and staff are qualification, position and allowances for factors such as inflation. The wage of a general worker consists of basic salary, non-absence allowance and piecework payment, and it also includes a skill allowance, which is a supplement to piecework payment for the purpose of developing multi-sided skilled workers. The bonus is paid twice a year, and the amount depends on the company's and the individual worker's achievements. Company G had not started a personnel evaluation in 1997 but planned to introduce one in future. This company utilizes a penalty system, but Japanese managers have some difficulty implementing a penalty system in China. Their employees know the salary of their colleagues since they share this information with each other.

In company H, the regular production-line workers are graduates of junior high school, senior high school and even junior college. The company divides them into ten ranks, and many of them are placed between rank five and eight. Their average monthly wage is 900 yuans. The company determines the ranks on levels of education and experience. The total housing allowance, pension and medical funds is equivalent to 50 per cent of the monthly salary. Employees pay five per cent of their salary as a housing allowance. The regular workers occasionally do the same work as the dispatched workers.

The engineers of company H were recruited as fresh graduates of junior college and university, but the company occasionally also recruits engineers with experience. The salary for recent graduates is somewhere between 2200 yuans and 2300 yuans, and 3000 yuans if they have experience. The main reasons why their employees quit are either the wage rate or the commuting distance. The monthly salary for dispatched workers is somewhere between 600 yuans and 700 yuans. Company H pays 50 yuans for each dispatched worker to a national labour service company.

The dispatched workers of company H come from the rural areas of Shanghai. The company pays them a bonus twice a year, which is the equivalent of two month's salary. As pay-in-kind, the company provides the equivalent of 150 yuans in meals to the dispatched workers. Pay raises and promotions are given once a year and five per cent of the dispatched workers are promoted to regular workers. The company rents apartments for dispatched workers from other rural areas.

In company I, one out of eleven first-term employees quit during the trial period. One employee quit over dissatisfaction with the wage level but did not really understand the local wage level at the time.

SPECIFIC CHARACTERS OF HUMAN RESOURCE DEVELOPMENT OF NINE JAPANESE SUBSIDIARIES

Companies A and B spent a lot of money helping their employees obtain degrees, paying for the costs if the employees were successful. If not, the employee must pay the costs. In companies C and D, Japanese staff taught their first-term employees, and these employees taught the second-term employees along with Japanese staff. Company B paid Japanese instructors to teach their employees. In company E, training was provided to particular groups of employees such as candidates for managers, professional engineers, production engineers and so on. Company F set up a

committee for employee education and training which is in charge of making plans and providing training to various types of employees. In company G, the emphasis is placed on on-the-job training. Company I provides basic studies and training to new employees during their trial period. Thus, each Japanese subsidiary makes efforts to provide training to their employees.

With respect to wage determination and personnel evaluation, Japanese subsidiaries pay a wage that consists of basic salary and bonus. The basic salary is determined by seniority, position, education, skill and other allowances. The bonus is determined by personnel evaluation. The ratios between the basic salary and the bonus may differ among various Japanese subsidiaries. Following the income tax system in China, Japanese subsidiaries tend to pay the bonus monthly, but the ways of conducting personnel evaluation may differ among various Japanese subsidiaries in terms of period, and the effects of personnel evaluation on bonus may also differ among them. The ways of paying a bonus to employees may also differ among them. For example, the bonus is paid to an employee mainly monthly or every three months, and the personnel evaluation determining the bonus is done monthly, every three months, or once a half a year, depending on the company. At the end of 1997 in our interviews top Japanese managers of subsidiaries in Beijing and Shanghai reported that many Japanese subsidiaries were about to raise the share of bonus in total wage compensation, putting more emphasis on personnel evaluation for determining the bonus. In some companies, they use the penalty system. Japanese top managers should expect that their employees know the salary of their colleagues. One company gave dispatched workers opportunities to be promoted to regular workers (company H).

CONCLUDING REMARKS

In this chapter, we examined human resource management in nine Japanese subsidiaries, focusing on recruitment, training and wage compensation. We showed the difference in the recruitment methods for two groups: joint venture businesses and wholly-owned subsidiaries. We showed that the first group recruited employees with the help of their local partners when they established their companies. We also showed that the second group recruited their employees either with the help of local government or a state-owned dispatching company. Thus, when first establishing their company in China, they seem to need help from some local organisation or institution for recruiting workers. We learned that many Japanese subsidiaries put emphasis on experience as the criterion for hiring. The author visited Japanese subsidiaries in Shanghai at the end of 2000 and learned through interviews with top Japanese managers that they put even more emphasis on experience in 2000 when hiring local employees than in 1997.

We also showed the difference in recruiting two groups of employees: general workers, on the one hand, and office staff, managers and engineers, on the other. We learned that, in general, Japanese subsidiaries do not have much difficulty recruiting general workers and that when periodically recruiting recent junior or senior high school graduates, Japanese subsidiaries are more likely to have cooperations with the schools. We also showed that Japanese subsidiaries use various means of recruiting office staff, managers and engineers. This evidence confirms that there is an abundant supply of general workers in China but that skilled workers may be in short supply.

With respect to training, we showed that each Japanese subsidiary is making major efforts to provide training to their employees in various ways. For example, some companies encourage their employees to obtain degrees, other companies organise in-house training for employees.

With respect to wage determination and evaluation, we showed that, in general, Japanese subsidiaries pay their employees a basic salary and a bonus. The basic salary is determined by seniority, position, education, skill and other factors, while the bonus is determined by personnel evaluation. We showed that such practices as the ratios between the basic salary and the bonus, ways of conducting personnel evaluation, effects of personnel evaluation on bonus, and ways of paying bonus to employees may differ among various Japanese subsidiaries.

This study showed the human resource management of nine Japanese subsidiaries in Beijing and Shanghai in November 1997. But human resource management of other Japanese subsidiaries may differ, depending on the areas, periods, types of industry and so on. Examining these differences in practice is a subject for a further study.

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5 Playing the China Card: The China Strategy of the Taiwanese Electronics Industry and the Japanese Response up to 2000

Douglas B. Fuller¹

INTRODUCTION

This chapter examines the emerging strategies for China of the two largest segments of Taiwan's electronics industry, PCs (personal computers) and ICs (integrated circuits), and the challenges and opportunities that these emerging strategies represent for Japan's own electronics industry. The Taiwanese strategies for the Chinese market in these two segments are a study in contrasts. China is emerging as the critical manufacturing base for the Taiwanese PC industry, while for the Taiwanese IC industry, China is still undeveloped in terms of manufacturing despite the recent moves in Shanghai, emulating the Taiwanese pureplay foundry model. The Taiwanese IC industry is mostly concentrated in Taiwan with some expansion of activity into advanced countries. The Taiwanese PC strategy places cost pressures on the Japanese competition while the Taiwanese IC strategy for China does not present much of a threat. The Japanese PC firms are tentatively beginning to follow the American path of outsourcing production while concentrating on design at the front end and marketing and distribution at the back end. The Japanese and Taiwanese IC industries are at least as much complements as competitors to each other. Japanese IC firms are positioned in different segments in China than their Taiwanese counterparts, and are enhancing their cooperation with Taiwanese ICs firms on a global scale.

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TAIWAN'S CHANGING PC STRATEGY

THE OLD PC STRATEGY

The Taiwanese PC strategy for China has up until recently consisted of using China as an export platform while focusing advanced production, global logistics and R&D in Taiwan. The PC industry has gradually moved production to China over the past decade. First, the lower valueadded peripherals and components, such as computer pointing devices, keyboards and cases, were relocated to China. Then, in the mid-1990s the production of power supplies and scanners began to relocate to China. Finally, in the late 1990s over half the motherboard and monitor production by Taiwanese firms was done in China, and Taiwanese desktops began to be produced there in large numbers. In 2000, for the first time, significant numbers of notebooks were produced in China. While the role of China as an export platform has been increasing over time, Taiwan has still retained much of the brain functions of the Taiwanese PC firms. Even as Taiwanese firms began to do more research and design and take up the responsibility of global logistics for delivery to end users, these activities were developed and maintained in Taiwan. The pilot plants to perfect the production of new products were also retained in Taiwan. Advanced manufacturing in terms of notebook production and high-end desktops also remained in Taiwan.

As shown in the figure below, overall IT (information technology) hardware production has rapidly left Taiwan. Taiwan's share of output value went from 72 per cent to 49 per cent from 1995 to 2000. China's share of output went from 14 per cent in 1995 to 31 per cent in 2000. While IT hardware covers more than simply PCs, in the case of Taiwan, PC-related production dominates Taiwanese IT hardware production. The top four items in production value of IT hardware in Taiwan in 1998 were all PC products: notebook computers, monitors, desktop computers and motherboards. These top items accounted for 79 per cent of Taiwan's total IT hardware production value, including production done abroad.

The trend shift in the data for China in 2000 in the above figure requires some explanation. In November 1999, the Market Intelligence Center, a quasi-governmental agency, announced that it projected China's share of Taiwanese IT hardware production would go up to 38.6 per cent (*CENS* 6 November 2000, internet), but the final figures actually showed a decline of about two per cent of total output value, and the share of the category 'other' skyrocketed from five per cent to 13 per cent. The Southeast Asia category as compiled by the Taiwan Market Intelligence Center only includes Malaysia and Thailand, so the Philippines is included in the





Source: Market Intelligence Center (MIC), Institute for Information Industry (III).

'other' category. Even with investment in the Philippines, the skyrocketing investment in countries in this category is suspect. While a large portion of Taiwanese investment in China is investment registered in third countries to get around the restrictions on investment in China, it is probable that the documented decline in investment in China was engineered by counting China-bound investment made via third countries in 2000 as investment to those third countries. In the past years, much of this investment in China via third countries was simply counted as investment in China. Given the November announcement of a large increase in China-bound investment, this author suspects that political considerations played a part in re-assigning much of the investment to the more politically safe 'other' category.

FEATURES OF TAIWAN'S PC PRODUCTION IN CHINA

There are three distinct features of Taiwanese PC production in China. 1) Taiwanese firms are WFOEs (wholly foreign-owned enterprises). 2) Taiwanese firms are clustered in Guangdong and Greater Shanghai, which covers the area from Shanghai to Suzhou. 3) Up until the past year, Taiwanese PC production in China has been almost completely focused on exports.

Virtually all Taiwanese PC firms in China avoid JVs (joint ventures) with Chinese partners. The core group of desktop, notebook, monitor and motherboard makers that have set up shop in China over the last five years are particularly set against JVs. Even when compared to the recent

trend among foreign-invested enterprises in which nearly 50 per cent of the new contracts made from 1997 through 1999 were for WFOEs, the Taiwanese stand out as biased against JVs (Sutter 2000, p. 2). Most Taiwanese interviewed expressed dissatisfaction with their ability to control JVs with Chinese partners as the motivating factor behind opting for WFOEs. The Taiwanese managers were convinced that the difficulties experienced by Taiwanese firms in earlier waves of investment were due to the necessity of dealing with partners from China.² Along with learning from past experience, the decision to eschew JVs may be connected to the export-platform strategy in PCs. With a concentration on exports, the Taiwanese firms have had no need to make alliances with local PRC firms to gain access to their sales and marketing networks in addition to being a loophole in China's protectionist measures.

Taiwanese investment in China in the early years of legal Taiwanese investment (investment in the Peoples' Republic was legalized by the Taiwanese government in 1990) concentrated in the provinces of Guangdong and Fujian (Hsing 1998, p. 23). Recently, however, the Taiwanese have begun to relocate their Taiwanese PC production networks in Guangdong and Greater Shanghai. The choice of Greater Shanghai over Fujian thus represents quite a shift in preferred investment locations by the Taiwanese. Interestingly, desktop producers appear to be concentrating in Guangdong while notebook producers are concentrating in Greater Shanghai. The top three Taiwanese desktop PC manufacturers, Acer, Mitac and FIC, have all set up manufacturing facilities in Guangdong. These three firms represented 85 per cent of Taiwanese total desktop production by the second half of 1998 (Institute for Information Industry 1998, p. 89). Of the top five Taiwanese notebook manufacturers, which represented a total of 74.2 per cent at the same time (Institute for Information Industry 1998, p. 89), all but Acer are building or have built production facilities in Greater Shanghai. Acer Peripherals has a facility in Suzhou, but this division is quite distinct from Acer's flagship computer division.

The Taiwanese PC production networks relocated to China seem to be quite isolated from local Chinese firms. The firms interviewed in China reported that they used local Taiwanese suppliers and overseas suppliers, both Taiwanese and foreign ones, but they did not use domestic Chinese firms. As these Taiwanese PC production networks in China

² All interviews referred to in this paper are interviews conducted by members of the Industrial Performance Center's Globalization Project team unless otherwise noted. Firms' names are not disclosed in keeping with IPC's promise of confidentiality to interview subjects.

are very young, the use of local Chinese firms could be a matter of time, with more such firms entering the Taiwanese production networks the longer these networks operate in China. Indeed, the Taiwanese networks are really not complete replicas of the supplier bases in Taiwan, as several firms described how they needed to falsify invoices to stay within their import quotas while importing components from Taiwanese manufacturers.

Pressures and incentives for change in Taiwan's PC strategy

The failure of ODM (own design manufacturing) to protect profit margins is forcing Taiwanese firms to reconsider their previous strategies for PCs. At the same time, several factors are encouraging Taiwan to change its PC strategy. The lure of the Chinese PC market is greater than before, with the apparent saturation of advanced-country markets. The success of a few Taiwanese firms in branding in China also serves as an incentive for others to try their hand at the branding game in the China market. Finally, changes are afoot in Taiwan's technology transfer policy towards China that will make doing business across the Taiwan Straits easier. These pressures and incentives have been building for some time but now appear to be effecting a change in strategy.

The Taiwanese PC producers have been shifting from OEM (original equipment manufacturing) to ODM (Schive 1999, p. 2). The primary purpose of the out-sourcing firm in an OEM relationship is to reduce production costs, so that OEM production tends to have lower margins than ODM or OBM (own brand manufacturing) production. Thus, the logic behind the move to ODM is to increase margins because adding design capabilities will presumably enhance the value of the services offered to branded customers (Lee and Chen 2000, p. 7). The addition of global logistics services seems to be a further bid to enhance or at least preserve value by meeting the demand of global customers for these services (Lee and Chen 2000, p. 7).

Interviews with leading Taiwanese desktop and laptop assemblers by Globalization Project research team at MIT's Industrial Performance Center (IPC) indicate that these firms regard the ODM strategy as an incomplete solution for enhancing value creation. The interviewees suggested that the Taiwanese desktop manufacturers have begun to move their production to China because the pressure of low margins has dictated a continued search for cost-cutting measures. A minority viewpoint maintained that the capital-intensive nature of production meant that labor cost was not an important factor. However, the very firm that made this claim was also planning to leave only pilot production in Taiwan. Firms also mentioned the cheap price of land leased for 99 years under Chinese law as a cost-cutting incentive to relocate to China.

Thus, the increasing design capabilities of Taiwanese PC firms have not allowed them to escape cost pressures. Even notebook manufacturers have begun to relocate to China even though this segment previously seemed to be relatively immune to the problem of razor-thin margins forcing relocation to lower wage locations. As late as 1999, many of the notebook manufacturers interviewed did not have plans for production facilities in China. In the course of the following year, however, the notebook firms have been forced to move to producing lower priced models because the whole notebook market has shifted toward lower priced models. This shift has forced the Taiwanese firms to shift production to lower-wage countries, and they have all chosen to shift production to China.

The Chinese market has become increasingly attractive to Taiwanese PC firms. The Chinese market is nowhere near the saturation point, with less than one percent of households owning a computer, and rising incomes in China suggest a growing number of consumers who can afford computers. The advanced markets, in contrast, are extremely saturated. Every other US household has a computer (Bickers and Saywell 2000, p. 32). A number of Taiwanese firms in PC-related products have done well in branding in China. Microtek is the leading seller of scanners in China (*CENS* 10 April 2000, internet). Twinhead is the sales leader in notebook computers in China (*CENS* 24 June 1999, internet). Acer was the fifth largest retailer of desktop PCs in China in 2000 and aims to be the third largest in 2001 (*CENS* 18 January 2001, internet). In contrast, in advanced markets, Acer, Taiwan's PC brand leader, has tried and failed to establish a viable brand.

Though Taiwanese investment in China has been permitted since 1990, the Investment Commission of the Ministry of Economic Affairs reviews large-scale investments and has banned outright investment in certain technology products. Before 14 December 2000, all investments over USD 30 million were reviewed, and, subsequently, the investment trigger was lifted to USD 50 million. There have been a number of onerous technology restrictions related to the PC industry. Among the technology products under ban have been color TV monitors with 19inch or larger screens, and notebook and desktop computer models with 586 or higher processors. It was anticipated that President Chen would loosen these bans in his Chinese New Year's speech on 24 January 2001, but no liberalization was announced at that time. Speculation continues, however, regarding further liberalization measures. The investment restrictions have not been very effective for two reasons. Taiwanese firms can register offshore in the Caribbean or Hong Kong and then use those firms as official investors in China. Another tactic to escape the automatic investment review trigger is to split up the investment into smaller investments. This latter strategy may explain why many Taiwanese companies have one factory site with one firm as majority owner but have the different factory branches on the site registered under different company names.

While similar strategies using third countries to invest in China could be used to circumvent the technology transfer laws, firms in a position to do so have lobbied vigorously against the ban. This suggests that they take the enforcement of the ban seriously enough to expend resources on lobbying for change in the law rather than simply trying to circumvent the law. This lobbying effort could be due to the different stances of the presidential administrations of Deng-hui Li and Shui-bian Chen in Taiwan. The desktop producers set up their China plants during the Li administration. At least one interview subject suggested that the technology bans were not enforced under the Li administration once it was understood that the desktop producers would have to move due to cost considerations. However, the Chen administration has been more vocal about enforcement of government investment policies toward China just at the time the notebook producers began to view the move to China as desirable. Thus, the notebook producers have had to confront the problem of the investment ban, rather than simply circumventing it, as a longterm strategy. In the meantime, a number of firms have already begun to produce notebooks in China, and the remaining firms are only hurriedly building plants to do so. These firms anticipate a change in Taiwanese government policy.

Indeed, the Taiwanese government will probably relent, given the cost pressures on the PC manufacturers and the recent downturn in the IT hardware market. Liberalization in this particular market is needed, despite WTO accession of China and Taiwan. The Taiwanese state must respond to the market or lose the entire industry. With liberalization, Taiwan may be able to do in the PC market what it did in the shoe industry, placing production offshore while retaining headquarter functions in Taiwan.

The New Strategy for PCs

The new Taiwanese strategy for the PC market in China is two-fold. First, Taiwan could take advantage of its geographical proximity and cultural ties to China for expansion in that market. Secondly, Taiwan could shift from a PC-focus to production of a broader scope of goods: in essence, a transition of Taiwanese PC firms into CEMs (contract electronics manufacturers).

Taiwanese firms will try to expand their position in the Chinese PC market by increasing Taiwanese-owned distribution networks and forming alliances with Chinese PC firms. Acer Sertek, Acer's distribution arm, had established 500 sales offices in China by August of 2000 and planned to have 1000 by the first quarter of 2001 (*CENS* 25 September 2000, internet). Mitac has formed a JV with its Chinese partner to sell a branded PC in China, and Quanta is planning to use Chinese distributors for its quality brand of notebooks (*CENS* 3 May 2000, internet). Beyond retailing agreements, a number of the Taiwanese firms are entering OEM agreements with firms from China. Mitac's notebook subsidiary, Getac, has obtained notebook orders from Legend (*CENS* 17 May 2000, internet). FIC has entered a similar agreement with Legend (*CENS* 27 April 2000, internet).

There are still constraints to Taiwan's expansion in the Chinese market. Under Chinese law, most of the wholly Taiwanese-owned firms have to export 70 per cent of their production, either directly or as components in the exports of other firms. Furthermore, there is a requirement of balancing imports with at least the equivalent value in exports to encourage import-substitution. Even if firms do not want to evade the system by under-reporting the imports, there would still be the problem of the government's faulty accounting system in some parts of the country, in which they weigh the imported goods on faulty scales rather than counting the imports individually. Thus, even Taiwanese firms have to resort to falsifying their import receipts. Other options are hiring legal trading companies that engage in a variety of illegal activities to cover up the imports but do not share the incriminating information about these activities with their Taiwanese customers. Finally, firms may even resort to creating fake damaged imported goods to balance the imports and exports.

While the WTO does not allow such export requirements, China will only gradually come under the WTO regime. Loopholes from the past have consisted of gray channels from Hong Kong exporting Chinesemade goods back to China and JVs with the local plant being only the most basic assembly. Indeed, Twinhead and Kenda's notebook JV simply places the CPU into an already built notebook computer, and Twinhead leads in sales in the Chinese notebook market. Nevertheless, some firms seemed to want to be able to have access to China's consumer market and make use of its labor market at the same time. One of the new notebook manufacturers in the Kunshan export processing zone in Jiangsu Province claims it intends to find a way to sell legally in the Chinese market despite being in the dedicated export processing zone. Considering that none of the Taiwanese firms are setting up manufacturing JVs, the strategy appears to be to attempt to win the right to sell a greater percentage of production in the local environment, or to form distribution alliances with local firms to sell the goods or to do both.

As part of a move to escape from the razor-thin margins offered by computer products, Taiwanese firms have tried to expand the scope of manufacturing to other IA (information appliance) products, such as PDAs (personal digital assistants), cell phones and digital cameras. In at least some cases, this expansion of the product scope appears to be a conscious mimicking of the successful (primarily American) CEM firms. This very strategy will only enhance the position of China within the strategy of the Taiwanese firms. By going head-to-head with the large global CEM players in a variety of products, the Taiwanese will probably simply increase the cost pressures in the new product lines they enter rather than creating opportunities to enter product areas with higher margins. These cost pressures will drive more production capacity to relocate to China to take advantage of the much lower labor costs there. Furthermore, the move to these other products will also increase the lure of the China market as these new products, particularly cell phones, have great market potential in China.

How is this new CEM approach affecting the positioning of China within the Taiwanese IT strategy? New products are going straight to China for production. The Taiwanese state is still trying to constrain the movement of these new technologies to China. Nevertheless, a number of Taiwanese firms, such as Quanta and Acer, are reported to be already planning to start cell phone production in China even though they have just begun production of cell phones in Taiwan (*CENS* 3 May 2000, internet). With estimates of China's cell phone market ranging upwards of 250 million sets in annual demand by 2005, a number of the new Taiwanese cell phone entrants are eager to sell in the Chinese market. Acer, Kinpo-Compal, Hon Hai, Inventec and GVC are all applying to China's Ministry of Information Industry for permission to sell cell phones in China (*CENS* 30 October 2000, internet). The pull of the Chinese market plus the push of cost pressures will most likely drive the Taiwanese to step up production in China.
TAIWAN'S IC STRATEGY

TAIWAN'S GLOBAL IC STRATEGY

Taiwan's IC strategy has been global, and there has been no specific Chinese strategy as a significant part of this global strategy. The growth and development of the Taiwanese IC industry occurred in the context of strong interaction with the international IC industry located in advanced industrial nations. Thus, it is not surprising that the Taiwanese industry has had a global strategy with little particular focus on China. The two key features of this strategy have been granularity of production and the expansion of production into advanced markets.

Unlike the traditional IDMs (integrated device manufacturers) in the IC industry, Taiwan's success has come from breaking up the integrated production chain from design to packaging and having firms specialize in one of these particular activities. The Taiwanese have first and foremost specialized in fabrication service, the pureplay foundry model. Two Taiwanese firms, TSMC and UMC, are the world's largest pureplay foundries, and these two firms occupy well over half the worldwide foundry market. These firms have formidable price and technology leads over their potential rivals. They are near the technology frontier in terms of process technology. TSMC has volume production of 12-inch wafers and has done successful trial runs of the 13-micron process (CENS 19 and 25 December 2000, internet). UMC has jointly developed 13-micron technology with Infineon and IBM (CENS 15 December 2000, internet). While the foundry firms have served US fabless design houses - firms that concentrate solely on design of chips with no fabrication facilities – the fabless design house segment is a significant and growing niche in Taiwan as well. In the area of chipsets, the Taiwanese have seen spectacular success with VIA, ALI and SIS, all major international players in this design segment.

The Taiwanese government has helped to build and support the IC industry infrastructure in Taiwan, especially with the formation of the original Hsinchu Science-based Industrial Park and the newer Tainan Science-based Industrial Park. Many Taiwanese have returned from the US, bringing with them tremendous human capital and a strong network of relations with American firms. However, Taiwanese firms are not and cannot be content to keep their operations completely concentrated in Taiwan. Relocating some activities to advanced industrial markets offer four benefits to the Taiwanese industry. The advanced markets, firstly, offer access to technology, particularly in centers of innovation such as Silicon Valley. Thus, many Taiwanese firms at least have listening posts in

Silicon Valley, and the more sophisticated design firms actually have fullfledged R&D centers there, such as VIA's R&D center that focuses on microprocessor technology through the acquisitions of Cyrix from National Semiconductor and IDIT's Centaur processor division, both of which are located in the US. Secondly, the advanced industrial markets also offer human capital resources. Although Taiwan itself has formidable human capital resources, there is a worldwide shortage of strong IC human capital so firms look to those countries with well-developed IC industries for personnel. There is also concern, thirdly, to diversify risk through geographical diversification. This need for risk diversification is particularly acute in the foundry segment, as fabless firms are dependent on foundries to get their products to the market. The need to have fabrication services outside of Taiwan was driven home in the autumn of 1999 when the earthquake in central Taiwan set off fears that Taiwanese production of chips would be halted for some time. Finally, there is an argument that proximity to customers is important to foster communication, learn from customers and to acquire new clients. Thus, TSMC set up a fab (fabrication facility) in the US, Wafer Tech, and UMC has set up two different foundry firms in Japan.

THE HURDLES TO IC ACTIVITIES IN CHINA

Beyond the obvious fact that China as a developing country does not have the resources possessed by the developed world to induce Taiwanese firms to relocate activities in China, there are two other significant hurdles to IC activities in China. First, most of China has relatively poor infrastructure. Stable supplies of water and electricity are critical to the industry. Even in Taiwan, the IC industry is located in science-based industrial parks because the electricity provision to these zones has been more stable and abundant. Secondly, the Taiwanese government has a ban on the transfer of six-inch wafer and subsequent generations of IC technology to China. While there is talk of lifting the ban on six-inch fabs, there appears to be little prospect that the ban will be lifted on eight-inch fabs. Although such bans are not completely effective, they do deter the large, listed Taiwanese IC firms from pursuing fabrication activities in China.

Both of these hurdles are not completely insurmountable. Engineers familiar with the new IC fabs in Shanghai have stated that the industrial infrastructure in terms of water and electricity supply may be better than in Taiwan, given the lower demands placed on the infrastructure by the few fabs in Shanghai. While the Taiwanese infrastructure must supply a large number of fabs and the Shanghai system needs to supply very few, Shanghai's infrastructure is thought to be good enough to support ten new fabs and remain reasonably competitive with Taiwan's infrastructure. Air quality is an additional problem in setting up fabrication facilities in parts of China, particularly in Beijing, but this problem can be overcome, albeit at some cost, by replacing air filters more frequently. The Taiwanese firms engaged in fabrication cannot directly invest in such facilities in China, but two new start-ups in Shanghai, Grace and SMIC (Semiconductor Manufacturing International Corporation), have significant amounts of money from Taiwan via third countries and have drawn on Taiwanese engineering talent as well.

WILL CHINA PLAY A PART IN TAIWAN'S GLOBAL IC STRATEGY?

Currently, there are three IC fabrication firms with ties to Taiwan in China. In Shanghai, the son of Formosa Plastic's magnate, Yong-qing Wang, has founded Grace Semiconductor, and Richard Chang, former head of WSMC, a Taiwanese foundry bought out by TSMC, has started SMIC. In Wuxi in Jiangsu Province, CSMC (Central Semiconductor Manufacturing Corporation) has ties to Mosel-Vitelic, though an interview subject who recently left the firm claims these ties have been severed. Despite these activities involving Taiwanese engineers and businessmen, it is an open question of whether these firms fit into Taiwan's global strategy in any significant way.

One point is that these firms do not have direct financial links to Taiwan. Even CSMC had links to the Mosel-Vitelic subsidiary in Hong Kong rather than links directly to the parent firm. Though Taiwanese engineers from all the big Taiwanese IC fabricators, including TSMC, UMC, Winbond and Macronix, have come to the new foundry companies in Shanghai, the Taiwanese firms themselves are not allowed to invest in China and thus are very reluctant to move there. The strategy of CSMC has been to concentrate on foundry service for lower-end consumer electronics products designed for the Chinese market. The firm utilizes older process technology of 0.5 to 0.6 microns and six-inch wafers. The two new Shanghai foundry firms aim to use the more advanced eightinch wafers and approximately 0.25 micron process technology, but this is still significantly behind the 12-inch wafers and 0.13 micron technology to be used in the fabs the Taiwanese firms are currently building. Thus, in the short-term, head-to-head competition with the big Taiwanese foundries is unlikely.

Nevertheless, the Chinese market will probably become a more substantial part of the Taiwanese IC strategy for several reasons. First, the ambitions of at least one of the new Shanghai foundries is to challenge

TSMC and UMC over the next ten years. This challenge will utilize the advantage of the fact that IC consumers, such as PC firms, are moving their production facilities to China. The confluence of the ambitions of the new China-based firms and the increasing importance of China as a manufacturing base for IT will demand a response from the Taiwanese firms. Almost all industry insiders expect the Taiwanese government to relent and allow investment in the IC industry in China so that Taiwanese firms will eventually have the freedom to respond as they wish to the current trends in China. Conceivably, they could set up their own firms or, as they have done in Taiwan and Japan, they could buy up the local fabs and integrate them into their firms. In the quite near future, China may offer some of the lures that the advanced markets offer. The benefit of diversifying geographical risk will no longer be offset by an inferior industrial infrastructure in China. China will gradually be able to provide more human capital in the industry as the new foundries intend to cultivate local talent despite most of their current engineering talent being from the US and Taiwan. Finally, while there will not be the same level of demand from design houses that prevails in Taiwan or the US, being close to the end-users of the chips – the IT end-product users – will offer the advantage of customer proximity.

The challenge to Japan and the Japanese response

THE CHALLENGE TO JAPAN

The very different nature of the strategies of Taiwan's PC and IC industries has led to various challenges for Japan. The Taiwanese PC industry has a well-defined China strategy while the IC industry's strategy for China is still relatively underdeveloped. Thus, the Taiwanese PC industry represents a much more significant challenge to Japan. Moreover, the very fact that the Taiwanese and Japanese IC industries have often been complementary to one another rather than in competition with each other also suggests that the Taiwanese IC industry's strategy even when developed will not present much of a threat to the Japanese.

The new strategy for China by Taiwanese PC producers presents two distinct challenges to Japanese firms. First, Taiwanese firms could develop significantly better ties with local Chinese firms than their foreign rivals due to both the common cultural background between mainland Chinese and Taiwanese firms and the potentially better treatment by the Chinese authorities, given the at least nominal status of Taiwanese as Chinese. These better ties and treatment in turn could give Taiwanese firms better access to the Chinese market than their foreign rivals. Secondly, as Taiwanese firms launch their CEM strategy, they could increase the cost pressures on the vertically integrated Japanese electronics firms in two ways. The very fact of more CEMS competing for the same business should push down prices. On top of that, the potential ability of Taiwanese firms to take better advantage of the cheap labor in China than their American CEM or Japanese vertically integrated rivals could drive down prices even further.

These challenges should be qualified. The Taiwanese may have a slightly better ability to maneuver the institutional landscape of China demonstrated by their greater ability to operate WFOEs in China, but the Taiwanese are still not regarded as China's nationals in economic terms by the Chinese state, and their firms are emphatically not treated as Chinese national champions. Thus, the abilities of Taiwanese to garner better access to the Chinese market and to better utilize local resources are not established facts but plausible conjectures. It is true that Taiwanese interview subjects have admitted entertaining some hopes of being able to get exceptions to Chinese regulations that prevent them from selling in China, even to the extent of being able to sell in China from exportprocessing zones where all production is required to be exported. In contrast, Japanese firms do not even entertain having guaranteed and easy access to China after WTO accession, and they anticipate swings in Chinese regulatory attitude to imports that will require production facilities in China even after WTO. Clearly, there is some discrepancy at least in the hopes the firms of the two countries entertain for China, but the current reality is that firms of both countries face the same export requirements, import tariffs and regulatory hurdles.

In the IC industry, Japanese and Taiwanese firms have had strategies marked by cooperation rather than competition. The Japanese firms have generally been IDMs with some fabrication outsourced to Taiwanese foundries. The Japanese have also had extensive relations with Taiwanese DRAM firms. Winbond has been a recipient of Toshiba memory technology and has in turned served as a fabrication facility for Toshiba's memory products. Powerchip has served a similar role for Mitsubishi. None of the DRAM firms in Taiwan has generated its own technologies to compete with the current generations of technology produced in Japan, the US and Korea. The expansion of UMC into Japan has been in anticipation that Japanese firms will outsource even more fabrication, and one of the two UMC ventures in Japan is a JV with Hitachi. There is even discussion of UMC and a group of Japanese producers creating a pureplay foundry together. Thus, even as Japan begins to foray into the foundry business, they are cooperating with the Taiwanese to set up these businesses. In China, the Taiwanese foundries and the DRAM fabs set up by NEC with JV partners, Shougang in Beijing and Huahong in Shanghai, also do not seem in direct competition. Though this may change as NEC-Huahong has an established goal of increasing foundry production to 20 per cent, it will be hard for NEC-Huahong to be both a foundry and an IDM. Past history has shown that firms pursuing both IDM and foundry business are not looked upon favorably by foundry customers. Thus, NEC-Huahong will either have to leave the foundry business or become completely committed to it. The latter strategy is much more risky for NEC-Huahong given that most of its current business is from NEC and NEC is not experienced in handling a pureplay foundry. The reasonable assumption is that NEC-Huahong will remain as the captive fab for NEC products.

JAPAN'S RESPONSE

The Japanese need to respond to the challenges presented by Taiwan's PC firms. Fortunately, Japanese firms have already tentatively experimented with the proper means to meet some of these challenges. Principally, these means are expanding the relationship that Japanese firms have with Taiwanese OEM producers and outsourcing production to the international CEM firms. Both of these measures would cut down on manufacturing costs, which would meet one of the two major challenges that Taiwanese production in China creates.

For the other major challenge of cracking open the Chinese market, the Japanese have not yet developed even a tentative response to the Taiwanese bid for market access. The question remains as to whether they need to develop a response, as the Taiwanese vision of their access to the Chinese market is not yet a reality. Furthermore, the current relationships between Legend and other domestic Chinese producers on the one side and the major Taiwanese OEM/ODM firms on the other may sour if and when the Chinese firms and the Chinese state are not satisfied with the technological dependency on the Taiwanese inherent in the relationship. Thus, the relationships that Taiwanese firms have established with their Chinese counterparts may closely resemble the relationships and their tensions between Japanese firms and Chinese ones, such as the cooperation between Toshiba and Legend in marketing Toshiba's products. Then, there is the issue of the uncertainty of what WTO accession will actual mean for economic regulation in the Chinese market. Will China's entry into the WTO effectively lift many of the retailing regulations designed to keep foreign firms out of the Chinese market, given the clear illegality of many of these regulations under WTO rules? Other countries have maintained effective trade barriers in certain industries, such as automobiles in South Korea, despite being members of the WTO. However, China's market has such potential that it will surely come under closer scrutiny by foreign firms and governments than other, smaller WTO members. If China is forced to create a much more level playing field for all firms, any Taiwanese advantage in negotiating the old, pre-WTO Chinese regulatory environment could be eliminated.

What are the concrete measures the Japanese have taken in response to the Taiwanese challenge? Japanese firms have ordered desktop PCs from the Taiwanese since the mid-1990s and notebooks starting from 1997. Some Japanese firms report that they have to spend significant amounts of manpower and time to ensure the quality of notebook orders from Taiwanese firms. However, the trend of outsourcing to the Taiwanese is likely to continue and expand as margins decline and as Taiwanese firms improve their quality through interaction with Japanese customers. Japanese firms have begun to order a variety of products beyond computers from the Taiwanese OEM firms. A number of Japanese conglomerates have also ordered digital cameras from Taiwanese firms. In terms of critical components, the Japanese have been the force driving the transfer of AMLCD (active matrix liquid crystal display) technology to Taiwanese producers. In return for transferring the technology, the new Taiwanese AMLCD producers have been major suppliers of largescreen LCDs for notebooks and monitors for the Japanese technology transfer partners.

In terms of working more closely with the established CEM firms, there is some evidence that the Japanese themselves have begun to set up such relationships. Sony recently sold two plants, one in Taiwan and one in Japan, to the world's largest CEM firm, Solectron. This sale marks the first CEM firm to establish a manufacturing presence in Japan. The sale is more of a strategic partnership than a mere sale of assets as Sony will be a major customer of the products manufactured at both new Solectron facilities (Electronics News 18 October 2000, internet). NEC has sold much of its manufacturing capacity in cell phones and turned to CEM firms for cell phone production capacity (Bloomberg News 12 December 2000, internet). The Japanese may find that expanding ties to CEMs will be even more fruitful than continuing to cultivate ties to the Taiwanese firms because CEMs produce a wider range of products. Also, CEM firms do not have the aspirations that many of the Taiwanese ODM firms have to enhance their design capabilities and even to become OBM firms in their own right. Some Japanese firms interviewed saw a link between Taiwanese firms with strong design capabilities and firms with aspirations to emerge as branded rivals of the Japanese electronics firms. Thus, they would rather choose Taiwanese firms with weaker overall capabilities in order to ensure that they were not cultivating future rivals.

The ability to maintain control over product definition, marketing and distribution when outsourcing production and some design functions has been questioned by vertically integrated firms, particularly Japanese ones. The history of the US branded IT firms suggests a more positive reading of the ability of branded firms to maintain control over these functions when outsourcing. Indeed, the US branded firms have been so successful that Stan Shih, chairman of Acer, has suggested that there is a smile-shaped curve in the PC industry in which the high return activities are located at the product definition front end and the marketing and distribution backend. The middle segment of manufacturing is the low-return bottom of the smile. Taiwanese suppliers have not forced the American firms out of the product definition, marketing and distribution areas. It is reasonable to expect that if the Japanese begin to pursue more extensive outsourcing, they too will be able to maintain their control over certain critical parts of the business.

The more extensive cooperation between the IC industries of Taiwan and Japan suggests less of a challenge and, consequently, less of a need for a response. However, the Japanese may need to change their strategy in China to head-off competition. The perception of the Chinese is that NEC does not share technology and train Chinese personnel. In contrast, the new Taiwanese foundries are actively recruiting Chinese personnel from overseas and from the ranks of recent graduates of China's major technical universities. This discrepancy in corporate image may negatively impact NEC's operations further down the road and should be addressed. Also, in the future, the very inability to use Chinese recruits effectively may hamper the efficiency of the operations so the current culturally closed strategy of NEC should be changed. Finally, if the Japanese firms at home decide to expand into the foundry sector, in conjunction with Taiwanese partners or not, they should also consider opening operations in China for precisely the same reasons the new Taiwanese foundries have set up shop: proximity to customers and access to human capital.

THE OPPORTUNITIES FOR JAPAN

The Japanese frustrations over Japanese business operations in China are not specific to Japan alone. In the electronics industry, their Taiwanese rivals may have begun to concentrate on China due to the push of competitive pressures and pull of the large, geographically and culturally close Chinese market. However, the Taiwanese will also confront prob-

lems in operating in China if the operations are not export focused. Thus, the major impact of the Taiwanese movement of production to China, a rapid relocation of the core production in the case of PCs and a more gradual movement of some operations in the case of ICs, may be on the competition Japan faces in the international market rather than the Chinese one. American firms have used the cost competitive Taiwanese OEM/ODM firms in the PC industry and the pureplay foundries in the IC industry to their advantage in international competition. Thus, the Taiwanese movement to low-wage China and simultaneous transformation into CEMs with a broader scope of products presents an opportunity to Japanese branded firms even as it poses a threat to the current vertically integrated structure of the Japanese electronics firms. The Japanese firms have the chance to convert the Taiwanese strategy for China from a competitive threat to an asset, but embarking on the radical outsourcing necessary to take full advantage of this opportunity will require the will to bear with the pain concomitant with such radical change.

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6 Risk and Motivation in Sino-Austrian Joint Ventures in China

Christian HIRT and Ursula SCHNEIDER

INTRODUCTION

This paper analyses different models of external trade and their implications for joint ventures of partners from both developed and emerging economies. A pattern of complementary cooperation is combined with that of substitutive competition. The experiences of a small sample of Sino-Western joint ventures are discussed as a structural consequence of the simultaneous occurrence of both patterns. Finally we will pose the question whether those partly culture-based experiences can be relevant to Japanese companies about to enter partnerships in China.

INTERNATIONAL JOINT VENTURES IN THE LITERATURE

While theory and common sense maintains that in a country with considerable businesses distance (Luostarinen 1989), great internal variety and the importance of strong relations to central, regional and local governments (Welge, Holtbrügge and Berg 2001), partnerships are the appropriate form of market entry, many Western firms have failed to use this approach. Nevertheless, a large number of international joint ventures are operating in the People's Republic of China. According to MOFTEC statistics there are more than 200,000. Quite a large number, if one considers that the business environment in China is uncertain and anything but transparent.

We define joint ventures, following Hellwig (1989), Szymanski and Rigler (1995) and Fuchs, Schneider and Dawei (1997), as an investment across borders with the intention of founding an autonomous (common) enterprise with one or more partners. The ideal state of affairs is to reach compatible and complementary goals.

Although international joint ventures often experience severe difficulties, foreign investors are attracted by the huge market potential. The main causes of difficulties are high uncertainty and instability in the Chinese business environment. Koot (1988) mentions performance problems in less-developed countries, reluctance to share profits, lack of trust in the business partner and the difficulty in directing joint ventures towards one's goals. According to Nyaw (1995), difficulties can be traced back to organisational problems caused by misunderstanding and mutual incomprehension of the other's objectives and methods. Park and Ungson (1997) consider aspects of multiculturalism and its impacts on the dissolution of joint ventures.

Hence, undertaking a joint venture involves problems one would not have to face if a company was on its own. Importance must therefore be placed on how a firm organises its boundary activities with other firms (Kogut 1988, p. 320). The reasons and motivations for undertaking a joint venture are discussed below.

Contractor and Lorange (1988) elaborated seven reasons for forming cooperative ventures: risk reduction, economies of scale and/or rationalization, technology exchanges, co-opting or blocking competition, overcoming government-mandated trade or investment barriers, facilitating initial international expansion of inexperienced firms and vertical quasiintegration advantages of linking the complementary contributions of the partners in a 'value chain'.

In R&D joint ventures, Hladik (1988) argues that the benefits are the ability to spread costs and risks and the pooling of complementary resources provided by the different partners. Pfeffer and Novak (1996) consider technological risk and capital requirements to be too high for a single organisation to handle. The combined strengths of two organizations in developing a new product or service, or entering a new market, are considered reasons for undertaking a joint venture.

According to Root (1994), in developing countries and formerly communist countries, the prohibition or discouragement of sole venture entry by governments is the most common reason for joint ventures. The entry strategy is thus not determined by business policy but is rather a government-dictated form of market entry, making joint ventures the only feasible form of investment entry in such countries.

Where host-government restrictions on foreign ownership do not exist, Gomes-Casseres (1988) suggested that joint ventures were created when contributions were needed that are costly to acquire contractually. This is the case when a multinational enterprise has little previous experience in the subsidiary's country or industry. Kogut (1988, p. 320) explains that joint ventures are formed because of diseconomies of acquisition or higher costs of internal development, if for at least one of the partners, production costs are significantly higher than external sourcing. The motivation for international joint venture formation is described as the evasion of smallnumber bargaining, enhancement of market power and mechanisms to transfer organisational knowledge. The minimising of production and transaction costs is a possible criterion for how firms choose to transact. A spirit of cooperation has been discussed by Buckley and Casson (1996), who noted that transaction costs would be reduced in the long run, arising from an improved climate of trust in joint ventures. Without trust, transaction costs are likely to be high due to the need for more safeguards and monitoring to protect against opportunistic behaviour.

One point which is especially interesting is associated with the problem of finding an ideal partner for an international joint venture (e.g. Blodgett 1991; Goldenberg 1990; Trommsdorff and Wilpert 1991). Key issues regarding partner selection in Japanese joint ventures were presented by Makino and Beamish (1999). Pan and Li (2000, p. 180) examined characteristics of international joint ventures based on differences between firm size. A number of studies elaborated on these difficulties: Beamish (1985), Geringer and Hebert (1989) and Schaan (1983) all focused on the issue of control and arising conflicts, while Anderson (1990), Gomes-Casseres (1987), Parkhe (1993), Yan (1998), Makino and Beamish (1998) and Yan and Zeng (1999) evaluated stability and performance. Root (1994, p. 153) also stressed the question of control, in particular taking into account how a minority partner can exert dominant influence. Inkpen and Beamish (1997) considered the question of instability of international joint ventures, while Reuer (2000) focused on shareholder wealth effects and termination of international joint ventures in his empirical research. Although the literature is extensive, the research has not yet been integrated into a single conceptual framework.

Parkhe (1993) highlighted this lack of conceptual work associated with a general theoretical deficit in international joint venture research. In his influential article entitled 'Messy research, methodological predispositions and theory development in international joint ventures', important steps were taken and a unifying conceptional approach was offered. Parkhe criticised the dominance of 'hard' quantitative empirical research over 'soft' behavioural variables, which inhibits – as he stated – the study of other crucial aspects of international joint ventures. The dominance of quantitative research has resulted in individual pieces of research on only a small set of variables, and causal links that hamper overall understanding. Theoretical approaches such as the property rights approach, transaction costs economics, and the principal agent approach highlight the importance of trust, reciprocity, forbearance and the controversial issue of opportunism from a different angle, but share the common assumption that these variables fulfil a unique function in the running of an economic system.

As Parkhe (1993) maintained, reciprocity, forbearance, opportunism and trust are crucial elements in understanding and explaining the cooperative behaviour of economic agents. From his specific pessimistic perspective, Williamson assumed that trust was rarely transparent ex ante and that 'trust and good intentions [...] are very fragile' (1985, p. 64). Nevertheless, the essence of a joint venture is usually based on cooperation between two or more different partners (Buckley and Casson 1988). Joint should be read as commonality, mutuality and reciprocity as a concept that is important because it stresses the notion of what each partner offers in exchange, such as knowledge, assets and skills each partner contributes to the joint venture. The simple consequence means operating together and not against each other. Hence, cooperation is a process based on reciprocity. Cooperation and reciprocity allow partners to share tacit knowledge and to access the organisational knowledge of other firms. This can only be achieved if the relationship is based on trust. Trust and credibility are crucial elements that allow independent reciprocal transactions to take place (Fuchs, Schneider and Dawei 1997).

Any successful cooperation and any appropriate relationship between people in a joint venture is based on trust, it depends on the degree of reciprocity and it is enhanced or hampered by the degree of opportunism and forbearance. Perhaps the most difficult part of the analysis is how these variables interact in day-to-day behaviour among members of international joint ventures, which strongly shapes future expectations. There is also the dimension of time involved in joint ventures. Static models need to be complemented by a historic perspective that accounts for different paths of development when examining mutual trust.

EXPERIENCE GAINED FROM SINO-WESTERN JOINT VENTURES

Several studies, though still explorative, shed some light on the reasons for success and failure of partnerships as the appropriate form of market entry, with the following findings on the macro and micro levels (see Schneider and Fuchs 1999; Welge, Holtbrügge and Berg 2001).

MACRO-LEVEL REASONS

David Ricardo's theory of comparative cost advantage still inspires progress in liberalising trade (and FDI) in goods, services and intellectual property. But Ricardo's theory is static, assuming the immobility of labour and capital. Furthermore, it focuses on factor conditions mostly supplied by nature (Ricardo 1971).

Michael Porter (1990) has provided a more differentiated model of factors of production to explain the competitive advantage of nations.

Generic factors, such as raw material or physical labour are still important, but competitive advantage is constituted by progressive factors such as knowledge and entrepreneurship. If those progressive factors are specified – specific to a certain industry – they may enhance the formation of local clusters. Thus a modern version of Ricardo's theory starts from the assumption of an international division of sophisticated labour, where each region supplies to the rest of the world what it can produce best.

Overcapacities would only appear as an exception and oscillation around market equilibrium in this model. Intra-industry trade, on the other hand, is competition based on either cost-advantage or differentiation in the production of similar goods. It contributes to consumers' choices by way of a wide variety of goods such as cars, computers, fashion, detergents and food. In this model considerable overcapacity may arise and give way to harsh price competition.

Both models would suggest innovation as a strategy of individual companies to survive and take a competitive lead. In Ricardian-type models, innovation allows competitors to be attractive as an exchange partner; in intra-industry models it allows higher margins until the competition has caught up. Product innovation is closely linked to (high) technology as we move into the digital age.

With exploding costs for R&D and shorter life cycles of products, innovation and/or simultaneous market entry to several markets can hardly be achieved alone. The processes of liberalisation, deregulation and privatisation have allowed companies to loosen their ties with former home countries and to search for alliances all over the globe.

They follow strategies of 'coopetition', which rely on a delicate balance of knowledge exclusion and knowledge sharing, depending on the complementary or substitutive character of goods and services they supply in their programmes.

A static Ricardian model would suggest that developed countries exchange technology-based goods for manufactures with a high content of raw material and physical labour from developing countries. A dynamised Porterian model, on the other hand, recommends that all countries build up progressive and specified factors as fast as possible. The same strategy is implied in intra-industry competition.

On a macro-level, we also see a scenario of coopetition that requires delicate balances between technology transfer and technology holdback. As the capacities for certain mature consumer goods are underused rather than stressed, countries with advanced technology show a vested interest in accessing promising markets. Their partners in developing countries may be more interested in technology transfer than in establishing the foreign partner's strong brands in their home markets, so that they can upgrade their contributions to the international division of labour and production and compete with their former partners either on the home or on third markets.

These unavoidably differing interests seem to be aggravated by cultural differences and the speed with which East Asian countries have moved from agrarian to industrial and even post-industrial structures. Whereas knowledge was a by-product, embedded in the main product or service delivered during the first two stages, it trades as a good of its own in a 'light' post-industrial economy (Drucker 1994).

With the help of the Internet and the vast potential of highly trained researchers in emerging markets, such as China and India, knowledge travels fast. Ricardian patterns of trade are complemented and sometimes even substituted by Porterian or intra-industry patterns.

Macro-level conditions, therefore, suggest that only such partnerships will survive where motives are clear and complement each other and where institutional arrangements assure that both market entry and technology transfer will occur.

MICRO-LEVEL REASONS

On the micro-level the studies found that joint ventures had a higher expectation of success if partners had selected each other carefully and if they had invested time and effort in a feasibility study. Hurried-up investment without sound preparation, on the other hand, was connected with a high probability of failure.

Secondly, joint ventures had a higher tendency to succeed if they were run by managers with high intercultural competence on both sides. Those Western managers who speak the language and have learned the history of the country understand its business models and the relationship to different authorities much better.

Thirdly, a firm commitment to the Chinese venture by the Western partner also contributes to success. A longer-term relationship can develop and establish the necessary trust or cooperational strategies; game theory suggests the usefulness of multiphase games (Axelrod 1997).

These findings are not surprising, since common sense would lead to very similar results. What could be considered a counter-intuitive finding was that the length of a joint partnership had a negative correlation with trust in one study (Schneider and Fuchs 1999). In these cases euphoric mutual expectations were disappointed by real behaviour. Managers on both sides tended to interpret their disappointment in terms of cultural factors and intercultural prejudice.

IMPLICATIONS FOR JAPANESE MULTINATIONAL ENTERPRISES

If foreign enterprises assist in establishing production capacities, in the long run they will contribute to creating competition, provided that Chinese partners behave in an opportunistic way. This development will be accelerated if China continues its offensive export policy and hence becomes a fierce competitor in technologically advanced industries. The underlying hypothesis of the Schneider and Fuchs (1999) research work on Sino-Austrian joint ventures assumes that with respect to motives and interests, there is a fundamental tension between Western and Chinese partners. While the aim of Western enterprises is to gain access to the market, the Chinese are mainly interested in taking advantage of Western technology. Hence, Western multinational corporations' interest in joint ventures may be primarily influenced by the possibility of getting a foothold in the Chinese market. The study reveals that the main areas of concern are interpersonal relations, implementation of laws, changing regulations concerning imports and the achievement of targeted productivity. It is argued that the source of tension lies in the variety of misunderstandings Western partners' experience in China.

The same scenario will probably apply to Japanese corporations. Consequently, Japanese firms will face problems similar to those experienced by Austrian investors. All foreign companies must follow regulations and laws. Productivity depends to a great extent on the diligence of the work force and trust is fundamental for the functioning of a joint venture. Inkpen and Beamish (1997) argue that trust is required for the functioning of international joint ventures. A trust-based society such as Japan may have lower transaction costs, which might result in a competitive advantage for Japanese enterprises over their competitors. A detailed economic analysis of trust in joint ventures has been provided by Dolles (chapter 8).

If a trustful relationship between joint venture partners exists, possible opportunistic behaviour of partners will more likely be avoided. Chinese business behaviour is difficult to assess. With an awareness of tensions and cross-cultural misunderstandings in Sino-Western relations, Westerners might be more careful in dealing with Chinese partners. Based on interviews with a Japanese manager with experience in European business, a possible hypothesis could be that Westerners with an interest in business will more likely be successful than the Japanese in adapting to cultural aspects and accept cooperation by agreeing on compromises. However, for Westerners business will be less profitable than for the Japanese, who are known to be tough negotiators (Hodgson, Sano and Graham 2000). Japanese tend to exercise more patience in accomplishing the goals of a joint venture due to a longer time horizon than their Western counterparts. Nevertheless, if the Japanese cannot see an opportunity to push their interests through, they will abruptly terminate business relations, as harmony cannot be achieved. However, if negotiations are successful, tight agreements will also make the business itself successful. Consequently, one can argue that the Chinese will feel more comfortable in a Sino-Western business relation and hence be more willing to work for Western than Japanese enterprises.

Regarding market share, trends in Japan's foreign trade with China indicate motives for a strong presence in China. From 1998 onwards the total value of Japan's exports and imports decreased, mainly due to the slump in the Japanese economy and the yen's appreciation. However, the total value of exports and imports to and from China increased in 1999 as against 1998 by 1.4% and 0.6% respectively, while foreign trade with the US, EU and Middle East decreased (WTO 2000, p. 12). An upward tendency of Sino-Japanese trade has also been confirmed by the Japan External Trade Organization, showing solid growth for the third consecutive year. Although the rates of increase were slower than in 2000, China was among Japan's top-five trading partners and succeeded as the only one to raise both exports and imports. Of the world's leading markets for Japanese exports China holds second place, and is also the second-largest supplier of exports to Japan. China's share of Japan's global trade recently increased to 11.8%, exceeding 10% for the first time (JETRO 2002).

Technical progress results in competition between national economies in overlapping markets. It is not to be denied that competition exists between Japan and China. In the past the success of Japanese firms was dependent on imitation and improvement of imitated products. Precise mass production and continuous improvement of products and production processes helped the nation become a leader, especially in the production of electronic components. However, technology transfer usually carries the risk of imitation. As Chinese production facilities are suitable for mass production, Chinese enterprises might follow the same strategy that made Japanese enterprises successful. Akin to Japanese firms, China has the ability to develop precise mass production but with the advantage of producing at lower wages, hence causing fierce price competition.

The presence of multinational firms in the local market and the control exercised by Japanese enterprises can counteract this development. Isobe, Makino and Montgomery (2000, p. 478) stressed the importance of timing of entry and resource commitment to technology transfer of Japanese enterprises in the Chinese market. They distinguish between firms that explore potential market opportunities before competitors enter the market – early movers – and firms that wait until uncertainties in the regions are resolved by earlier entrants – late movers. The findings of their study

show that in the case of Sino-Japanese joint ventures in emerging economic regions early movers and technology leaders are likely to attain superior economic performance relative to technology followers and late movers. Boulding and Christen (2001) discussed the concept of firstmover advantage in relative terms. Introducing the concept of first-mover disadvantage, their research showed that being a pioneer can incur surprisingly high costs.

According to Fuchs, Schneider and Dawei (1997), management competence, production know-how and access to Chinese authorities are essential motives in Sino-Western joint ventures. Japanese enterprises have developed their own management techniques and have implemented them successfully. In accordance with their claim to uniqueness, it is not likely for Japanese enterprises to leave management up to their Chinese counterparts. In particular this holds true for human resource management. Japanese enterprises rely on their own expatriates as an effective control mechanism to exert influence on overseas operations. The decision to use local managers or expatriates depends on the type of activity in China. The preference for Japanese expatriates in China can be explained by the fact that many Japanese plants in China are subcontractors for Japanese-based headquarters. They are not aimed to target the local market and hence return most of their output to Japan. In such a scenario there seems to be little place for Chinese managers. The situation is different for enterprises targeting the Chinese market. Although a reduction in expatriates is being considered by Japanese companies, a radical change is not to be expected soon (Legewie 2000).

Another reason for not taking advantage of Chinese management competence might be seen in Japanese enterprises' concern for their worldwide reputation. In the case of a Chinese manager behaving opportunistically, a bad reputation for the globally operating Japanese enterprise might develop. Upholding one's good reputation is considered to be essential when operating with partners in a global economy. Japanese managers are subject to several shared values like group identification, collective responsibility and a sense of reciprocal obligation that have to be consistently complied with in Japanese culture. Fundamental research in the field of obligations has been conducted by Benedict (1993). In a Western environment, one will easily perceive an unreasonable sense of duty as a constraint. The contrary may be found in Japan, where the sense of obligation is embodied in society so that an impediment to offer resistance prevails. Hence, misbehaviour by a Japanese manager can probably be excluded.

The transfer of production know-how will challenge Japanese enterprises in particular. When partners cooperate at an early stage in order to anticipate benefits, they must be aware of the fact that they may become competitors at some later stage. Opportunistic behaviour like providing false information, cheating each other or withholding important information can occur once the early stage is passed. Opportunistic behaviour is likely in a Sino-Western joint venture if the actual interests of the joint venture partners differ too much or are incompatible. This can be a result of poorly prepared or simply bad negotiations, or badly chosen partners (Fuchs, Schneider and Dawei 1997). Difficulties in establishing and maintaining trustful relations will have a negative impact on the extent that know-how can be transferred. Once the know-how is transferred, the risk of acting opportunistically cannot be excluded.

Strong personal connections with local key players and recognition from the local business community are keys to successful market entry. In business it is essential to be well connected. The Japanese maintain their social networks by *ningen kankei*; Chinese are embedded in *guanxi*. In simplified terms, informal relationships determine just how much or how little can be accomplished. This is true for all kinds of business. Factories supplying a product are dependent on transportation, customs and other export-related organisations; raising funds requires connections to banks. Even if all requisite permits and approvals from authorities are obtained, not having relations to the relevant supply channels will cause difficulties. One can assume that if both cultures are familiar with the strong importance of relationships, a smooth course of interaction between Japanese and Chinese enterprises can be taken for granted.

These webs exist primarily within the same cultures and are not comprehensive. Ties between Japanese and Chinese webs hardly exist. The Chinese prefer to do business with people they have relationships with, just like the Japanese. But *guanxi* connections in China are not the same as *ningen kankei* in Japan, and these differences make interaction in the foreign market difficult. The Japanese web of relationships will be of little use in China except within the Japanese *keiretsu*, which is the company network itself. Japanese subcontractor networks are often established to supply the Japanese headquarters and this may result in poor *guanxi*. However, if Japanese enterprises succeed in establishing *guanxi*, business will become easier. For instance, *guanxi* with higher level officials can give Japanese enterprises the influence needed to pass through bureaucracies.

Since the Japanese and Chinese networks of relationships differ, the prerequisites for Westerners and Japanese in China appear to be similar. An exception is the handling of written documents. The use of similar characters in Chinese and Japanese can be of advantage to Japanese enterprises. Even if the language is different, the meaning of characters can be interpreted and thus facilitate dealing with Chinese authorities.

The higher the compatibility of interests, the greater the possibility that joint venture partners will develop a trustful relationship, enabling them to exchange assets and capabilities that both can profit from (Fuchs, Schneider and Dawei 1997). Common interests are certainly necessary for cooperation, but they are not sufficient in themselves for building trust in Sino-Japanese relationships. As stated above, in Chinese joint ventures, market access and technology transfer are two different interests, but the common interest will be to make profit. In China profit counts in business relationships. If Chinese see a chance to make money, relations with business partners become less important, except within family businesses. This is in opposition to the Japanese way of thinking, where the tendency is to stick to the same partner once a commitment has been made. This is a result of norms and unwritten laws that are still essential for doing business (Hodgson, Sano and Graham 2000). Negotiating with the Japanese takes time; they often insist on developing strong personal relationships before establishing business ties. Unless a feeling of trust exists between business parties, the Japanese are apt to feel uncomfortable. Hence, the interest in making profits is to be evaluated differently in Japanese and Chinese enterprises. Even if motives are compatible, greater trust is not automatically the result, as the possibility of suspiciousness and opportunistic behaviour of the Chinese partner always exists.

CONCLUSION

The present paper focused on reasons and the importance of the selected motives in joint ventures. The topic was approached by reflecting on existing theoretical literature and different models of external trade. Experiences from a small sample of Sino-Western joint ventures and implications for Japanese multinational enterprises were discussed, in particular with regard to their relevance for Japanese companies engaging in Chinese partnerships. In general, the findings are applicable to Western as well as Japanese enterprises. The dominating motive for Western or Japanese partners is to get access to the Chinese market, while Chinese partners are interested in the transfer of technological know-how and obtaining foreign currency. In this context the importance of personal relationships should not be neglected. In particular for Japanese corporations the question of how to deal with *guanxi* and further how to gain authority to cope more easily with the Chinese bureaucracy when establishing joint venture partnerships is a topic for elaboration in further

research. Joint ventures are likely to be successful if there is not only compatible but also complementary interests between the partners. Reliability, credibility and trustworthiness of the joint venture partner are essential for minimising difficulties and risks in forming and operating the joint venture. In addition, a thorough selection of the partner and a well-conducted feasibility study as well as high cultural competence of managers contribute to minimising the risk of failure. The balance of risk and investment benefits involved with partnerships in emerging markets, predominantly in the Chinese business environment, is another interesting point to look into more closely. As far as China is concerned, cultural distance, language barriers and complicated relations to authorities speak well for a joint venture as market-entry strategy. Nevertheless, many enterprises still have difficulties or fail to turn this strategy into a success.

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7 JAPANESE-GERMAN BUSINESS COLLABORATION IN THIRD MARKETS – THE CASE OF CHINA

René Наак

INTRODUCTION

At the end of the 19th and beginning of the 20th century, economic activity became increasingly internationalised and after the end of World War II this process accelerated. Since then phenomenal growth has taken place in international trade and in foreign direct investment. More and more countries integrate in the international division of labour and an increasing number of products are traded between countries. Particularly the last two decades of the 20th century saw some dramatic turning points and far-reaching changes in the business environment which have had a lasting effect on the way business is done.

The establishment of new dynamic businesses in fast-developing nations such as South Korea, Taiwan, Hong Kong and Singapore together with the increasing presence of businesses operating on a global basis from Japan and Germany and other Western industrialised countries are examples of the rapid changes the business world has undergone in recent years. The collapse of the planned economies in Eastern Europe, the economic transformation of China and the evolution and consolidation of large unified economic entities such as the European Union (EU), the North American Free Trade Agreement (NAFTA) and ASEAN have all drawn new features on the economic map of the world.

Features such as internationalisation, globalisation and interculturality now characterise this development, which is challenging management anew to maintain or gain competitive advantage. It poses demands on the strategies and organisational concepts of international companies, but also offers numerous opportunities for entrepreneurial creativity (Fieten 1997).

The increasing speed of globalisation will have a lasting effect on the way Japanese and German companies do business. For a long time, their national economies were dominated by companies whose imports and exports were scaled to the size of the business. Along with the globalisation of business and developments in information technology, businesses are increasingly forced to optimise all the stages of the value added chain at a global level. China has offered promising opportunities for participa-

tion to both German and Japanese businesses since it opened up at the end of the Seventies.

The conditions created by the rapid development of the Chinese economy in the last two decades gives rise to questions regarding the most appropriate internationalisation strategy in German and Japanese businesses. This economic area is new and unfamiliar to many companies and although it offers opportunities also involves considerable political, economic and social risks. German and Japanese management need to decide whether their targets will be better met by a traditional export or import strategy, or by a direct investment strategy, (for example, establishing a new subsidiary or acquiring a business in China). Furthermore, management also needs to consider the question of whether a collective strategy based on co-operation might be successful. One of the forms of collective internationalisation strategy is "third market collaboration". Third market collaboration is a particular kind of general co-operative business venture. The organisational forms of business co-operation are subject to strategic considerations. In concrete terms they are an expression of the collective internationalisation strategy of a business.

International management in a Japanese-German business collaboration involves planning, organizing, leading, and controlling the people working in the international co-operation on a worldwide basis in order to achieve the goals of the Japanese and the German parent company. The management of the Japanese-German business collaboration in China takes place in a global context, not only in China, where the four managerial functions, planning, organizing, leading, and controlling are performed in multiple, as opposed to single, political, cultural, and economic environment.

The focus of this chapter is on the strategic dimensions on international business co-operation, especially in a Japanese-German business collaboration in China. The chapter will provide the reader with an understanding of the complex theoretical context in which Japanese-German business collaboration takes place and investigate the reasons for German and Japanese management give for working together? The chapter also focuses on the question, where are areas of conflict in working together and what is the role played by trust in Japanese-German third market collaboration. In order to answer these basic questions we have to analyse and evaluate theoretical dimensions of collective internationalisation strategy, third country collaborations and research findings about Japanese-German business collaboration in China.

THE COLLECTIVE INTERNATIONALISATION STRATEGY

Management in a company that does business on an international basis confronts problems that go far beyond those faced by management active only on a domestic scale. International management has to deal with a number of questions which national management does not have to consider (Bartlett and Ghoshal 1985, 1989; Dülfer 1991). One of the most important questions for the management of an internationally active company is whether to move internationalisation forward by investing directly in foreign markets, or whether an export strategy, perhaps even a collective internationalisation strategy, might bring results. If the business decides on an export strategy, it must consider questions concerning the market, the competition and the culture. If management selects the direct investment strategy, it must decide which business functions (for example, setting up a branch sales office, acquiring foreign production locations, R&D) should be fulfilled in the foreign country (Dunning 1993; Haak 2001a).

The questions which international management must tackle can be assigned to different stages of the traditional management process: planning, organisation, deployment of personnel, management and control. The question of whether raw materials should be acquired or personnel employed locally will affect planning, and remuneration and appraisal of managers employed abroad is affected by the deployment of personnel and the management structures and culture (Staehle 1999).

Frequently, management approaches assume that planning has priority. The problem with implementing strategic plans is often only discussed on a scientific basis as an afterthought. Implementing a strategy in an internationally active business is always a process of not only intraorganisational but also inter-organisational development – a fact which the literature on international management does not take sufficiently into account (Sydow 1993, p. 48).

In more recent approaches the familiar management functions are also differentiated. However, the plan-related conceptualisation is replaced by a concept where all the functions have equal validity. Instead of being in a linear sequence the management functions planning, control, organisation, leadership and personnel deployment are given equal weighting in principle (Steinmann and Schreyögg 1997, p. 8).

Depending on the requirements of the situation in question, "one or other of the management functions might enjoy priority" (Sydow 1993, p. 48). The important point with this new conceptualisation is "that the strategy information is understood less as the result of formal planning but much more as an organised and self-organising process" (Sydow 1993, p. 49). A large proportion of the problems of international management are solved within the framework of business and management studies. These are questions of strategy formulation, particularly that of why a company should do business on an international scale and the conditions under which a specific internationalisation strategy is given preference (please see Albach 1981, Pausenberger 1981, Lück and Trommsdorf 1982, Macharzina and Welge 1989, Welge 1990, Welge and Böttcher 1991, Dülfer 1985). It should be noted, however, that questions of strategy implementation have been given scant attention in business and management studies (Sydow 1993, p. 49).

In principle, companies doing business on an international scale have the option of pursuing their goals abroad through business alliances as well as through the traditional internationalisation strategies and direct investment. The opportunity to access the market and technology faster and the chance to share risk whilst remaining able to influence the alliance partner motivates companies to adopt the strategy of international co-operation. There are other motives: lack of own resources to internationalise completely, avoiding additional overheads and barriers to market access.

Formulation of collective internationalisation strategies is particularly important for global and transnational strategies (Cichon and Hinterhuber 1989, Porter 1985, 1986, 1990, Perlmutter 1969). Currently more and more international businesses are using "an organisational form positioned between the market and the hierarchy": collective internationalisation strategy. The key manifestations of collective internationalisation strategies such as joint ventures, added value partnerships, licensed production etc. combine hierarchical features with those of the market (Sydow 1993, p. 64).

Coalitions, strategic alliances, partnerships and co-operative ventures are conceptualisations which in association with the development of a collective internationalisation strategy are on the path to quasi-internalisation. The theory of international business infers the concept of internalisation where this concept means "the substitution of market trading relationships with hierarchical co-ordination". Quasi-internalisation does not assume however complete substitution of the market by hierarchy. Nevertheless purely market-related trading relationships are replaced by co-operative structures (Sydow 1993).

Conversely, quasi-externalisation focuses on the relaxation of previously hierarchical trading relationships i.e. intraorganisational co-ordinated trading relationships. Company-internal hierarchical relationships are complemented by external market-related elements. To give an example: as a result of quasi-externalisation a whole functional area which previously was attended to one business (e.g. research and development, certain production tasks) is now completely or partially carried out by a partner or by legally independent businesses arranged in a network.

If we consider the level of international business activity, we will see that the collective strategies for internationalising a business are not new in principle, but that they have become considerably more significant as the speed of globalisation has increased. In some respects, this organisational form has existed since companies do international business by exporting goods, services or knowledge (e.g. by licensing). The strategy of collective internationalisation which manifests itself in joint ventures, strategic alliances, value added partnerships or increased international subcontracting is a strategic alternative to both export and to direct investment. More than other organisational forms of internationalisation, collective internationalisation strategy for example allows multinational and global strategy or cost leadership and differentiation strategy to be pursued at the same time.

What is a collective internationalisation strategy? There is no generally binding definition for the term. However, it can be described by following characteristics which distinguish it from other forms of entrepreneurial internationalisation:

- · legal and economic independence of the business partner,
- voluntary and unforced co-operation,
- explicit agreement from the business partner regarding the co-operative venture, frequently in written form,
- ex-ante co-ordination of business activity, agreed on both sides,
- a shared target,
- partners collaborate constantly on the strategic levels agreed.

A further key towards defining the term "collective internationalisation" is that it excludes ad hoc forms of collaboration. Concrete discussions about long-lasting business relationships form a central determining element of collective internationalisation strategies. Basically, the organisational forms of collective internationalisation strategy can be classified into those without shareholdings and those with shareholdings. Management and technical consultation contracts, licensing, subcontracting, joint ventures, turnkey systems, franchising and co-production, to name but a few, are the most widely seen manifestations or forms of collective internationalisation strategy. There are no limits to business creativity and unrestricted opportunity for innovation in the development of new organisational forms of these strategies (Haak 2000a).

The most intense form of collective internationalisation is the joint venture, which arises when two or more partners participate in a busi-

ness, either by acquiring an existing business or by founding a new one. The classification of a joint venture as business co-operation depends on the extent of the shares held, as basically both partners need to have a say in management. Otherwise it would be considered a direct investment or a silent partnership.

It should not be forgotten that collective internationalisation strategies can include every element of the whole added value chain of a business. Viewed in this way, it is possible to differentiate between international collective research and development strategies, acquisition strategies and production and marketing strategies.

The development and implementation of collective internationalisation strategies frequently originate in the opening up of markets and sharper international competition in the course of globalisation. Many firms are not capable of dealing with these challenges on their own. For this reason, they try to combine their strengths with those of other companies.

In general, collective internationalisation means a long-term plan to create a union between companies to pursue jointly certain strategic goals. The partners are resident in different countries. Particularly central to the strategy is the definition of organisational domains, in other words, the form of collective strategy (e.g. joint venture, project, franchise etc.), specification of the target position amongst the competition, allocation and distribution of production and personnel and definition of the degree of autonomy in agreement with the chosen business partner. It should be noted here that the strategy is affected by the perception and the interpretation of existing organisational relationships with the environment and it in turn creates a framework for the interpretation of organisation and environment. Here the term organisation describes businesses as sociotechnical systems which ideally bundle non-material and material resources to a unique competence (Wernerfeldt 1984). In addition to a formal organisational structure, businesses use a specific organisational culture to achieve the organisational goals (e.g. profit targets).

In traditional Management Studies three levels of strategy are distinguished: corporate strategy, business strategy and functional strategy. Amongst other things, corporate strategy defines in which environment and in which networks a company should do business, which is important from the point of view of network research. The business strategy defines how the company or its various sections deals with competition (for example, cost leadership or product differentiation). The functional strategy is responsible for the concrete development of the corporate and business strategies for each functional area. Under discussion is the question of enhancing these three strategy levels with an interorganisational perspective covering collective internationalisation strategy pursued by several companies jointly (Astley 1984, Bresser 1989). In the context of internationalising business activities with the faster expansion of globalisation, this collective internationalisation strategy is becoming increasingly important particularly with the creation of organisational forms such as strategic alliances, business networks and third market collaboration to achieve business goals in a global environment.

JAPANESE-GERMAN THIRD COUNTRY COLLABORATION

Third country collaboration, which presents the expression of a company's collective internationalisation strategy is notable for the fact that both partners based in their own countries do business in a third country or third market. In the following we consider an alliance between Japanese and German companies which both want to do business on a foreign market. On the other hand it can be a Japanese-German third country collaboration with a foreign partner company from the third country, so that we have a three-sided form of (third country) collaboration. They might well be joined by other corporate partners.

Third country collaboration can be differentiated on the basis of the shareholding, because shareholding is not always necessary. Third party collaborations based often on shareholding, they can also take on different appearances. Third country collaboration are also distinguished on the basis of their duration. Some are of a short-term nature whilst others are set up with longer term co-operation in mind. Another criterion is the concrete form taken by the scope of activities. Some of these ventures include all the business activities in the partnership, others cover only some business functions which will be carried out in the third country jointly (e.g. building up a shared distribution network, developing a specific technology).

There are various motives for third country collaboration. The initial consideration given to this form of collective internationalisation is to gain competitive advantage by entering into a partnership for the chosen target country (third country). Partnerships can achieve competitive advantage which a company on its own cannot realise. Examples of key advantages achievable with third country collaboration are better use of company-specific resources, knowledge of the competition and of the market and technology-related considerations.

A key reason for third country collaboration is a company's lack of resources which might manifest itself in insufficient capital investment, but which frequently also shows up in too few employees to allow international expansion. Partners in the third country collaboration then serve to fill a gap in human resources. Insufficient funds often force businesses to co-operate with a foreign partner in opening up a new market, for example, or in searching together for raw materials for production in the home countries of the partners.

If for example a German business has in its possession a technology (e.g. a processing technology) which the Japanese partner does not have, but it has no financial resources with which to become active in the third country, then the German firm can contribute the technology and the Japanese company the necessary capital to the venture. Another case: the lack of capital in a Japanese partner can mean that the Japanese management contributes its knowledge of the target market and the German partner provides the capital to open up the market.

Insufficient knowledge of the market in the third country can also result in third country collaboration. Local partners in the third country can reduce the cost of the collaboration, allowing more resources for working on markets in other areas. Another reason for third country collaboration is that it might make expansion of the production program possible. Third country collaborative ventures are particularly interesting for the internationalisation of the partner companies when they all benefit from synergy effects.

Two indicators are used to classify third country collaborative ventures. On the one hand, the international collaboration in the third country can be based on contractual agreements. Then no new independent companies result from the co-operation. On the other hand, the international collaboration can result in independent business unions which are active in the third country, for example in China. Strategic alliances are positioned between the two. They can be based on a contractual agreement or result in the founding of business unions in third countries.

Third country collaborations are frequently created on the basis of sales and delivery contracts. A German company that plans to internationalise its business activities in Asia has the problem of how to set up its launch onto the various target markets in Asia. Each market operates under specific conditions and the German company needs to accommodate these requirements. Frequently, export is the first step towards internationalising business activities. In the context of an export-oriented internationalisation strategy, partners are sought with sufficient knowledge of the market in the target country. Japanese mediator organisations, which function as independent units in the target country, can then act between the German company and the customer in the foreign country. Large Japanese trading houses could be the partners in these collaborative ventures. In this case a contract is made between the German producer and the Japanese trading firm which establishes the specific activities for the third country collaboration in the target country. In this context, one can also talk of indirect export. This form of internationalising business activities is frequently the preliminary stage to proceeding independently in the target country at a later date (for example, a company will build up its distribution network in the Asian target country or found a subsidiary). Notice will then be given on the contractual third country collaboration or it might expire. Japanese-German third country collaboration can also arise as a result of technology contracts. There is a distinction between licence, expertise, technical help and advisory contracts.

JAPANESE-GERMAN THIRD COUNTRY COLLABORATION IN CHINA

Does it make sense for Japanese and German companies to collaborate in third country markets? The People's Republic of China is becoming increasingly significant as a market and as a production location for Japanese and German companies doing business on an international scale. At the same time, the Chinese government considers that these companies represent one of the most important mainstays for the economic and technological development of their country. From the point of view of strategic management of internationally active companies, current investment in the Chinese market is being swept along by globalisation and sharper international competition (Konomoto 1997, 1998, Li and Li 1999; Taylor 1996, Haak 2003).

One thing is certain: many high-tech businesses are no longer tied to traditional locations. High tech products, such as cars, for example, can be manufactured all over the world in more or less the same quality. The particular features of the Chinese market and the specific benefits offered by its locations almost clamour for the commitment of internationally active businesses. Intercompany ventures, joint development, production and sales, trade of components and technology are basic factors in the success of strategic management in the international organisation of labour and decentralised production to secure a global presence. Only by being a leading technology producer based on faster and more targetoriented implementation of product and process innovation it is possible to gain long-term market leadership in China. Japanese and German companies are well aware of this fact and try to use the requirements and challenges of China as a market and a production location to their strategic advantage (Konomoto 2000; Kawashima and Konomoto 1999; Köllner 1997).

At the start of the new century, China is one of the most interesting but also one of highest risk markets in Asia. The Chinese economy is growing at a speed and on a scale that Germany and Japan had only experienced during the years of their "Wirtschaftswunder".

China's business dynamic has been maintained in recent years with investment from abroad and the increase in exports that this has initiated. The Chinese government is going further and building on more public investment, stimulating more growth. Joining the WTO is also fuelling development with sustained impact on international companies.

China is not a homogenous economic area. Commerce and buying power are concentrated mainly in the coastal areas, which is where most of the international companies have settled. In the North are the old heavy industry areas, Shanghai is developing into a modern technology and services centre in the East and since the formation of the first special economic zone, the economic dynamic in the Southern regions is developing along the lines of Hong Kong, the former British Crown colony, now a Special Administrative Region (Ohmae 2001).

The per-capita income of the population is rising, particularly in the industrial centres, and new groups of consumers are ready to buy high quality consumer goods, particularly modern products. German and Japanese companies being active on a global basis can no longer leave China as a production base and as a market out of their strategies. No globally active company can seriously afford to ignore the Chinese market in the long-term.

Market and technology leadership in China are considered to be the key to the long-term successful penetration of other markets in Eastern and Southeastern Asia. To achieve such market and technology leadership, some companies see third company collaboration as a promising organisational form. In 2002 there were 19 Japanese-German third country collaborative ventures active in different sectors, including mechanical engineering, textiles, food, chemicals, cars, services and IT (Haak 2003). From the point of view of Japanese and German management, what reasons are there to use a third country collaborative strategy to become active in China?

First of all, German management welcomes Japanese companies as partners as they are frequently well informed about China. Japanese management has at its disposal numerous contacts and personal relationships, is familiar with the different mentalities in China and due to the good market position enjoyed by the Japanese wholesale trading houses has access to various distribution channels into the different, dynamically developing Chinese markets. In large international projects, merging financial resources and technological expertise can cut costs, reduce risk and build up synergies on both Japanese and German sides (Haak 2003).

In principle, Japanese management is prepared to work with German companies in third markets – it is in their interest. Japanese intercompany networks are showing a tendency to break up (*keiretsu*) and a strategic realignment is taking place in the Japanese general trading houses ($s\bar{o}g\bar{o}$ $sh\bar{o}sha$) with the result that Japanese companies are looking out for new business partners with whom to open up and dominate long-term the attractive but high-risk Chinese market.

Due to the excellent reputation that German technology and German quality enjoys in China, Japanese management is interested in German companies as partners. This applies not only to traditional industries such as mechanical engineering and plant construction, vehicle manufacturing, but also to young industries with potential for the future such as telecommunications and environmental technology (Haak 2003, also Hilpert and Taube 1997). This is true not only for large companies such as Siemens AG, Bayer AG, Volkswagen AG, BASF AG etc., which are securing their market position with extensive direct investment, but also for many medium-sized German companies, who have entered the Chinese market in recent years and made a name for themselves with their excellent products and manufacturing technology. It should also be noted that a German-Japanese partnership might be better received by Chinese customers than a German or a Japanese company going its separate way.

Basically, Japanese management hopes that co-operating with German businesses in China will bring an increase in the efficiency of existing activities or create new potential. Discussions with representatives of Japanese companies that work with German companies in China have revealed that four basic targets can be identified.

- 1. The fundamental goal of increasing profits from business activities in China, mainly by entering the market faster, using the expertise provided by the German partner and by complementing their own product range and acquiring financial help from both German government institutions and directly from the partner company.
- 2. Lower costs through economies of scale and avoiding duplicated investment by entering the Chinese market together and exploiting cost benefits by division of labour beyond the specific target market.
- 3. Targets to reduce risk by investing less capital and saving resources for other internationalisation activities or for restructuring businesses in Japan.
4. Gaining prestige by working long-term with internationally wellknown and admired German business partners (Haak 2003).

The resources available to a Japanese company represent a deciding factor in determining the options for realising commercial alternatives in the internationalisation process. Resources are relevant for two reasons in co-operative strategy: firstly, the company's own resources form a supply pool for the potential partner and secondly the company needs the resources in order to exploit the benefits from the co-operative venture for its own ends. The key factors capital, expertise, competence and time show clearly that Japanese businesses are trying hard to enter into cooperative ventures with German companies in China.

Currently, capital investment is one of the factors limiting internationalisation of Japanese companies. Even large internationally active Japanese companies are not in a position to enter the market with a 100% subsidiary. Acquiring or founding a new company abroad with the aim of setting up a fully-owned subsidiary is even more out of the question for small and medium-sized Japanese enterprises. Frequently however, they are forced to go to China due to their obligations to deliver in the keiretsu even though they actually need to use their capital for restructuring in Japan (Haak 2001b). The investment made by small and mediumsized Japanese companies in China is not only limited by a lack of capital, but direct investment is considered to be a risk. Medium-sized businesses are only prepared to invest a substantial proportion of their capital in China if the associated risks remain manageable. Japanese management assumes that collaborating with a German company in China can reduce the risk of entering the Chinese market, particularly if the option of a stepby-step approach to the co-operative venture as experience increases is considered. If, for example, the goal of the venture is to enter the Chinese market, the co-operation strategy is the best solution to the problem of capital, even if a German partner already has the required knowledge of the market which could be used and, ideally from the Japanese point of view, it does not need to build up its own marketing organisation. Different emphasis in expertise frequently provides the reason for German-Japanese collaboration in China. German and Japanese management both bring specific knowledge of the markets in the Chinese economy. A company's competence, as well as its expertise, plays a crucial role for joint ventures in China (Haak 2003, 2001b).

In the following, competence, in contrast to expertise, is understood as the capabilities of a business, which as a rule cannot be captured in written form. Interpreted more broadly, it can also mean company culture, in this case Japanese and German company culture which might possibly merge into a new company culture in a joint venture with China, the target country. By combining the strong points of their company cultures, the German and the Japanese parent companies could create an outstanding competitive advantage. However, one should not lose sight of the fact that bringing together two different company cultures can also be associated with considerable difficulties, which can result in the failure of the co-operative venture. As yet there is no answer to the question of how to implement a new company culture into which the culture of each of the companies in the co-operation can merge. Currently we know more about the difficulties created when two different cultures meet than we do of ways to engender new and successful company cultures.

Competence should not only be understood as part of the package on offer from the company partnership, but also as the willingness of a company to enter into a co-operative venture. With direct investment only, a company can make its competence available to the subsidiary with no other influences. The prerequisite for this is however that the appropriate management qualities are available in the company. In a company with hitherto no experience abroad, direct investment without any knowledge of the market and the conditions overall represents a relatively high risk. For Japanese small and medium-sized businesses, co-operative strategies reduce the risk as the German partner's competence optimises the pooled resources.

Under the market conditions prevailing in China with product development becoming faster, the time factor is playing an increasingly important role in the profitable marketing of a product. Particularly in the case of high-tech products, the time it takes for research and development costs to amortise continues to decrease. Empirical investigations show that if a market launch is delayed by 10%, the company profits can be reduced by around 25% to 30%. The conclusion for both Japanese and German companies is that a business with a new technology is forced to market it on a global scale as quickly as possible. They do not have the time to build up their own marketing channels in foreign markets. Japanese-German third country collaboration might achieve a competitive advantage if each could share the established distribution structures of the other (Hilpert and Taube 1997).

Japanese-German third country co-operative ventures in China tend to enjoy the benefit of more flexibility compared to other forms of internationalisation. However this makes monitoring more difficult for the partners, as loose forms of co-operation do not allow fast and effective access particularly when changes to strategy are made in the parent companies. The advantage of flexibility is especially apparent when a Japanese-German co-operative venture comes to an end. Selling a foreign subsidiary is frequently very difficult and often incurs a loss whereas a third country co-operative venture can be brought to an end with comparatively little effort (Haak 2001b).

What are the criteria that determine the success of a Japanese-German co-operative venture in a third country? Compared to German or Japanese companies tackling the Chinese market on their own, a good partner is crucial for success. The venture has a good chance of success if the new markets to be opened up are in related areas. The success rates for Japanese-German co-operation are much higher here than where Japanese or German businesses already active in China are acquired whole or in part. Furthermore, both partners should come with the same assumptions and the venture should be equally important to both of them.

However, both sides do not only benefit of improved competitiveness and greater profit when they collaborate in the Chinese market. Third country collaboration is also accompanied by friction and conflict resulting from different objectives, varying amounts of available resources, contrasting management styles and, as mentioned above, different corporate cultures with different traditions in decision-making and problemsolving (Hammes 1993; Harzing 1999).

What are the areas of conflict that must be overcome when Japanese and German companies enter into third country collaboration in China? Assuming that the venture is put together from targets and means to achieve the goals set out by the company, it is possible to differentiate between target- and means-related conflicts (Hilpert and Taube 1997).

Target-related conflicts in Japanese-German third country collaboration are caused by the incompatibility of objectives for the partnership on the part of the German and Japanese parent companies. If one or even both of the partners pursue opportunistic goals, then the venture is very likely to fail in the short or mid term. Conflicts around target agreement irrespective of whether they existed initially or became apparent in the course of the venture are one of the central threats to Japanese-German projects in China, as they throw the basic consensus of the entire venture into doubt. A solid basic consensus on the goals of the Japanese-German collaboration is particularly crucial for success in the high-risk and dynamic Chinese markets. It can only meet the challenges of the competitive environment in China if the partnership has compatible targets. This competitive environment is extraordinarily dynamic in China; in some markets, double figure growth rates are targeted so that within the shortest possible time, the role of the market leaders and hence the position of the competition can change. Newcomers to the market are not a rarity under these dynamic conditions.

Target-related conflicts will encumber the Japanese-German third country co-operative venture from the beginning if there is insufficient discussion of targets in the preparatory phase and the individual corporate targets of the Japanese and German parent companies are not coordinated. For example, if objectives which directly affect the whole joint venture are not aired or only communicated incompletely, this can lead to misinterpretation and rapidly result in the destruction of the basis for any further co-operation. Problems could arise if the German partner ties the success of the venture in China to a financial result, whilst the Japanese partner is pursuing a longer term objective and accordingly values the knowledge that accrues from working together with the German partner more highly (Haak 2003).

Further it should be noted that target-related conflicts can arise not only between the German and Japanese partners, but where both companies are involved in China, the targets set by the local company can contribute to further conflict. In certain industries, including telecommunications, car manufacturing and the agroindustrial and chemical sectors, Chinese involvement is a legal requirement. The three-sided collaboration mentioned above opens up further areas of target-related conflict as under some circumstances, political and social objectives on the part of the Chinese partner enter into strategic and operative decisions.

Whilst German and Japanese companies are pursuing goals with the aim of opening up markets in China and using resources (labour force, power etc) Chinese partners are looking primarily for learning effects, in order to become independent eventually of the co-operative venture.

It is also possible that target-related conflicts will arise as the result of changes to the overall data relating to the German-Japanese third country collaborative venture in the course of the partnership. The reasons why a partner might shift its objectives are many and varied. For example, the significance of a partner might change over time. Technological innovation in a parent company might mean that one side becomes financially more powerful and better placed globally, whilst the other company might suffer a collapse in profits, losing its financial clout and becoming overall less attractive as a partner. There is also the danger that learning effects within the Japanese-German venture are distributed unevenly, allowing one partner to benefit more from working together than the other. Internal company changes, such as a new strategic alignment in association with newly appointed management or an increase in potential knowledge relevant to corporate policy might remove the basis for working together in the third country (Haak 2003).

As well as these target-related areas of conflict, there are conflicts which appear when the partners attempt to realise their joint targets,

which are referred to as means-related conflicts. They take many forms and are a daily challenge to international management in Japanese-German third country collaboration. Unlike the target-related conflicts, however, most means-related conflicts do not represent a threat to the third country venture in China. The only problematic aspects are conflicts in the complementary nature of the resources, as the venture's right to exist is thrown into doubt when it transpires after the partners have started working together that they cannot contribute the amounts expected to the project or that these amounts are being knowingly withheld. Parallel to this is the much more frequently encountered situation where one of the partners develops capabilities or finds resources in the course of the partnership which fills gaps in its competence that existed before it entered into the partnership. If there are no other factors in favour of continuing the partnership, it is no longer meaningful for the newly strengthened partner to work with the other, as a weakened partner can become an encumbrance (Hilpert and Taube 1997).

The weight can shift between Japanese and German partners in third country ventures when, whilst they are working together in China, one side is able to work up more competence in areas such as technology, expertise or customer contacts faster or to a greater extent than the other. This also means that there is a risk that the strengthened partner will end the co-operative venture as it will not be prepared to nurse the weaker partner along.

What is the role of trust in handling conflict in Japanese-German third country collaboration? Unlike conflict, trust is almost always associated with economically desirable consequences, which show up in more open communications, simpler co-ordination, lower transaction costs, additional opportunities to act, more effective learning processes and stable interpersonal and interorganisational relationships. Braney and Hansen and Fukuyama even ascribe trust at organisational level the property of generating competitive advantage. For virtual organisations, trust is indispensable as a basis, although here it is particularly difficult to engender. It appears to be economically impossible to transact many payments or services without a minimum of trust. Trust is particularly relevant for complex deliverables, which could only be produced with difficulty or perhaps not at all without the specification of those involved (customer, partner in the group of companies or work partner).

Japanese-German joint ventures in China can only succeed if there is interplay between contracts and trust. This is not a static value, but a dynamic process, which is under the influence of both the different histories and cultures of the partners and the changing conditions. Without a minimum of mutual trust, on an institutional or a personal basis, a Japanese-German joint venture in China will become dysfunctional very quickly. On the other hand, Japanese and German collaboration also needs contractually fixed parameters to guide the venture to success through its different phases. These contractually fixed elements are intended to prevent opportunistic behaviour on the part of one partner. The rules, formulated jointly, set down the way to solve differences of opinion (Beechler and Stucker 1998; Beechler and Bird 1999; Champell and Burton 1994).

Contracts and trust can be seen as the central mainstay of a Japanese-German third country collaboration. There is a difference, which should not be underestimated in the way that German and Japanese management weight these two important aspects for the success of a third country collaborative venture. German managers consider the contracts more important than do the Japanese managers. From the German point of view, the contracts should be as detailed and comprehensive as possible. The personal relationships based on trust are ranked as much less significant.

In contrast, personal relationships and the existence of mutual trust are of supreme importance for Japanese management. The contractual relationship is seen as the manifestation of trust between the German and Japanese partners and does not form the actual basis of the business alliance. Japanese managers do not consider the contractual rendering of the relationship between the partners dogmatic. In their view, it is perfectly possible for them to renegotiate it in the course of the alliance and adapting the internal and external conditions as required presents no problems. These different points of view and patterns of behaviour present problems when the contracts governing the alliance are designed and drawn up. Different demands are made on the amount of detail in the contracts and there is also a discrepancy in the willingness to draw up flexible contracts.

The distribution of the rights to take decisions and control over the companies involved is closely tied to the question of how much weight should be accorded to trust and to the wording of the contract. There is a risk that one of the partners will dominate the partnership and take decisions over the heads of the other. Whereas too great a concentration on the decision-making power can lead to a partner's rights being removed, there is also the danger that if control is too evenly distributed, work will be obstructed and possibly completely stifled (Haak 2003; Hilpert and Taube 1997).

Communication problems represent another level of means-related conflict. The organisation and the structure of the communication process in the Japanese-German third country collaboration determines whether and how quickly the decision makers involved in a joint project can supply the employees carrying out the project with the relevant information. Breakdowns in communication can prove to be serious problems for third country collaboration. Reasons for the breakdown might be that too little time was planned for dialogue with the partner or even that the wrong group of people is taking part in the briefings. The different languages and the sociocultural character of the employees represent the central problem for Japanese-German third country collaboration in China. It is misleading to believe that the barrier between the German, Japanese and Chinese languages can be easily overcome with the use of English and the employment of interpreters. Japanese is a context-dependent language – meaning and sense can only be derived from the context. Even if the Japanese and German management speak English, there is still a difference in communicative behaviour (Haak 2002, 2001b; Hilpert and Taube 1997; Abegglen and Stalk 1985).

Japanese and German managers interpret the verbal messages of their partners according to the context of behaviour and values that they are familiar with. Under certain circumstances this can mean that verbal signals are misinterpreted and that non-verbal signals are not even noticed. The sociocultural conditionality of communication is the biggest problem in the communications process between Japanese and German managers, which can become more critical when a three-sided alliance requires communication with Chinese management.

Lack of knowledge of the partner's sociocultural background can lead to misunderstandings which delay or obstruct the daily routine of the business in a Japanese-German third country collaboration. This can also delay the trust building process, when for example traditional customs are not observed when invitations are issued or gifts exchanged (Hilpert and Taube 1997).

In the past, trust has only been investigated on an interpersonal level. Up to now it has remained in the domain of psychoanalysis and social psychology. However, trust is conceptualised in many different ways. Sociologists such as Luhman and Giddens try to associate the rational with the emotional, the cognitive with the affective, the descriptive with the normative in a systematic conception of trust. It is often assumed that a relationship based on trust can develop into a stronger personal emotional-normative secure relationship. However, one should not lose sight of the fact that the person exhibiting the trust is always taking a certain risk. Trust always implies an advance payment with risk made in the expectation of later returns. The management in the Japanese-German third country collaboration must be aware of this in order to establish a basis of trust in regular, mutual exchange of resources and information

which is sufficiently resilient to take on the challenges of competition in China.

The top management of the Japanese-German business collaboration has a central role to bring the joint project to success. The central role and importance of the manager in the success of a Japanese-German business collaboration in China cannot be overemphasized. Such a person is usually selected by one of the partners. Depending on specific cases, the chief executive officer may be appointed by the major partner of the collaboration. Depending on the specific skills (knowledge about the market situation in China, logistics skills etc.) that a partner brings in , the main position would be held by a manager sent from this particular partner. The role and responsibilities of the head of the Japanese-German business collaboration change with every stage of the relationship. Understandably the person in charge of the business in China wears several hats in order to play various roles, often mediating between the demands and expectations of the various owners. In the early stages, the Japanese-German business collaboration is a strategic sponsor, a combination of a visionary and an emissary. Such a general manager is able to translate and communicate for all employees in the venture, the visions and goals of the partners. The general manager of the Japanese-German business collaboration is also an advocate for the interests of the venture. As the Japanese-German business collaboration grows and flourishes, coordinating various activities become really important. The general manager has now the role of a networker and facilitator, linking functions, people, business partners, and resources. Because conflicts could occur, another role served by the general manager of the collaboration – the role as a mediator, as a honest broker who resolves conflicts for the good of the venture. If the manager is an expatriate, and this is often the case in the Japanese-German business collaboration in China, the manager also plays the role of an "ambassador" to the business and government community. And do not forget, in addition to all these roles, the person is also a manager with the task of running the business of the Japanese-German collaboration and achieving its goals. Combining the Japanese and the German different corporate cultures and assuring employees of continued opportunities require strong and imaginative leadership skills, so, the selection of the right general manager is clearly one of the central important factors for the success of a Japanese-German business collaboration in China.

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8 The Trust Factor in Chinese–German Joint Ventures

IMPLICATIONS FOR JAPANESE CO-OPERATIVE VENTURES IN CHINA

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CREATING AND MANAGING INTERNATIONAL JOINT VENTURES IN CHINA

The People's Republic of China was the principal foreign direct investment recipient in developing countries throughout the 1990s, according to World Bank statistics (UNCTAD 1999). Adding the foreign direct investment inflow into Hong Kong to the Mainland figures, China has also become the third largest host for foreign direct investment in the world (USD 63.5 billion in 1999) following the United States and the United Kingdom (UNCTAD 2000, p. 50). Compared with previous years, this was a decline of nearly 10 per cent. This recent drop can be explained by more short-term factors, such as a slowdown of economic growth leading to a weaker local demand, reduction of excess capacity in certain manufacturing industries due to over-investment during the past decade (for example, garments and electrical appliances) and increasing competition for hosting outward foreign direct investment from neighbouring Asian countries. According to the World Bank, in the long run China can be

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expected to remain an attractive location for foreign direct investment, particularly in light of its accession to the World Trade Organisation (Drysdale 2000; Song 2000) and further liberalisation of various industry sectors (Lei and Huang 2000; UNCTAD 2000).

In emerging economies like China, international co-operative relationships are still the most common basis on which co-operation between host country and foreign partners is established, with foreign direct investment usually being incorporated into the equity of such co-operative ventures. In this chapter co-operative relationships are defined as the combination of resources from more than one company to create a new organisational entity in form of a joint venture (JV) that is distinct from its parent companies. For the purpose of our research, we concentrate on international or intercultural joint ventures (IJVs) with at least two parent companies of different nationality. IJVs are based in the home country of one of the partners, which we will call the local partner company (LPC). The partner operating outside its country of domicile is referred to as the foreign partner company (FPC).

In recent years IJVs have been promoted by the Chinese government, as they present an ideal form for securing rapid access to capital, technology and export markets within an economy in transition. The operating characteristics and performance of international joint ventures as a cooperative ownership option of investing abroad have been examined frequently in the literature on ownership strategies in international business (Yan and Luo 2001; Pausenberger and Nöcker 2000; Matthews 1999; Balling 1998; Herzig, Watrin and Ruppert 1997; Chowdhury 1992; Zielke 1992; Geringer and Hebert 1991; Contractor 1990; Contractor and Lorange 1988; Kogut 1988a; Reynolds 1984; Kumar 1975). Compared to wholly owned foreign enterprises IJVs offer substantial economic and political advantages for internationalisation strategies: investments and risks are shared, and some investment requirements can be eliminated through the use of the partners' existing infrastructure, such as local marketing and distribution resources. Sales volumes are also likely to be achieved more quickly in IJVs than through wholly owned foreign enterprises. In addition, the local partner's political position can be harnessed to great advantage. Overall, IJVs appear to offer greater revenues, lower costs and less financial risk than other market-entry options.

IJVs are indeed one of the most sophisticated ownership options in international business. Presuming that the goals of both partner companies connected with the IJV are not in conflict, the performance of IJVs depends mainly on qualitative variables such as individual personality factors of the dispatched personnel, organisational cultures, administrative styles and management philosophies. There are many problems associated with IJV management. For example, issues of staffing, operating procedures, transfer pricing, local and international sourcing, technology selection, pricing cost and investment allocation, market priorities and management control. All these aspects pose potentially fatal obstacles to IJV survival, as confirmed by the literature and the statements of managers in our interviews

The hazards of IJV management are numerous, especially for Chinese–foreign ventures. The widespread assumption that this is a primarily a problem of mid-sized enterprises' foreign direct investment is not true, since major multinational companies operating in China also encounter huge obstacles. Furthermore, the fact that Sino–Japanese JVs also face severe difficulties (Hu and Chen 1996) shows that joint venture failures in China are not primarily due to a Western–Chinese culture clash.

The literature reveals that fundamentally diverging goals of the two parent companies produce tremendous difficulties in interorganisational as well as in interpersonal co-operation in the IJV. This goal incongruence may result from partners' dissimilar political backgrounds (Trommsdorff 1991). Chinese (state-owned) enterprises are used to operating in a socialist command economy, and their managers often maintain close relations with the Chinese Communist Party. In contrast, FPCs investing in China operate in market economies and have a strong orientation on sales and competition. While the FPC focuses on China as a market for their services or products, the LPC often follows the contrary strategy of positioning local products and services on the world market by means of the foreign partner's know-how and advanced technology (Child 1994). Problems in daily joint venture life often come from fundamentally different management styles: leading the staff in a participative or paternalistic way, openaggressive or consensus-based problem solving (Herrmann-Pillath 1997) or problems from communicating in a foreign language (Trommsdorff 1991). Staffing practices also cause problems for IJVs in general: the expatriate manager's influence is limited to three to five years, depending on the individual assignment. As his ongoing career obviously depends on the results of the work during his stay abroad, he will tend to act according to the specific objectives set by the FPC. In contrast, since the Chinese managers stay in the IJV for a longer term, they need to orient themselves towards the LPC or their ethnic group (Peill-Schoeller 1994).

Empirical studies on JV success in China (Hu and Chen 1996; Dong, Buckley and Mirza 1997) point out the likelihood of unsatisfying performance both in hard terms (profitability, quality standards) as well as in soft factors (partner commitment, mutual understanding). Yan (2000) reports that the greater the length of time the IJV has been in operation, the better its profitability tends to be. Especially for IJVs in China, it seems that the accumulated international business experience increases the confidence of the LPC and the FPC in the venture. IJVs that have relatively shorter experience often lack the skills to deal with operational problems in the Chinese market. Therefore, their chances of obtaining higher returns and meeting the financial objectives are not as good. This confirms previous research on the performance on JVs by Agarwal and Ramaswami (1992), and Contractor and Lorange (1988).

AN ECONOMIC ANALYSIS OF TRUST

The role of trust in international joint ventures

In economic theory trust has not been a key factor in economic transactions (Humphrey 1998; Ripperger 1998; Albach 1980), but with imperfect information, bounded rationality, risk and uncertainty trust becomes an important issue. Trust between trading partners increases the predictability of mutual behaviour, as specific commitments made are honoured, while it facilitates dealing with unforeseen contingencies in a mutually acceptable manner. Thus, trust economises on the costs of bargaining, monitoring, insurance and dispute settlement.

Trust also reduces the complexity of social systems that are characterized by time asymmetry and incomplete information (Luhmann 1973), as trustor and trustee depend on each other. The trustor assumes that his trust will not be abused and in accepting the risk to trust becomes more vulnerable (Grunwald 1995; Lane 1998). Trust is an essential antecedent condition for the emergence of a successful co-operation in business (Smith, Caroll and Ashford 1995). The fundamental necessity for trust in IJVs is confirmed in the literature (Inkpen and Currall 1997; Inkpen and Beamish 1997; Madhok 1995; Parkhe 1993a, 1993b; Beamisch and Banks 1987; Buckley and Casson 1988) and is mostly associated with an improvement in decision-making concerning strategic priorities, goals and management systems (Mead 1998).

A special challenge for research is how trust in relationships between IJV partners and staff is established and maintained, since this transcends the boundaries of the cultural and institutional systems which support trust through the sharing of a common social identity, norms of conduct and institutional safeguards such as the law. The fact that both partners in an IJV follow different assumptions of what can be taken for granted places particular difficulties in the way of creating trust-based relationships between them, over and above the tensions which might be expect-

ed to arise an IJV from the strategic aims of both partner companies. One of the more challenging areas for establishing trust arises when Asian and Western partners establish an IJV. Despite the less than perfect homogeneity among Western countries in the way they socially constitute and support trust relations (Lane and Bachmann 1996), Asia contrasts sufficiently in its cultural and institutional foundations with both North America and Western Europe as to present a particularly interesting comparison as well as a challenge for implementing trust sensitive management.

To explore the antecedent conditions that enable trust to develop, we must conceptualise trust as occurring in situations of social exchange between human beings where expectations can either be met or violated. 'To trust another person to produce a beneficial event X (or to suspect that another person will produce a harmful event Y) an individual must have confidence that the other individual has the ability and intention to produce it' (Deutsch 1960, p. 125). Ability refers to 'skills, competencies, and characteristics that enable a party to have influence within some specific domain' (Mayer, Davis and Schoorman 1995, p. 717), while the intention hints at a partner's refraining from opportunism to reach mutual benefit. Taken a positive rated ability for granted, the trustor expects that the trustee will act according to 'mutual benefit while refraining from unfair advantage taking' (Sako 1998, p. 89). The close distinction between confidence and trust also results in causal attributions after disappointment. In the case of inappropriate confidence an individual reacts by external attribution, taking sub-optimal circumstances into account. In the case of broken trust, on the other hand, the internal attribution regards the decision to trust the specific individual to be not suitable. Accordingly, we hypothesize that the development of trust among partners is based on individual commitment of the managers involved (H 1).

In the international management literature (Pausenberger and Nöcker 2000; Child 1998; Smith, Carroll and Ashford 1995; Kumar, Steinmann and Dolles 1993; Buckley and Casson 1988; Kogut 1988b), several writers have argued that international co-operative relationships develop through a number of stages. There are feedback loops in this process whereby the partners evaluate their experience and decide whether to continue their co-operative relationships develop over time, and Ven 1994). This development leads to our second hypothesis, that in the same way as international co-operative relationships develop over time, a corresponding evolution of trust will follow (H 2). The theoretical differentiation between calculative, cognitive and normative trust, as suggested by Lewicki and Bunker (1996), Lane (1998) and Child (1998), allows an analysis of this hypothesis such that the evolution of trust is integral to

this dynamic process of evolving co-operation between business partners.

For our further analysis we must conceptualise the role of calculative, cognitive and normative trust in IJVs (H 2), extending an inherently individual-level phenomenon (interpersonal trust) to the organisational level (interorganisational trust) (H 1).

Calculative trust

Calculative trust is based on calculations that weigh the cost and benefits of certain courses of action to either the trustor or the trustee (Lane 1998). Lewicki and Bunker (1996) argue that this form of trust is based on the assurance that other people will do as they say because the deterrent for violation is greater than the gains, and/or the rewards from preserving trust outweigh any from breaking it. In this view, trust is an on-going, market-oriented, economic calculation. Its value is derived by determining the outcomes resulting from creating and sustaining the relationship relative to the costs of maintaining or severing it. Trust based upon calculation is likely to apply particularly to relationships that are new and hence can only proceed on the basis of institutionalised protection or the reputation of the partner (Lane 1998). It may also be the only form of trust that can apply to arm's-length and hence impersonal economic exchanges. Sheppard and Tuchinsky (1996) describe this attitude towards trust as a policy of deterrence against opportunistic behaviour.

Cognitive trust

A second basis for trust lies in the sharing of cognitions, including common ways of thinking, between the two partners concerned. This sharing of cognitions provides a basis for understanding the thinking of a partner and for predicting that person's actions. Clearly, some cognitive sharing is necessary for a calculative basis of trust (Zucker 1986). However, common cognitions provide the further reassurance that one can now reasonably predict other people on the basis of shared expectations. Normally, the individual can only be sure of sharing ways of thinking with others by getting to know them well enough. This aspect of cognitive trust is what Lewicki and Bunker (1996) have termed knowledge-based trust: knowing the other well enough that the other's behaviour is anticipatable. The assumption of rationality contained in the calculative view of trust is relaxed somewhat in cognitive trust, because the trust here is founded upon both the security and comfort that the partner is well-understood and is known to share important assumptions (Child 1998).

Normative trust

Normative trust depends on people sharing common values, including a common concept of moral obligation. Common values and norms of obligations can develop in a long-standing relationship where trust was originally created in an incremental manner (Lane 1998). Normative trust is likely to find a parallel at the more interpersonal level, what Lewicki and Bunker (1996) call identification-based trust: both parties effectively understand and appreciate the other's wants. This mutual understanding is developed to the point that each can effectively act for the other, or it enables a person to feel as well as to think like the other.

Interpersonal and interorganisational trust

The term interpersonal trust refers to the extent of an IJV manager's trust in his main counterpart in the partner company. In other words, interpersonal trust is the trust placed by the individual boundary-spanner in his opposite number at the partner's organisation (Zaheer, McEvily and Perrone 1998). The term interorganisational trust is defined as the extent of trust placed in the partner organisation by the members of a focal organisation. In more concrete terms, the extent to which IJV managers trust the IJV partner company.

Interorganisational trust has several economic advantages (Sydow 1998). Above all, trust may serve as an alternative control mechanism in interorganisational relations, where it substitutes or at least complements the market mechanism and hierarchical order (Bradach and Eccles 1989). Moreover, interorganisational trust is likely to enhance allocative efficiency when it encourages the disclosure of confidential information and reduces the costs of interorganisational transactions (Sako 1992).

We can assume that there will be only certain individuals, so called 'boundary-spanning agents' or 'trust guardians' (Child 1998, p. 253), that relate across the boundaries of co-operating companies. Their role in promoting trust between both partner companies is therefore a key one. The trust that exists between the LPC and the FPC will, to a large extent, come down to the quality of normative (mutual) trust that exists between those individuals involved. Bromiley and Cummings (1995) pointed out that optimal expenditures on control, monitoring and other kinds of transaction costs are partially a function of the probability of opportunism, which in turn depends on the level of trustworthy behaviour of boundary spanning agents (also Child 1998; Currall and Judge 1995). This confirms our assumption that trust is actually an interpersonal phenomenon, upon which the quality of interorganisational trust is founded. However, it should be noted that in the case of a frequent turnover of the

personnel allocated by the partners to an IJV, the opportunities for developing a trust-based co-operation between them will be diminished.

The rationale for a workplace relationship based on trust is that trust ensures a sound and co-operative working relationship between the partners. The higher the trust, the more efficient the IJV will be in transforming an input of co-operation into a collaborative output (Buckley and Casson 1988). A foundation of trust, although time-consuming and expensive to create, can contribute to the sustained continuation of cooperative relationships (Madhok 1995). Thus, IJV performance should be viewed as a consequence of IJV trust, with more successful partnerships characterized by higher levels of trust (Inkpen and Currall 1997).

THE CHINESE PERCEPTION OF TRUST

Parallel to our conceptual model of trust development, we must take the specific Chinese perspective of trust in account. In Chinese, the word associated with trust is 'xin'. In interpersonal relationships, four word formations with 'xin' are commonly used (Wang and Yamagishi 1999): 'Chengxin' means to be true, sincere and deception, with the emphasis on trustworthiness as a personal trait. 'Xinren' means to trust, believe or to entrust someone else with something, while 'xinlai' means to place confidence in another person. 'Xinren' and 'xinlai' are very similar in stressing the degree to which a person is trustful of others. 'Xinyong' refers to trustworthiness or credit, which connotes being true, sincere and trustful. In traditional Confucian culture, being true or sincere (trustworthiness) is considered most important as a social norm, while trusting others (trustfulness) is of secondary importance. In real life, 'people face a dilemma of being sincere and trustful' (Wang and Yamagishi 1999, p. 368), whereas Chinese sayings seems to place mistrust in the foreground, for example, 'Treat each person like a guest, but guard against him like a thief' (Gabrenya and Hwang 1996, p. 310), or as demonstrated by the close distinction between 'sheng ren' (literally: raw/unboiled people, meaning stranger) and 'shu ren' (literally: cooked/done people, meaning acquaintance). The ancient '36 strategies of the Chinese' (Wee and Lan 1998) express mistrust even more strongly, making use of negative principles like intrigue, betrayal and deceit.

In Chinese society trust-based relationships within defined local groups, especially the family or the work units, 'danwei', (Hebel 1997), assume considerable importance as a means to protect people against the high level of opportunism, and hence low trust, that prevails within the country as a whole (Child 1998). The institutional environment in China still provides only few guarantees against the betrayal of trust. Historical-

ly, the Chinese have not been protected by a legal system that was independent of the state and supreme in its own right. In the absence of codified commercial law, merchants and producers were at the mercy of a system in which imperial officials and their acolytes could exercise arbitrary power through taxes, licensing fees, and restrictions on trade and travel. Even today, we find a close involvement of government agencies in business affairs. Local governmental agencies have powers to interpret regulations, issue licences and impose taxes, which furnish ample scope for negotiations and corruption. As Child (1998, p. 256) notes, 'the way that agreements are interpreted can depend on the influence or autonomy that the Chinese partner enjoys with higher authorities. The signing of a formal contract does not guarantee the end of uncertainty or even the conclusion of negotiation.'

Especially the complex phenomenon of 'guanxi' management embedded in the specific framework of the Chinese political and industrial system signifies ambiguity and complexity in human interaction. The prevailing segmentation of Chinese society into 'danwei' implies an overlapping of the professional and the private spheres: working together often also means living together in corporate compounds. From an individual's perspective this separation results in a sharp distinction between insiders and outsiders. Already Weber (1947) stated that trust in China especially in business relations always used to be restricted to family ties (see also Redding 1990). Assuming the work unit to be a kind of family derivative, it is obvious that individuals - also taking a weak jurisdiction into account – will rely on trust solely when dealing with insiders rather than outsiders. This can be based on the fact that the Chinese build trust exclusively upon the concept of saving face. Since a pure concept of guilt is lacking in China's Confucian culture, consequences of an individual's negative behaviour, such as opportunism, can only be analysed in a social context: the threat of feeling guilty as a sanction mechanism in Western cultures is replaced by moral failure determined by the peer group – for example, the work unit where feelings of shame due to loss of face are elicited (Hermann-Pillath 1997). With the multilateral dependencies arising from the social 'guanxi' web, breaking trust with an insider may result in severe consequences, while breaking trust with an outsider might have no consequences at all.

IMPLICATIONS FOR RESEARCH

Interpersonal and interorganisational trust

Interorganisational trust builds on interpersonal trust. With regard to diverging goals of the partner companies, we evaluate the extent to which interpersonal relationships are affected by them. From this follows Hypothesis 1: As the development of trust among both companies is based on individual commitment of the boundary-spanning agents toward the counterpart manager, greater similarity between the expatriate and the local manager results in higher levels of trust.

Development of trust

Monitoring the development of trusting relationships, we evaluate whether, according to our theoretical framework, qualitative progress of trust between individuals is taking place in the course of a IJV's operating business. Hypothesis 2 states: In the same way as international co-operative relationships develop over time, a corresponding evolution of trust will follow by using the levels of calculative, cognitive and normative trust.

Insider-outsider perspective

For studying the relationships between Chinese and German managers in Sino–German JVs, a crucial factor for the emergence of trust towards the expatriates is whether German managers are considered to be insiders or outsiders from the Chinese perspective. Though the employees of different nationalities do not live together, they are at least tied by their working relationships in the IJV and need to trust their counterparts to some extent. Hypothesis 3 states. Higher levels of trust in the counterpart IJV manager result from being considered an insider.

SURVEY DESIGN AND METHODS

Our study required measures for calculative trust, cognitive trust and normative trust at the interpersonal and interorganisational level. To do this, we reviewed relevant literature to delimit construct domains, developed operational definitions and assembled them for use in semi-structured interviews in Chinese–German JVs in China. We implemented a qualitative case study approach for three reasons. First, German enterprises participating in a Chinese–German JV follow a strategy of local integration and usually send only few expatriates to China. Second, exploring many interpersonal relationships therefore would have also meant analysing many corporate structures that would lead to distortion due to incomparable surroundings in different companies. Third, to cover the Chinese- as well as the German-specific perspective of trust using a quantitative method of analysis would have implied pressing the managers into categories possibly not suitable to cover every aspect of an crosscultural survey.

Two Beijing- and Shanghai-based IJVs allowed us to conduct interviews with Chinese as well as German managers. Both German partner companies are stock companies in the technical maintenance field and the automotive industry. The LPCs were both state-owned and operating in the same industry. In total we interviewed ten German managers and ten Chinese managers in both JVs as qualified informants in Summer 2000. The boundary-spanning agents were mainly co-operating in a counterpart working relationship in a shared IJV area management.

We used the method of half-standardized interviews containing 22 questions aimed at stimulating the employees to describe freely their personal attitudes towards trusting behaviour and workplace relationships. This procedure was useful to meet the conditions of different people coming from different ethnic and professional backgrounds contributing to a varying timeframe set for the interview. A preliminary version of our questionnaire was reviewed and pretested by a panel of German experts and expatriates from Sino-German IJVs. At this stage, we eliminated several items and reworded several others. For final use, we also developed a Chinese version of the questions with items to parallel the German version. Our concern, especially about trust, was to ensure structural and semantic equivalence of terms between the two cultures. All interviews were tape recorded and transcripted. For evaluation we implemented the method of qualitative content analysis as proposed by Mayring (1995): The first step consisted of deducing trust relevant categories from the interviews following our presumptions. In a second step we formed a code scheme enabling us to classify the content of the interviews into our category headings for abstract generalization. We are aware that the sample size is quite small and that therefore the results must be interpreted with caution.

For cross-reference to Chinese–Japanese JVs, we analysed interviews conducted in Dalian, China, with Chinese managers in co-operative relationships with Japanese companies (see Dolles and Babo 2002, 2000). We also conducted 11 interviews with German and Japanese managers on the topic of trust in IJVs in 2000/2001 in German–Japanese JVs in different locations in Japan and Germany.

Key Findings

CALCULATIVE TRUST, COGNITIVE TRUST AND NORMATIVE TRUST ON THE INTERPERSONAL LEVEL

The results clearly show that all three types of trust exist in Chinese-German IJVs at the interpersonal level. By examining interdependence between the expatriate and his local counterpart on the calculative level, we found no evidence for unbalanced relationships. The typical dependence situation found in the group of expatriate managers was the lack of sufficient knowledge of the Chinese language. This situation enables the local counterpart manager to deal nearly exclusively with all business and leadership matters vis-à-vis local employees, customers, local authorities or other stakeholder groups. The personal contact to key persons, key departments and key resources of the LPC are to his advantage. As access to foreign production technology or product know-how is one of the most important reasons for Chinese companies to invest in an IJV, the LPC is dependent on the technical knowledge of the FPC. The expatriate's advantage is the control of all necessary links to the FPC. The manifestation of bilateral dependence creates a balance in the relationship. None of the partners will act opportunistically, as the threat of reverse sanction is continuously present.

He needs my help. I have a good relationship and this is really important. Guanxi, guanxi, you know? And it is also the language. If you come from another country it is not easy – language and relationships. This is important and I know it – and he also knows it (V6C).²

He needs my know-how in dealing with production technologies – I mean modern production technologies from Germany (V14G).

As indicators for the existence of cognitive trust in IJVs, we searched for positive statements about personality characteristics of the local counterpart or the expatriate manager. In addition we looked for process-based experience about the acceptance of working styles, frequent communication modes and open information exchanges between the managers of the LPC and the FPC. One of the interesting points in this respect is that positive statements about working were only made by the local managers, whereas the expatriates complained about local workplace behaviour

² Interviews with German managers end in 'G' and those with Chinese managers end in 'C'. Wording and grammar of the original interview transcripts have be corrected where necessary.

as confusing, not efficient and time consuming. Nearly all interviewed managers have a positive view of an open communication mode and open information exchange of relevant facts. In the interviews it was claimed that this positive attitude towards information sharing and problem solving serves as a basis for JV performance and success. We also received positive statements about expert knowledge and vocational qualification of the counterpart. Reliability was another issue in the context of cognitive trust. Reliability develops over the time. Nearly all participants we interviewed feel that after a sufficient amount of time they know their counterpart well, so that the other's behaviour is anticipatable and predictable. However, this does not mean that the actions of the other are always seen as positive. Reference was often made to the counterpart's loyalty to and dependence on their social network, which was regarded as unacceptable.

We talk about difficulties very frankly. Besides the professional part we also once discussed his personal problems. Our offices are very close together so it is also the small distance that enables us to interact easily (V18C).

He also told me confidential information. I often thought this is something one should not talk about frankly – information that would be rated as highly confidential from the German perspective, at least. This really influenced my trust in a positive way – to think that a trust relationship with him could arise (A7G).

We have interpreted statements concerning respectful and co-operative behaviour, the positive accomplishment of loyalty expectations, and the development of friendship as indicators of the development of normative trust.

There have been situations in daily work life where I thought that my colleague would leave me in a difficult situation. For example, if I ordered something without talking with him about it in advance, which happens sometimes. And I was so surprised that he still supported me in this moment. I never thought that he would do so (A2G).

And when he returned to Shanghai he brought a lot of presents to our office. He gave me a pen with my name on it. This made me really happy and I was so surprised. This really raised my trust in him, because he accepts my work. Because he shows understanding for my work and appreciates my efforts (V19C).

The positive findings are contrasted with statements that express negative impacts on trust. The partner's behaviour was sometimes interpreted as uncooperative. The interviewed managers perceive three types of action that negatively influence the co-operative relationship: breaking of contracts, non-inclusion in decision-making, and wrong cultural behaviour.

And then he said he would deal with the subject, and I asked him not to deal with it. Then I went to a meeting which was cancelled, and when I returned after ten minutes he was dealing with the subject, and I got extremely mad at him (A3G).

I know the Germans. They are always on time, stingy and hate people from other countries. It is bad if they act rude without thinking, if they are arrogant and do not appreciate our effort (V19C).

We also clearly identified fields of mistrust of a cognitive and normative character between Chinese and German managers. On the cognitive level of trust, Chinese managers fear that expatriates are unable to think integrally and to behave according to Chinese society's requirements. Their German counterparts tend to criticise the perceived insufficient analytical skills of the Chinese. It seems to be more the German attitude to regard the local partner with mistrust from the very beginning. Especially the 'guanxi' web adds complexity to the social relationship and is closely connected with mistrust regarding parallel loyalties, the keeping of contracts, the transfer of relevant information and financial aspects.

I do not like to rely on him. If he does it himself he will fight for his way, and I do not want to rely on him. Sometimes if he deals with these things, he does something and I have to correct him. I have to be the trouble-shooter. I would do it better. Some bad things happened (A4C).

But there is still a dependency, even if the Chinese colleagues have the same view as oneself. They get orders from above which they will not tell us. There is a lot going on behind our backs (V11G).

In terms of normative mistrust we evaluated incongruences concerning goals, expectations and values. They are perceived by the Chinese as well as by the German managers.

Concerning work we do not share the same values. Quality of work or thinking in terms of quality – it is difficult for the Chinese to change that. So they stick to the level reached without changing anything. Our advantage is that we take the chance, talk about improvements (V11G).

I think this is related to our goal to take more management responsibility. We started early to localise management here. And we had five German general managers here, and I think now it is time that the Chinese staff take over (V16C).

CALCULATIVE TRUST, COGNITIVE TRUST AND NORMATIVE TRUST ON THE INTERORGANISATIONAL LEVEL

On the calculative trust level, representatives of both partner companies know exactly the reciprocal dependency of their mother companies at the interorganisational level. Both Sino–German JVs were established in the 1980s. Due to governmental regulations at the time, IJVs were the only entry strategy for the Chinese market. In all cases investigated the strategic aim of the German parent companies was to enter the foreign market. On the local side, all companies mentioned that the FPC possesses product technology or production process know-how that is not available in the host country and that offers a gain of competitive advantage for the local partner against local competitors. From the Chinese perspective, the access to foreign capital also seems very important.

We want to do business in China, and without the Chinese side we will not get into the market – no chance. It is simply not a free market economy (V11G).

You know, now that the local partner is going down, they have big losses. But now with our new ability, we can get side-by-side as we also have foreign customers (A4C).

By questioning aspects of cognitive trust on the interorganisational level, we found statements in the interviews concerning superior technology, advanced management systems and the good reputation of the partner company. It was astonishing that all of the German executives had expressed mistrust towards the LPCs, whereas the Chinese managers did not seem to mistrust the FPC.

But in the world and in the co-operation the brand of the foreign partner is quite popular – so I think this will be a continuous co-operation (A1C).

And that is why I trust the foreign partner. There are Germans who have a very good understanding of the product and the quality. You must admit this (A10C).

Concerning internal payment, if they have to pay 40 million, they approach us two days later saying, 'sorry, we do not have the money – we cannot pay'. They pretend to support us, but the local partner is eager to impede us in daily life. I have to admit that I do not trust any of the local partners (A8G).

After we had approved the internal payment of the money they said we could do it but without a bill. We told them that we need a bill to prove where the money has gone, but they said only without a bill, 'otherwise we will not support you' (A3G).

Elements of normative trust on the interorganisational level were not identified in our samples.

DISCUSSION

The primary goal of our research was to explain how trust in co-operative relationships develops over time, how trust appears at the interpersonal and interorganisational level, and how these two levels of trust are interrelated. Implications for trust-sensitive management of Japanese–foreign JVs will be given.

THE INTERPERSONAL LEVEL OF TRUST

In our survey we identified all three forms of trust on the interpersonal level between German expatriates and Chinese senior managers which we placed into the layers of calculative, cognitive and, to a lesser extent, normative trust (Hypothesis 2). Our theoretical assumption that calculative trust dominates interpersonal relationships at the beginning was verified in our interviews. In IJVs in which boundary-spanning agents work closely together, it is the knowledge of reciprocal dependency which gives partners security and the feeling that they are not mistrusted by the others. There is clear evidence from our interviews that all managers are aware of this reciprocal dependency. Whereas the German expatriate contributes his expert knowledge and his close relationship to the FPC, the local manager possesses all the necessary information about the local staff, the local infrastructure and the relationship to the LPC. Both boundary-spanning agents are also part of the larger network of their own ethnicity, with informal information sharing among their groups.

Cognitive trust is based on continuous accumulation of information about the counterpart. In this sense it is understandable that all participants in our survey feel that they can trust the other, because they assume that they can anticipate the behaviour of the other. The statements given support our assumption that cognitive trust will emerge after a certain period of time. It takes time to acquire detailed knowledge about the capabilities, the working attitude and the personality of the counterpart manager. Nevertheless, our data also indicate the emergence of trust towards the counterpart manager owing to personal characteristics apart from the workplace relationship, such as social background, hobbies and family.

Indications of normative trust were frequent in our survey. The reason is that the development of normative trust will take much longer than cognitive trust. However, overseas assignments of expatriates are often of short duration. International assignments of German companies are from three to fourteen months on the short side and three to eight years at the longest. German companies still consider China a developing country with hardship conditions for expatriate managers, which leads to much shorter international assignments. It is thus not surprising that normative trust was not frequently encountered in the Chinese–German JVs investigated.

The survey revealed that the German expatriates in our survey were far from being included in the Chinese 'danwei' structure and therefore cannot be considered as insiders (Hypthesis 3). However, we found quite a few expressions of trust by the Chinese managers towards the German expatriates. This implies that according to our definition, the expatriates also do not fit into the category of outsiders, as this group is not trusted at all. Obviously a kind of hybrid culture of trust is developing in the IJV. By co-operating in daily IJV business, the German managers automatically come into contact with the Chinese managers and their business network. However, a sharp distinction between business and private – probably influenced by the Western style of life – is also adopted by the Chinese employees in the IJV regarding the managers of the FPC. So the private sphere is not touched, which leads to a differentiation of trust in the IJV and corresponds to our finding of a hybrid culture of trust in the IJV.

In our survey, it was primarily the German staff that expressed mistrust towards the workplace behaviour of their counterparts. The former fail to place the inefficiency and laziness that they perceive into a motivational context. Without much reflection they seem to project the traits of a 'modern' Western business culture onto the Chinese working environment. The Chinese managers, on the other hand, complained in the interviews that the behaviour of the expatriates was culturally inappropriate. Expatriates generally see their role as introducing Western management expertise into Chinese–German IJVs, which does not allow for informal local management practices. In fact some Western management practices can cause difficulties in establishing relationships with the local counterpart in China or the staff of the IJV. These include confrontations during meetings – leading to loss of face by local participants – and insistence on local managers assuming individual responsibility for actions, which exerts pressure on local staff. Both tendencies indicate insufficient intercultural training programs before assignment from the FPC, as well as from the FPC resulting in negative impacts on trusting behaviour and performance.

The findings of our research suggest thus far that especially within the context of a local culture that attaches high value to transactions based upon personal relationships, as in China, trust-sensitive management of co-operative ventures should focus on the interpersonal level. This may be achieved through careful selection of personnel, intercultural training, longer assignments or a policy of human resource management in which repatriated managers continue to be in charge of matters related to 'their' overseas IJV. Without continuity at the top management level of the LPC and FPC, as well as the IJV, there is the risk of 'corporate amnesia' (Inkpen and Beamish 1997; Turpin 1993), in which executives in both parent companies forget the original motivation for this international co-operative alliance and past lessons from their personal relationships.

The interorganisational level of trust and its interdependence with the interpersonal level

Interorganisational trust was emphasised infrequently in our sample. We seldom encountered statements by LPC managers about personal trust in the technical knowledge of the German expatriate resulting in interorganisational trust in the high technical standards of the FPC. Culturally insensitive or inappropriate personal behaviour of the expatriates leads to mistrust in the organisational capacity of the FPC by the local staff, because it is assumed that the FPC has carefully selected its expatriates. The German expatriates, for instance, do not normally consider 'guanxi' or face-saving to be acceptable norms of business practices. Within IJVs, the 'guanxi' in China may require favouritism in the selection of new employees or in the allocation of contracts for supplies, and it may involve what foreigners regard as corruption.

Our hypothesis 1 that interorganisational trust derives from interpersonal trust was partly confirmed. Statements by Chinese managers indicate that the quality of work of individual employees of the partner organisation is transferred to the interorganisational level. Obviously, trust is generalized in some cases. However, deficits in personal interaction also influence the organisational level of trust. To demonstrate the insufficiency of the assumption that the influence of the interpersonal on the interorganisational level is a 'one-way street', we need to have a closer look at the interpersonal level again. At first glance, two statements of the same individual employee concerning trust in the interpersonal relation appeared to be diametrically opposed, expressing a specific subtype of trust, on the one hand – 'I am sure he will also pass on all relevant information' (A3G) – followed by a statement of mistrust, on the other – 'When information involves employees, he always suffers temporary Alzheimer' (A3G).

Analysing this bewildering phenomenon, we evaluated the organisational framework that influences the interpersonal relationship. We discovered that an incongruence of strategic goals between the FPC and the LPC heavily influences the trusting personal relationship at the management level. In general, disagreement between both partner companies about the mission of the IJV leads to a lack of direction, and hence to some amount of mistrust at the interorganisational and interpersonal level. Such a conflict situation can only be extremely dysfunctional. Neither the foreign nor the local values about work or interpersonal relations control the situation in the IIV. There is no clear set of short-term or even longterm goals for the individual managers and the IJV. Rather, uncertainty prevails as each group of managers seeks to impose its assumptions about human behaviour and proper workplace practices onto the IJV. In addition to these clashes at the management level, the local employees in some cases expressed ambivalence as to what is expected of them. Should they do business as usual under customary local norms, or should they attempt to adapt to the often strange and different practices of the FPC. Such an environment in an IJV is often unstable, laden with mistrust, and likely to be ineffective.

The interorganisational impacts on interpersonal trusting relations can be evaluated using two moderating variables: a parallel loyalty of the managers and the temporary character of an expatriate's assignment. Loyalty is directed toward the counterpart manager as well as toward the own ethnic group and/or company of origin. In light of the temporary nature of the co-operation, loyalty towards the own ethnic group is naturally the stronger tie. Problems arise if a strategic goal incongruence affects the personal relationship from top management in either the FPC or the LPC. Our interviews confirmed that interpersonal agreements or oral contracts on the interpersonal level must frequently be readjusted due to organisational constraints. Our theoretical considerations led us to assume that such cases will lead to a climate of diminished trust or even mistrust, where reestablishment of trust may be impossible.

However, our findings do not support this assumption: breaking individual contracts and agreements did not automatically lead to mistrust at the interpersonal level. The close distinction between confidence and trust provides the rationale. While breaking of trust is attributed internally, the consequences of unsuitable confidence are attributed externally. The determinants of an individual's actions depend not only on ability and intention but also on social environment and situational factors (von Rosenstiel 1988). Obviously the manager affected by a breaking of an agreement takes these factors into account and attributes the problem externally. In the course of time, a continuum is developed including levels of trust and mistrust in the same field of co-operation regarding external factors to determine the counterpart's behaviour.

On the calculative level of interorganisational trust we find clear evidence for strategic decision-making by the FPCs concerning market entry strategies, partner selection criteria, the appropriate level of technology, use of capital and the reputation of partner companies. In the initial stage of going international, it is extremely important, through careful planning, to get the basic calculus for the IJV right. This careful planning takes time and provides an opportunity for a degree of mutual confidence and respect to develop between the main negotiators at the interpersonal level, which leads to trust at the interorganisational level when the IJV starts operations. The LPCs contributes the local knowledge from the outset. During IJV formation, the Chinese partner deals nearly exclusively with legal, official planning and domestic financial matters. When the IJV is in operation, the contribution of the Chinese partners is closely linked to operational networks, such as domestic sales, supplies, human resource management and infrastructure. However, once an IIV is in operation, the FPC progressively gains sufficient access to the local knowledge. For reciprocal dependency on the calculative level, this implies that the bargaining power of the LPC will gradually diminish, depending on both the criticality of that knowledge and how fast the FPC learns.

The surprising emergence of mistrust at the cognitive level towards the LPCs in our research might be explained by the fact that the LPCs investigated are still state-owned enterprises. The German expatriates claim that the LPCs still provide a broad spectrum of social services ranging from housing to medical care to funerals. This practice of human resource management is transferred to the IJV, which results in an expanded payroll, sometimes unnecessarily high-wage payments, problems with overstaffing and difficulties in personnel recruitment. All these factors contribute to the impression that the foreign investor must provide the 'iron rice bowl' for the employees of the IJV and to some extent to the personnel of the LPC, too. Choosing a IJV partner from the new emerging private enterprises involves a partner selection strategy that must cope with this problem (Dolles 2000).

For a foreign company interested in maintaining a stable, long-term IJV, our findings clearly suggest that goal discrepancies on the interorgan-

isational level should be avoided and compatibility in operational and technical capabilities aimed at. The German companies listed as their main strategic objectives gaining a strategic position in the Chinese market, the attraction of the domestic market and the opportunity for long-term profit. The Chinese companies are looking for technology transfer, production techniques and management expertise. Such differing goals and objectives could become critical issues in the Chinese–German IJVs investigated. Goal integration in a trust-sensitive management of IJVs is therefore a must for successful IJV management, as is a suitable fit between the organisation's individuals and those of the IJV itself. This means that both IJV partner companies need to understand the culture, goals and values of the other party, and apply this information towards a trustworthy collaboration. This widening of the trust-sensitive management of IJVs increases the likelihood that the most important goal of both partners and IJV – profitability – can be achieved.

$Implications \ for \ Japanese-Chinese \ international \ joint-ventures$

Our survey of Japanese–German IJVs revealed several noteworthy differences to Chinese–German JVs that might also touch on the performance of Chinese–Japanese co-operative ventures.

With regard to the antecedents of trust, it was mentioned in the Japanese interviews that the interpersonal relationship is crucial for creating a successful co-operative relationship with Japanese companies. Even if there is basic congruence in goals and objectives as well as overall suitability of both partners on the organisational level, without a personal-relationship commitment and an open two-way communication, trust will certainly not develop. For commitment the collaborating partner in the IJV must not only be willing to express his long-term interest in the co-operative venture but also to take affirmative action that demonstrates willingness to act on promises. By doing this, the expatriate will personally enter a 'trust cycle' where trust begets trust. Conversely, should the Japanese managers perceive a violation of their trust by the expatriate, they will quickly turn to distrust. This behaviour does not work too well in the Chinese context, where Japanese managers in IJVs face the same problems as German managers in dealing with the frequent readjustment of interpersonal agreements or breaking of oral contracts by the local managers.

The commitment to interpersonal trust in Japanese–German IJVs was much higher than in the Chinese–German IJVs as indicated by the degree of information exchange and long-term stable relationships between managers in the IJV as well as between the top Chief Executive Officers (CEOs) in the FPC and the LPC. In light of our argument that boundaryspanning agents in IJVs can have a direct influence on alliance performance, we suggest that the influence of the boundary spanning agents in Japanese–German IJVs is considerably higher than in Chinese–Germany IJVs.

For the Japanese it is necessary to demonstrate trustworthiness over time. However it should be noted that long-term trading in itself is not sufficient to develop mutual trust in relationships. The relatively quick turnover of expatriates in German-Chinese IJVs was not encountered in Japan, where the expatriates tend to stay for a longer period of assignment (two to six years compared to five to six years or even longer), which supports the necessity of establishing a personal relationship and leads to higher cultural sensitivity on the part of the expatriates. Given that Japan is a high context culture (Fukuyama 1995), culturally sensitive behaviour may communicate to the Japanese an aura of trustworthiness that goes beyond verbal communication and leads to a mutual understanding between both partners. This does not work for the Chinese situation, because Japanese assignments in China are even shorter than the German (one to two years), which does not allow for the development of a personal relationship with the local managers. This finding is in line with the observations made by Yan (2000) that the frequent replacement of expatriate managers appears to damage the performance of IJVs and is regretted by the Chinese managers. Complaints were expressed by the Chinese managers also about not being informed in advance of the turnover and the reasons the FPCs' reasons to replace the foreign manager.

With regard to our hypothesis concerning the development of trust, we clearly identified that trust in Chinese–German IJVs develops through the levels of calculative, cognitive and normative trust. In analysing Japanese–German IJVs, we found that the Japanese companies are more predisposed to trusting their partners than the German companies, as indicated by the need for informal and formal mechanisms of partner control. This finding puts our theoretical framework in reverse order for the Japanese point of view, which starts co-operative relationships from a normative view of trust and puts calculative aspects of trust last. A Japanese CEO in our interviews made the following distinction:

The Germans normally trust their business partner on the premise of proper economic facts, such as turnover or sales volume. The Germans clearly state that they did not come to Japan to participate in a coffee party, they want to do business straight away. From the Japanese point of view, we expect first to establish a personal relationship, a kind of mutual understanding of the other first, before talking about business. Business figures really do not affect the development of trust between both partners at the very beginning (3F503).

Sako (1998, 1992) and Dore (1983) came to similar conclusions in their studies on Japanese and British companies. This is an indication of prevailing business norms, which are determined by societal-level cultural values. Societal norms may be self-reinforcing. Over time, a history of good experience with trusting behaviour in Japan may have promoted the diffusion of trust. This finding is supported by the research of Yamagishi and Yamagishi (1994) and is in line with our results.

In trying to see implications for Japanese-Chinese IJVs in China, we might think that with the placing of personal relationships in the foreground, it is probably the Japanese approach of dealing with co-operative relationship that might work better in the Chinese social environment, which is highly complex and hence uncertain from a Western perspective. The relatively frequent turnover of Japanese expatriates, however, does not support this assumption. Chinese managers in Japanese-Chinese IJVs also complain about the behaviour of the Japanese expatriates as being culturally unsuitable. The balanced reciprocal dependency found in the German-foreign cases on the calculative level is not found in Japanese-Chinese IJVs because of the Japanese Chinese language skills (at least the ability to read and write Chinese characters). Therefore, the Chinese managers feel much more dependent on the expatriate, which might cause negative motivational effects. Beyond this impression, there is evidence that senior positions in Japanese-Chinese IJVs are mainly held by Japanese managers, and local managers are not encouraged to strive for career development opportunities. In Chinese-German IJVs, in contrast, Chinese managers seem to be restricted to the areas of personnel, domestic sales, purchasing and deputy general managerships. One of the Chinese–German IJVs in our survey had parallel organisational structures with all senior positions jointly held by a German and a Chinese manager. This approach of creating an equal working environment is perceived as having great advantages for Chinese professionals working in an IJV and might be the key to successful trustsensitive IJV management in China.

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