

Strengths, Weaknesses, Opportunities, and Threats for Foreign-Invested Construction Enterprises: A China Study

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Abstract: China has been attracting overseas construction enterprises with its vast expanding business market. The country is further opening its construction market to overseas businesses as the result of its accession to the World Trade Organization in 2001. In line with this development, there are an increasing number of foreign-invested construction enterprises (FICEs) entering into the market. Using Porter's competitiveness factor analysis method, this paper identifies the FICEs' strengths, weaknesses, opportunities, and threats in the Chinese construction market. Data used in the analysis stem from multiple sources including statistical reports, literature review, regulations and policies, and interviews with construction professionals. These findings should provide a valuable reference for overseas construction enterprises who are interested in developing business in the Chinese construction market.

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Introduction

China's economy has made remarkable progress in recent years. From the years 1993–2005, the Chinese Gross Domestic Product maintained an annual growth rate of more than 7% (CSYB 2005). In line with this growth, the Chinese construction industry has also been expanding. According to a report "Business rules" by *ENR* (2003), the Chinese construction market was the third largest in the world in 2002, with a total construction value of US\$404 billion. It is widely accepted that China is moving toward a more open and market-driven economy, and as a consequence the Chinese construction market is booming (*ENR* 2004a,b). This attractiveness is likely to remain for the foreseeable future and has been enhanced by China's accession to the World Trade Organization (WTO) which is encouraging the opening up of the Chinese market. Regulations have been issued by the Ministry of Construction of China to ensure the improvement of the business environment for overseas businesses, including the "Regulation on Administration of Foreign-Invested Construction Enterprises" (MOC 2002).

The improvement of the business environment in the Chinese construction market has led to the growth of foreign-invested construction enterprises (FICEs) entering into the market. According to the statistics, there were over 500 FICEs in 2003 in the Chinese construction market (CSYB 2005). However, the FICE's business

expectation can differ from their actual performance. Kwak (2002) has conducted a study analyzing concession projects by foreign contractors in Asia. The result was that about 30% of the projects had serious problems, causing substantial financial losses to investors and resulting in cancellation, delay, and suspension of the project. Zhang (2003) conducted a survey about the business performance of FICEs in China and found that although an increasing number of FICEs have entered into the Chinese construction market they have not always been successful. Similarly, a previous study by Shen et al. (2001) suggests that there are many cases where joint ventures in China are not successful because of the poor understanding of the business practices adopted by different partners. These studies demonstrate the importance for FICEs to identify their own positions by understanding properly the local business environment. Misunderstandings on the differences in operating a business within a different environment can lead to company failures in pursuing business ambitions.

Significant research has been undertaken to help FICEs understand the Chinese construction market. For example, Luo (2001) did a survey on the performance of Sino-foreign construction joint ventures, presenting the major barriers to operating a business in the Chinese construction market, such as governmental intervention. Fan (1988) examined various regulations and policies issued by the Chinese government in the 1980s and presented a typical study on the details of forming Sino-foreign joint ventures in the Chinese construction industry. Galey and Luo (2004) identified the key factors affecting the success of forming joint construction ventures in China by understanding the perceptions of both the Chinese and foreign executives who worked in Sino-foreign joint ventures. Shen et al. (2004) pointed out that construction firms in China operate business under a complicated regulation framework that consists of eight major regulation systems. There are also other studies that examine the differences of operating construction businesses in China and in the West (Walker et al. 1998; Shen and Song 1998). These, however, have become outdated with China's rapidly changing businesses environment. It is the main objective of this paper to find out FICEs' strengths, weaknesses, opportunities and threats (SWOT) in developing businesses in the Chinese construction market by using

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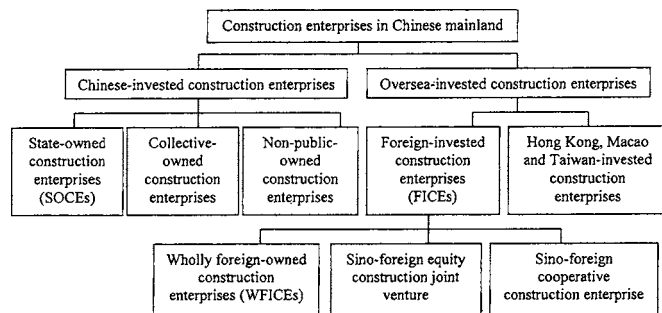


Fig. 1. Classification of construction enterprises in Chinese construction market

updated information. Data used for analysis are from relevant regulations and policies in China, reviews of published literature on overseas contractors in China, various statistical reports and interviews with construction professionals.

Business Market for FICEs in China

Various types of construction enterprises have established themselves during the last 2 decades in the Chinese construction market. A typical classification of these enterprises is shown in Fig. 1. It can be seen that the FICEs consist of three groups, namely, wholly foreign-owned enterprises, Sino-foreign equity construction joint ventures, and Sino-foreign cooperative construction firms. Constructors from Hong Kong, Macao, and Taiwan are treated as overseas firms.

The number of FICEs who have registered in China is increasing. Contractors in China are divided into three categories: main contractors, specialist contractors, and labor contractors (MOC 2001). Main contractors are graded from the highest to the lowest level as Special Grade, Grades I, II, and III. Specialist contractors are graded as Grades I, II, and III, and labor contractors are classified as Grades I and II. FICEs have to register for a specific grade. According to the China statistical yearbook and China building industry yearbook (CSYB 2005; CBYB 2003), in 2003, there were 287 FICEs registered to operate as main contractors or specialist contractors, except for labor contractors, with a total of 60,000 employees. Most of them are classed as lower business grade. These FICEs are mainly distributed in Eastern provinces in China where the economy is more advanced and the market more open, including Liaoning, Shanghai, Beijing, Jiangsu, Shandong, Guangdong, Zhejiang, and Fujian, as shown in Fig. 2 (CSYB 2005).

It is interesting to note that the gross output value of construction (GOVC) by FICEs to the total construction output value in China has not increased in recent years. The statistics in Table 1 (CSYB 2005) show that the average share of GOVC by FICEs in

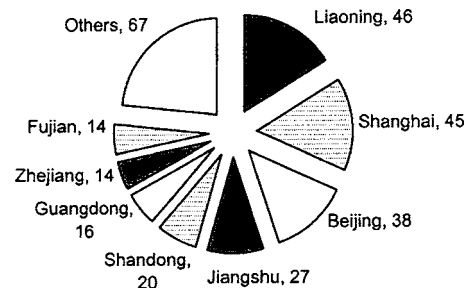


Fig. 2. Number of FICEs in Chinese construction market

the Chinese construction market was only 0.54% during the period from 1998 to 2003. This indicates that the influence by FICEs on the overall Chinese construction market is small. FICEs, however, are considered potentially important particularly with China's accession to the WTO which has led to a significant change of the restrictions to the project types eligible to FICEs. Before the accession, FICEs were only allowed to work on the following types of projects: (1) large foreign-invested industrial construction projects; (2) foreign-invested high-grade and high-rise buildings; (3) projects financed by international financial organizations through the international tendering process; (4) foreign nongovernmental-invested projects; and (5) projects requesting for special construction technology and equipment that could not be procured domestically (Liu 2003). However, in complying with WTO agreements by the Chinese government, FICEs (which are either Sino-foreign equity construction joint ventures or Sino-foreign cooperative construction enterprises) are no longer restricted to certain type of projects. FICEs can now build any type of project so long as the project is within the businesses scope defined in the enterprises' qualification grade. This has been regulated by the governmental policies, including the Regulations on Administration of FICEs issued by the Ministry of Construction in 2002 (MOC 2002), the Regulations on the Qualification of Construction Enterprises issued by the Ministry of Construction (MOC 2003c), and the Regulations on Direction of Foreign Investment issued by the State Council of China (SCC 2002).

Nevertheless, some restrictions on project type undertaken by wholly foreign-invested construction enterprises (WFICEs) still exist. While WFICEs could register for business licenses since 2003, they are limited to work on certain type of projects (MOC 2002). These mainly comprise foreign-invested projects, including (1) projects wholly funded by foreign investments or foreign grants; (2) projects financed by international financial organizations through an international bidding process; and (3) Sino-foreign jointly invested projects in which the foreign investment is not less than 50%, or in which the foreign investment is less than 50% but the Chinese partner cannot implement the project independently due to technical difficulties. In addition, WFICEs are allowed to join with Chinese construction firms to contract for

Table 1. Percentage of Gross Output Value of Construction by Overseas Construction Enterprises to Total GOVC in China (%)

Enterprises types	1998	1999	2000	2001	2002	2003	Average
Hong Kong, Macao and Taiwan-invested construction enterprises	0.91	0.82	0.79	0.67	0.61	0.54	0.73
Wholly Hong Kong, Macao, and Taiwan invested of above	0.08	0.05	0.06	0.03	0.03	0.02	0.04
Foreign-invested construction enterprises	0.62	0.58	0.54	0.48	0.49	0.56	0.54
Wholly foreign-invested of above	0.05	0.02	0.02	0.02	0.02	0.02	0.02
Overall	1.53	1.40	1.33	1.15	1.10	1.10	1.27

projects which are invested wholly by domestic organizations, where the projects are considered technically difficult for the domestic construction enterprises to undertake.

Research Methodology

An examination of FICEs in the businesses market in the previous section leads to analyzing the FICEs' SWOT in the Chinese construction market. SWOT analysis has become an important methodology in helping an enterprise to formulate a competitive businesses strategy. In a study by Pearce (1992), SWOT analysis is described as a methodology allowing enterprises to understand and plan to use their strengths to exploit opportunities, to recognize and repair or avoid their weaknesses, and to defend against or sidestep any known threats. He goes on to say it is commonly accepted that an enterprise's strengths and weaknesses demonstrate the enterprise's internal characteristics and are controllable; and that an enterprise's opportunities and threats are determined by external factors on which the enterprise has no direct control but can react to its own advantage (Pearce 1992).

In conducting a SWOT analysis, Porter (1980) introduced a factor analysis method. By using this method, factors affecting an enterprise's SWOT are grouped into profiles of assets, skills relative to competitors, and the competitive environment with its attendant risks and potential rewards. This method has been widely quoted in previous studies on business competitiveness and found to be effective (Wehrich 1982; Panagiotou 2003; Howes and Tah 2003), and is employed in this paper as a basis for analyzing FICEs' SWOT in the Chinese construction market. The analysis was undertaken in two stages.

The focus of the first stage is to formulate a generic framework of factors affecting an enterprise's strengths, weaknesses, opportunities, and threats in the construction industry. In the study by Porter (1980), financial resources and technological position are used as the major attributes for examining an enterprise's strengths and weaknesses, and government policies and social concerns for examining an enterprise's opportunities and the threats to its business. Wehrich (1982) used the attributes management and organization, operations, and finance for examining an enterprise's strengths and weaknesses, and economic factors, social factors, political factors, markets and competition in examining an enterprise's opportunities, and the threats to its businesses. These studies are used as a basis for grouping the factors as follows:

1. Factors affecting a construction enterprise's strengths and weaknesses (SW): (1) management ability; (2) technological ability; (3) financial ability; (4) organization; and (5) operations; and
2. Factors affecting a construction enterprise's opportunities and threats (OT): (1) social and political environment; (2) economic environment; (3) markets opportunities; and (4) competition mechanism.

In the second stage of analysis, the framework of SWOT factors formulated in the first stage is used to examine the FICEs' strengths, weaknesses, opportunities, and threats in the Chinese construction market. This involves undertaking practical surveys and examining statistical data and regulations. Nine interviews with contractors have been conducted, including five FICEs and four Chinese state-owned construction enterprises (SOCEs). The interviewees included general managers, project managers, and senior engineers who have comprehensive experience and knowledge about the practice of the Chinese construction market. An

open-ended discussion approach was used for conducting the interviews in order to avoid the influence of preconceived opinions. Results were also obtained from examining relevant statistical data and regulations. Statistical data include those published in the China building industry yearbook (CBYB 2003), China investment yearbook (CIYB 2003), and China statistical yearbook (CSYB 2005). Typical regulations and policies referred in this study include: (1) regulation on administration of foreign invested construction enterprises (MOC 2002); (2) regulations on qualification administration of foreign-invested construction enterprises (MOC 2003c); (3) requirement on the standard of main contractor (MOC 2001); (4) policies on the directions of investment by foreign businesses (NDPC, NETC, and MFTEC 2002); (5) regulations on the direction of the investment by foreign investors (SCC 2002); (6) report on the 16th Plenary Session of Chinese Communist Party (Jiang 2002); and (7) report on the government performance on the 2nd Session of 10th National People's Congress (Wen 2004). The results from the interviews and analysis of the statistical data and regulations help to identify FICEs' strengths, weaknesses, opportunities, and threats, as shown in Table 2, which are analyzed in the next section.

Analysis to FICEs' Strengths

Good Project Management Skill (S_1)

Project management as a business approach was introduced from overseas construction practice to the Chinese construction industry in implementing the Lubuge hydropower construction project in 1986 (Zhang 2004). There are various types of construction project management approaches such as design-bid-build; design-build; construction management; and others (Wang 2003b). Many Chinese construction enterprises still have little experience in adopting these approaches except for the design-bid-build, while the FICEs are generally knowledgeable or have experience in practicing most of these approaches. The application of these management systems is popular, particularly in the West. For example, in the United States in 2002, the design-build approach was adopted 40% among all types of project management applications (Zhang and He 2003), whereas in the Chinese construction market, the system was only introduced recently. This indicates that the enterprises from the West are more experienced in using various project management approaches in comparing to the Chinese construction firms.

Better Information Management Facilities (S_2)

FICEs in China have the advantage of being better equipped with advanced information management facilities. Among the nine interviewed organizations, five were FICEs, and all the five firms have internet and management information systems, including building design system, business administration systems, and project management systems. These communication systems enable better and efficient information exchange within the organization, which enhances productivity. Other technical packages were also widely applied in the five interviewed FICEs, such as the computer aided design (CAD), Primavera project planner (P3), and Microsoft project. Nevertheless, only one of the four interviewed SOCEs was found to be equipped with similar information management systems. In fact, by realizing the information management strength owned by FICEs, the Chinese government has launched an official program in 2003 to advance the SOCEs'

Table 2. FICE Strength, Weakness, Opportunity and Threat Factors

SWOT factors	FICES' SWOT ^a	Analysis by ^b
SW factors		
Management ability	S_1 =Good project management skill	<i>L, P</i>
Technological ability	S_2 =Better information management facilities	<i>I, P</i>
Financial ability	S_3 =Advanced machine and equipment	<i>I, D</i>
Organization	S_4 =Higher labor productivity	<i>D</i>
Operations	S_5 =Good finance-raising ability	<i>I</i>
	S_6 =Proper debt/asset ratio	<i>D</i>
	S_7 =Good cost control skill	<i>D</i>
	S_8 =Attraction to good human resources	<i>I, D</i>
	W_1 =Limited number of professionals	<i>I, P</i>
	W_2 =Higher production costs	<i>I, L, P</i>
	W_3 =Limited channels for market information	<i>I, L, P</i>
	W_4 =Lack of knowledge on regulations	<i>I, L, P</i>
	W_5 =Lower businesses qualification grade	<i>I, P</i>
	W_6 =Limited businesses relationships	<i>I, L</i>
OT factors		
Social and political environment	O_1 =Reformed policy environment for foreign businesses	<i>D, P</i>
Economic environment	O_2 =Governmental promotion for construction	<i>P</i>
Markets opportunities	O_3 =Establishment of credit system	<i>L, P</i>
Competition mechanism	O_4 =The market access protected by WTO agreement	<i>I, L, P</i>
	O_5 =The development of the Chinese construction industry toward international practice	<i>I, L, P</i>
	T_1 =The reduction of the investment on fixed assets	<i>D</i>
	T_2 =Certain restrictions on foreign investment	<i>P</i>
	T_3 =Increasingly intense competition	<i>I, L, P</i>
	T_4 =The risk of breaching contracts	<i>I, L</i>

^a S =strength; W =weakness; O =opportunity; and T =threat.

^b I =interview; D =data from statistical report; L =literatures; and P =policies and regulations.

information technology and management skills (MOC 2003b). In line with this program, by 2008, those SOCEs with special grade qualifications are expected to catch up with the information management standard owned by the world class construction firms, for example, by having their own intranet systems and getting professionals or managerial staff connected to the internet systems. The program also specifies that by 2008 those Grade I SOCEs will develop their information management capacities to the level that world-class firms have already built up in 2004.

Advanced Machine and Equipment (S_3)

Compared to the domestic construction firms, FICES have advantages of possessing construction machines and equipment. Comparisons of plant capacity, in terms of the value of machines per laborer, between SOCEs, the collective-owned construction enterprises, the enterprises from Hong Kong, Macao, and Taiwan and FICES are shown in Fig. 3 (CSYB 2005). It can be seen that from 1998 to 2003, the value of machines per laborer within the FICES is more than 1.3 times to that of SOCEs. The interview conducted by the research team shows that the FICES are usually equipped with large and complicated specialist machines which have higher efficiency and productivity. With better equipment, FICES have advantages to undertake the projects that request the use of advanced or special machines.

Higher Labor Productivity (S_4)

Data shown in Fig. 4 provides evidence that FICES can achieve higher labor productivity and demonstrates that, from 1998 to

2003, the FICES' labor productivity (measured by GOVC) is 1.2–1.5 times that of SOCEs (CSYB 2005). It can be seen that this difference has decreased in 2003. According to the study by Wei and Lin (2004), FICES' higher productivity is due to multiple factors, including advanced technology and equipment, more capable human resources, and efficient organization structures.

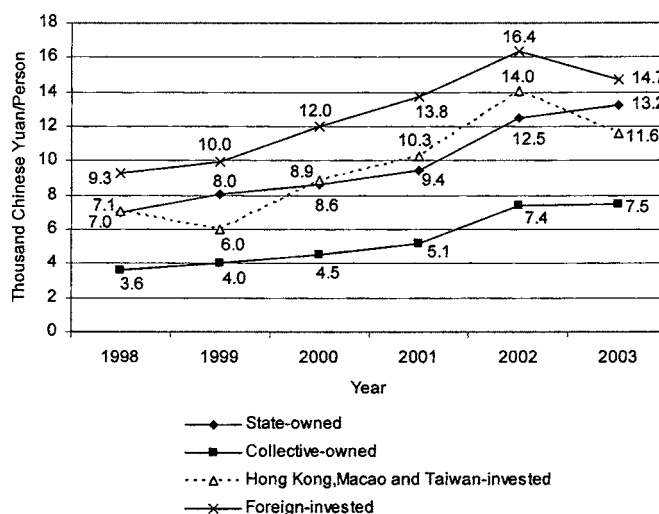


Fig. 3. Plant capacity (value of machines per laborer) among different types of construction enterprises in China

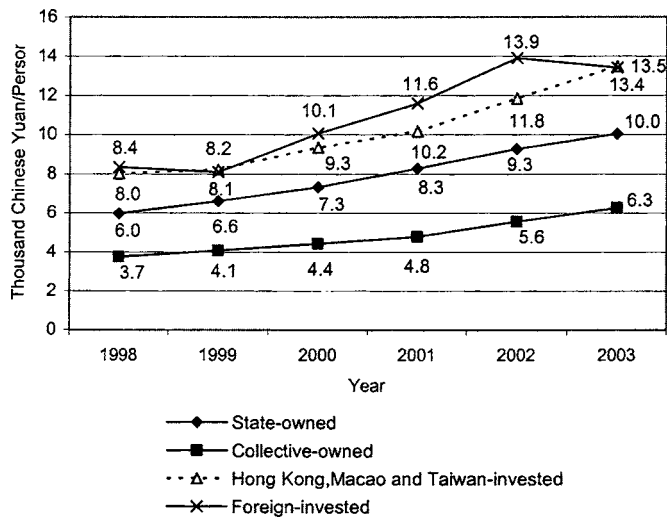


Fig. 4. Labor productivity among different types of construction enterprises in China

Good Finance-Raising Ability (S_5)

In general, in comparison to the Chinese domestic firms, FICEs have better financial strength. The FICEs are more capable of financing for projects through diversified channels. The interview discussion revealed that FICEs in China are usually financed by their parent enterprises, or the financial institutes in their own countries, or the international finance institutes if they have a good reputation in operating businesses. One of the FICEs interviewed had the experience of adopting four types of methods to finance its construction works in China, including export credit, foreign governmental loans, build-operate-transfer (BOT), and lease. The practice of these methods has led to the success to the contractor by improving its financing competitiveness.

Proper Debt/Asset Ratio (S_6)

According to the Chinese building industry yearbook (CBYB 2003), FICEs in general have better debt/asset ratio than that the Chinese domestic firms have. For instance, in 2001, the average debt/asset ratio in SOCEs is 73.5%, and the ratio is even over 100% in some SOCEs, whereas the average debt/asset ratio in FICEs is 59.9%. The higher debt/asset ratio has weakened the SOCEs' capacity of raising finance and solvency. On the other hand, the lower debt/asset ratio in FICEs demonstrates their better financial status. This allows them to raise finance more ably because financial institutes are confident of those enterprises with better financial status.

Good Cost Control Skill (S_7)

It is agreed in all the interviews conducted that FICEs have stricter procedures in assessing businesses expenses, and their cost control systems are better established and enforced. The China statistical yearbook indicates that FICEs have a higher profit/GOVC ratio than that SOCEs have, as shown in Fig. 5 (CSYB 2005). In fact, many SOCEs have a profit/GOVC ratio less than 1% or even in a negative value. It is interesting to note in Fig. 5 that those overseas-invested construction enterprises from Hong Kong, Macao, and Taiwan experienced a high fluctuation in making profits during the period 1998–2002. Given that

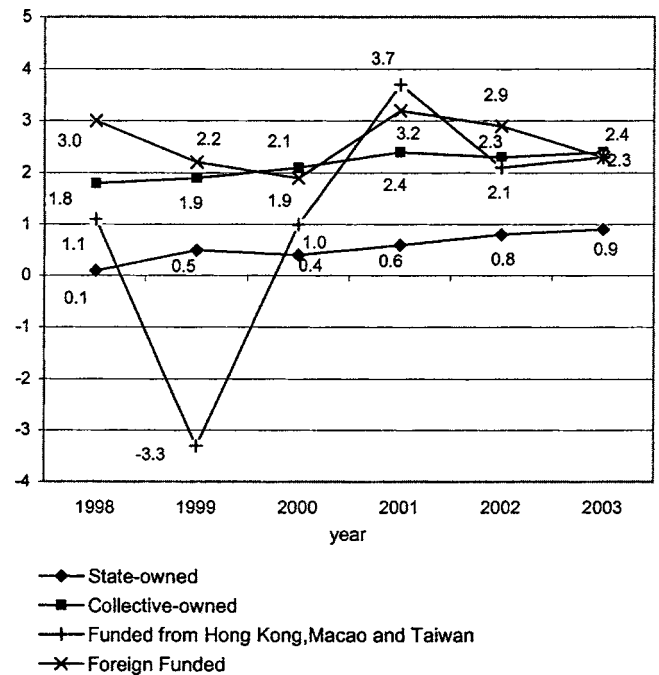


Fig. 5. Profit/gross output value of construction ratio among different types of construction enterprises in China

degree of risks is linked to variability, this indicates that construction businesses including FICEs in China face high risks.

Attraction to Good Human Resources (S_8)

According to statistics (CSYB 2005), during the period of 1998–2004 in China, the average wage of the staff working in foreign-invested enterprises was about 1.5 times that in the domestic enterprises. FICEs can attract better educated employees who have better skills than that of SOCEs. For example, those young graduates who have foreign language skills are keen to join FICEs. According to one FICE interviewed in this study, its enterprise is attractive to local talents because it offers its employees higher salary, a structured training program, and clear career development opportunities. According to the discussion, the enterprise had more than 100 staff in 2004, working in two branches, located in Beijing and Shanghai, respectively. Each branch only appoints two senior managers from overseas, and all the rest are local Chinese. As a result, the enterprise has expanded its business rapidly in China and its business profit has been improving because the local talents and their advantages have contributed to the operation of the enterprise.

Analysis to FICEs' Weaknesses

Limited Number of Professionals (W_1)

According to the governmental regulations (MOC 2001), construction firms can only operate businesses as main contractors if they have at least a specified minimum number of project managers and professionals. This also applies to the FICEs. Table 3 summarizes the requirements by regulation on the number of professionals for main contractors (MOC 2001). For example, a Special Grade or Grade I main contractor will be expected having at least 300 professionals, of which 200 need to be middle-grade

Table 3. Number of Professionals Required by Regulation for Main Contractors

Type of main contractor	Number of professionals and engineers		Number of project managers
	Professionals	Engineers	
Special grade			
Grade I	At least 300 with professional title	At least 200; of these, at least 10 with high-grade professional title and 60 with middle-grade professional title	At least 12 Grade I project managers
Grade II	At least 150 with professional title	At least 100; of these, at least 2 with high-grade professional title and 20 with middle-grade professional title	At least 12 Grade II project managers
Grade III	At least 50 with professional title	At least 30; of these, at least 10 with middle-grade professional title	At least 10 Grade III project managers

engineers and 10 high-grade engineers. Even for a Grade II main contractor, a total number of 150 professionals is required. The vast majority of domestic stated-owned contractors are likely to meet these criteria since they have been established for several decades and have a large number of experienced professionals working for them. However, considering the size of the firms, it would seem difficult for any FICEs to recruit such a large number of experienced professionals. Even though FICEs could consider attracting more professionals from those SOCEs, professionals working in SOCEs may find it difficult to leave their organizations as they will lose their pensions and housing welfare if they do so. Thus, FICEs normally find it difficult to become higher grade contractors, which limit their businesses potential.

Higher Production Costs (W_2)

FICEs not only have to carry on the high costs for establishing a new enterprise in China, but also have to bear higher labor costs. Construction is a typical labor-intensive industry in China. According to a report by Zeng (2003), there were about 38 million employees working in the Chinese construction industry in 2002, of which 27 million were rural laborers. Most of these workers form a temporary workforce, receiving low salary and no welfare (Sha and Jiang 2003). These laborers are largely employed by domestic contractors, and they can be hired or dismissed easily in responding to the work fluctuations faced by the contractors (Zhao and Du 2002). In contrast, FICEs use more skilled laborer force and professionals receiving higher wages, and thus they have much higher business costs compared to those domestic firms including SOCEs.

Limited Channels for Market Information (W_3)

Compared to domestic enterprises, FICEs are in a weak position in collecting information from the local market. This is echoed by previous research (Hampton 1993), suggesting that acquisition of information about local conditions and understanding them was the most difficult but also most important long-term need for an enterprise to develop businesses in a different local market. In particular, the poor understanding on key information, such as materials price and labor costs in the local market, can result in higher production costs.

Lack of Knowledge on Regulations (W_4)

In China, construction enterprises operate businesses under a complicated regulatory system (Shen et al. 2004). It is essential for a firm to catch up with the updated information on various regulations and policies and gain a proper understanding of these regulations in order to formulate appropriate businesses strategy.

However, foreign business people in those FICEs, especially these directors, have limited ability to collect relevant information for gaining such understanding as few of them are fluent in the Chinese language. They have to rely on the interpretation of these regulations by their Chinese colleagues. Thus their confidence on the businesses environment can be affected by the language barrier. On the other hand, these regulations are changed or revised frequently, further confusing the overseas directors within the FICEs (Zhu et al. 2001). For example, construction standards and codes have changed several times during the previous decade with each revision needing immediate compliance. Enterprises need to be able to collect such information as soon as it is available. But due to the language obstacle, overseas professionals in FICEs such as engineers and designers can easily commit mistakes due to the lack of information.

Lower Business Qualification Grade (W_5)

A foreign construction firm which intends to establish a FICE in China should obtain a qualification grade from the governmental construction administration department. Its business scope or the project size it is allowed to contract for will be defined in line with the qualification grade. A newly established FICE, however, will normally only be awarded the lowest qualification grade (MOC 2002). In addition, the criteria for upgrading the qualification grade are complicated, including, for example, the minimum number of years in business in China, previous track record, registered capital, staff, and technology capacities, and others (MOC 2001). Therefore, newly established FICEs, especially the WFICEs, have to spend many years to upgrade their qualification grades. This means that they can only contract for small-sized projects or act as subcontractors, which limits their business development potential.

Limited Business Relationships (W_6)

One of the major marketing activities for construction enterprise is to establish business-to-business relationships. Contractors need to know who and where the clients are. Pearce (1992) pointed out in his study on construction marketing that not only must the clients be aware of contractors and their products, but also contractors must make initiatives in building up relationships with clients. Nevertheless, it is more difficult for overseas businesses such as FICEs to build up business links with local clients. This difficulty is typical in China where there is a tendency to first develop personal relationships with their business partners before getting down to the specifics of negotiation (Pheng and Leong 2000). Compared to FICEs, domestic firms are in the advantageous position to make acquaintance with project clients in the

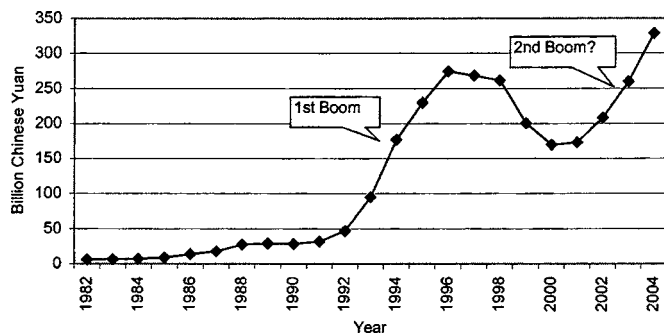


Fig. 6. Foreign investment in construction works in China

local market. They have various formal and personal relationships developed over many years, through which they can easily obtain the information about various construction projects. In contrast, FICEs have limited relationships with local clients, presenting a difficulty in finding jobs. Furthermore, as FICEs have few relationships with subcontractors who play an important role in the industry, they have the difficulty of finding proper subcontractors or suppliers who provide quality work with reasonable prices. Therefore, it remains a challenge to FICEs in China to establish relationships with the project clients and various types of subcontractors. This is echoed in the study by Li et al. (1999), suggesting that, as a foreign business, the most important thing is to adapt to the local environment and become a known corporate through various relationships.

Analysis to FICEs' Opportunities

Reformed Policy Environment for Foreign Business (O_1)

An open and transparent businesses environment is essential for sustaining the attraction to both the foreign investment and foreign enterprises. Since the early 1980s, the Chinese government has devoted great effort and achieved great success in reforming and improving the businesses environment in its construction market. In line with the improvement of businesses environment, foreign investment has been increasing in the Chinese construction industry. According to the data shown in Fig. 6 (CIYB 2003; CSYB 2005), two boom periods of foreign investment in construction work have taken place. The first boom was from 1992 to 1996, when the government strengthened its open door policy by implementing various regulations. The second boom came in 2002 in line with China's accession to the WTO. The two boom periods indicate that the improvement of the businesses environment for foreign businesses will increase foreign businesses' opportunities. In the 16th Plenary Session of the Chinese Communist Party, Chairman Jiang (2002) stated that the Chinese government will continue to implement some policies for attracting foreign businesses, such as the policies of treating both foreigners and locals equally, attracting the foreign direct investment, further improving the businesses environment for foreign investment, allowing the procedures of regulations and policies to be more open and transparent; and giving national treatment to foreign investors. In other words, foreign investors and domestic investors will be treated equally.

Governmental Promotion for Construction (O_2)

China's accession to the WTO is expected to further attract foreign investment to China. For promoting this attraction, the Chinese government has identified a number of business sectors which are considered more suitable and attractive to foreign business. The regulation on directions of investment by foreign investors was issued in 2002 (SCC 2002). Construction has been considered a key industry to attract foreign investment. For helping foreign businesses to identify the market in the Chinese construction industry, a detailed list of construction sectors was promoted jointly by National Development and Plan Commission, National Economic and Trade Commission, and Ministry of Foreign Trade and Economic Cooperation (NDPC, NETC, and MFTEC 2002). These include traffic and transportation (such as highways, bridges, tunnels, harbor wharf, crude oil or gas pipe lines, oil depot, and oil wharf); public facilities services (urban roads, sewage treatment plants, hazardous wastes treatment and disposal plants, environmental pollution treatment facilities, urban water supply plants); electric power production (thermal power plants, heat and electric cogeneration plants, liquefied natural gas power plants, hydropower plants); and ordinary residential buildings. The promotion of these sectors provides FICEs potentially good opportunities.

Establishment of Credit System (O_3)

China is establishing a contract guarantee system for construction works. According to Chinese contract law, clients have to provide certain financial guarantees to contractors through a social credit system (Meng 2002). This provides contractors, including FICEs, with strong support to prevent construction clients from delaying payment. According to the State Council report by Premier Wen (2004), the Government is speeding up the process of establishing a series of social credit systems. This includes the system for keeping enterprise's credibility records, the system for monitoring crediting market, and the warning and punishment system for unfaithful acts, such as defaults in payment. According to the survey by Wang (2003a), default in payment by clients is a problem in the current Chinese construction industry, and often these clients are state-owned organizations. A number of policies have been issued in recent years by the Government for solving the problem (Meng 2002). While improvement has been made, the Government is determined to clean up the problem and a policy paper "Regulation on solving default of payment in construction industry" has been implemented recently (SCC 2003). According to the regulation, all the defaults in payment must be solved within 3 years from the beginning of 2004. According to a survey, up to April 30, 2004, about 99.857 billion Chinese yuan (namely, about 27% of the total existing default payment) has been paid to contractors (Wang and Hao 2004). The establishment of a contract-guarantee system tries to improve the credit environment in the construction market, thus helping FICEs to minimize their losses from the contract breach or payment default by project clients. This development presents opportunities indirectly for FICEs to develop business in the Chinese construction market.

Market Access Protected by WTO Agreement (O_4)

FICEs nowadays have more opportunities to develop businesses in China as the results of China's accession into the WTO. Their access to the Chinese construction market has been protected by WTO agreement. After China's accession into WTO in 2001, the

Chinese government has renewed or introduced a number of regulations and rules to further remove the barriers against foreign businesses and break local protection mechanisms. For example, establishing wholly foreign-invested construction enterprise (WFICE) has been allowed since 2003. More restrictions to FICEs' businesses have been released, including the restrictive requirement on the registered capital, the restriction on the types of construction works eligible for FICEs, and the restriction on the location of construction works (Fu et al. 2002).

Development of Chinese Construction Industry Towards International Practice (O_5)

The Chinese construction industry is bridging the gap to international practice. This development will lighten the difficulties in operating businesses by FICEs who are used to doing businesses within the environment of international practice. There are a number of regulations and policies introduced in recent years to ensure the growth of this development. For example, the typical international standard contract designed by the International Federation of Consulting Engineers (FIDIC) has been promoted in China, in particular for those infrastructure projects. The sample building contract issued by the Ministry of Construction and National Commerce and Administration Bureau includes conditions similar to those included in FIDIC contract (MOC and NCAB 1999). The newly published Bills of quantities method for construction project cost and pricing standard by MOC (2003a) is based on the international standards such as standard methods of measurement by the Royal Institute of Chartered Surveyors. The enterprises accounting standards for construction contract issued by the Ministry of Finance (MOF 1998) was made with reference to No. 11 international accounting standards for construction contract, thereby allowing for the accounting information comparable with those based on international practice (Zhang 2000). The Regulation on examining occupational safety and health management system issued by the China National Economic and Trade Commission is based on the Occupational Safety and Health Standards Management System (OSHMS) published by International Labor Organization (CNETC 2001).

As the Chinese construction market becomes more internationalized, the businesses in the market will work more closely towards international practice. In line with this development, the FICEs should find themselves in an advantageous position in competing with domestic firms as they have more experience of working with international practice. Therefore, FICEs are likely to prosper in the Chinese construction market.

Analysis to FICEs' Threats

Reduction of Investment on Fixed Assets (T_1)

The investments on fixed assets, in particular the investments from foreign investors in China, are the major markets for FICEs. However, the level of the investment on fixed assets has declined over recent years. Fig. 7 shows the investment on the fixed assets by different sources of funds during 1982–2004. It can be seen that China has achieved considerable success in attracting foreign investment on fixed assets, but the proportion of foreign investment has been decreasing since 1996. The reasons for this are many, such as the increasing loan capability by domestic banks. This contributes to the reduction of businesses opportunities for FICEs. On the other hand, development undertaken by developers

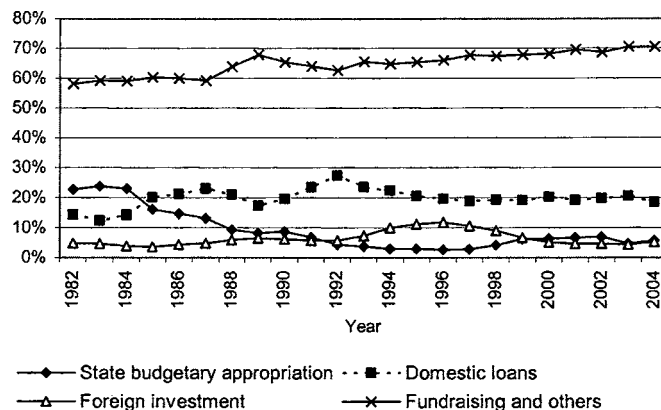


Fig. 7. Investment on fixed assets by different sources of funds in China

is regarded as a major construction sector in the current Chinese construction market (CSYB 2005). Nevertheless it seems that foreign investment in real estate is relatively weak, as shown by the statistics in Fig. 8 (CSYB 2005). There is a huge amount of investment in Chinese real estate through domestic loans and various fundraising channels. Therefore, FICEs have to face some threats in developing businesses in the Chinese real estate industry.

Certain Restrictions on Foreign Investment (T_2)

Although China has already abolished some restrictions on foreign investment in certain fields such as infrastructure projects in the Chinese construction industry, foreign investment is still not allowed on wholly owned infrastructure projects which are considered as having a significant effect on the national economy and people's livelihood. The typical areas restricted from foreign investment include large scale land development; high-class hotel, villa, and office buildings; international exhibition centers; pipeline networks for gas and water; and petroleum processing and coking plants (NDPC, NETC, and MFTEC 2002). These restrictions have reduced the FICEs' businesses opportunities considerably. Furthermore, as China has not yet joined the WTO's agreement on government procurement, the majority of the government-invested projects are still not open to FICEs. As for

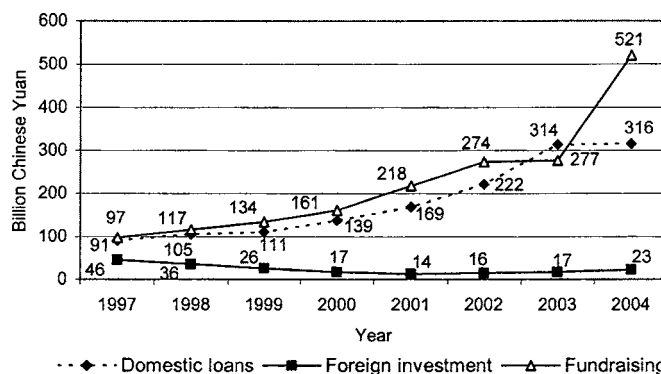


Fig. 8. Investments on real estate in China by various sources of funds

the wholly foreign-invested enterprises there are almost no opportunities to compete for Chinese government-invested projects (Fu et al. 2002).

Increasingly Intense Competition (T_3)

As the Chinese construction market becomes more open and develops international practice, it is expected that an increasing number of contractors will enter into the market from both domestic firms and overseas countries. While overseas contractors now have the accession to the Chinese construction market, it is worth noting that the Chinese government now encourages and supports enthusiastically developing domestic private economy. Domestic private enterprises are allowed to work in those construction sectors which used to be mainly open to foreign firms (NDPC 2002). The Government is renewing those laws and regulations that traditionally restrict the development of private enterprises. In a recent development, the government has endorsed private enterprises and public-owned enterprises will be treated equally on businesses issues, including investment, finance, taxes, land use, and international trade (Wen 2004). It is expected that there will be a growing number of domestic private firms entering into the market to compete for various construction works. In general, these private enterprises have a flexible businesses operation mechanism with low overhead and businesses costs which gives them a competitive advantage (Lei and Zhang 2003). In fact, it was reported that there are cases where private construction firms have purchased large-size public-owned construction firms (Chen 2002).

The growing influence of FICEs and domestic private firms will induce more competition in the Chinese construction market. It is common for project clients to negotiate down the bidding price excessively or ask the contractor to pay out the construction capital in advance (Meng 2002). The development of competition will not only reduce the contractor's profitability, but also certainly reduce the opportunities to FICEs.

Risk of Breaching Contracts (T_4)

The Chinese construction market has been developing through a reform process since the 1980s. The major objectives of engaging in this reform process include changing the project financing arrangement from traditionally governmental-free allocations to loans from commercial banks or financial institutes, and changing the project procurement system from traditionally governmental assignments to competition through a bidding process (Sha 2004). Construction enterprises have been driven to the market, and a large number of regulations and laws have been implemented to ensure a proper development of the market. However, while great progress has been achieved in developing this market, one of the major problems in the existing practice is the weak enforcement of various regulations (Lam and Chen 2004). Meng (2002) pointed out that it is not uncommon for clients and contractors to have little sense of contract and not to care about their credibility by disregarding their responsibilities. Thus breach of contract is a typical problem in the Chinese construction market. A typical example of breach of contract is the default payment by client to contractor, which has been identified as the most serious contract risk in the market (Meng 2002). This is echoed in another study by Wang (2003a), suggesting that a considerable number of contractors in the Chinese construction market, particularly in real

estate industry, declared bankruptcy because of default in payment and all construction enterprises including FICEs face the threat of loss due to this problem.

Conclusions

With a huge potential construction market, China has been attracting overseas construction firms. However, differences in the Chinese construction market from those in overseas countries present the necessity for FICEs to reexamine their strength, weakness, opportunity, and threat when they enter the Chinese construction industry. This paper identifies that these four elements apply to FICEs. Their typical strengths include "good project management skill," "better information management facilities," "advanced machine and equipment," "higher labor productivity," "good finance-raising ability," "good cost control skill," and "attraction to good human resources." Major weaknesses are: "limited number of professionals," "higher production costs," "limited channels for market information," "lack of knowledge on regulations," and "limited business relationships." These findings not only provide valuable references for FICEs to develop alternatives to improve their weaknesses, but also suggest that FICEs can mitigate these weaknesses if they work jointly with the Chinese domestic firms.

On the other hand, it is shown that FICEs have good opportunities as well. Typical opportunities for FICEs include "reformed policy environment for foreign businesses," "governmental promotion for construction," "establishment of credit system," "market access protected by WTO agreement," and "development of the Chinese construction industry towards international practice." Major threats are "the reduction of the investment on fixed assets," "certain restrictions on foreign investment," "increasingly intense competition," and "the risk of breaching contracts," especially in clients defaulting in payment.

It is important to understand that the Chinese construction market is still under reform, and changes are expected. Therefore, while the research findings in this study provide useful references to help FICEs in assessing their strength, weakness, opportunity, and threat, these elements are consistently changing. The methodology adopted in this study nevertheless provides a useful tool for assessing these changes.

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