

CHINA'S FOREIGN ECONOMIC COOPERATION DEVELOPMENT: EXPORTING CHINESE CONSTRUCTION SERVICES

Le Chen and Sherif Mohamed

Griffith University, Gold Coast Campus, PMB 50 GCMC, QLD 9726, Australia

Paper: Since the movement for economic reform started in China 20 years ago, the nation's GDP had grown on average from seven to nine per cent a year, making China's construction industry one of the largest in the world. This paper presents an overview of China's foreign economic cooperation development (FECD) in the context of exporting three major construction services namely; contracting, labour and design. The paper outlines the export market profile of Chinese contractors and discusses their current position in the international market. It then addresses challenges; they are facing in view of meeting the ambitious strategic targets set out by the Government for the FECD, which cover the export of construction services. Finally, the paper sheds some light on key exporting strategies currently adopted by Chinese contractors.

KEYWORDS: China, Export, Construction Services, Contractors, Government.

INTRODUCTION

In the late 1970's, Chinese contractors' overseas business activities were limited to a small number of countries in the Middle East and North Africa. After 20 years of continual development, these activities have expanded into more than 180 countries and regions around the world. In 2000, 34 China-based firms were included into the top 225 international contractors, and five leading Chinese design firms were listed in the top 200 international design firms (ENR, 2001). The Ministry of Foreign Trade and Economic Cooperation of People's Republic of China (MOFTEC) categorises such overseas activities as Foreign Economic Cooperation (FEC), which covers the export of three major services, namely contract engineering, labour service cooperation and design consultation.

Reviewing China's FEC development by Zhao (2001) reveals that from 1983 to 1992 China's FEC experienced a steady development; however from 1993 to 1998 the revenue of FEC exports increased at a much faster pace. This particular review further indicates that before 1992, the expansion in FEC was attributed mainly to enlargement of the production scale; while after 1992 the much more in-depth economic reform has contributed to the acceleration in FEC Development (FECD). At the early stage of their overseas exploration, the scope of services provided by Chinese contractors was limited to building and road works projects. In the late 1990s, China's FEC exports extended into large scale projects in a wide range of industrial fields including civil infrastructure development, power, telecommunication, petroleum and chemicals, environmental restoration, agriculture, etc. The statistics of the Import and Export Bank of China reveals that from 1993 to 2001, China exported over US\$ 10 billion worth of plants and materials to satisfy the procurement needs of offshore engineering projects in which Chinese contractors were active participants (Xing, 2001).

China's tenth 'Five-Year-Plan' sets the following strategic targets for FECD (Cui, 2001):

- in 2005, China will achieve annual FEC contract sum (value) of US\$ billion 28-33 and FEC revenue of US\$ billion 22-25;
- from 2001 to 2005, both FEC contract sum (value) and revenue will increase at an annual rate between 14% and 17%; and
- from 2001 to 2005, the number of Chinese employees working abroad will increase by 6% each year, and will reach 550-600 thousands by 2005.

The above ambitious strategic targets reflect the government's commitment to promote the exporting culture amongst Chinese contractors and designers.

EXPORT MARKET PROFILE

From 1982 to 2000, approximately 60% of the country's FEC contract sum came from the Asian market. Africa is another traditional market for Chinese firms' FEC services, where they achieved contract sum of US\$ 2.29 billion and revenue of US\$ 1.29 billion in 2000. Table 1 illustrates China's FEC performance in various markets in 2000. It can be seen that the Asian and African markets accounted for about 86% of the country's FEC value in terms of both contract sum and revenue. European, American and Oceania markets contributed the remaining 14%. The table also shows the rate of increase/decrease compared to 1999 statistics.

Table 1 China's FEC performance - Source: He (2001)

Market	Contract sum (B US\$)	Share	Rate	Revenue (B US\$)	Share	Rate
Asia	8.30	67.4%	10.1%	6.74	72.2%	7.9%
Africa	2.29	18.6%	22.9%	1.29	13.8%	-36.8%
Europe	0.98	8.0%	19.4%	0.54	5.8%	77.2%
America	0.64	5.2%	-20.3%	0.60	6.4%	25.7%
Oceania	0.11	0.9%	-14.1%	0.17	1.8%	-8.8%
Total	12.32	100.0%		9.34	100.0%	

In 2000, Chinese firms performed exceptionally well in the European market where their annual contract sum surged by 19.4% and revenue rose by 77.2%. The South American market, however, had consolidated with only 3.6% increase in the annual contract sum. Table 2 shows that the annual revenue of ENR's top 225 international contractors had stabilized at a level of US\$115 billion during the period between 1997 to 2000, of which Chinese contractors' share was kept at around 4.0%. The number of Chinese contractors included into the top 225, however, increased from 26 to 34 during the same period. Table 3 shows the performance comparison between ENR's top three international contractors and Chinese contractors based on their revenue in 2000. The revenue share of the top three firms in the revenue sum ranged from 7.9% to 5.9%, whilst the 34 Chinese contractors (combined) managed a share of 4.1%. The largest Chinese contractor, China State Construction Engineering Corp., acquired a share of 1.1%.

Table 2 Annual Revenue

Financial Year	1997	1998	1999	2000
Annual revenue of ENR's top 225 international contractors (billion US\$)	110.9	116.4	118.7	115.9
Number of Chinese contractors included in the ENR's top 225 international contractors	26	30	33	34
Annual revenue of Chinese contractors included in ENR's top 225 contractors (billion US\$)	4.08	5.03	6.10	4.76
The Share of the Chinese Contractors' revenue (within ENR's top 225 contractors)	3.7%	4.3%	5.1%	4.1%

Table 3 Chinese contractors' position in ENR's top 225 international contractors

Firm	Rank	Revenue in 2000	Share in total revenue
Hochief (Germany)	1	9.107	7.9%
Skanska AB (Sweden)	2	8.640	7.5%
Bechtel Group Inc. (USA)	3	6.811	5.9%
China State Construction Engineering Corp. (China)	19	1.279	1.1%
34 Chinese firms included in the ENR's top 225 (combined)	N/A	4.761	4.1%
Total revenue of ENR's top 225 international contractors	N/A	115.9	100.0%

CHALLENGES

Ineffective Regulations

Prior to the open door policy introduced in the late 1970s, the Chinese central government practiced total administration of the urban society and economy planning (Tang, 1997). The government owned almost all enterprises and administered their investment and production activities. Chinese contractors' FEC activities have been regulated mainly by the FEC enterprise registration, foreign currency control and other government administrative procedures (Zhao and Hu, 2001). The legislation process for the relevant regulations had been too slow to meet the needs of the construction industry (Zhao and Hu, 2001). Moreover, trade associations and other industrial agencies have not yet been able to fulfil their professional roles, compared to their counterparts in developed countries (China Building Industry Year Book, 1998).

In its attempt to promote the service exporting culture, the government issued FEC business licenses to nearly 2000 Chinese contractors by the end of 2001 (Lu, 2002). Unfortunately, as Lu (2002) points out that there are too many contractors competing with each other to secure offshore projects at the cost of efficiency of the country's FEC activities. One of the major attributes to this phenomenon is the problematic corporate system of the Chinese enterprises derived from the planned economic system of the past.

Most of the Chinese contracting organisations are, in one form or another, owned by the state or collectively owned (Walker et al, 1998). Many of these organisations, which are not independent legal entities, fail to operate efficiently because of the ambiguous ownership rights, soft budget constraints and government intervention. To illustrate, the actual owner, i.e. the State, has no effective control over the enterprise, while the board of directors run the enterprise's business operations. Members of the Board of Directors are appointed by the Government and have the right to run the business, but they legally hold no obligations on the performance of the business operations (Xiao, 2000). Hence, contractors usually have more interest in the revenue and not the profitability of overseas projects. This is the product of a system in which the power of management is separated from ownership rights. As a result, when the government encourages overseas exploration, many Chinese organisations rush into the risky international contracting market with limited concern about profitability and proper risk management (Lu, 2002).

Due to the ineffective regulations and the historical problems of the corporate system, the government has been experiencing difficulties both in establishing market orders in the FEC export sector, and also in controlling the fierce self-competition among the Chinese enterprises (Lu, 2002). It is not uncommon for contractors competing with each other, for a single tender, to drag the award price so low that the winning Chinese firm could hardly make a profit (Zhao and Hu, 2001). Not surprisingly, this fierce price-based competition between Chinese contractors over offshore projects has caused significant loss to the state, their common owner (Zhao, 2001).

Inefficient Practices

The Chinese construction industry has been undergoing a profound reform process, during which modern techniques and practices of construction project management could only be applied gradually in a step-fashion. As a result, China has lagged behind in both scientific research and operational practices in the construction management discipline (Li, 2001). Coupled with the effects of long-term operations under the planned economy, many Chinese contractors still follows the 'product-oriented' concept in their business operations and the administration system plays an important role in their production planning (China Building Industry Year Book, 1998). They are consequently less competent in formulating strategic plans to guide their business activities. Moreover, their corporate management systems are less sophisticated in organizing, operating and managing the contracting activities in a truly open market (Li, 2001, Lin, 2001).

Many Chinese contractors' overseas business activities have been constrained by their small business scale, low competence in applying advanced technologies, short international contracting management expertise, inadequate financing capacity, and human resource deficiency (Li and Mao, 2000, Tan, 1994, Guo, 2000). The relative lower labour cost, therefore, becomes their only comparative advantage. For the majority of these companies, the lack of 'first-hand' experience in participating in large-scale projects with complicated procurement process had forced them to compete within a small share of relatively low tech and low margin projects (Xiao, 2000). As Chinese labour cost has increased nearly 20 times since early 1980s Chinese contractors are gradually losing the comparative cost advantage to those from the other developing countries (Zhao, 2001).

Inadequate Financing Capacity

According to the statistics of the Ministry of Finance of the People's Republic of China, from 1978 to 1998, the average debt/asset ratio of Chinese contractors was about 75%. Under such a high ratio, the financing cost of these organisations is indexed to bank loan rates. As a result, higher financing cost adds more pressure on contractors' profitability making them more susceptible to making a loss. During the same period, the low tender price of overseas projects continually dragged down contractors' profit/asset ratio, which had been consistently lower than the bank loan rate since 1985. This is a major cause for the decrease of profitability in FEC exports notwithstanding the surge in revenue from 1992 onwards. In addition to the high debt/asset ratio, Chinese contractors are generally short of working capital, and they lack the financing capacity (Zhao, 2001). Chinese contractor's potential has been somewhat constrained by the difficulties in getting the required financial support (Xing, 2001). Even for leading contractors, financing difficulties have been one of the major barriers to securing overseas projects.

Lack of International Project Management Experience

For more than forty years, Chinese universities served the domestic industries' needs of the planned economy. Only following the economic reform, have the concepts of business and commercial management received attention of the industries. An interview with the academic staffs of Tianjin University (China) and the Hong Kong Polytechnic University revealed that in recent years, few universities in China have introduced international project management courses in their post-graduate programs. Nevertheless, commercial management theories demanded as academic requirements by international professional institutes, are still inadequately covered by undergraduate programs in most Chinese universities.

For these reasons, the experienced managerial and professional staff of engineering, procurement and construction (EPC) enterprises, most in their late thirties and forties, have had little chance to receive formal professional training in international commercial management as part of their tertiary education. This, in addition to the long isolation of EPC enterprises' operational practices from those of the international market, causes many difficulties when dealing with offshore projects. The challenges of human resource faced by the Chinese FEC enterprises have been widely reported (Huo, 2000, Wang, 1998). The enterprises are short of professionals with rich knowledge of, and experience in, international contracting practices.

FEC D STRATEGIES

Government's Strategies

The need for further strengthening of the management of FEC export sector has been recognised by both the government and the industry alike. Government's strategies in promoting FEC exports focus on promulgating relevant laws and regulations, establishing financing and insurance mechanisms and providing support to FEC enterprises (Cui, 2001). It is believed that regulations should play an important role in fulfilling this objective rather than the documents issued by government departments (Li, 2001). MOFTEC has already drafted "The Rules for Management of the Overseas Contracting Engineering Projects of the People's Republic of China". The research and preparation works have been carried out for the formulation of other regulations such as the quality control of overseas

contracting engineering projects and the classification method for FEC enterprises (Cui, 2001).

The government is offering to assist in establishing the financing and insurance mechanism to facilitate the FEC exports and to offer support to the FEC enterprises. The procedures include establishing insurance funds to specifically serve the needs of FEC projects and encouraging financial institutions and insurance companies to participate in the relatively new procurement processes such as BOT and PFI (Cui, 2001). The government also considered the feasibility of authorizing competitive specialist contractors to transfer debt into stock, to strip non-core business through restructuring, and to use other financial tools such as public listing (Zhao, 2001).

The government is focused on promoting the exports of products and services where China has comparative advantages, and continually cultivates the competitive force of the leading FEC enterprises. Measures taken by the government include organizing and providing market information services, facilitating technology transfer and strengthening professional training through collaborations between Chinese and foreign educational organizations (Cui, 2001).

FEC Enterprises' Strategies

Accelerating the pace of reform on the corporate system is essential to enterprises (Li, 2001, Li and Mao, 2000). The most promoted system is company limited by shares, where the legal entity is clearly established and the management is responsible for their business decisions. Meanwhile, it is recommended that enterprises need to formulate strategic plans for their corporate development and to establish effective business management models to reinforce competitive advantage.

Chinese enterprises have been urged to acquire new technologies and international management expertise through project-based joint ventures or other forms of alliance with multinational companies (Li, 2001). During the process of collaboration, Chinese companies will have chance to experience the working methods and competition strategies of their foreign counterparts and facilitate their integration with the international market in respect of contracting methodologies, financing channels and management system and procedures.

Given that the leading state-owned specialist contractors own design and research institutes as well as plant and material manufacturing bases, the researchers advise that in order to maintain a long-term competitive advantage these contractors need to formulate R&D strategies and to develop and introduce new construction methods and technologies capable of meeting the needs of the global construction market. The close collaboration with universities is highly recommended for the purpose of improving the effectiveness and efficiency of technology applications in offshore projects.

It is suggested that any approaches adopted to overcome the problem of human resource deficiency should be integrated in the long-term human resource development plan in order to serve the need of clearly defined corporate development strategy. Provision of training in skills and practices in international project operations is considered to be one of the most important approaches.

CONCLUDING REMARKS

It is widely known that China is the largest developing country in the world. As China swerves away from a centrally controlled socialist economy, the national construction industry continues to go through a process of reform to make it more effective and efficient. There are, however, many obstacles which are thwarting the process. It is hoped that China's entry to the World Trade Organisation (WTO) will provide the opportunity to overcome those obstacles through the adjustment of the economic structure, including construction market structure and investment environment. The effect of such adjustment on the industry's future is expected to be profound.

Many studies have investigated the relationship between China and the WTO, and its future impact on the economy in general, and more specifically on the construction industry. Chen (2000) identified two types of impact of China's entry to WTO – the scale effect and the systemic effect. The former is concerned with changes to the market structure, in terms of its concentration and resource allocation among products of different comparative advantages. The systemic effect, on the other hand, will profoundly weaken the dominance of state enterprises in the economy.

In the industry sector, according to the WTO agreement, China will reduce its average tariffs to phase out all quantitative restrictions on imports, and to provide full trading rights and distribution to foreign firms in most industries. The results will probably be the coming of various foreign forms into the Chinese domestic market, as well as foreign high quality construction materials and foreign advanced management skills. There will also be severe competition between Chinese local firms and foreign companies, especially in the domestic market. As a result, a large-scale restructuring of the industry will occur. Cheng (2000) argues that the natural resource- and capital- intensive industries are China's comparative disadvantage and are expected to suffer. According to Huang et al (2000), joining the WTO will assist in improving the industry's structure and companies' performance; will increase employment opportunities and decrease the basic cost of construction; and will ameliorate local policies and regulations.

In view of the challenges facing FEC enterprises - briefly presented in this paper - it appears that the Chinese construction industry is poised to benefit from joining the WTO. The extent of such benefits and their impact on the ability of these enterprises to achieve the ambitious strategic targets set by MOFTEC for the FECD is yet to be established.

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