

CREATING AND SUSTAINING COMPETITIVENESS OF SMALL AND MEDIUM-SIZED CONSTRUCTION ENTERPRISES IN CHINA

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ABSTRACT

The small and medium-sized enterprises (SMEs) in the Chinese construction industry have witnessed progressive development since the late 1990s. As an important participant in the Chinese construction market, SMEs are confronted with the tasks of keeping themselves competitive which concern their survival and future growth after China's accession into WTO. This issue has increased in significance with China's gradual transition from a planned and centralized governing system towards a market-oriented economic setting. The increased openness of the Chinese economy signals additional strategic concerns due to globalization, as SMEs now find themselves the need to compete and collaborate with foreign players who are largely more efficient and resource-rich. As the SMEs assume a greater role in the Chinese construction industry, this paper will examine the theories concerning their development. The competitive environment pertaining to construction SMEs will be analyzed through questionnaire surveys and interviews with founders, managers and engineers of construction and related enterprises. Finally, overall competitive strategies for Chinese construction SMEs will be discussed and a conceptual model is postulated to create and sustain their competitiveness in China.

Keywords: Construction SMEs, competitiveness, WTO, development strategy.

INTRODUCTION

The development of small and medium-sized enterprises (SMEs) was strictly limited under the traditional central planned economy in the early years of modern China. Since 1978, the government started to provide guidelines for reform and development of the agricultural economic system, which led to the legalization of small market-oriented businesses in the rural areas (Leo, 1999). In the Chinese construction industry, construction SMEs have enjoyed rapid development since the late 1990s with progressive adoption of reforms and opening-up policies. The SMEs have grown to be an important force in promoting the development of the Chinese construction industry.

With China's WTO accession in 2001, the Chinese government is committed to open up the construction market to foreign companies. The entrance of foreign capital, advanced technology and management expertise will have a profound socio-economic impact on

the Chinese construction market, which brings forth opportunities and challenges to the development of construction SMEs. Under such a historical backdrop and the emerging market environment, there is a huge prospect for the development of construction SMEs in China.

As an important participant in the China construction industry, SMEs are confronted with tasks of keeping themselves competitive which concern their survival and future growth. As the SMEs assume a greater role in the Chinese construction industry, this paper will examine the theories concerning their development. The competitive environment pertaining to construction SMEs will be analyzed through questionnaire surveys and interviews with founders, managers and engineers of construction and related enterprises. Finally, overall competitive strategies for Chinese construction SMEs will be discussed and a conceptual model is postulated to create and sustain their competitiveness in China.

ROLES OF CONSTRUCTION SMEs IN CHINESE CONSTRUCTION

Although commonly used, the term ‘small and medium-sized enterprises’ (SMEs), is nevertheless vague, suggesting mainly the idea of a firm which is not large, without being more specific (Goss, 1991). In China, the new Tentative Classification Standards on the small and medium-sized enterprises (SMEs) were published by relevant government agencies with the approval from the State Council on February, 2003. The new standards were designed in accordance with the SMEs Promotion Law published by the National People's Congress (NPC) on June 2002. According to these SMEs standards, medium-sized construction enterprises employ between 600 and 3000 people with annual revenue between RMB 30 million and RMB 300 million. Small enterprises, on the other hand, employ less than 600 people with annual revenue less than RMB 30 million (SETC, 2003).

Construction SMEs in China have made several major contributions to the Chinese construction industry. First, construction SMEs constitute the major driving force in this industry. Compared with typical state-owned enterprises (SOEs), construction SMEs are small in size and numbers of employees. However, their flexible mechanisms adopted and lower capital investments have enabled them to respond to changes of market demand quickly.

Second, construction SMEs constitute the major channel for creating jobs and are the basic absorber of the urban and rural labor force. China, as a developing country with a huge population, is always under great pressure over demand for employment. In the course of its economic development, the country has faced a series of problems and difficulties, such as a shortage of financial resources and a need to improve efficiency and create job opportunities. Construction SMEs are able to replace capital with labour to the maximum extent as a result of their small investment levels. Thus they can provide or create more job opportunities than large enterprises.

Third, construction SMEs constitute the basic force for facilitating industry restructuring and market revitalisation. The large majority of construction SMEs, in order to survive and develop, has to exploit their own potential to the maximum, actively participating in market competition and contending with large enterprises for the market share. The

competitive nature of construction SMEs has enabled them to play a positive role in promoting the growth of the domestic market.

Fourth, construction SMEs constitute a cradle for professional entrepreneurs and entrepreneurship. The pressure on SMEs to seek survival and development, together with their independence and competitive nature, has prompted them to shake out losers in market competition. That pressure has also resulted in development and cultivation of a group of talented people, expanding the pool of entrepreneurs by means of bold exploration, great aggressiveness and constant innovation.

SWOT ANALYSIS ON CHINESE CONSTRUCTION SMEs

In China, SMEs have flourished in the construction industry as ideological barriers have fallen. For a long time, a lot of attention has been directed towards examining the reform and development of SOEs (Chen, 1998; Flanagan and Li, 1997; Lan and Jackson, 2002; Wang and Yang, 2002), with little attention given to the difficulties facing SMEs. Furthermore, few academics and professionals, in their analyses of the construction industry, assess the impact of external and internal factors on the survival of construction SMEs. Moreover, operating within a WTO framework, Chinese construction SMEs will face a dynamic and competitive environment. Hitherto, little research has been undertaken to systemically analyze the challenge and opportunity posed by China's WTO accession, which would give rise to an effective and integrative strategy for construction SMEs to compete in the Chinese construction market.

SWOT analysis is concerned with the analysis of an organization's internal and external environment with the aim of identifying internal strengths in order to take advantage of its external opportunities and avoid external threats (Langford and Male, 2001; Male and Stock, 1991; Porter, 1980). In consideration of the variety of Chinese construction SMEs with regard to size and ability to attain national resources, the authors contend that the SWOT analysis concept could be used to investigate Chinese construction SMEs' market position. Although Chinese construction SMEs are not identical, they share many things in common such as organizational culture, ongoing enterprise reform, and the need to face competition from domestic and foreign contractors.

The strengths, weaknesses, opportunities, and threats facing Chinese construction SMEs are pilot-studied using a survey of 15 construction enterprises based in Beijing, Tianjin, Shanghai, Guangdong province and Hebei province. Among the 15 construction enterprises, there were six large SOE contractors, seven SME contractors, and two SME design institutes. The respondents consisted of consultants, designers, project managers and senior managers. Interviews were also conducted with founders, managers and engineers of construction and related SMEs. The interviewing and survey results are summarized in Tables 1 and 2 and presented as follows:

STRENGTHS

- **Flexible and market driven.** From the outset, construction SMEs had to rely on markets for sourcing supplies and selling products. Most construction SMEs were small and autonomous compared with SOEs, and thus had flexibility to respond to market changes quickly. Their management was also more market-oriented.

- **Effective decision making.** Communication channels between construction SMEs' managers tended to be both shorter and simpler compared to those for the SOEs, thus engendering greater efficiency. Furthermore, the greater flexibility and autonomy in management has meant that inter-firm alliances have produced a 'networked' approach to industrial production. The locally initiated transformation of SMEs into 'shareholding cooperatives' in recent years is a case in point. This feature has enabled construction SMEs to move closer to improved practices in corporate governance.
- **Flexible talent mechanism.** Many construction SMEs have put special emphasis on human resources and product quality. With their autonomous and flexible systems, it is common for them to recruit highly competent engineers and technicians from construction SOEs, pay them attractive salaries and pursue technology improvement and innovation actively.
- **Low running expense and cost.** Construction SMEs possessed lower cost structures than SOEs because their managers historically had to rely on retained earnings and loans instead of government grants. Wages in rural areas are also significantly lower than in cities where most SOEs are located. Construction SMEs also do not have thousands of retirees for whom they are liable for pension payments; they do not have to offer welfare benefits like healthcare and social security insurance to their workforce.

Despite these favourable characteristics, many construction SMEs still suffer from a number of weaknesses.

WEAKNESS

- **Limited funds.** Although the Chinese government now implemented favourable loan and taxation policies to support SMEs, it did not directly invest in SMEs as it did with SOEs. State-owned banks also prefer lending to SOEs than SMEs. Therefore, construction SMEs found it difficult to access bank finance, and they seldom benefited from low-cost supplies through the central plan system.
- **Low level of employees' education.** One of the major problems in construction SMEs is the employees' low level of education. The average profile of employees of construction SMEs is made up of mainly unskilled workers who are previously farmers with no proper training in construction.
- **Lack of resources and low competitiveness to compete in large projects.** Most construction SMEs are made up of a small workforce undertaking residential building and other small, simple projects for the local community using limited plant and equipment. Sometimes they acted as sub-contractors on bigger projects. Due to limited funds, poor equipment and lack of highly skilled manpower, most construction SMEs could not compete with large SOEs in bidding for large projects.

Table 1 The strengths and weaknesses of SMEs in Chinese construction industry

Rank	Strengths	Weaknesses
1	Flexible and market driven	Limited funds

2	Effective decision making	Low level of employees' education
3	Flexible talent mechanism	Low competitiveness in obtaining large projects
4	Low running expense and cost	Difficult to access finance
5	Efficient company structure	Lack of risk management

Table 2 The opportunities and threats of SMEs in Chinese construction industry

Rank	Opportunities	Threats
1	Improvement in market mechanisms	Intense competition among domestic enterprises
2	Policies and regulations to support SMEs	Lack of differentiation in production and service
3	Cooperation with foreign-funded enterprises with WTO accession	Uncertainty in economy
4	A continuing construction market boom	Uncertainty in politics
5	A broadened approach in financing	Entry of foreign construction firms in domestic market

OPPORTUNITIES

The WTO accession by China affords numerous opportunities for construction SMEs. Under the market-oriented system within the WTO framework, construction SMEs could obtain greater autonomy and secure most of the resources such as construction materials, equipments, and labour. Foreign direct investment will provide further stimulus for economic growth, and help construction SMEs to become part of the supply chain for foreign multi-national construction firms under cooperative premises. With changes in the regulatory system and the introduction of SMEs Promotion Law, coupled with the growth of national fixed capital investment, construction SMEs could envision a better position for their future development.

THREATS

Following the entry of more foreign-funded enterprises into Chinese construction market, the competition among subcontractors, who are mainly the construction SMEs, will be intensified. Most construction SMEs pursued labour-intensive projects and provided low value-added to clients as subcontractors, with little differentiation in product and service quality. They did not possess effective skills or innovative capability to create a new service and offer a unique product. The uncertainty in economy and politics further affect the growth of construction SMEs.

DEVELOPMENT STRATEGIES TO CREATE AND SUSTAIN COMPETITIVENESS FOR CONSTRUCTION SMEs

Competitiveness of a firm may generically be its capacity to achieve its targets. Such targets would typically take full account of competition (Porter, 1980). To create and sustain the competitiveness of construction SMEs, new markets and new strategies are urgently needed. Arising from the SWOT analysis, a conceptual framework is postulated by the authors for the development strategies for Chinese construction SMEs, which comprises strategic alliances, innovation and differentiation strategies (Figure 1).

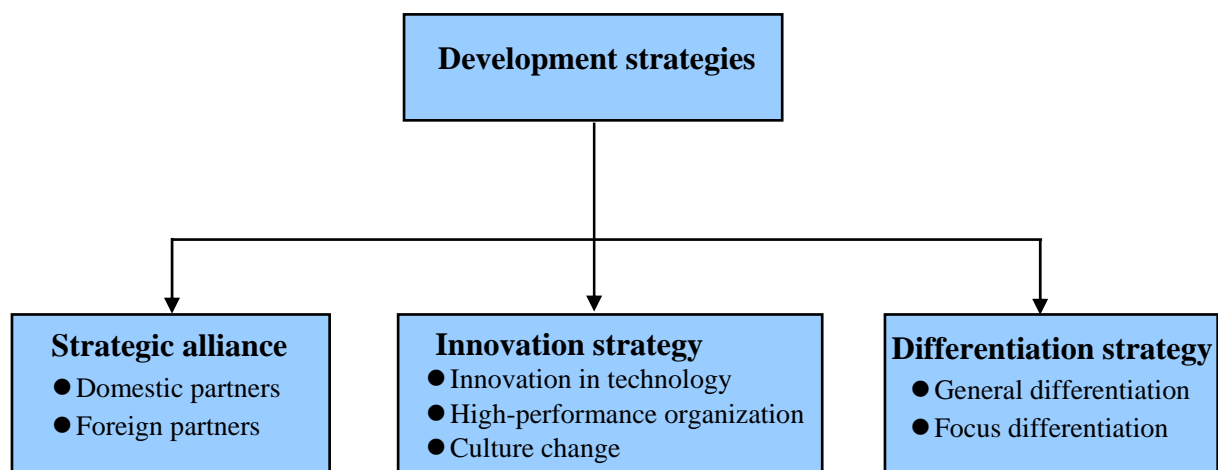


Figure 1 A conceptual framework for development strategies of Chinese construction SMEs

STRATEGIC ALLIANCE

Strategic alliances refer to a form of lateral working relationship between a firm and its competitors in one or more aspects of marketing (Li, 1998). The premise of this strategy is based on resource dependence and interorganizational exchange perspectives, which hold that organizations seek to reduce environmental uncertainty by exchanging resources for mutual benefits. In order to take advantage of opportunities and cope with challenges facing the construction SMEs, strategic alliance is a promising strategy.

- **Alliances with domestic partners.** To cope with the competition from larger SOEs, construction SMEs can adopt alliance as a flexible strategy, partnering with those SOEs as a form of “co-petition”, where competition and cooperation co-exists simultaneously. Alternatively, construction SMEs can also pursue backward (vertical) integration and alliance with the clients to reduce the bargaining power of the buyers.
- **Alliances with foreign partners.** The WTO entry of China affords foreign contractors more opportunities to enter the Chinese construction market. SMEs can form alliances to become subcontractors for these international contractors, either on a project-specific or long-term strategic basis. The alliance would benefit Chinese construction SMEs in the form of technology transfer. More importantly, the

progressive management style of international contractors, which is customer-focused rather than product-oriented, would have a positive influence on Chinese construction SMEs.

INNOVATION STRATEGY

An important feature of the Chinese construction industry is the increasingly fast pace of change in product and service markets. Coupled with rapidly declining product life cycles in the information technology, there are growing competitive pressures for construction SMEs to respond quickly to the market environment. Thus the capacity for innovation is a critical factor for construction SMEs' success.

Innovation can be accrued to construction SMEs externally and/or internally. External innovation would entail developing new products and/or services. Internal innovation can encompass new processes, organizational structures and culture. For construction SMEs, innovation lies in three aspects as follows:

- **Innovation in technology.** New technology can create value-added product and services, contributing to higher productivity and growth. One key technology is the deployment of e-commerce. Through the use of the internet and online transactions, e-commerce may create new business opportunities for construction SMEs, such as developing new channels, maintaining close relations with both upstream and downstream companies and improving service quality.
- **High-performance organization.** To achieve high performance, the organization of construction SMEs should emphasize on specifically designed jobs, using flexible work roles to reduce the gap between decision-making authority and workers, improving teamwork and design of sustainable governance structures. Life-long learning and empowerment for the workforce are features of such an organization.
- **Culture change.** To underpin the innovation strategy, there must be a drastic change of culture from one that is risk averse to risk taking. Mindset change is a pre-requisite for technology and organizational innovation. The founder or top management of construction SMEs should lead by example and inculcate an entrepreneurial culture throughout the entire organization. In addition, forming partnership with foreign contractors also helps to change the organizational culture.

DIFFERENTIATION STRATEGY

Differentiation is concerned with creating the perception that something is seen by buyers as being unique (Male and Stock, 1991). Differentiation strategy is attractive when buyer preferences and/or requirements are diverse. In China, construction industry encompasses a wide range of activities, from the construction of residential dwellings and urban development to commercial and industrial building, and the infrastructure associated with air, sea and road transportation, telecommunications, mining and energy.

Given the limited resources in terms of finances, human expertise and production process, it is appropriate for construction SMEs to adopt a differentiation strategy, either in

general differentiation or focus differentiation. General differentiation is a particularly important strategy for most SMEs in a huge and rapidly growing China's construction market, which is likely to remain buoyant in the foreseeable future (Chen, 1998). For those specialty construction SMEs with few employees, focus differentiation may be the only viable strategy for their target market. Successful differentiation would allow SMEs to put a price premium on their products, increase sales and gain buyer loyalty.

CASE STUDY

To illustrate the conceptual framework and suggested strategies, the authors conducted a case study. The case study company is known as the Guangsha Group in Zhejiang province of China. In 1992, the company employed about 1,000 employees, with a total output value reaching RMB125 million. Guangsha has grown from a medium-sized construction company to a diversified group over the past decade. At present, Guangsha has attained first class national qualifications for construction and installation of building, foundation work, building decoration, and earthwork.

The rapid growth of Guangsha is the outcome of innovation. The chairman, Mr. Lou Zhongfu, has spelt out the vision of Guangsha as a market-oriented and customer-driven corporation. Through organizational restructuring, Guangsha was able to achieve self-development, self-control and an enhanced mode of communication. Guangsha continued to improve its technology and equipment through systematic adoption of new methods, materials, and management techniques. In 1994, Guangsha established a research institute of architecture and construction, which was the first research institute owned by a private enterprise in the Chinese construction industry. Culture plays an important part for Guangsha's success. Mr. Lou envisioned and developed a unique brand of "Guangsha Ren" (the Chinese version of Guangsha people). The core of "Guangsha Ren" is to focus on both the economic objective and social morality. In summary, the culture in Guangsha is sincerity, brand, and people-orientation.

Guangsha has streamlined the product and service chain by using differentiation and alliance strategy. Guangsha practices partnering with clients and consultants in creating a win-win environment where trust, commitment, and shared vision are achieved and benefits of all partners are maximized. Guangsha is not only active in the construction of private residential, commercial, institutional and industrial buildings, but is also active in design and supervision projects.

As a summary of what has been achieved in the past ten years after implementing the development strategy, Guangsha has formulated a new mission statement and its motto now is "To focus on multi-culture, scale and internationalization". At present, the range of construction works of Guangsha involved all sectors within the field. In 2002, the group owned about 50 subsidiary companies with 20,000 employees, and the total output value reached RMB5.5 billion. Compared with 1992, the output and profits of Guangsha had increased 4,400% and 3,850% in 2002 respectively.

This section describes the implementation of potential development strategies within Guangsha. Guangsha's actions in adopting innovation, differentiating the production and service, and collaborating with clients and consultants affirm the propositions made by the authors.

CONCLUSION

Due to the country's institutional changes and its accession to the WTO, China's construction SMEs are in a transition period. To maintain their competitiveness in the rapidly changing environment, new strategies are needed. Based on the pilot survey and interviews, the strengths, weaknesses, opportunities, and threats of construction SMEs have been identified. Drawing from the SWOT analysis, a conceptual framework for the development strategies for Chinese construction SMEs is postulated by the authors, which includes strategic alliances, innovation and differentiation. This framework is illustrated by a case study of a prominent Chinese construction corporation which was formerly a construction SME.

It should be noted that the development strategies proposed in this paper are only possibilities construed by the authors following a preliminary SWOT analysis. The development strategies through alliances, innovation and differentiation have been found to be effective through the case study. However, Chinese construction SMEs are not identical, even as they share certain common characteristics. Therefore, the strategies suggested in this framework serve mainly as general approaches for Chinese construction SMEs. Research into the different grades of construction SMEs in China are needed in future to formulate more specific development strategies to meet their objectives.

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