IN SEARCH OF A SUSTAINABLE SUCCESS STRATEGY IN THE CHINESE CHEMICAL INDUSTRY

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ABSTRACT

The Chinese chemical industry is facing fierce competition and changing market dynamics due to the change in the country's economic policy. Its government has applied administrative actions rather than simply relying on the market to address the changing dynamics. It has attempted to privatise government-owned enterprises by corporatisation coupled with industrial restructuring. This paper uses a case study of Peony Printing Ink Co Ltd, a state-owned chemical enterprise, to illustrate the effectiveness of developing internal competences to improve long-term operational performance rather than the adoption of a privatisation approach.

Keywords: Chinese chemical industry performance; core capabilities; private and state-ownership

INTRODUCTION

China is changing from a command economy to a market-driven one. The open door policy implemented in the early 1980s has introduced competition and open-market price competition to the Chinese chemical industry. Under the new economic system the state-owned sector has continued to suffer from heavy losses due to its low efficiency. The Chinese government uses privatisation and industrial restructuring to form conglomerates as the main pillar to improve the performance of its state-owned sector. The result, however, has not fulfilled the promise. Based on the resource-based view (RBV) the authors argue that building core capabilities is a more effective strategy than privatisation and industrial restructuring. This paper uses a case study of a state-owned chemical company to illustrate the effectiveness of building core capabilities to improve performance. The findings from this case study are supported by the results of a large-scale survey of Chinese chemical companies that was also carried out as part of the overall research. However, due to restrictions on length this paper does not report the survey findings.

LITERATURE REVIEW

Privatisation, coupled with the formation of conglomerates, is one of the major pillars for China's economic reforms. The poor performance among state-owned enterprises (SOEs) and the mounting debt triangle between SOEs and the state banks provided a strong impetus for the Beijing government to reduce its burden through privatisation, marketisation and industrial restructuring. Privatisation of SOEs not only helps to reduce the Chinese Government's burden, but also brings a change in corporate governance mechanism. The basis for privatisation is to improve the corporate governance mechanism via the board of director structure. Using a governance mechanism to improve performance is based on the premises of agency theory (Eisenhardt, 1989). It is believed that privatisation will pull in financial resources along with new management philosophy if large institutional shareholders coming from local private sector or foreign investors take a major or significant equity share in SOEs.

Xu and Wang (1999) conducted a study of 316 public listed Chinese companies to study the importance of large institutional shareholders in corporate governance. They also examined the inefficiency of state ownership and potential problems embedded in an overly dispersed ownership structure. They concluded that the "market-oriented" reform measures that China has adopted seemed to have improved the economic efficiency of the state sector. However, optimal resource allocation was unlikely to be achieved simply by creating markets for products, workers and managers without changing the ownership structure of SOEs. The internal incentive structure of SOEs had to be reformed by diversifying the state-ownership and by introducing other forms of large shareholders, including institutional investors. Mar and Young (2001) pointed out that most of the privatised state-owned enterprises did not have autonomy in selecting the management team. They were appointed by the bureaucrats (Dujarric, 1997; Zhu, 1999). This "Chinese style" privatisation (Cao et al, 1999) could hardly resolve the agency problems. Zhu (1999) believed that active participation of the Government in the partially privatised SOEs has in many ways nullified the intended corporate governance mechanism. Hence performance of the privatised SOEs was rather disappointing and this led to some privatised companies being converted back to SOEs. This argument was supported by Xu and Wang's study on the performance of the companies listed in the Shanghai and Shenzhen stock exchanges (Xu and Wang, 1999). They found that performance of the partially privatised companies showed a general decrease after their initial public offerings (IPOs). They therefore concluded that state-ownership had a negative correlation with company performance.

Other studies, however, have cited opposite results that support privatisation in China. For example, Wei et al (2003) studied 208 publicly listed companies on the Shanghai and Shenzhen stock exchanges and found significant improvements in real output, real assets and sales efficiency and significant declines in leverage following privatisation. Results from the full sample showed there was no significant change in profitability, but on further analysing the sub-sample, where more than 50 percent of voting rights had been converted to private investors, there was a significant change in profitability, employment and sales efficiency over those that remain under state control. They therefore concluded that privatisation had a positive effect on performance when control was passed to private investors. Other research carried out by Sun et al (2002) to study the performance of all the publicly listed companies on the Shanghai and Shenzhen stock exchanges from 1994 to 1997 discovered that partial government ownership had a positive impact on SOEs' performance. Their research findings indicated this relation was valid no matter whether the government ownership was in the form of state-ownership or legal-person ownership. These mixed results clearly underline the complexity of China's privatisation programme and demonstrate that the contrasting findings are due to a non-linear relationship between government ownership and firm performance. They indicate that the relationship between state-ownership and performance followed an inverted U-shape pattern.

Privatisation is one of the most controversial subjects in China so this paper investigates an alternative route to achieve sustainable competitive advantage for the Chinese chemical industry. Advocates of the resource-based view such as Hamel and Heene (1994) and Barney (1991) pointed out that building core competencies within the firm is highly effective for the firm to succeed in a fast changing competitive environment. Furthermore, Kim and Mauborgne (1999) stated that competition-based strategy has waning power in today's economy in which, in many industries, supply exceeded demand. Competing for a share of contracting markets was a marginal and second-best strategy. The best strategy in today's economy is to stimulate the demand. Likewise, Prahalad and Hamel (1994) studied the importance of a company's core competences and cited examples of how successful firms can leverage their core competences to develop future business opportunities. Seemingly the resource-based view of strategic management takes a different approach in resolving a company's external challenge by focusing on its internal resources. Therefore the objective of the authors' research was to ask:

Is privatisation or the development of core capabilities more effective in producing long-term operational performance for the indigenous Chinese chemical industry?

RESEARCH METHODOLOGY

The principal purpose of this research was to investigate the effect of building core capabilities on the company's long-term operational performance. The case study was carried out in a state-owned chemical company called Peony Printing Ink Co Ltd. The subject company had gone through several changes in ownership. Contrary to the common belief that state-ownership is negatively correlated to a company's performance, Peony was able to implement a turn round strategy and became profitable in the second year of a return to state-ownership. In order to understand this phenomenon, the authors conducted an in-depth study of its core capabilities through personal interviews with key executives. Its growth was achieved via internal resources, which is a good case to examine the effectiveness of the resource-based view. Although one can question whether findings obtained from a single case study can be generalised, Hoskisson et al (1999) argued that even generalisation from multiple cases is neither practically feasible nor desirable, as each is assumed to be too complex and unique.

The study was conducted by interviewing the General Manager and department heads responsible for the Marketing, Production, Human Resources and Research and Development functions. A structured questionnaire consisting of open-ended questions was sent to the interviewees one week prior to the interview. Whenever written consent was obtained the interview was audio taped. Other information was collected from magazines and trade statistics published by the Chinese Ink Manufacturers Association. Internal documents such as marketing plans, official websites published on the Internet, and company magazines were also used to extract information. Accuracy of the data collected from interviews was verified by asking different interviewees the same questions. Data were also verified with statistics provided by industrial associations.

FINDINGS

Company background

Peony Printing Ink Co Ltd (Peony) was originally founded in 1916 and is currently a state-owned enterprise. It has gone through several changes in ownership since its formation. From 1916 to 1953 Peony was a small cottage factory owned by individuals. In 1953, under the directive of the communist policy, all the printing ink factories in Shanghai were ordered to merge to form a single enterprise. This enterprise was called the Shanghai Printing Ink Factory and solely owned by the Shanghai Provincial Government.

In 1994 the whole of the Shanghai Printing Ink Factory was joint ventured with a Swiss printing ink company and changed its name to Shanghai SIPCA Printing Ink Co Ltd. Its Swiss partner, as the major shareholder, took over the management of the company. However, after the company was converted to a joint venture, it suffered heavy losses and from 1995 to 1999 it had a cumulative loss of over RMB 100 million. In June 2000 Shanghai Huayi (Group) Co Ltd bought the equity share from the Swiss partner and converted the company back to a state-owned company. Its name was changed to Peony Printing Ink Co Ltd. Table 1 summarises the chronology of changes in ownership.

Table 1 - Chronology of ownership changes for Peony Printing Ink Co Ltd.

	1916 – 1953	**1953 – 1994**	**1994 – 2000**	**2000 – present**
Ownership	Privately Owned	State-owned	Sino-Swiss joint venture (private)	State-owned
Company Name	Shanghai Printing Ink Company	Shanghai Printing Ink Factory	Shanghai SIPCA Printing Ink Co Ltd	Peony Printing Ink Co Ltd

Financial performance

Between 1995 and 1999 Peony's turnover was almost static under the management of its foreign partner, fluctuating between RMB 280 – 290 million. However, because of extra costs incurred, it suffered heavy losses cumulatively to RMB 100 million over these 5 years.

Starting from 2001, that is 1.5 years after the company converted back to a SOE, it achieved a net profit of 8.5 percent on sales. In 2002, the company obtained a net profit before tax of 10 percent on sales, which was slightly above the industry average of 9 percent. Turnover and profit development of Peony is listed in

Table 2 - Turnover and profit development of Peony 1999 – 2002

	1999	2000*	2001	2002
Turnover in RMB million	285	270	275	305
Net Profit	-20	-18.8	23	31
% Net Profit on Sales	-7%	-3.3%	8.4%	10%

Peony return to being a SOE in July 2000. The reduction in turnover in 2000 is due to the transfer of its security inks business to the Swiss joint venture partner. Source: Peony income statement 2000, 2001, 2002

Human resource capabilities

By the end of December 2002 Peony had about 700 employees, of which about 500 were full-time. The other 200 were retirees and laid off (*xiagang*) workers. Compared to the average sales per employee of other ink manufacturers operating in China, such as DIC and Toka's joint venture, Peony can be considered as overstaffed. Table 3 shows the comparison of sales turnover and profit generated per employee among major printing ink companies in 2000.

Table 3 - Comparison of sales turnover and profit per employee (in 2000) among major printing ink companies in China

Company	Number of employees	Sales per employee (RMB)	Profit per employee (RMB)
Tianjin Toyo	1,892	233,910	11,100
Hangzhou Toka	397	641,000	77,800
Peony*	800	385,000	-2,350
DIC in Shanghai, Guangzhou, Shenzhen	274	1,350,000	135,950

** In 2002 Peony reduced its number of employees to 700. Sales per employee increased to RMB 435,700 and profit per employee increased to RMB 44,290. Source: Chinese Printing Ink Manufacturers Annual Report 2001*

The Human Resources Manager felt that the number of current full time employees was appropriate. The company would have better financial performance if it did not need to subsidise *xiagang* workers. When Peony was converted to a SOE its Human Resources Manager worried that it would be difficult for the company to employ talented staff. Over the two years after the change she found that recruiting young graduates and experienced technicians was not as difficult as she had originally thought. She believed that Peony's corporate image and financial performance had a stronger influence in recruitment than its ownership nature. The average salary of unskilled workers in Peony in 2002 was around RMB 1,500 per month, which was about 10 percent higher than the average worker's salary in Shanghai. Since 2001 Peony implemented an incentive scheme by paying a special year-end bonus to those who exhibited good performance. Apart from giving bonuses and the incentive of overseas trips the names of these outstanding staff members was published in Peony's company magazine.

All the interviewees agreed that Peony had a very strong cohesion among employees compared with the time when it was a Sino-Swiss joint venture. They commented that previously there had been a lack of trust and understanding between the management and employees. There was a lack of understanding of the Chinese culture and working habits by the expatriate management team. It was not easy to establish close working relations. After its change back to a SOE, they felt that communications with staff members had improved. Also, with the significant improvement in company profit, employees had stronger confidence in the company and loyalty started to resurface. Peony also made good use of its company magazine as a vehicle to facilitate communications between the management and employees.

Marketing, delivery and quality capabilities
In the Chinese printing ink market product differentiation is not very important among competing companies. Most customers are not price sensitive as printing ink represents a small fraction on the total cost of the end products. They will select suppliers based on their reputation, service and speed of delivery, quality and consistency of their products and working relations. Peony's products have been selling in China since the mid 1950s and the company and its products have a good reputation, especially in the conventional printing ink segment. The drive for Huayi Group to purchase Peony's equity share from the Swiss partner was due to its well-known brand name. The current Chairman of Peony believed that its brand equity and company name were under valued. Indeed, its corporate image and its famous brand name have contributed to its successful turn round in 2001 – 2002.

Managers from the Sales and Marketing department agreed that competitive price was not a key success factor. As mentioned above, this is due to the fact that the cost of printing inks comprises only a small fraction of the cost of end products. If the inks are not stable, damage done to the end products can be enormous. Hence most printing companies will select high quality products produced by reputable manufacturers. Peony's products are priced within the medium range for printing inks. They believed that customers are ready to pay 3 to 5 percent above the average market price as long as they can provide a quality service. The interviewees believed that they have a good understanding of the Chinese market. Communication between the front line sales persons and the management team was prompt and efficient. This effective communication has laid a solid platform for the company to get first hand knowledge about the market. By contrast, under the management of its joint venture partners the salesmen felt that their opinions were not heard or understood by the foreigners. They believed that their previous joint venture partner was wrongly focused on the non-profitable security ink market. Overall, Peony after changing back to SOE ownership has had an improved understanding of the market.

Production capabilities
Peony's production processes are able to produce goods of consistent quality. Its ability to control processes has paved its way to maintaining a leading market position in the conventional inks segment. The Deputy General Manager believed that among all the Chinese printing ink companies Peony possessed the latest production technology for the products it was making. It also has a superior ability in mass customisation. Its ability to deliver goods on a just-in-time basis enabled it to be the market leader in the conventional printing ink segment. The Production Manager believed that its close co-operation and intensive communication among different departmental staff have provided the foundation

for the company to be agile. Peony benefited from the return in ownership from a foreign joint venture to SOE status and the establishment of mutual trust among employees after the change.

Although technologically up-to-date Peony's production facilities were still rather old. However, since the company was focusing on the conventional product segment the age of its production equipment did not have an adverse effect on product quality. When asked whether they would outsource certain production process should the current production capacity be saturated, all the interviewees shared a negative view on outsourcing production. Peony had an experience in the mid 1990s of outsourcing part of its conventional product line to two contract manufacturers. During that time its joint venture partner allocated its main production resources to the security ink business. Peony discovered that after three years of co-operation with the two contract manufacturers they were marketing conventional printing inks with equivalent quality standards. One of its contract manufacturers subsequently became among the top 12 Chinese printing ink companies in terms of sales in 2002. Before having access to Peony's technology this contract manufacturer was ranked number 30.

Product development capabilities

Product development did not seem to have high priority in Peony. Although its General Manager claimed they possessed sufficient knowledge to develop high performance products such as rub resistant inks, UV stable inks, non-toxic inks and security inks within 5 to 6 months, whether they are able to develop new products in such a time remained unproven.

DISCUSSION AND CONCLUSION

The case study findings presented here demonstrate that Peony has a strong human resource capability and in particular a strong corporate culture, which is unique and difficult to imitate. This finding reinforces the argument put forward by Barney (1986) who stated that culture can be a source of competitive advantage. Another important strategic asset is the company's well-known brand name. Peony is able to make use of this strategic asset to become successful in its target market segment. This finding further confirms the argument by Hitt et al (2001) who classified brand name as a strategic asset. The quick turn round in performance can be explained by Peony's managerial capability. Its decision not to move into the new generation of printing inks and concentrate on the conventional products can be explained by its relative weakness in new product development capabilities. Peony's strategic move bears strong characteristics of a "managerial firm" (Borch et al, 1999). It adopted an "analyser" strategic posture (Miles and Snow, 1978), which in combination with a skilful deployment of marketing strategy made it successful. The strategic option adopted by Peony supports the contention that strategy has to be supported by appropriate resources and distinct competences (Hitt et al, 2001). Peony's managerial capability that helps to improve performance further confirms Penrose's study (1959) on the growth of a firm. Managerial capability that affects firm growth is now commonly known as the "Penrose effect" (Kor and Mahoney 2000). Another important capability that Peony possesses is its manufacturing capabilities. Although Li (2000) found that Chinese manufacturers did not view manufacturing capability as a source of competitive advantage the study of Peony shows otherwise. Its flexible and agile production system and its ability to produce high quality products rendered it able to improve its performance at a rapid pace.

Privatisation and restructuring in China has been, and is likely to continue as a controversial issue in China. The heavy losses and low productivity of SOEs still provide strong impetus for the Chinese Government to push forward its privatisation program. However, the result has not lived up to expectations and a lot of partially privatised SOEs are still suffering losses. The findings from the case study show that privatisation of Peony was not successful. It also demonstrates that state ownership did not have a negative effect on the firm's operational performance. The turn round in performance after its return to state-ownership clearly demonstrates that core capabilities such as corporate culture, managerial, operational and marketing capabilities have a stronger influence than ownership. These findings lead to a conclusion that building core capabilities can be more effective for improving a company's performance than privatisation. Without competitive advantage and suitable resources, it would be difficult for a company to have sustained performance. The case evidence is also supported by results of a related survey of 150 Chinese chemical companies. This conclusion, however, does not imply that privatisation will fail in China; rather it suggests a different strategy for Chinese chemical companies to strengthen their competitive position. It also reconfirms the validity of the resource-based view in the Chinese chemical sector.

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