

**Marketing Strategy and Business Performance: Evident from Small
Construction Firms in Tianjin.**

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Abstract

This study examines how marketing strategy, business environment, and organizational characteristics of small construction firms in mainland China are linked to their business performance. The results show that high performers have followed a long-term differentiation marketing strategy, focusing on R&D and new product development. They also have a longer business history, and are more likely to conduct regular market research. Low performers, on the other hand, have focused on current product adaptation strategy. An SME's sales revenue, employee numbers, top management's formal education and management training levels are not found to be associated with its business performance. Managerially, our findings encourage small firms in mainland China to adapt long-term differentiation strategy, focusing on R&D and on new product development. On the policy front, government should actively disseminate such information to small firms in better adapting them to the increasing competition in mainland China's post WTO (World Trade Organization) era.

SMEs (small and medium sized enterprises) have become a key component in the Chinese economy, accounting for 99% of the number of

firms, 69.7% of their employment, 48.5% of their assets (China Enterprises Association, 2001), and 53.8% of the industrial output (National Bureau of Statistics of China, 2003a, p. 35). However, there are few studies examining SMEs' marketing practices and their link to business performance. Research effort in this area bears utmost significance to the government's policy towards SMEs, and to their long term wellbeing and development in an increasingly competitive market environment in mainland China's post WTO era. This study represents a key step towards mending such research gap.

Literature Review

Many researchers have studied SMEs' development around the world, covering their significant economic contribution in output, employment and tax revenue in USA (Iqbal, 2000), Europe (Lyberaki, 1994; Dutta and Evrard, 1999), Australia (Graham, 1999), New Zealand (Lilley, 1998), and mainland China (Chow and Tsang, 1994; Lin and Zhou, 2003). Compared to large firms, SMEs face many challenges, including limited resources and experience to conduct formal market research (Carson, 1990; Siu and Kirby, 1998; Verhees 1998; Bamforth and Brookes, 2002), limited marketing expertise by their owner/manager (Carson and Cromie, 1990;

Callahan and Cassar, 1995; Harris and Watkins, 1998; Siu and Kirby 1998), and, as a result, often restricting their business to “selling” in a single industry (Carson, 1990). SMEs in mainland China also face high barriers in obtaining external finances (Yao, 2003), government policy restrictions and triangle debts burdens (Tang and Zhang, 2002). Governments around the world have designed various policies and programs to support SMEs in their country in dealing with such challenges (Organization for Economic Co-operation and Development, 1996; Parker, 2000). Results from such policies and programs, while very positive, have been often uneven, due to the varying economic conditions, development stages and business environment SMEs faced, and due to SMEs’ varying needs and capacity in dealing with these factors (Ernst & Young, 1997, cited by Bryson *et al.*, 1999, pp. 95-105; Bryson *et al.*, 1999; Smallbone and Welter, 2001). As well, SMEs’ economic contributions to their home country also vary (Parker, 2000). This suggests that it is not enough for governments to just have policies supporting SMEs’ development, but such policies must be adaptive in order to meet SMEs’ specific needs as well.

Drawing data from market economies, several studies (Pelham and Wilson, 1996; Appiah-Adu, 1997; Appiah-Adu and Singh, 1998; Horng and Chen, 1998; Pelham, 2000; Siu *et al.*, 2004) show SMEs’ business performance is positively associated with their practice of MO - a business philosophy guiding firms to identify target markets, understand their needs, and co-ordinate business functions to best serve the needs of, and to create added values for, the target markets (Kohli and Jaworski, 1990; Narver and Slater, 1990). *Low-cost* and *innovation/differentiation*, identified as

two dominant marketing strategies practiced by most SMEs, are found to have a mixed relationship business performance. SMEs’ market environment was not found to be directly linked to business performance. Siu (2000) examined the marketing and company performance of 87 Chinese small firms across industries. The high performers were found to have undertaken comprehensive situation/market needs analysis and have utilized sophisticated planning tools, including SWOT (strength, weakness, opportunity and threat) analysis, the Experience Curve, Portfolio Planning Matrices, and PIMS (profit impact on sales), etc. They followed a long-term profitability objective, and a market expansion strategy, focusing on superior product design and after-sales services. Low performers relied on cost-reduction as a key marketing strategy in order to “sell to whoever would buy” (Siu, 2000, p.108). Our literature review unveils limited research directly relating to SMEs’ marketing practice in mainland China. The key marketing concepts utilized in the studies cited had originated in the West. Furthermore, Siu’s (2000) study was based on a small sample of cross-industry firms in Guangdong, one of the most economically developed provinces in mainland China. As such, the applicability of these findings to SMEs other parts of mainland China needs verification.

Methodology

Addressing these issues, a pilot study was conducted via semi-structured in-depth personal interviews with a chief executive at ten SMEs in Tianjin, one of mainland China’s four municipalities with a vibrant SME sector. The sample firms were selected using a convenience sampling method. Most interviewees felt that the MO concept, while sound in principle, is

not easily followed in mainland China due to rapidly changing market conditions. *Frequent switching of products aiming for higher sales and profits* is the most frequently cited business philosophy, echoing the “opportunistic orientation” found with most businesses in mainland China (Peng, 2003, p. 26). Interviewees were unfamiliar with SWOT (strength, weakness, opportunity and threat) analysis, the Experience Curve, Portfolio Planning Matrices, and PIMS (profit impact on sales) methods, but relied more on intuition for marketing analysis and decision-making. Two marketing strategies practised by all firms are *current product-strategy (CPS)* and *long-term differentiation strategy (LDS)*, closely resembling the findings by Pelham (2000) and Pelham and Wilson (1996). Most interviewees had little knowledge of their company’s market share level. Interviews identified nine business environment factors key to their business operations. They relate to government policy, the availability and quality of the various services for SMEs, similar to those found in other transitional economies (Fogel and Zapalska, 2001). In addition, limited financial resources, unfair competition, and triangle debts are identified as the key challenges. As a result, the concepts of MO, SWOT, PORTFOLIO and PMIS, etc., were excluded from the current study. Based on our literature review and pilot study findings, a structured survey was constructed and sent to 11000 SMEs appearing on Tianjin Bureau of Industry and Commerce’s registration list, together with the Bureau’s covering letter. A total of 3669 usable surveys were received, achieving a 33.4% return rate. Controlling for industry effect, this study utilizes only the data from the 196 surveys completed by small construction firms. The

construction industry in mainland China has experienced significant growth between 1980 and 2002, with its total numbers of firms, employees and output value increased by 7.2 time, 3.5 times, and 64 times, respectively (National Bureau of Statistics of China, 2003a, p. 527). Our 196 sample firms averaged RMB 10.39 million in annual sales, RMB 3.75 million in registered capital, and 153 in employees, far below the RMB 30 million in sales, the RMB 40 million in assets, and the 600 employee classification benchmarks for small construction firms (National Statistics Bureau of China, 2003b).

Measurements

All items included in the marketing strategy and the business environment scales were measured via a 5-point Likert type scale (1 = *not practiced* and 5 = *practiced to a great deal* for CPS and LDS; and 1 = *dissatisfied* and 5 = *very satisfied* for *Government Policy* (BEI) and *Availability and Quality of Services* (BE2)), corresponding to Pelham and Wilson’s (1996) and Pelham’s (2000) framework. Other variables include a firm’s R&D spending as % of sales, number of new products successfully launched annually; its status of conducting regular market research, and of being a subcontractor for large businesses, its size in terms of assets, sales revenue, full time employees, its years in business, and its senior managers’ formal education and management training level, following the approach by Storey (1994). Hvolby and Thorstenson (2001) emphasized that, given they are constrained in resource, it is particularly important for SMEs to utilize only the most critical performance indicators. As such, and considering the profitability and sales growth orientation as stated by interviews in our pilot study,

we have used objective performance data in terms of sales revenue, net profits, and profitability to measure business performance for the current study. Specifically, high performers are defined as firms showing positive growth trends in all three areas over the previous three-year period. Low performers are those showing negative growth trends in each dimension, while the average performers are those showing mixed trends, over the same period.

Data Analysis

ANOVA (univariate analysis of variance) test was conducted to examine potential differences in the mean levels of marketing strategy among the three groups, a Post-Hoc test for such differences between any two groups (Hair *et al.*, 1998), and a X² test for any proportional differences among the groups. Results of these tests are contained in Table I.

Take in Table I

Marketing Strategies: The 3-group's mean CPS rating is 18.5, exceeding the average rating of 15 (based on the 5-item 5-point scale). No statistically significant differences were found among the three groups. Further, the low performance group has significantly ($p < .05$) higher average scores on the "current product adaptation" item over the high performance group. The 3-group's combined mean LDS rating is 17.7, again exceeding its average of 15. Separately, the high group's LDS score is significantly higher than the low group and marginally ($p < .10$) higher than the average group. Furthermore, the high group's score in "developing new product" is significantly higher than the average group and marginally higher than the low group. The

average group also has significantly higher scores than the low group in terms of "branding". In addition, the high group has achieved marginally higher scores than the other two groups on "shortening the production cycle".

Other Marketing Practices: The 3-group's average R&D spending as a percentage of sales barely reaches 1.3%. Separately, the high group has a significantly higher R&D level than the average group but only marginally higher than the low group. The 3-group's combined annual average number of *new products successfully launched* annually is 1.7. Interestingly, the high group's average new product number is significantly higher relative to the average group, but not to the low group. Of the high performers 87.5% conduct regular market research, as compared to 69.3%; and 73.5% in the average and the low group, respectively. A further X² test, however, found no significant differences among them. It is worth noting that only 76 firms (38.8% of the sample) conducted market research, with 55 of them (28.1% of the sample) doing so regularly, and 13 of them (6.6% of the sample) having commissioned an external professional research company for the job.

Business Environment: The 3-group's combined mean satisfaction rating of *Government Policy (BE1)*, and of *Availability and Quality of Services (BE2)* towards SMEs are 13.3 and 16.7, respectively, both exceeding their corresponding average. However, no significant differences are found among the three groups.

Organizational and Management Characteristics, and Key Challenges: The 3-group's average assets and annual sales are RMB ¥3.75 million and RMB ¥10.39, or US\$ 0.45 million and US\$1.25 million, respectively (using the current foreign exchange rate of USD 1.00 = RMB

¥8.2727) (National Bureau of Statistics of China, 2003a, p. 654). Further, the 3-group's average employee figure is 153. No statistically significant differences are found among them in these areas. However, the high performance group's business history is significantly longer than the average group, and marginally lower than the low group. No significant differences are found among the three groups in top managers' education and formal business training levels. A further X² test found no significant differences among the three groups in terms of the proportions of firms facing challenges in financing, triangle debt and unfair competition. However, 47.3% of the low performers cited "lack of finance" as a challenge, comparing to 39.6% and 33.3% in the average group and in the high group, respectively.

Discussion

Our analysis has produced very interesting results. **First**, significant differences exist in *marketing strategy and practice* among the three groups. CPS and LDS strategies are widely practiced by small construction firms in Tianjin. Both low and average performance groups were found to have focused on current product adaptation, as compared to the high group. The latter also practices a significantly higher level of LDS strategy, with higher R&D spending, and more new products. These results contradict the findings from Pelham's (2000) and Pelham and Wilson's (1996) studies. Further, our finding that conducting regular market research is not associated with business performance also contradicts the findings of Siu's (2000) study, but echoes those from other studies (Carson, 1990; Siu and Kirby, 1998; Verhees, 1998; Bamforth and Brookes, 2002). While no significant differences were found among the 3-group's average

assessment scores of *business environment*, their ratings for the government policy, and for the availability and quality of services to SMEs, both exceed their average of 12 (based on the 4-item 5-point scale) and 15 (based on the 5-item 5-point scale), respectively. This suggests that our sample firms are generally satisfied with government policies, indicative of the success of Chinese government's economic and housing reforms implemented over recent years. **Secondly**, Our results revealed no contrasting *organizational characters* in terms of sales levels, assets and employee numbers among the three groups, confirming Siu's (2000) findings. High performers have, however, a longer business history than the others, suggesting that it would be beneficial for SMEs to learn from prior experience of the higher performers. And **thirdly**, no significant differences are found in the *top management's formal education and management training levels* among the three performance groups. **Overall**, firms in our study are far less sophisticated in their marketing practices, as compared to those covered in Siu's (2000) study. This might be a function of the latter's location in Guangdong province, one of the most economically developed regions in mainland China, where both the market and the competition are among the most developed among the various regions in mainland China.

Managerial and Policy Implications

Overall, our findings suggest that the key to business success of mainland China's small construction firms is a marketing strategy that is long-term oriented, focusing on R&D and on the development of new products that better serve the market needs.

This finding makes logical sense in light of mainland China's housing reform and

the significant development of its construction industry as a consequence in the last two and a half decades. Official statistics show that, in 1978, the per capital living floor space in mainland China's urban and rural areas, was 3.6 m² and 8.1 m², respectively (National Statistics Bureau of China, 1996). These figures clearly show that mainland China's housing needs were barely being met in those years. Such situation saw marginal improvement until late 1990s when, aiming at the transformation of residential housing from welfare goods to market goods, the government took action to promote private residential property ownership, mortgage financing, and secondary market development (Li, 1997). In 2002, the dramatic increase of the per capital living floor space in mainland China's urban and rural areas to 22.8 m² and 26.5 m², respectively¹ (National Bureau of Statistics of China, 2003a, p. 342) is indicative of this policy's remarkable success. Riding on the waves of this rapid housing development in recent years, construction companies that focused on R&D and new products development were better able to provide newer and better housing products to better serve the hugely unmet market needs. As a result, they were able to achieve much better business performance than those focusing on existing product adaptation.

Managerially, such findings have significant implications to small firms in Tianjin and other regions in mainland China, clearly calling for the adoption of a long-term differentiation marketing strategy, a focus on R&D and on new product development. Regular market research is also needed in order to better understand the market needs.

On the *policy front*, the vibrancy of mainland China's residential real estate sector and its construction industry, together with the high business performance of the small firms focusing on R&D and on new product development, highlights the success of the mainland Chinese government's current housing reform policy. There is little doubt that the current per capita floor space in mainland China is still relatively low as compared to the developed economies. Nevertheless, mainland China can be justly proud of what its current housing reform has achieved in providing to its 1.3 billion populations within such a short period of time. *On the other hand*, given the similarity and differences among different performance groups found in this study, government should perhaps disseminate this information and encourage small firms to focus more on long term differentiation, R&D and new product development, and to conduct regular market research. This could be done through such government initiatives as management training programs, aiming not only at increasing small firms' awareness but also at encouraging them to adopt these marketing strategies. Such policy will assist these firms to better adapt to the increasingly competitive post WTO business environment. This policy will contribute significantly to the long-term well-being of the small firms in mainland China, a vital sector to the country's economy in terms of output value, employment, and tax revenues.

¹ The 2002 urban figures represent the "building space", while the rural figures represent the "living space" (National Bureau of Statistics of China, 2003a, p. 342)

Limitations and Future Research Directions

Possible industry and location biases may

exist, in light of the focus of this study. Therefore, prior to drawing generalization, further studies are needed to examine firms in other industries and/or in other geographical locations. Despite such possible limitations, this study presents a major step towards systematically examining relationships between marketing and performance of the small firms in mainland China, and thus, it adds knowledge to the field of SMEs study in the country.

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Table I : Marketing Strategy and Organizational Characters, and Performance of Small Construction Firms in Tianjin (n=196)

ANOVA (Post Hoc Test) or

X² Test Results

Difference in

means or

proportions b/t

high & average

performers

Difference in

means or

proportions b/t

high & low

performers

Difference in

means or

proportions b/t low

& average

performers

CPS strategy H19.3-A18.2=1.1

H19.2-L18.5=.7 L18.5-A18.2=.3

○ Product quality H4.2-A4.1=0.1

H4.2-L4.0=0.2 A4.1-L4.0=0.1

○ product adaptation A3.4-H3.2=.2*

L3.8-H3.2=0.6** L3.8-A3.4=0.4

○ variety seeking H3.8-A3.4=0.4

H3.8-A3.7=0.1 L3.7-A3.4=0.3

○ costs reduction H4.1-L3.9=0.2

H4.1-L3.6=0.5* H3.9-L3.6=0.3

○ price reduction H3.8-A3.6=0.2

H3.8-L3.4=0.4 A3.6-L3.4=0.2

LDS strategy H19.5-A17.5=2*

H19.5-A17.1=2.4** A17.5-L17.1=0.4

○ branding A4.0-H3.8=0.2 H3.8-L3.5=0.2

A4.0-L3.5=0.5**

○ LT Cust. Relation H3.8-A3.4=0.4
H3.8-L3.3=0.5 A3.4-L3.3=0.1

○ new market H4.0-A3.7=0.3
H4.0-L3.9=0.1 A4.0-L3.5=0.5**

○ new product H4.0-A3.4=0.6**
H4.0-L3.5=0.5* L3.5 - A3.4=0.1

○ shorten prodn cycle H3.7-A3.3=.4**
H3.7-L3.2=0.5** A3.3-L3.2=0.1

Other Mktg practices

○ R&D as % of sales

H3.8-A0.6=3.2**

H3.8-L1.1=2.8*

L1.1-A0.6 =0.5

○ No of new products H5.9-A0.5=5.4**
H5.9-L0.6=5.3* L0.6 -A0.5=0.1

○ Regular market
research (%)

H0.87-A0.69=0.18 H0.87-L0.74=0.13

L0.74-A0.69=0.05

Business environment

○ Government policy

A13.5-H12.8=0.7 L13.2-H12.8=0.4

A13.5-L13.2=0.5

○ Service availability A16.8-H16.5=0.3
L16.8-H16.5=0.2 A13.5-L13.2=0.5

Challenges (X² test)

○ Financial resources

A.39-H.33=.06

L.47-H.33=.16

L.47-A.39=.08

○ Unfair competition H.33-A.25=.08
L.33-H.33=.0 L.33-A.25=.08

○ Triangle debts H.60-A.56=.04
H.60-L.58=.02 L.58-A.56=.02

Firm demographics

○ Years in business

H16.9-A13.5=3.4**

H16.9-L11.6=5.3*

A16.8-L16.8=0

○ Assets A3.2-H2.7 =0.5 L5.3-H2.7 =2.6
L5.3-A3.2=2.1

○ No of employees A183-H120 =63 L128
- H120=8 A183-L128 =53

Managers' characters

○ Education level

A11.8-H11.7=0.1

L12.8-H11.7=1.1

L12.8-A11.8=1.0

○ Magt training (yr) H4.0-A2.7 =1.3
H4.0-L2.2 =1.8 A2.7-L2.2 =0.5

*H=high, A=average, L=low performing
group; * p<.10; ** p<.05;*