10. Human Capital, Social Capital and Firm Performance in Chinese SMEs

Stephen T.T. Teo and Karen Wang

INTRODUCTION

Organizational commentators have noted an increasing interest in the evolution of Chinese small business during the past 20 years (Anderson et al. 2003). Small enterprises account for over 60 per cent of China's total industrial output and most of these enterprises are privately owned (Wang and Yao 2001). Recent statistical data show that output by private enterprises has grown to about 33 per cent of China's gross domestic product (Wang and Yao 2001). Prior to the amendment of China's Constitution in 1999, these private enterprises were not allowed to register as a category. Since 1999, the number of private enterprises has increased to 1.2 million and its annual growth rate was 34 per cent. A challenge faced by private enterprise entrepreneurs, especially those in the small and medium-sized sector, is the need to enhance their competitiveness by developing their level of managerial and technical skills and competencies (Peng 2001).

In the Western management literature, much has been written regarding the importance of firm capabilities, which, as scarce resources contribute to firm profitability and growth (for example, Barney 1996, Teece et al. 1997). The same assessment can be said of the extant literature on business management in China (for example, Hoskisson et al. 2000, Park and Luo 2001). Despite an increasing interest in the management of Chinese small and medium-sized enterprises (SMEs) in the academic literature, there are few empirical studies that account for the behaviours of Chinese SME business owners in the light of market reform. Therefore, we will examine the impact of firm capabilities, such as human capital (including skills, knowledge and abilities) and social capital (such as *guanxi* or personal business connections), on the performance of Chinese private enterprises.

The format of this chapter is as follows. We provide a review of literature that explains the relationships between firm capabilities (such as human and social capital) and firm performance. Next, the research design is outlined together with an explanation of the measures used. Data were analyzed using hierarchical multiple regression technique. Results are then reported and the theoretical and practical implications will be discussed. The current study will identify the specific factors that play a role in the influence of human and social capital in enhancing firm performance, providing a basis for developing practical guidelines for consultants and managers involved with SMEs. For managers interested in the 'bottom line', our findings will represent a significant advance in terms of a better understanding of the factors driving the performance of privately owned Chinese SMEs.

Firm Capabilities and Firm Performance in China

The study of the different forms of organizational capital (such as human and social capital) and their contribution to firm performance has received much attention (e.g., Hitt *et al*. 2001). The increasing interest in human and social capital is in part, a result of the literature developing a better understanding of what it is to rely on the capabilities of the firm as a source of competitive advantage (Barney 1996, Teece *et al*. 1997). There is a similar trend in the entrepreneurship literature which increasingly focuses on explaining the relationship between entrepreneurial behavior and firm performance (Barringer and Bluedorn 1999, Hitt *et al*. 2001). There have been a number of studies which focus on understanding the strategic behavior of Chinese firms (e.g., Park and Luo 2001, Tan 2002a). Common to these studies is the key question of how firms can develop their capabilities to achieve and sustain competitive advantage. Central to the above field of research is the resource-based view of the firm, a theoretical perspective put forward by scholars such as Barney (1996) and others such as Teece, Pisano and Shuen (1997). Drawing upon the argument proposed by Penrose (1959 cited in Hitt *et al*. 2001), these scholars argued that firm-specific dynamic capabilities and assets (both tangible and intangible) 'can be developed, deployed, and protected' (Teece *et al*. 1997, p. 510) to enhance firm performance.

Human capital and firm performance

The concept of human capital (defined broadly as education, experience and skills) and its impact on firm performance has been well documented in the literature. Human capital comprises the abilities and know how of people, particularly those that are useful in the productive process (Becker 1993, Schultz 1961). Proponents of this theory argue that human capital would provide economic value to organizations. In a study of service firms, Pennings and his colleagues (1998) found a direct link between human capital and firm survival. Park and Luo (2001) found a similar relationship between *guanxi* and firm performance as Chinese firms develop their business connections as a means to achieving higher level of profits.

Managerial and organizational skills

Park and Luo (2001) argued that in the case of China, managerial skills are crucial in allowing private enterprise to bargain with its various stakeholders, including government authorities due to the regulatory environment. Whilst important, managerial skills are still scarce in China, even though entrepreneurs are keen to develop these skills (Pistrui *et al*. 2001). Gregory and his colleagues provided recent statistical data indicating that managers, especially business owners, are the most important decision makers in Chinese private enterprises (Gregory *et al* 2000). They argue that this structure is ‘problematic as companies grow beyond the span of control of the owner-manager … the competence of managerial staff then becomes a constraint on enterprise performance’ (2000, p. 22). Hence, as private enterprises grow in size, there should be more emphasis placed on developing the managerial and organizational skills of its managers. Chinese entrepreneurs have to develop their managerial and organizational capabilities in order to create and sustain strategic leadership (Peng 2001). A resource-based view of the firm perspective means focusing on managerial skills. It is these that enable Chinese entrepreneurial firms to compete successfully in the market. In line with these studies, this project aims to explain the particular link between managerial skills and capabilities and firm’s performance including sales and profitability.

> Hypothesis 1a: There is a positive relationship between the level of managerial and organizational skills and Chinese entrepreneurs’ perception of firm performance.

Technological Skills and Competencies

An organization’s technological capabilities (such as databases, software and hardware) can play an important role in facilitating both intra-firm and inter-firm information and knowledge sharing. Lee *et al*.’s (2001) study of start-up firms found that technological capabilities (in the form of patents and quality control) demonstrated a positive impact on performance. Park and Luo (2001) found support for a positive and significant relationship between technological skills and capabilities and firm performance. They argued that private enterprises with lower level of technological skills tend to utilize business connections (or *guanxi*) as the means to overcome their disadvantage in the bargaining process, and ultimately, enhance firm performance.

Technological capabilities and their impact on the performance of small enterprises in China have been an important issue for policy makers. A recent report by The World Bank shows that despite the growth of small enterprises, these firms were less technically efficient than larger firms (Wang and Yao 2001), lacking as they do access to resources enabling the adoption of new technologies. However, these enterprises make up the gap by becoming more efficient in the application of technologies in the production process, that is, they tend to possess more technological skills than the larger firms (Wang and Yao 2001, p. 11). They reported that small and medium-sized enterprises tend to use technology to improve their overall performance in the changing business environment. Hence, it is likely that firm's technological skills and capabilities have an impact on firm performance. We hypothesize that:

> Hypothesis 1b: Chinese private entrepreneurs will perceive that the level of technological skills in their organizations is related to Chinese entrepreneurs' perception of firm performance.

Social Capital and Firm Performance

Business connections

Kao (1993) provided a convincing argument that *guanxi* has a positive impact on market expansion and sales growth of Chinese firms as they use these connections to share resources. The usage of *guanxi* is a finding consistently identified in the strategy and entrepreneurial literatures, providing evidence that formal and informal network ties both provide access to resources and to knowledge (Hitt *et al*. 2001). In the Chinese context, business connections allow entrepreneurs to use their formal and informal connections to enhance their knowledge and the flow of information regarding government policies (Xin and Pearce 1996). *Guanxi* is uniquely embedded in the cultural background of the Chinese. These social relationships can be formed through different ties, such as relationships between classmates, relatives, friends and officials.

Guanxi's reciprocal relationships entail the exchange of obligations and favors (Xin and Pearce 1996). Researchers have classified network relationships and their associated inter-firm learning as social capital (Coleman 1990). Xin and Yuen (2001) refer to social capital as an investment in social relationships, one that is expected to gain a return in the future. We will follow these studies (Park and Luo 2001, Xin and Yuen, 2001) by incorporating the concept of social capital to study the interactions between entrepreneurs and third parties (such as customers, supplies, competitors, government bodies and the like). Such form of social capital, mobilized through *guanxi* relations, can become a firms' core competency and provide a distinctive competitive advantage leading to high performance (Luo and

Chen 1997). In *guanxi* networks, each member is supposed to play a positive role. In other words, people in the network mutually rely on each other. Network ties, as personal business connections, between buyer and seller are of particular relevance in the Chinese context. They provide the opportunity to learn new capabilities and to identify new business opportunities (Park and Luo 2001). *Guanxi* allows firms, especially private SMEs, to counteract uncertainty in economic, regulatory and political environments (Ahlstrom and Bruton 2002). Network ties and relationships build a firm's social capital (e.g., Lin 1999), as 'the resources embedded in a social structure, which are assessed in a social structure which are accessed and/or mobilized in purposive actions' (Lin 1999, p. 35). Small business founders centrally involved in the process of strategic entrepreneurship (Kelly *et al*. 2000) in networks are in a position to build entrepreneurial social capital. Lorenzoni and Lipparini (1999) argue that 'relational capability' (that is, the capability to interact with other companies) is a distinct organizational capability that facilitates the sourcing and transfer of organizational knowledge.

Social interactions are important avenues for learning and knowledge sharing of business and product knowledge between Chinese entrepreneurs and their business partners and will have an impact on firm performance. The relationships linking business founders/managers with business and government network ties allow information sharing to be effective in enhancing firm performance (Xin and Yuen 2001). Recent research in the management and marketing literatures have all demonstrated the positive relationship between business connections and performance constructs such as sales growth (a *guanxi* performance construct) and growth in profit (Luo and Chen 1997, Park and Luo 2001). Therefore, we hypothesize that:

> Hypothesis 2a: In small and medium sized Chinese private enterprises, the development of connections for business purpose is related to perceived firm performance.

Defense against business threats

Using *guanxi* networks to reduce environmental uncertainties has been seen as critical for business establishment and growth in China. Reliable *guanxi* reduces behavioral uncertainties attaching to potential business partners (Standifird and Marshall 2000). Despite market reform, commercial laws are yet to develop to provide protection to private enterprise owners in China. Local governments often adjust their policies or legislation at short notice (Tsang 1996), substantially affecting business. Private sector entrepreneurs enhance legitimacy by relying on business connections, *guanxi*, with local government officials. Executives in Chinese private enterprises cultivate close personal relationships so as to substitute for the lack of institutional support (Xin and Pearce 1996). Additionally, they enable them to keep abreast of changes in policy, and to obtain the necessary licenses, permits, and approvals for smooth business operations. The power and influence of government officials on private enterprise entrepreneurs has been well documented in the literature. It has been argued that party and government officials can aid or hinder the success of private firm entrepreneurs (Peng and Luo 2000, p. 498-9). Connections with government officials can enhance the speed of settling legal disputes and disagreement. The resolution of legal disputes can drag on almost indefinitely within the Chinese legal system; the same problems can often be settled quickly with friendly discussion and consultation established through the *guanxi* network (Pearce and Robinson 2000). *Guanxi* networks can then be used as an effective way of protecting firm growth against business threats (Xin and Pearce 1996). We thus expect that:

> Hypothesis 2b: In small and medium sized Chinese private enterprises, entrepreneurs' usage of defense strategies in the networks is associated with firm performance.

Business Bargaining

Chinese entrepreneurs use *guanxi* networks to facilitate business development and reduce transaction costs in doing business. They use these business connections to reduce the cost of the technical transfers involved in communications, negotiations and settlements in key relationships (Lovett *et al*. 1999, Wong and Tam 2000). Specifically, well-developed *guanxi* networks provide an avenue for building up sales based on deferred or long-term payment of accounts. The seller benefits from favorable credit terms, with extended payment periods resulting in sales growth, while the buyer benefits from more favorable cash flows and better quality and quantity of goods and materials on the part of the seller (Luo and Chen 1997). Entrepreneurs see bargaining with *guanxi* partners as an activity in which they must be involved for business growth. We, therefore, hypothesize that:

> Hypothesis 2c: In small and medium sized Chinese private enterprises, business bargaining with business partners of *guanxi* networks is related to firm performance.

Help seeking behaviour

In Chinese business, product quality, market demand, and pricing are secondary to the establishment of *guanxi* (Yau *et al*. 2000) in the private sector as private enterprise entrepreneurs have to use their *guanxi* ties to reduce the ambiguity regarding potential customers and the location of new markets. The identification of potential customers and placing products correctly requires information access and assistance. *Guanxi* compensates for systematic inefficiency and institutional weakness and even acts as substitute for spending time and money on lawyers and legal contracts. Compared to state-owned enterprises, SMEs have relatively smaller in size and weaker in their legal status. These enterprises have to rely more on *guanxi* to obtain arrangements and resources (Fock and Woo 1998) and thus need frequently to seek help from people in the *guanxi* network. The types of favor exchange that occur in *guanxi* networks cover a very broad range, including exclusive information, gift exchanges, sales channels, scarce resources, job opportunities, trust and loyalty (Standifird and Marshall 2000, Luo 1999). A Chinese executive with a problem, personal or organizational, would naturally turn to his or her *guanxi wang* (or *guanxi* net) for help (Seligman, 1999). We hypothesize that:

> Hypothesis 2d: In small and medium sized Chinese private enterprises, frequent help seeking behavior is related to firm performance.

Giving of connection gifts

Connections in the context of Chinese business are reciprocal and utilitarian (Park and Luo 2001). *Guanxi* connections not only involve an exchange of favors but also require exchanges of obligations or *renqing*. Xin and Pearce (1996) argue that gift giving is one of the means frequently used to enhance *guanxi*. The act of gift giving means that the both receivers and givers feel that there are possible grounds on which to build up mutual relationships between parties. Importantly, the receivers have agreed to commit themselves to the giver's 'requirements' and furthermore to repay other favors in the future. However, the parties involved in the gift giving do not necessarily explicitly need to agree the specific exchange at the same time (Molm 1997). Gift giving can be used to indicate friendship or goodwill and can be used to establish and nurture relationships, forming an integral part of establishing and maintaining dynamic networks. Anyone who wants to either initiate or to remain in such a network must demonstrate and convince the other party that s/he is able to reciprocate in terms of being able to provide substantial assistance, including gift giving. Such reciprocation materializes in the exchange of business information, often as a defense against perceived threats, or financial support, or guarantees of quality of supply, all achieved without too much bargaining. SME entrepreneurs are likely to regard gift giving as an effective means by which to cultivate and nurture *guanxi* and as crucial to guarantee that there will be fulfillment of reciprocal purposes in protecting small business and reducing bargaining (Xin and Yuen 2001). Therefore, we hypothesize that:

> Hypothesis 2e: In small and medium size Chinese enterprises, there is a relationship between the giving of connection gifts and the entrepreneurs' perception of firm performance.

Trust in guanxi connections

Another salient feature of the *guanxi* connection is that of trust between business partners. Trust has been repeatedly identified as the key ingredient in building successful *guanxi* relations (Xin and Yuen 2001). In particular, trust is important where there is uncertainty, vulnerability, and an absence of total control of the whole operation (Parkhe 1998), which is the situation faced by small private enterprises in China (Gregory *et al*. 2000). Entrepreneurs in China experience high uncertainty in the business environment; as such, lacking trust, they must beware of being taken advantage of by opportunistic business partners.

Development of trust with core partners is vital for their business growth. Armstrong and Yee (2001) found that trust is crucial in securing opportunities for future interaction between the exchange parties. It was noted that high trust levels within a country could enhance cooperative performance (Cusumano and Takeishi 1991). In this study, trust is defined as the level of confidence that is exhibited in the reliability and integrity of exchange partners and in one's willingness to rely on that confidence (Moorman *et al*. 1993). Trust leads to cooperation in the exchange relationship between business partners (e.g. buyers and sellers) in the Chinese context (Xin and Yuen 2001). Trustworthiness was found to be positively associated with resource exchange within organizations (Tsai and Ghoshal 1998). There is a direct and strong link among the anticipated gains from alliances and trustful behavior (Parkhe 1998). It is also argued that lack of trust in dependency relationships forged through trade connections leads to a significant proportion of the cost transaction (Ricketts 2001). Entrepreneurs of Chinese SMEs must engage in bargaining with their business partners to guarantee quality services and products, investment time, and commitment to contract. We, thus, hypothesize that:

> Hypothesis 2f: In small and medium sized Chinese enterprises, entrepreneurs' perception of firm performance is related to the degree of trust between dyads in their networks.

In summary, existing perspectives on human and social capital imply different conclusions about the various factors that drive firm performance in China. They address specific aspects of human and social capital development and are not comprehensively integrated. The significance of this study is that it aims to develop and test an integrative model of organizational capital that incorporates human capital, social capital and resource-based (strategic capabilities) theories in explaining firm performance of small and medium sized Chinese private enterprises.

METHODS

Sample characteristics

Small business research, especially in the fields of entrepreneurship and family business, has been criticized for lacking methodological rigor and theory conceptualization (see the review by Brockhaus 1994). Furthermore, most empirical research into small business and entrepreneurship in China still rely on descriptive statistics (Pistrui *et al*. 2001). The informants in the current study are all owners of privately owned enterprises. Previous research has shown that this particular group of respondents has the most knowledge about the process of strategic management and firm performance (Tan 2002b, p. 342). Studies in the field of entrepreneurship tend to suffer from a small response rate, as entrepreneurs have not shown a great deal of interest in supporting field research (Brockhaus 1994, p. 26). As a solution, we followed previous studies (e.g., Peng and Luo 2000) in relying on independent consultants and Mandarin-speaking graduate research students to assist with data collection. Adopting a snowballing sampling technique in small business research has been shown to ensure good quality in the sample (Curran and Blackburn 2001, p. 71). Informants took part in a structured interview by responding to a questionnaire, which comprised closed-ended survey questions and sociometric questions. This interview took an average of 45 minutes.

We collected a total of 120 usable surveys from owners of private enterprises in six Chinese cities; Beijing (n=5), Shanghai (n=11), Guangzhou (n=11), Hubei (n=40), Shanxi (n=44) and Shenzhen (n=90). These cities were chosen to ensure coverage of cities both open and closed to Western influence, as determined by the Chinese Government (Weihai Statistical Information Network, 2002). Of these cities, two were cities not open to foreign investment (Hubei and Shanxi, n=84) while four were open for foreign investment (Beijing, Shanghai, Shenzhen, and Guangzhou, n=36).

Measures and analysis

We followed previous research in adopting a social network perspective to study dyadic relationships between SME entrepreneurs and their immediate network connections (e.g., Peng and Luo 2000, Xin and Pearce 1996). We also collected background demographic data from the informants, including age, gender, highest level of education, firm size and previous experience in owning a business, business products and services.

Independent variables

Independent variables included items used to operationalize human and social capital, validated in previous studies conducted in China (Park and Luo 2001, Peng and Luo 2000, Xin and Pearce 1996). We used two questions to operationalize human capital, adopted from Park and Luo (2001). These two items measured the resource strength of the firm. We asked informants to indicate on a 5-point scale their perceptions of the level of 'Technological Skills' and 'Managerial and Organizational Skills' in relation to their major competitors in the industry.

Our research methodology is consistent with social network analysis (Wasserman and Faust 1994). The entrepreneur's social capital, or *guanxi*, in relation to their business, government and social networks was measured by a number of previously validated sociometric questions (Peng and Luo 2000, Xin and Yuen 2001). This particular approach is useful in understanding the centrality and behavior of small business founders (Kelly *et al*. 2000). Respondents were asked to categorize their business connections, according to: 1=government officials, 2=business community, 3=work colleagues, subordinates and employees, 4=friends and neighbors and 5=family and relatives. A composite scale 'Business Networks' was created from the average of the responses provided for each dyadic relationship. This item was reverse coded so that the higher the value, the more an individual approached their personal networks for business connections.

Next, respondents were asked to expand on the following five questions relating to the nature of *guanxi*. These items were adapted from studies by Xin and her colleagues (Xin and Pearce 1996, Xin and Yuen 2001). Respondents were asked to indicate the extent to which they trust the person and this was rated from 1=deeply distrust to 5=deeply trust (Degree of trust). The extent to which respondents engaged in bargaining activities with their network was measured by rating the responses from 1=never bargain to 4=bargain frequently (Degree of bargaining). Respondents were asked to indicate the frequency with which they had approached their network for help over the past two years (Frequent help seeking). Responses were coded according to 1=never and 5=very frequently. Respondents were asked to indicate the extent to which they used the particular network relationship to defend against threat (Defense against threat) where 1=strongly disagree, to 5=strongly agree. The exchange of connection gifts is measured by asking the respondent exchange gift with their network for the purpose of forming business relationships (Gift giving). Responses were coded for 1=give connection non-reciprocated gifts and 0=do not give connection gifts.

Dependent variable

In the absence of objective performance measures and consistently developed set of accounting conventions and accurate reporting of firm performance by private firms in emerging economies such as China (Hoskisson *et al*. 2000), subjective performance measures were chosen to operationalize firm performance (Peng and Luo 2000, Xin and Yuen 2001, Tan 2002b). These have been found to correlate with objective performance measures (Dess and Robinson 1984). Annual growth in sales has previously been used to operationalize ‘Firm performance’ (Park and Luo 2001, Tan and Litschert 1994) while annual growth in net profit has also been previously used (Park and Luo 2001). Chinese managers are familiar with these two concepts as these indicators are used in the official statistical data collection for the annual publication of the China Statistical Yearbook and they are the most significant indicators in the Chinese context (Tan 2001, p. 365). We asked the informants to rate the annual growth in sales and annual growth in net profit on an 8-point Likert scale (bottom 20 per cent to top 20 per cent).

Control variables

We controlled for family ownership (dummy variable, 1=family owned, 0=non-family owned) because research has suggested that family ownership could have an effect on the strategic management of Chinese private enterprises (e.g., Chua *et al*. 1999). Following Park and Luo (2001), we controlled for the firm location by creating a dummy variable with ‘1’ for non-open cities and ‘0’ for open cities to control for the influence of Western managerial practices on the strategic management of Chinese private enterprises. We also controlled for the liability of newness and small size on firm performance in China (Xin and Pearce 1996, p. 1643) by using firm age as the proxy (Peng and Luo 2000). We controlled for firm size because research has shown that smaller firms face more challenges than larger firms in the Chinese context (Brockhaus 1994, Xin and Yuen 2001). We decided to adapt the category used by Gregory *et al*. (2000, p. 17) to distinguish the presence of *getihu* (that is, private firms with less than 8 employees) in the sample. Firm size is categorized according the number of employees employed by the entrepreneurs: 1 = 0 to 8; 2 = 9 to 50; 3 = 51 to 100; 4 = 101 to 500; 5 = more than 500 employees. Industry type (Park and Luo 2001) was controlled by creating a dummy variable (1=manufacturing, 0=service) as manufacturing firms tend to place more emphasis on creating technological capabilities as a source of firm capital than service firms (Wang and Luo 2001) and their emphasis on *guanxi* network was found to differ from service firms (Peng and Luo 2000, p. 489).

Results

Statistical analysis of the data was undertaken using *SPSS for Windows Version 11*. We conducted an ANOVA analysis to determine whether there are differences between family- and non-family-own firms. This is to ensure that family ownership does not affect the generalizability of our analysis

(Chua *et al*. 1999). In general, family-own businesses tend to be smaller in size (F=9.137, p<.01). Most of these individuals were located in non-open cities (F=4.714, p<.05). The majority of our informants were male (75.8 per cent), with an average age in the range between 51-60 years and an average firm age of 6.49 years (SD=5.2). The majority of the respondents indicated that their business was not a family-own business (55.8 per cent). The respondents were not highly educated and the majority had less than a college/technical qualification (50.9 per cent). Most of the firms were from service industry (80 per cent).

Descriptive statistics and partial correlation coefficients are reported in Table 10.1. We partially controlled for firm location, industry type, firm size, firm age, and family ownership. The average firm size of these firms is 45 employees. Most of these organizations were small enterprises with the following breakdown: 33 firms with less than eight employees, 61 firms with nine to 50 employees, 16 firms with 51 to 100 employees and 10 firms with more than 101 employees. The respondents reported a total of 475 business relationships, ranging from two to 10 connections in their networks.

Table 10.1 Descriptive Statistics and Partial Correlations[#]

V	Mean	SD	1	2	3	4	5	6	7	8	9	10
TS	3.22	0.98	1.00									
MS	3.27	0.93	0.66^{***}	1.00								
DT	5.48	1.16	0.03	-0.10	1.00							
GF	1.51	0.31	0.17^{+}	0.05	-0.06	1.00						
DB	2.09	0.68	0.00	0.09	-0.11	0.05	1.00					
FH	3.17	0.88	-0.05	0.10	0.15	0.13	0.20^{*}	1.00				
DT	3.63	1.00	0.09	0.04	0.07	0.08	0.10	0.21^{*}	1.00			
BN	1.78	0.52	-0.10	-0.12	0.39^{***}	-0.12	-0.07	-0.05	0.16	1.00		
SG	3.68	1.69	0.39^{***}	0.50^{***}	-0.25^{**}	0.02	0.07	0.06	0.13	0.34^{***}	1.00	
PG	3.13	1.75	0.40^{**}	0.54^{***}	-0.20^{*}	0.13	0.13	0.11	0.19^{*}	0.29^{***}	0.84^{***}	1.00

N=120 cases after eliminating missing items; TS=technological skills; MS= MS managerial skills; DT= degree of trust; GF= Gift giving; DB=Degree of bargaining; FH=frequency of help; DT=defend against threat; BN=business networks; SG=Sales growth and PG=profit growth. $^{+}$ p<.10; * p<.05; ** p<.01; ***p<.001; [#] Controlling for firm location, industry, firm size, firm age and family ownership.

Results of the partial correlations analysis showed that there was a positive and significant correlation between technological and managerial skills. Both variables are positively correlated with firm performance measures of annual growth in firm sales and firm profitability. Both firm performance measures are strongly and positively correlated with each other. Social capital constructs were not highly intercorrelated; hence, providing some confidence that they are measuring different features of the same construct.

Next, we tested the impact of human and social capital variables on firm performance by using hierarchical multiple regression procedures. Results are reported in Table 10.2 (dependent variable: sales growth) and Table 10.3 (dependent variable: profit growth) respectively. We entered the control variables (firm location, industry type, firm size, firm age and family ownership) into the first block. Human capital variables were then entered into the second block, followed by social capital variables in the final block.

Table 10.2 Standardized regression results for Annual Growth in Sales in Chinese private SMEs

	Annual Growth in Sales		
	Model 1a	Model 1b	Model 1
Control variables			
Firm location	-0.013	-0.05	0.03
Industry type	0.03	0.07	0.07
Firm size	-0.01	-0.14	-0.10
Firm age	-0.03	-0.07	-0.08
Family ownership	-0.14	-0.06	-0.08
Human capital			
Technological skills		0.04	0.06
Managerial skills		0.49***	0.45***
Social capital			
Business networks			0.28**
Defense against threat			0.17*
Degree of bargaining			-0.02
Degree of trust			-0.11
Frequency of help			0.00
Gift giving			0.01
Overall R2	0.03	0.29	0.40
Adjusted R2	-0.02	0.24	0.33
Model F	0.46	6.30***	5.27***

Note: n=120; + p<.10; * p<.05; ** p<.01; ***p<.001.

The results in Table 10.2 showed that none of the control variables are statistically significant in explaining the variation in the annual growth of sales. Model 1b shows that the level of managerial and organizational skills is the only predictor of annual growth in sales. The complete model, Model 1, shows that, after entering the social capital variables, the key predictors of annual growth in sales (adjusted R2=.33, F=5.27, p<.001) include the level of managerial and organizational skills, defense against business threats, and business connections.

Similar to Model 1, the control variables (Model 2a) are not significant in explaining the variation in the annual growth in firm profitability (refer to Table 10.3). Model 2b shows that the level of managerial and organizational skills is a predictor of annual growth in sales. Model 2 shows that after entering the remaining social capital variables, the key predictors of annual growth in profitability (R2=.39, F=6.56, p<.001) include the level of managerial and organizational skills, defense against business threats, and business connections. Gift giving was only moderately significant in predicting annual growth in profit.

Table 10.3 Standardized regression results for annual growth in profitability in Chinese private SMEs

	Annual Growth in Profitability		
	Model 2a	Model 2b	Model 2
Control variables			
Firm location	-0.06	-0.10	-0.03
Industry type	0.06	0.11	0.12
Firm size	0.00	-0.13	-0.07
Firm age	0.02	-0.02	-0.04
Family ownership	-0.12	-0.04	-0.07
Human capital			
Technological skills		0.04	0.05
Managerial skills		0.55***	0.51***
Social capital			
Business networks			0.21**
Defense against threat			0.22**
Degree of bargaining			0.05
Frequency of help			0.00
Gift giving			0.14
Degree of trust			-0.09
Overall R^2	0.03	0.33	0.46
Adjusted R^2	-0.02	0.29	0.39
Model F	0.57	7.63***	6.56***

Note: n = 120; +p<.10; * p<.05; ** p<.01; ***p<.001.

Discussion

Our sample of 120 Chinese entrepreneurs was similar in terms of characteristics and attributes, when compared with the study conducted by

Pistrui and his colleagues in Wuhan (Pistrui *et al.* 2001). Respondents from both samples were similar in gender and educational level, with little education experience beyond high school/technical college level. The current sample has less experience in running their business (6.49 years versus 8.3 years in Pistrui and his colleagues).

As reported in Tables 10.2 and 10.3, there was a positive relationship between the level of managerial and organizational skills and the entrepreneurs' perception of firm performance such as annual sales growth and annual growth in profit. Hypothesis 1a was supported. However, Hypothesis 1b was rejected, as the level of technological skills and capabilities was not significant in explaining the variation in firm performance. Hypothesis 2a was supported as we found that the development of connections for business purpose was positively related to Chinese entrepreneurs' perception of the firm's annual growth in sales and profitability. Hypothesis 2b was also supported; Chinese entrepreneurs' perception of firm performance was significantly related to the use of business connections defensively against business threats. Hypothesis 2c was rejected, as there was no statistically significant relationship between firm performance business bargaining. The remaining hypotheses were rejected.

Theoretical implications

In the current study, we found that the success of entrepreneurial firms was positively related to a human capital construct – the level of managerial and organizational skills. After accounting for human capital, firm performance could only be explained by the adoption of *guanxi* networks for the purpose of defending against inherent business threats in the current Chinese economical and regulatory environment.

Our findings raised several implications for theory and practice. The human capital literature shows that the more firms invest in their human capital the more they have a positive and significant impact on firm performance (Pennings *et al.* 1998). Wang and Yao (2001, p. 8) commented that, because of limitations of size and resources in adopting new technology, small and medium sized private enterprises have been known to be very flexible in responding to market signals in China's turbulent economical and regulatory environment. This comment highlights the presence of a high level of managerial and organizational skills in our sample and its positive effect in predicting firm performance in the current study. Our finding further supports the notion that managerial capabilities (such as skills, knowledge, abilities), as a scarce resource, have a significant impact on firm performance (Barney 1996, Grant 1991), especially in relation to the competency of business founders (Chandler and Hanks 1994).

Other scholars (e.g., Peng 2001) also argue that in reform economies, including China, the managerial cohort should focus on raising the level of human capital. Human capital in the form of managerial skills has a positive relationship with firm performance, as it allows entrepreneurs better to link strategic entrepreneurial activities (such as scanning intensity, and planning flexibility) with the strategic management of entrepreneurial firms (Barringer and Bluedorn 1999). Our finding provides support for previous research in the strategic management literature whereby scholars such as Becker (1993) argued that firms must focus on investing in their human capital so as to result in capital gains. To increase productivity through human capital, SME entrepreneurs need to harness the potential contribution of their management and employees and this human capital must then be developed and managed as a core competence of the firm.

In the current study, we did not find the predicted relationship between technological skills and firm performance, unlike the study by Park and Luo (2001). This finding can be explained by referring to the background demographics of our respondents. Approximately 70 per cent of our sample can be categorized as small firms employing less than 50 employees and these firms, in general, do not possess the resources to compete on the technological front (Wang and Yao 2001). Given the large representation of entrepreneurs from the service and non-manufacturing sectors in our sample, the current finding was not unusual. Unlike those from the manufacturing sector (Wang and Yao 2001), we do not expect our respondents to compete by successful acquisition of technological skills. Therefore, we expect entrepreneurs from service and non-manufacturing sectors to rely more on using managerial and organizational skills as their core capabilities.

Our research also suggests that Chinese entrepreneurs in SMEs perceived that personal business connections (*guanxi*) resulted in increases in the firm’s annual growth in sales and profitability. Our findings support previous propositions that, in a dynamic industry environment, the higher the business founder’s outward orientation the higher the firm's financial performance (Kelly *et al*. 2000). Generally, entrepreneurs believe that the development of personal relationships with influential parties, such as government officials and business partners, is beneficial to the firm.

Contrary to the study by Xin and her colleagues (Xin and Pearce 1996, Xin and Yuen 2001), our findings did not support the notion that the nature of *guanxi* (such as gift giving, trust, help seeking, and bargaining) within business networks is directly related to firm performance. It would appear that these network connections could be the result of long standing social and personal mutual-trust relationships (Lin 1999, Tsui and Farh 1999), which might not result in the exchange of financial gains. *Guanxi* takes time to develop and the immediate financial gains might not occur in the short term. Even if these network ties were for the primary reason of profit making, the relationships could have been such that financial and or business feasibility might not be a major concern; it’s the relationship that counts.

Practical implications

Our findings stress the importance of the turbulent environment in China on the strategic management of firms, especially in terms of networking relationships. We found that the entrepreneurs in our sample, despite whether their location was in open or not-open cities, used their networks as a protection against business threats in the turbulent business environment of China.

Small Chinese private enterprises are constrained by size and financial resources and operate in an environment where there is often little commercial surety concerning partners or institutional protection provided by the government. It has been argued that while the status of private enterprise is officially approved in the 1999 Constitution, Chinese SME sector entrepreneurs still receive little favorable attention from the different levels of government (Gregory *et al*. 2000). Compared with state-owned enterprises and collectively owned enterprises, these smaller enterprises do not have clear property rights and legal protection. Without *guanxi* ties with officials and business partners, small enterprise entrepreneurs would not have effective means to protect themselves from threats imposed by criminal gangs (Anonymous 2001) and corrupt officials (Ahlstrom and Bruton 2002). Attachment to *guanxi* networks not only effectively minimizes these threats but can also solve legal disputes in a quick and low cost way. While tax evasion is considered to be illegal in China, firms use this strategy as a way to maintain profits within their firms. Hence, protection from government officials becomes a necessary means to protect their market shares and profit.

Since the entrepreneurs in our sample have only been in operation for an average of six years, it appears that their perception of their business threat defense strategies is seen as their first priority for firm performance, especially as difficulty in sales has been perceived to be a significant business threat (Lau and Busenitz 2001). As firms progress through their organizational life cycle, they will be able to evolve into greater maturity and accumulated experience through the major stages of identifying customers, getting permission to run the business, and bargaining to initiate business. Hence, they are able to accrue sufficient managerial and organizational skills, experience and knowledge necessary for building a successful entrepreneurial business networks.

As predicted by our hypotheses, the level of firm performance was predicated on the level of managerial and organizational skills (Step 2 of the models), together with *guanxi* connections and defense strategies (Step 3 of the models). This finding highlights the importance of combining managerial competence and social networks in enhancing firm performance. Small and medium sized entrepreneurs in China face considerable competition, dealing with which they lack the benefits of size, financial resources and government protection. Hence, they have to rely on the combination of managerial competence, organizational skills and social network ties to navigate and to use entrepreneurial skills to build business connection ties with influential stakeholders. Our findings provide support for the application of a Western management concept of firm capabilities in the Chinese context. Our findings also provide empirical support for the concept of firm capabilities as scarce resources in contributing to firm profitability and sales growth in Chinese SMEs.

Future research implications

The implications of our findings should be interpreted with care, as the majority of our respondents are small private enterprises from the service sector. Hence, our findings cannot be generalized to the manufacturing sector. Therefore, future study should compare the impact of firm capabilities on firm performance in organizations with different size and across all industries (Park and Luo 2001).

Another way of extending the present study would be to examine *guanxi* connections through an organizational as well as individual perspective. There are a number of suggestions for examining *guanxi* from the organizational level. Researchers (e.g., Luo 1999, Tan 2001) have already established the linkage between the environment-strategy linkage and firm performance, and future study should follow this line of literature to test for the moderating effects of environmental elements on the performance of Chinese SMEs. Another way forward is to examine the antecedents of *guanxi* in the organizational context, in a way similar to the work of Park and Luo (2001) and Peng and Luo (2000).

The current study could be further extended by applying the relational demography perspective to study the formation of *guanxi* relations according to demographic profiles (e.g., gender, ethnicity, kinship and social relations) of the dyads in the network (Tsui and Farh 1997). The relational demography perspective can be studied in conjunction with the Chinese *guanxi* approach in influencing work outcomes in organizations (Tsui and Farh 1997).

Limitations

While the adoption of convenience sampling in organizational research has certain limitations (Curran and Blackman 1997), we argued that its adoption in the current study has produced little negative effect. For instance, our sample has a similar demographic as the sample reported in Pistrui *et al*. (2001). Since the focus of our project is on a group of individuals who are noted for not being very supportive of academic research (Brockhaus 1994), convenience-sampling techniques serve well as an attempt to test the integrative model of intellectual capital and firm performance. Furthermore, conducting survey research in China is full of paradoxes and challenges (Roy *et al*. 2001); hence, the generalizability of the current findings should be interpreted according to the sample demographics, that is, Chinese entrepreneurs who are the owners and or managers of small medium sized enterprises in Beijing, Shanghai, Guangzhou, Hubei, Shanxi and Shenzhen. Furthermore, the small sample size in each of the cities could have an effect on the generalizability of the findings. Future study should collect more data from these regions.

Validity Issue

A Harman's one-factor test minimized common method variance (Podsakoff and Organ 1986). We entered all the variables used in the current study into an unrotated factor analysis to determine the number of factors, to see if a single factor emerged from the factor analysis. Factor analysis shows that the total list of variables resulted in seven factors, which provided confidence that common method variance is not an issue in the current study.

CONCLUSION

In summary, the current study provides an integration of the literatures on small business management, entrepreneurship, and strategic management to identify the impact of firm-specific competencies on organizational performance in the context of a transitional economy. This study provided empirical evidence to suggest that entrepreneurs in small private enterprises have to adopt a combination of managerial competencies and *guanxi* networking to navigate and build *guanxi* ties with influential parties, with the intention of minimizing business threats in the transitional economy.

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