

Convergence and Divergence of Ethnic Chinese Business Networks in the Asia-Pacific

Stephen T.T. Teo  
School of Management  
University of Technology, Sydney  
P.O. Box 123 Broadway, NSW 2007, Australia  
Tel: +61 2 9514 3678 Fax: +61 29514 3602  
E-mail: [stephen.teo@uts.edu.au](mailto:stephen.teo@uts.edu.au)

John J. Rodwell  
Macquarie Graduate School of Management  
Macquarie University  
North Ryde, NSW 2109, Australia  
Tel: +61 2 9850 7885 Fax: +61 2 9850 9019  
E-mail: [john.rodwell@mgs.mq.edu.au](mailto:john.rodwell@mgs.mq.edu.au)

Peter Steane  
Macquarie Graduate School of Management  
Macquarie University  
North Ryde, NSW 2109, Australia  
Tel: +61 2 9850 9136, Fax: +61 2 9850 9019  
E-mail: [peter.steane@mgs.mq.edu.au](mailto:peter.steane@mgs.mq.edu.au)

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### Summary

This study examines the characteristics of effectiveness ethnic Chinese business networks (Guanxi) in Malaysia, Indonesia, Singapore, Australia, Hong Kong and the Peoples' Republic of China. There are no statistical significance differences in the degree of business networks and human capital skills such as the extent of technological skills and capabilities and managerial and organizational skills among these ethnic Chinese entrepreneurs. Significant differences can be identified in the extent of networking with government officials and entrepreneur's strategic orientation. Annual growth in net profit is predicted by the extent of managerial and organisational skills, strategic orientation, and the extent of networking with government officials. Annual growth in sales is predicted by the degree of technological skills and capabilities and the extent of networking with government officials. The results suggest the importance of human capital and strategic orientation in effective firm performance in ethnic Chinese business networks in the region.

There has been an ongoing interest with the organisation and management of overseas Chinese firms in the South East Asia and Australia. Most of these studies, such as those by Redding (1990) tend to adopt a cross-cultural perspective to understanding the organisation and management of ethnic Chinese entrepreneurs. Recently, scholars such as Haley (1997) and Bruton and his colleagues (2003) have adopted a strategic management perspective to examine the evolution of ethnic Chinese firms in Singapore. Others such as Kao (1993) strongly argued that research into overseas Chinese business management should not put too much emphasis on the “cultural” aspects of Chinese business.

This trend happens at the same time as an increasing number of studies examine the evolution of business in the Peoples’ Republic of China. This trend occurs as a result of the fascination with Chinese management over the past 20 years. Public policy makers have argued that China’s entry into the World Trade Organization highlights the need for major and rapid adjustments in virtually all sectors of the economy (Gregory et al., 2000). Recent statistical data showed that private enterprises had grown to about 33 percent of China’s gross domestic product (Wang & Yao, 2001). Prior to the amendment to China’s Constitution in 1999, these private enterprises were not allowed to register as a category. Since 1999, its number has increased to 1.2 million and its annual growth rate was 34 percent per year. A challenge faced by private enterprise entrepreneurs, is the need to enhance their competitiveness by developing their level of managerial and technical skills and competencies (Peng, 2001; Wang & Yao, 2001).

#### **Capabilities and Performance in Ethnic Chinese Firms in the Asia-Pacific**

The resource-based view of the firm argued that competitive advantage can be sustained when a particular resource (i) adds value to the firm; (ii) provides an ability for organizations to exploit opportunities or neutralize threats; (iii) is a scarce resource and possessed by a small number of competing firms; and (iv) is costly to imitate (Barney, 1996). Drawing upon the argument put forward 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, Pisano & Shuen, 1997, 510) to enhance firm performance. Examples of these firm-specific tangible and intangible competencies include management capabilities, combinations of human capital such as organizational, functional and technological skills, management of research and development, product and process development, technology transfer, intellectual property, manufacturing, human resources, knowledge, and organizational learning (Barney, 1996).

Much has been written regarding the importance of firm capabilities as scarce resources in contributing to firm profitability and growth (Barney, 1996; Park & Luo, 2001). The same assessment can be made of the literature on Chinese business and management. Different theoretical perspectives can be used to examine the relationship between firm capabilities and firm performance in transition economies (Hoskisson et al., 2000). Within the strategy literature, there is an increasing number of studies that focus on understanding the strategic behaviour of Chinese firms (Collins, 2002; Park & Luo, 2001; Redding, 1990; Tan, 2002a). Common to these streams of research is the key question of how firms can develop their capabilities to achieve and sustain competitive advantage. However, not much has been published in relation to the level of capabilities within ethnic Chinese firms in the Asia-Pacific.

The study of the different forms of organizational capital (such as human capital, inter-organizational networks) and its contribution to firm performance has received much attention. Human capital comprises the abilities and know how of people, particularly those that are useful in the productive process (Becker, 1993; Schultz, 1961). Proponents argue that human capital would provide economic value to organizations (Becker, 1993; Pennings, Lee & van Witteloostuijn, 1998; Schultz, 1961). 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. In a study on service firms, Pennings and his colleagues (1998) found a direct link between human capital and firm survival. Park and Luo (2001) also 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.

The increasing interest in human capital is in part caused by the movement in the management and strategy fields towards a better understanding of relying on capabilities of the firm as a source of competitive advantage (Grant, 1996). Adopting a resource-based view perspective Park and Luo (2001) examined how firms used their resource strength (in terms of managerial, organizational and technological skills) to enhance their performance. They noted that a mixture of skills, experience and knowledge is important in explaining the relationship between network connections and firm performance in the Chinese context.

Chinese entrepreneurs have to develop their managerial and organizational capabilities in order to create and sustain strategic leadership (Peng, 2001). 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 (Park & Luo, 2001). Although important, managerial skills are still scarce in China and entrepreneurs are keen to develop these skills (Pistrui et al., 2001). Gregory and his colleagues provided recent statistical data to indicate that managers, especially business owners are the most important decision maker in the Chinese private enterprises (Gregory et al., 2000). They argued that the owner-manager 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, 22). Hence, as private enterprises grow in size, there should be more emphasis placed on developing the managerial and organizational skills of its managers.

Adopting a resource-based view of the firm perspective, it would mean that managerial skills would enable Chinese entrepreneurial firms to compete successfully in the market. Hence, 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 1: It is expected that there is a relationship between the level of managerial and organizational skills and the Chinese entrepreneurs' perception of firm performance.*

**Technological skills and competencies.** Technological capabilities and their impact on the performance of small enterprises in China has been an important issue for policy makers. 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. Park and Luo (2001) found support for a positive and significant relationship between technological skills and capabilities and firm performance.

Similarly, Lee et al.'s (2001) study on start-up firms found that technological capabilities (in the form of patents and quality control) demonstrated a positive impact on performance. Small and medium-sized enterprises tend to use technology to improve their overall performance in the changing business environment (Wang & Yao, 2001). 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 & Yao, 2001). This is due to their lack in size and less access to resources for 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 & Yao, 2001, 11). Hence, we hypothesize that a firm's technological skills and capabilities will have an impact on firm performance. We hypothesize that:

*Hypothesis 2: Ethnic Chinese private entrepreneurs will perceive that the level of technological skills is related to their perception of firm performance.*

**Business and Government networks.** Strategic management researchers (e.g. Park & Luo, 2001) argue that inter-firm networks allow executives and managers the opportunity to learn new capabilities and to identify new opportunities. Private enterprises with a 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, enhancing firm performance (Park & Luo, 2001).

As discussed by a number of Chinese scholars, *guanxi* is a uniquely embedded in the cultural background of the Chinese. These social relationships can be formed in different ties, such as relationship between classmates, relatives, friends and officials, though they must be common in a supportive nature. Connections for business purpose are crucial in doing business in China. *Guanxi* embodies the reciprocal relationships inherent to exchange obligations (Park & Luo, 2001; Xin & Pearce, 1996). In the *guanxi* networks, each member is supposed to play a role that can contribute to and gain from the *guanxi* networks. In other words, people in the network must mutually rely on each other for their various interests. For example, network ties between buyer and seller are of particular relevance in the Chinese context as personal business connection/networking (or *guanxi*) is an essential part of Chinese business. *Guanxi* allows firms, especially private SMEs, to counteract the uncertainty in economical, regulatory, and political environment (Ahlstrom & Bruton, 2002).

From the social network perspective, network ties and relationships can be used to help understand the factors contributing to the firm's social capital. That is, there is a growing commonality between the idea of social capital and that of *guanxi*. For example, the approach to *guanxi* above is very similar to Nan Lin's definition of social capital: '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, 35). Therefore a detailed examination of *guanxi* may also have implications for the study of social capital.

Kao (1993) provided a convincing argument that *guanxi* has a positive impact on market expansion and sales growth of ethnic Chinese firms as they use the connections to affect the sharing of resources. This is consistent with the strategy literature which provided empirical evidence that formal and informal network ties can both provide access to resources and 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 & Pearce, 1996).

Several researchers have found that the fundamental source of effectiveness in Overseas Chinese businesses is the strength of network ties, which are cross-border and 'multifunctional' (Chu, 1996). The genesis of the ethnic Chinese business networks in Southeast Asia owes much to the mass migration of Chinese migrants to the region in the period following WWII. Chinese migration was widespread in the region and entrepreneurs maintained personal contacts among entrepreneurs from the same family or language group in many Southeast Asian countries (Suryadinata, 1989). Close-knit and regionally dispersed networks offered 'safe havens of capital' and channels for mobilizing assets and for sharing information about business opportunities (Kao, 1993). Mass migration produced an entrepreneurial class that was well placed to operate international networks. On the other hand, the same expatriate entrepreneurs, having left their ancestral homes, were forced to re-establish themselves in settings where they were a distinct minority and where they faced an uncertain future. As argued by Collins (2002), ethnic Chinese businesses in Australia rely on their social networks with overseas networks of ethnic entrepreneurs to provide a reliable source of supply, access to markets, and business advice.

Across Chinese businesses in the Southeast Asian region, the nature of network analysis reflects a political economy that is characterized as 'network capitalism', consisting of 'institutionalized policies and practices that flow from a network vision of correct market relations' (Biggart & Hamilton 1992, p.472), where 'social relationships are institutionalized' and 'changing patrilineal networks of small firms connect near and distant kin, and frequently friends, into production-and-supply networks' (Biggart & Hamilton 1992, p.485). The institutional context of the framework in which Overseas Chinese businesses operate should stress relational networks as the dominant and 'modal' institutional form. Constellations of relatively 'weak' organizations typically form 'strong' relational networks (Lowe, 1998). As a result, it is frequently argued that industrial 'networks' rather than 'organizations' are the most appropriate structures to investigate in the context of Ethnic Chinese businesses. According to Gomez and Hsiao (2001) there has been a long history of prominent Chinese businessmen in the SE Asia who strategically formed networks with key politicians in the region to obtain resources and access.

Yu (2001) argues that the Chinese family business is a system developed in response to the economies where institutionalised law is inadequate for underpinning transactions with any sense of reliability. Lack of system trust has pushed Chinese entrepreneurs to make use of their family model. This is underscored by Haley (1997), who identified some important distinguishing characteristics of Overseas Chinese business networks in Southeast Asia. These include very strong familial and informal networks, extending to good relationships with the public sectors in the region, and a high level of diversification. The relationships between business founders/managers with their business and government network ties will allow information sharing to be effective in enhancing firm performance (Xin & 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 (Park & Luo, 2001). Therefore, we hypothesize that:

*Hypothesis 3a: The development of business networks by Ethnic Chinese entrepreneurial firms for business purpose is related to entrepreneurs' perception of firm performance.*

*Hypothesis 3a: The development of government networks by Ethnic Chinese entrepreneurial firms for business purpose is related to entrepreneurs' perception of firm performance.*

However, social capital is not the only construct that is significant in explaining firm performance. The strategy literature has highlighted the importance of different dimensions of strategy (e.g., Porter, 1980; Tan & Litschert, 1994.). Chinese management scholars such as Park and Luo (2001) have also demonstrated that successful Chinese firms tend to exhibit a high degree of strategic orientation and associate these orientations with their guanxi networks. It is the strategic orientation of the senior managers that are essential in securing firm success. Therefore, we hypothesize that:

*Hypothesis 4: It is expected that there is a positive relationship between the level of strategic orientation and perception of firm performance among ethnic Chinese entrepreneurs.*

## **Methods**

**Sample characteristics.** We followed previous studies (e.g., Peng & Luo, 2000) by relying upon 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 be able to ensure a high quality sample (Curran & Blackburn, 2001). Informants took part in a structured interview by responding to a questionnaire. The interview with business owners took an average of 45 minutes. These questions were

subjected to back-translation procedure, similar to the procedures required in international management research (Brislin, 1996). We have taken a number of steps to ensure validity of the data (discussed under the section on validity issues).

**Measures and analysis.** Independent variables included items used to operationalize human and social capital. To enhance validity, we adopted measures that have been validated in previous studies, such as those conducted in the Chinese context (Park & Luo, 2001; Peng & Luo, 2000; Xin & Pearce, 1996). The informants had to respond to a number of questions used to operationalize the concepts of human capital and social capital.

*Human capital.* We used two questions to operationalize human capital. They were both adopted from Park and Luo (2001) to measure the level of technological and managerial skills. 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.

*Strategic Orientation.* Following Park and Luo (2001) we operationalise Strategic Orientation as the level of market effectiveness. A three-item scale is used to measure marketing effectiveness (sample item include 'We search for big market opportunities and favour large, bold decisions despite the uncertainty of their outcome') where 1=strongly disagree and 7=strongly agree.

*Guanxi.* To operationalise business and government networks, we followed Park and Luo (2001) by asking the respondents to indicate their guanxi with the business such as buyers and suppliers (sample item include 'Please circle the number best describing the extent to which your firm has utilised guanxi connections with competitors'). Guanxi with government authorities were operationalised with a three-item scale (sample item included 'Please circle the number best describing the extent to which you and your firm has utilised guanxi connections with various of political governments'. All these questions were rated on a seven-point scale from 1=very little to 7=very much.

*Annual Growth in Profit and Sales.* Strategic management researchers have noted that in the absence of objective performance measures, researchers could choose subjective performance measures as these have been found to correlate with objective performance measures (Dess & Robinson, 1984). Subjective performance measures have been used by Chinese management researchers (Peng & Luo, 2000; Tan 2002b). The use of subjective measures is the result of issues associating with accurate reporting of firm performance caused by the absence of a consistently developed set of accounting conventions, substantial fluctuations in currency rates, and difficulties in obtaining accurate, comparable reports of firm performance by private firms (Hoskisson et al., 2000). Annual growth in sales and annual growth in profit has been previously used to operationalize firm performance (Park & Luo, 2001; Tan, 2001). In addition, due to the difference in the financial reporting environment across the six countries, it would have been difficult to compare any objective financial data. Hence, in the current study firm performance is measured by asking the informants to rate the annual growth in sales and annual growth in net profit on an 8-point Likert scale (bottom 20 percent to top 20 percent), following that used by Peng and Luo (2000).

**Validity issues.** In addition to back translation of our survey instrument, pre-testing for face validity and construct validity was also carried out. This was undertaken with 20 ethnic Chinese business owners from Tianjin (n=10) and Singapore (n=10). Refinements were then made to the survey instrument prior to data collection. We also took a number of additional steps to ensure validity. First, we minimized social desirability effect, following Tan's (2002b) procedure, promising anonymity and confidentiality to the respondents.

Second, we used Harmon's one-factor test to check for common method variance (as suggested by Barringer and Bluedorn, 1999 citing Podsakoff & Organ, 1986). We entered all

the variables used in the current study into an unrotated factor analysis to determine the number of factors. If a single factor emerged from the factor analysis, this would indicate that the data suffered common method variance problem. Factor analysis shows that the total list of variables resulted in four factors, which provided confidence that common method variance is not an issue in the current study.

### Results

Statistical analysis of the data was undertaken using *SPSS for Windows Version 11*. Descriptive statistics and partial correlation coefficients are reported in Table 1. We conducted an ANOVA to determine whether there were differences between regional ethnic Chinese entrepreneurial firms from Singapore (N=32), Malaysia (N=43), Indonesia (N=41), Australia (N=51), Hong Kong (N=72), and the Peoples' Republic of China (N=344). The majority of the respondents were male and the average age was between the range of 31-50 years old. Most of the business were not run as a family business (N=418 or 71.6 percent). These individuals employed an average of 740 employees. The result showed that there were country differences in relation to firm size ( $F=29.886, p<.001$ ), sector ( $F=10.549, p<.001$ ), previous experience in running business ( $F=3.046, p<.05$ ), length of operation ( $F=9.435, p<.001$ ), strategic orientation ( $F=7.271, p<.001$ ), government networks ( $F=11.991, p<.001$ ), and firm performance indicators (Sales:  $F=10.054, p<.001$ ; Profit:  $F=9.293, p<.001$ ). Bonferroni post-hoc tests show that the extent of networking with government officials differs between groups, with Hong Kong and the PRC scoring the highest means (4.15 and 4.09 respectively).

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Insert Table 1 about here  
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Next, we conducted hierarchical regression analysis to identify the variables predicting annual growth in profit and sales. We created a number of dummy variables to control for industry (manufacturing versus service), ownership (profit versus non-profit), length of operation, and country of origin (with PRC as the control sample). Results are reported in Table 2.

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Annual Growth in Profit. The results showed that ethnic Chinese entrepreneurial firms in Singapore and Malaysia are statistically significantly different in their annual growth in profit when compared with those in the PRC. Firm size has a positive relationship in predicting annual growth in profit (Log size:  $\beta=-.18, p<.01$ ). After controlling for country, size, length of operation, and sector differences, we found that the extent of managerial and organisational skills, strategic orientation, and Networking with Government were key predictors of annual growth in profit.

Annual Growth in Sales. Next, we predict the annual growth in sales, using the same variables as the previous analysis. The results show that ethnic Chinese entrepreneurial firms in Singapore and Hong Kong are significantly different in their annual growth in profit when compared with those in the PRC. Firm size has a positive relationship in predicting annual growth in profit (Log size:  $\beta=-.13, p<.05$ ). Three variables were significant in explaining annual growth in sales: Technological skills and capabilities ( $\beta=.12, p<.05$ ), Managerial and Organisational Skills ( $\beta=.29, p<.001$ ), and Networking with Government ( $\beta=.12, p<.01$ ).

### Discussion and Conclusions

The aim of this research is to examine the relationship between human and social capital on firm performance in Ethnic Chinese entrepreneurial firms. In summary, we

discovered that there were convergences and divergences in the characteristics of ethnic Chinese entrepreneurial firms in predicting perceived firm performance in the Asia-Pacific. The performance of ethnic Chinese entrepreneurial firms was positively related to human capital, specifically, the level of managerial and organizational skills (Hypothesis 1) for annual growth in profit and sales. That is, Hypothesis 1 was supported. Similarly, 'technological skills and capabilities' was only related to annual growth in sales, partially supporting Hypothesis 2. Hypothesis 3b was supported as the level of networking with government officials in the region predicted perceived firm performance. Strategic orientation was only important in predicting annual growth in profit. Hence, Hypothesis 4 was only partially supported.

The above findings raised several implications for theory and practice. The literature on the human capital perspective has shown that the more firms invest in their human capital would have a positive and significant impact on firm performance (e.g., Teece et al., 1997). Wang and Yao commented that due to their limitation in size and resources in adopting new technology, small private enterprises have been known to be very flexible in responding to market signals in China's turbulent economical and regulatory environment (2001, 8). This comment highlights the presence of a significantly high level of managerial and organizational skills in our sample and it explains its positive effect in predicting firm performance in our current study. Our finding further supports the notion that managerial capabilities (such as skills, knowledge, abilities) are a scarce resource and have a significant impact on firm performance (Barney, 1996; Grant, 1991), especially in relation to the competency of business founders (Chandler & Hanks, 1994).

Human capital in the form of managerial skills has a positive relationship with firm performance, as they allow entrepreneurs to better link strategic entrepreneurial activities (such as scanning intensity and planning flexibility) with the strategic management of the entrepreneurial firms (e.g., Barringer & Bluedorn, 1999). Our finding provides additional 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 achieve capital gains. To increase productivity through human capital, private enterprise firms 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.

The findings provide additional support for the strategic role of networking relationships between ethnic minority entrepreneurs and government officials to gain political support and access to key resources (Gomez & Hsiao, 2001). This is commonly found amongst ethnic Chinese entrepreneurs in Malaysia and Indonesia. For instance, the Malaysian Government does not have any explicit government policies which support those with Chinese heritage. Chinese enterprises in the PRC are constrained by size and by financial resources and they operate in an environment where there are few commercial protections, and little institutional protection provided by the government. It has been argued that while the status of the private enterprise was officially approved in the 1999 Constitution, Chinese entrepreneurs from the SME sector still draw much less favourable attention from the different levels of government (Gregory et al., 2000). For example, relative to state-owned enterprises and collective-owned enterprises, these smaller enterprises do not have clear property rights and control and legal protection. Without the *guanxi* ties with officials and business partners, small enterprise entrepreneurs become vulnerable to the threats imposed by criminal gangs (Anonymous, 2001) and corrupt officials (Ahlstrom & Bruton, 2002). Attachment to the *guanxi* networks not only effectively prevents these threats, but can also solve the legal disputes in a quick and low cost way, when these threats loom over firms.

The level of firm performance was predicted by the level of managerial and organizational skills, as indicated by the change in R-square coefficients, as hypothesised.

This finding highlights the importance of managerial competence in enhancing firm performance. As discussed in the previous paragraph, Chinese business entrepreneurs (especially small and medium sized enterprises in China) do not have the market share, size, financial resources and government protection they would prefer to help them survive in the competitive environment. Hence, they have to rely on the combination of managerial competence and organizational skills and network ties with government officials as the means to build business.

**Future research implications.** Another way of extending the present study is to examine guanxi connections at the organizational as well as individual perspective. There are a number of suggestions for examining guanxi from the organizational level. Researchers such as Tan (2001) have already established the linkage between the environment, strategy and firm performance. Future studies could follow this line of research to test for the moderating effects of environmental elements. In addition, the nexus between human and social capital (e.g., trust, friendship) and firm performance should also be tested to determine the impact of ownership type on firm performance.

Further, it has been argued that there is a relationship between national culture and entrepreneurship, whereby founders and corporate entrepreneurs tend to be more individualistic (Tiessen, 1997). This stream of research could be conducted by incorporating measures of individualism-collectivism into the model in studying the impact of network capacity and intentions in predicting firm performance. The current study could also be extended by applying the relational demography perspective to study the formation of guanxi relations according to the demographic profiles (e.g., gender, ethnicity, kinship and social relations, etc.) of the dyads in the guanxi network.

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Table 1 Descriptive Statistics and Correlations

	Mean	SD	1	2	3	4	5	6	7	8
S'pore	.05	.22	1							
Malaysia	.07	.26	-.07	1						
Indonesia	.07	.25	-.07	-.08	1					
Australia	.08	.28	-.07	-.09*	-.09*	1				
Hong Kong	.12	.32	-.09*	-.11*	-.10*	-.11**	1			
Manufacturing	.30	.46	.02	-.16***	-.01	-.19***	.02	1		
Firm size (ln)	3.46	2.08	-.16***	-.26***	-.07	-.25***	.17***	.39***	1	
Public vs Private	.88	.323	.087*	.104*	.100*	.094*	.135**	-.154**	-.38***	1
Previous Bus experience	9.58	29.26	-.04	.00	-.07	-.03	-.09*	.02	.08	-.10*
Operation length (ln)	2.03	1.06	.11**	.03	.13**	-.11*	.16***	.16***	.36***	-.23***
Tech skills and abilities	3.31	.96	.025	-.03	-.01	-.01	-.07	.07	.23***	-.01
MOS	3.29	.90	.032	.03	.01	-.03	-.09*	-.01	.12**	.07
Strategic orientation	3.71	.68	-.13**	.09*	.00	-.17***	-.02	.06	.11**	-.04
Govt Networks	3.88	1.41	-.10*	-.01	-.06	-.27***	.07	.08	.24***	-.12**
Business Networks	4.91	1.11	.06	.02	-.04	.06	-.09*	.03	.00	.01
Sales annual growth	3.44	1.61	-.16***	.13**	-.01	-.07	-.17***	-.07	-.08*	.06
Profit annual growth	3.07	1.58	-.16***	.19***	.03	-.04	-.13**	-.10*	-.13**	.10*

N=584 cases

\* p<.05; \*\* p<.01; \*\*\*p<.001

Table 1 Descriptive Statistics and Correlations

	9	10	11	12	13	14	15	16	17
S'pore									
Malaysia									
Indonesia									
Australia									
Hong Kong									
Manufacturing									
Firm size (ln)									
Public vs Private									
Previous Bus experience	1								
Operation length (ln)	.04	1							
Tech skills and abilities	.03	.07	1						
MOS	-.01	.01	.59***	1					
Strategic orientation	-.05	-.10**	.10*	.10*	1				
Govt Networks	.03	.07	.10*	.10*	.18***	1			
Business Networks	-.08	-.05	.04	.08*	.19***	.19***	1		
Sales annual growth	.05	-.15***	.28***	.38***	.14**	.16***	.040	1	
Profit annual growth	.00	-.13**	.23***	.37***	.19***	.16***	.05	.83***	1

N=584 cases

\* p<.05; \*\* p<.01; \*\*\*p<.001

Table 2 Standardized regression results for firm performance in Ethnic Chinese enterprises

	Annual Growth in Profit			Annual Growth in Sales		
	Model 1a	Model 1b	Model 1	Model 2a	Model 2b	Model 2
Block 1 variables:						
Singapore	-.15**	-.19***	-.17***	-.18***	-.22***	-.20***
Malaysia	.20***	.12*	.12***	.11*	n.s.	n.s.
Indonesia	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Australia	-.06*	n.s.	n.s.	-.11*	-.14**	-.11*
Hong Kong	-.11*	n.s.	n.s.	-.15**	-.11*	n.s.
Block 2 variables:						
Manufacturing		n.s.	n.s.		n.s.	n.s.
Firm Size		-.17**	-.18**		-.12*	-.13*
Ownership: Private		n.s.	n.s.		n.s.	n.s.
Previous experience		n.s.	n.s.		n.s.	n.s.
Length of operations		n.s.	n.s.		n.s.	n.s.
Tech. skills and capabilities		n.s.	n.s.		.13*	.12*
Managerial and organisational skills		.34***	.33***		.30***	.29***
Strategic orientation		n.s.	.09**		n.s.	n.s.
Block 3 variables:						
Networking with Govt			.12**		n.s.	.12**
Buz & Community Networking			n.s.		n.s.	n.s.
Overall R2	.09	.25	.26	.08	.23	.24
Adjusted R2		.23	.24		.21	.22
Model F	8.893***	11.876***	10.93***	8.089***	10.781***	9.935***

Note:

n = 584

\* p<.05; \*\* p<.01; \*\*\*p<.001; n.s. not significant