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Impact of Embeddedness in Ethnic Networks on Business Growth: Evidence from Chinese Immigrant Entrepreneurs in Australia

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Keywords: Immigrant Entrepreneurship, Ethnic entrepreneurship, Social Capital, and Social Network

Some comments:

See new model.

Abstract

Introduction

Immigrant entrepreneurship, or, self-employment by immigrants (Light & Bonacich, 1988), has been of growing interest to researchers (Hosler, 1996). This is due in part to major immigrant receiving countries, such as Australia, the United States, Canada, the United Kingdom and Western Europe, experiencing a high growth rate in their immigrant populations, leading to a more visible presence of immigrant business in major cities (Woon, 2008). By starting their own businesses, immigrant entrepreneurs may circumvent some of the barriers and disadvantages encountered in looking for a job (Sequeira & Rasheed, 2006). Successful immigrant entrepreneurs will integrate into the economy by creating jobs, providing products and services for members of their own ethnic community and society, as well as introducing new products and services that expand consumers' choices (Rath & Kloosterman, 2000). Immigrant entrepreneurs tend to start business within their ethnic enclave, as it is an integral part of their social and cultural context and the location where ethnic resources reside (Logan et al., 2002). An ethnic enclave is an interdependent network of social and business relationships that are geographically concentrated with its co-ethnic people (Portes & Bach, 1985).

Wu and Choi (2004) observe that Chinese immigrant entrepreneurs organize economic activities based on trust embedded in social networks. Tilly (1990) explains that migrants' reliance on such networks for business or other information minimizes the socioeconomic hardships they would experience because they acquire jobs in ethnic enterprises and establish ethnic related businesses in ethnic enclaves (Raijman & Tienda, 2000). Although an ethnic enclave has distinct economic advantages, Sequeir and Rasheed (2006, 367) propose "Exclusive reliance on strong ties within the immigrant enclave has a negative effect on growth outside the enclave community. Similarly, Drori, Honig and Ginsberg (2010, 20) propose "The greater the reliance of transnational entrepreneurs on ethnic (versus societal) embedded resources and network structure, the narrower their possibilities of expanding the scope of their business."

We ask what is the effect of co-ethnic and non co-ethnic networking on business performance and satisfaction in immigrant businesses.

We tested our hypotheses through a face-to-face survey of the entire population of Chinese restaurants in southeast Queensland, Australia.

Literature Review

Drivers of self-employment among immigrants

Until now the literature on immigrant business communities has fallen into two categories; the first of these examines why immigrants are over-represented in the self-employed sector, emphasizing the availability of opportunities in the host society for ethnic entrepreneurs (Min & Bozorgmehr, 2000; Cummings, 1980; Light & Bonacich, 1988; Raijman & Tienda, 2000). The second category examines variations in success among immigrant groups (Li, 1993; Hammarstedt, 2004; Teixeira, 1998). The extensive body of research indicates that immigrant business communities have high levels of self-employment driven by labour market disadvantage within them (Hosler, 1996; Ram & Smallbone, 2003; Perren & Ram, 2004).

Market disadvantages and ethnic resources are central to understanding the development of immigrant entrepreneurship (Light, 1979; Aldrich, Waldinger & Ward, 1990). Immigrants face a variety of market disadvantages, such as exclusion from job opportunities in the general labour market (Aldrich & Waldinger, 1990); unemployment and underemployment (Iyer & Shapiro, 1999); and lack of host country language skills, education and specific career-related skills (Barrett et al., 1996). These disadvantages create greater group cohesion (Aldrich & Waldinger, 1990) and ethnic solidarity (Light, 1984) among immigrant groups. This sense of ethnic solidarity enables a prospective immigrant entrepreneur to draw from the pool of resources that exist within the immigrant community. Most of the research concludes that immigrant self-employment is an adaptive strategy, rather than a free choice.

In 1991, the national average rate of self-employment among varying ethnic groups in Australia was 5.8 % (Inglis 1999). The rapid increase in rates of self-employment and in the number of immigrant-owned business enterprises in many countries has revitalized research on ethnic business in the last two decades (Cummings, 1980; Haley, 1997; Light & Bonacich, 1988; Light & Gold, 2000; Logan et al., 2002; Min, 1996; Portes & Sensenbrenner, 1993; Sanders & Nee, 1996). In particular, recent studies have recognised the success of Chinese immigrants in Western nations such as Australia (Kee, 1994). It has been accepted that self-employment is often considered by migrants as a favorite recourse to overcoming the difficulties of unemployment (Waldinger et al, 1990).

Ethnic Enclave

This thesis uses the term enclave to mean territorial concentration of a particular

immigrant group from the same origin (Amankwah, 2004). For instance, in their analysis of the residential patterns of the largest immigrant groups in New York and Los Angeles, Logan et al. (2002) use ethnic enclave to mean a geographic concentration of people from the same country of origin, and define ethnic enclaves as suburbs, culturally distinct from mainstream communities, that revolve around businesses run by members of the community (Logan et al., 2003). Funkhouser (2000) in his studies of Latin American and Asian immigrant groups' enclaves, observed movements from their primary enclave to the periphery of that primary enclave, to areas of smaller groupings of immigrants, and to areas that do not have large groupings of immigrants from the same country of origin. Zhou & Logan (1991) use enclave to mean a place of residence, work, and industrial sector of particular ethnic groups, in their investigation of how an enclave provides positive earnings-returns to educational and other human capital characteristics to immigrant minority-group workers. The conclusion from the arguments of these authors is that enclave refers to a territorial or geographic concentration of a particular ethnic group, which can be a place of work or residence.

For many immigrants, the ethnic enclave is an integral part of their social and cultural context (Logan et al., 2002). An ethnic enclave is made up of an interdependent network of social and business relationships that are geographically concentrated (Portes & Bach, 1985). Based upon the networks of Chinese immigrant entrepreneurs, Zhou (1998) observes that ethnic enclaves determine the nature of businesses that immigrant entrepreneurs establish. Such networks of immigrant entrepreneurs bear a strong ethnic identity in order for their businesses to be successful or survive (Bates, 1990). Based upon their networks in the ethnic enclave, which is their co-ethnic networks, immigrant entrepreneurs evaluate the potential of ethnic resources such as labor, markets, and capital in the ethnic enclave to determine the profitability of a particular business. Organization of ethnic businesses is the outcome of interaction between cultural and industrial identities or characteristics of enterprises or entrepreneurs. For example, a business characteristic such as market availability attracts Chinese immigrants to locate businesses in the ethnic enclaves to harness that market niche (Zhou, 1998).

Social Capital

Social capital, traceable to the early work of Bourdieu (1983), Coleman (1988) and Burt (1992), has been embraced by sociologists, political scientists, economists and organizational theorists (Spence et al., 2003). The importance of the construct has resulted in an expanding body of literature covering several research arenas and close to 20 different

definitions (Adler & Kwon, 2002). The main differences between the definitions depend on whether the study is analyzed within individual organizations (the internal perspective) or between them (the external perspective). Knoke (1999) and Jack & Anderson (2002) suggest that social capital is a kind of bridge-building process that links individuals and creates a condition for the effective exchange of information and resources which is in line with the thrust of this current study. In the context of Chinese immigrant entrepreneurs, embeddedness is an important bridge-building process. Here, “co-ethnic network” refers to networks within the ethnic enclaves of similar ethnic communities and non co-ethnic networks are those outside the ethnic enclave, but within the host country.

It has been shown that the number and diversity of existing networking relationships have a positive influence on firm growth (Hosler, 1996). This seems to be conditioned by the centrality of the firm in the network and by its networking activity (Walker et al., 1997). Relationships such as trust, norms, personal expectations, obligations and identification have been shown to play an important role in initiating both social and business relationships, and even strategic alliances (Coleman, 1990; Liebeskind et al., 1996).

Social capital addresses the relevance of shared understanding through the similarities versus the differences in actors' cognitive schemas (Coleman, 1990). These are often manifested in shared language and narratives. A number of studies support this notion, and show that shared interpretations and orientations have a positive influence on the firm's ability to create joint knowledge, to adapt and to innovate (Gulati, 1999; Maurer & Ebers, 2006; Yli-Renko et al., 2001).

In sum, existing research provides accumulating evidence of the positive role of social capital in accessing resources and capabilities from and with other actors, and in establishing and maintaining business relationships (Adler & Kwon, 2002). In spite of these significant results, we know relatively little about how an organization's social capital and its utilization evolve over time, and what implications its social capital has on performance (Adler & Kwon, 2002; Baum et al., 2000; Maurer & Ebers, 2006). Nee and Nee (2000) observe that San Francisco's Chinatown has a strong Chinese entrepreneurial group based on its social capital mobilization ability. This group regulates business and social life of the Chinese community, and also guarantees and ensures access to resources for Chinese entrepreneurs (Amankwah, 2004). Sloane and Gazioglu (1996) stress that this may lead to the establishments of immigrants' small businesses that cater for customers of their own ethnicity focusing on

market products that ethnic people will demand, as well as those they have peculiar knowledge and experience in (Amankwah, 2004). Further, businesses that maintain or strengthen links with their native country perform better than those that do not (Basu & Goswami, 1999). These links perform the function of reaching intermediaries, who have contacts with suppliers of ethnic goods available at an affordable price in the host country. The entrepreneurs' abilities to reach these intermediaries are related to their use of social capital rather than their transnationalism, since such intermediaries reside in the host country (Amankwah, 2004).

Embeddedness

Granovetter's (1985) classic thesis serves as a proximate and accessible stimulus for modern research on the concept of embeddedness (Choi & Kim, 2008). Granovetter's (1985) initial formulation, the concept of embeddedness, began from a simple observation that all economic exchanges are necessarily embedded in social networks (Granovetter, 1985). Uzzi (1997, p. 35) captured seminal thoughts on the development of the embeddedness concept by stating, "Polanyi (1944) used the concept of embeddedness to describe the social structure of modern markets, while Schumpeter (1950) and Granovetter (1985) revealed its robust effect on economic action, particularly in the context of inter-firm networks."

The 'embeddedness' theory of social capital defines social capital as capital that can be exchanged (Rutten & Boekema, 2007). The mechanism of exchange is the interactions between individuals, but it also emerges out of individual embeddedness in a web of social relations, or social context. The web of social relations represents the actual relations that an individual actor (be it a human agent or a firm) has with other actors. Social relations include social networks, such as co-ethnic and non co-ethnic networks.

Social context includes relationships of trust, reciprocity, norms, rules, conventions (or simply, social capital) which can be found in both networks and societies (Rutten & Boekema, 2007). In other words, embeddedness refers to the contextualization of economic activity in ongoing patterns of social relations and captures the contingent nature of an economic actor's activities by virtue of being embedded in a larger social structure (Choi & Kim, 2008; Powell et al., 1996). The embeddedness in networks or in a social context thus allows individuals to benefit from the social capital of that particular context. The stronger the cohesiveness of this social context (of this web of social relations) the stronger the network ties, the larger the effect on human behavior and on business performance (Rutten &

Boekema, 2007).

Economic behaviors are embedded in a network of social relations that provide the context for economic processes (Granovetter, 1985). More specifically, economic decisions and outcomes are affected, not only by the actor's isolated relations with other individual actors, e.g., series of buyer-supplier relations, but also by the structure of the overall network of relations within which the actor resides, e.g., larger supply networks (Choi & Kim, 2008). As every behavior materializes through some form of outcome, almost all economic processes are presumed to be embedded in the networks of relations (Rutten & Boekema, 2007).

Through the process of embeddedness, immigrant entrepreneurs are able to determine the needs of their ethnic community in the ethnic enclave and serve those needs (Light & Bonacich, 1988). Embeddedness is important in economic life because it is a source for acquisition of scarce business resources such as capital and information by immigrant entrepreneurs, especially Chinese business owners (Zhou, 1998). McGlenn (1995) found that embeddedness assisted small Chinese immigrant enterprises in Pennsylvania, particularly those within an ethnic enclave, to grow and be successful. Such embedded businesses arise purposely to serve the culturally defined needs of their co-ethnics and with time, they may gradually branch out to supply the broader market of the host country and serve the non co-ethnics (Amankwah, 2004).

Immigrant entrepreneur success and growth in business depend on the size of the embedded co-ethnic immigrant population that provides them with the core market and key source of labor, capital resources, and skills (Sloane & Gazioglu, 1996). The broader market of the host country contributes to the successes and/or survival of immigrant businesses, but this depends on the nature of the business. Some retailers are likely to provide ethnic goods and services. This implies that they may derive most of their resources or customers from the ethnic community or enclave (Kwang & Won, 1985).

Embeddedness and Business Performance

Bruderl & Priesendorf (1998) examine the impact of network ties on financial performance. Their work is principally concerned with how economic activities are influenced by the quality and network architecture of material and information exchange relationships (Uzzi 1997). Thus, corresponding to the embeddedness approach, the configuration of network of relations can facilitate or impede an organization's behaviours

and performance (Granovetter 1985; Burt 1992; Hansen, 1995). One may expect, accordingly, the positive and negative effects of a firm's embeddedness on its economic decisions, behaviours, and performance (Hansen, 1995; Choi & Kim, 2008).

Wu & Choi (2004) observe that Chinese immigrant entrepreneurs organize economic activities based on trust embedded in social networks. Tilly (1990) explains that migrants' reliance on such networks for business or other information minimizes the socioeconomic hardships they would experience because they acquire jobs in ethnic enterprises and establish ethnic related businesses in ethnic enclaves (Raijman & Tienda, 2000).

By being embedded in the co-ethnic network, migrant entrepreneurs are able to identify the potential market or resources that the ethnic minority community provides and utilize them (Gang & Wissen, 2000). Allen and Turner (1996) contend, therefore, that access to an ethnic spatial concentration remains an important resource for most immigrant entrepreneurs. This is critical to the location and running of immigrant entrepreneurs' small businesses. The ethnic enclave is a source of social cohesion and economic support, because it provides immigrants with opportunities to socialise and associate with their co-ethnic peers, buy ethnic products and services, find employment in co-ethnic businesses and start businesses of their own (Min, 1996; Portes & Sensenbrenner, 1993; Sanders & Nee, 1996).

H1a: The *embeddedness* of the Chinese immigrant entrepreneur in his or her *co-ethnic* network is **positively** related to the entrepreneur's *business growth*.

When starting a new business, immigrant entrepreneurs who utilize ethnic resources, they may be successful without the broader market of the host country. The broader market's contribution to a new immigrant retail business may be marginal and not as critical as the more easily accessed ethnic market needed for both survival and success.

However, although an ethnic enclave has distinct economic advantages, there may be disadvantages. The disadvantages include that the ethnic market may not be large enough for the mature business to grow. Sequeir & Rasheed (2006) state, "these disadvantages may persist for very long time periods", and may also limit business growth to only within the ethnic enclave. A study of African American entrepreneurs indicates that those conducting business outside the ghetto's protected market consistently outperform their counterparts doing business within it (Cummings, 1999). Although African Americans have a unique entrepreneurship history (Zolin, In Press), similar dynamics and processes could apply to other immigrant groups. Immigrant businesses such as Chinese restaurants and garment sales

that target the host country's population may require the broad host country's market to survive and be successful (Amankwah, 2004). Therefore:

H1b: The relationship between *embeddedness in the co-ethnic network* and *business growth* is **negatively** moderated by the entrepreneur's *years in operation*, such that the greater the *years in operation*, the more negative effect *embeddedness in the co-ethnic network* will have on *business growth*.

Immigrants' adaptation to the values and cultures of the host country creates a greater propensity for the establishment of small businesses. Au, Gary, Bermans & Chan, (1998) observe that New York City's Chinatown entrepreneurs and workers adoption of their host country's culture and language is slow compared to those outside the ethnic enclave. Immigrant entrepreneurs are able to communicate in both the style and language of the host society once they create contacts beyond their ethnic community, and have greater chance to know and speak to people outside the ethnic enclave (Amankwah, 2004).

Immigrant entrepreneurs, by participating in broader networks and activities beyond their co-ethnic communities, will also be able to determine how they can improve upon social networking and capital mobilization activities in their non co-ethnic population (McGlenn, 1995). This will in turn help them to become members of many associations in order to draw customers and mobilize labor and capital from the more mainstream community. Such strategies may include formation of, and insertion of themselves in the non-ethnic networks.

To avoid the problem of small market size, an immigrant entrepreneur may need to seek growth or to enhance business performance beyond their ethnic enclave. In this case, entrepreneurs who are embedded in both an ethnic network and a non-ethnic network may look to the host society for a bigger markets and growth opportunities.

Chinese restaurant businesses in the United States depend mostly on networking in the non-ethnic society for customers (McGlenn, 1995), thus, the more embedded the owner is within a non co-ethnic network, the less likely the business will be limited in its growth potential. The above discussion indicates that the performance of immigrant businesses depends on how entrepreneurs can embed themselves in the non co-ethnic community and network and overcome the common problem of a saturated ethnic market or a small ethnic enclave that limits business growth. Thus, Chinese immigrant entrepreneurs who embed themselves within non co-ethnic networks can improve their business growth. This suggests:

H2a: The *embeddedness* of the Chinese immigrant entrepreneur in his or her *non co-ethnic* network is **positively** related to entrepreneur's business *growth*

Methodology

The target population for this study is Chinese immigrant entrepreneurs primarily in the hospitality - restaurant industry in southeast Queensland, Australia. The Restaurant industry is chosen for because it is big enough for data collection to be viable. It was also chosen because the Chinese immigrant restaurant industry can be generalized across many countries. Compared to other industries, the restaurant industry has less variation and is a common industry to the Chinese immigrant community worldwide.

The sample population was identified via the Chinese yellow pages and advertisements within the local Chinese newspapers and respondent referral, the so called snowball sampling method. The referral, or snowball sampling method, was also used as a way of handling the problem of a proportionately small target population (Welch, 1975). Although this method does not allow for random sampling, it is recommended when resources to screen an entire population are not available (Welch, 1975). Due to the small target population, this study has surveyed almost the entire survey population (Chinese immigrant entrepreneur restaurant business) that is available in southeast Queensland.

Face to face structured interviews were chosen rather than online, telephone or mail surveys for two main reasons. Firstly, interviews allow for better data collection from a population that is unfamiliar with survey research and which is likely to have limited English skills. Secondly, through interviews, one is able to build a rapport with each interviewee, building trust and establishing a positive relationship; thus increasing the response rate.

A phone survey of Chinese restaurant businesses in southeast Queensland was conducted as a screening phone interview to identify Chinese business owners. The researcher contacted more than 100 restaurants, and 100 Chinese restaurant owners were willing to assist and participate in the research. All participants who submitted their responses completed the survey and this data is included in the sample. Thus, the sample population size is 100 Chinese immigrant entrepreneur businesses in the restaurant industry.

The questionnaire was first piloted with three immigrant entrepreneur businesses (one each from PRC, Hong Kong and Taiwanese immigrant groups), categorised as Chinese immigrant. The respondents' comments from this pilot survey were used for checking the wording and appropriateness of questions included in the questionnaire. Revisions were made

to the questionnaire based on the comments received, so that problems such as misleading questions and ambiguous questions were avoided.

Measures

To measure *business growth*, the study employed the self-reported profit income growth before tax and the respondent's perception of performance in relation to competitor and sales growth compared to when the company initially started. Respondents were asked to evaluate their *business growth* including sales and employment growth, market growth and overall business performance since the business started. Reliability of the business growth scale was .87.

We measured the Chinese immigrant entrepreneur's embeddedness in both co-ethnic and non co-ethnic networks in the same manner. We thus employ a notion of structural embeddedness that focuses on the quality and structure of ties among actors (Granovetter, 1985; Bretherton & Chaston, 2005). Size and density of the social network are the most important of such dimensions. Size refers to the number of participants in a network, and density to the number of ties between them. The density of the network could be created by occupational, financial or cultural ties. The size of the network may constitute the average number of people in the various networks that owners belong to. Studies typically identify all of the connections a person has in a given social context, e.g., membership in an organization. This study proposes network size as the number and percentage of formal and informal types of networks (Chung & Whalen, 2006). *Embeddedness* is calculated by multiplying the entrepreneur's number of contacts (number of co-ethnic and non co-ethnic contacts) and frequency of contact (times per year), plus common acquaintances (eg. mutual friends, social groups, family members). This was done for both the formal and informal networks (Chung & Whalen, 2006; Hoang & Antoncic, 2003). The formal and informal networks were then summed for the overall embeddedness.

Control variables included length of stay in Australia, English skill, and previous hospitality experience. The five assumptions of hierarchical regression; normality, linearity, homoscedasticity, multicollinearity, and outliers (Hair et al., 2006) were assessed and the data was found to be suitable.

Analysis

Hierarchical linear regression was performed in three blocks. All variables are centred first in preparation for the interaction analyses. In the first block, control variables were entered, namely age, education level, English skills, length of stay in Australia, any pre-experience in the hospitality industry and number of employees (i.e. size of restaurant). In the second block, the non co-ethnic networks and the coethnic network and years in operation were entered. In the last block, the interaction created from years in operational and co-ethnic network was entered.

Results

The sample consisted of 100 Chinese immigrant restaurant entrepreneurs, from southeast Queensland, Australia. Of these, 39 were from China (PRC), 38 were from Hong Kong and 23 were from Taiwan. An even split of 50% of entrepreneurs have pre-experience in the hospitality industry and 50% of entrepreneurs did not have any related experience. Out of the 100 restaurants, 79% indicated that there was only one owner operating the business, 18% indicated there were 2 owners operating the business, while the remainder of 3% of restaurants had 2 or more owners. In regard to the number of employees hired, 52% recruited fewer than 5 employees on a full time basis, 40% recruited 6-10 employees on a full time basis, 6% recruited 11-15 employees, 1% recruited 16-20 employees on a full time basis and the remainder 1% recruited 21 and more employees on a full time basis. There were fewer female entrepreneurs in the restaurant industry; 24% were female entrepreneurs and 76% were male entrepreneurs. The majority were in the 41 to 54 year age group with an average education level of high school, and most did not complete a bachelor degree. On the whole, the English skills of these entrepreneurs were either moderate or fluent. Their length of stay in Australia varied from 1-5 years (11%), 6-10 years (19%), 11-15 years (28%), 16-20 years (34%), to 8% who lived in Australia 21 or more years. [Table 1 reports the correlations among all focal variables. Business growth had a very high correlation with how long a restaurant has been in business \(\$r=.72\$, \$p<.01\$ \).](#)

Table 2 shows the results of the hierarchical regression analysis results. No significant effects [was found for any of the control variables \(\$R^2=.06\$, N.S\).](#) [The main effect IVs accounted for additional 54% of the variances \(\$F_{3,90}=40.20\$, \$p<.001\$ \).](#) [The centred co-ethnic](#)

and centred years in operation had significant influences on business growth ($\beta=.28$ & $.57$, $p=.003$ & $.001$ respectively). Non-coethnic network embeddedness had no significant impact. Thus hypothesis 1a was supported. Results of this study showed that the *embeddedness* of the Chinese immigrant entrepreneur in his or her *co-ethnic* network is **positively** related to the entrepreneur's *business growth*. On the other hand, hypothesis 2a was not supported. The *embeddedness* of the Chinese immigrant entrepreneur in his or her *non co-ethnic* network was found to be not related to entrepreneur's *business growth*.

The interaction term accounted for 3.1% of the variance ($F_{1,89}=7.35$, $p<.008$). Note that the centred coethnic network and centred survival year had a strong and positive impact even after the interaction term was entered in the final block. Figure 2 depicted the significant interaction effect. Results of our study showed that hypothesis 1b was not supported. There was a positive relationship between embeddedness in coethnic communities and business growth. Furthermore, this positive relationship was stronger newly established restaurants.

Insert Tables 1 to 2 about here

Discussion

The large size and continuing growth of Australia's migrant population could explain why embeddedness in the co-ethnic network did not limit the immigrant's business growth. This study contributes to the theory of immigrant entrepreneurship by identifying population variables, which might mitigate the impact of ethnic and co-ethnic networks on performance by studying both simultaneously. By virtue of surveying almost the entire population in one geographic area, industry and ethnic group we can have greater confidence in the results.

Implications for theory

Implications for practice

Limitations

The findings of this study are relevant to the future of, not only small business owners, but also those trying to better understand how to promote healthy and sustainable economic communities. While this study will advance the literature addressing Chinese immigrant entrepreneur small business performance in Australia, it is not without some limitations.

There are limitations regarding the availability of data. Many small businesses do not keep accurate financial records and are not always willing to provide correct financial information. Given the possible limitation regarding availability of financial data, the researcher can only trust the financial data provided by the respondents. For this reason our measures for business performance are based on combinations of both financial and non financial measures.

An additional limitation of the data availability concerns geographic, financial, and time constraints. When making broad generalizations about how to improve Chinese entrepreneur small business performance, the results of this study may not be fully generalizable. The sample was drawn from southeast Queensland, Australia, and as such generalizations may not apply to other cities or countries of the world at large. The participants from southeast Queensland, Australia may not fully represent the population of other countries. Such a study would require additional funding and time. Another limitation of the study is the focus on Chinese immigrant entrepreneurs. Other entrepreneurs in other immigrant communities may vary in the types of social capital, size of social network and their embeddedness within their ethnic community. This study also focused only on the hospitality – restaurant industry as a control variable. In this study, other industries of Chinese immigrant entrepreneur business are not surveyed. Results may be different across immigrant communities and industries. A greater variety of immigrant community and industries is recommended for future research.

Conclusions

Table 1: Coefficient correlation of independent and dependent variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1. Business growth	3.71	.97									
2. Coethnic network embeddedness	32.19	14.45	.58**								
3. Noncoethnic network embeddedness	30.80	16.18	.40**	.56**							
4. Years in operation	4.13	.96	.72**	.51**	.35**						
5. Pre-experience in hospitality	1.50	.50	.01	.01	.05	.07					
6. Age	3.09	.67	.15	.11	-.05	.17	-.20				
7. Education	3.91	.53	-.01	.02	-.08	.06	-.17	.42**			
8. English skills	3.58	.70	.07	.05	.12	.08	-.14	-.18	-.16		
9. Length of stay in Australia	4.09	1.14	.15	.16	-.04	.23*	-.13	.33**	-.02	.43**	
10. Number of Employees	1.59	.740	-.05	.05	-.07	-.10	-.26**	.22*	.03	.15	.31**

**. Correlation is significant at the 0.01 level (2-tailed). .*. Correlation is significant at the 0.05 level (2-tailed).

Table 2: Hierarchical regression models of Control, Co-ethnic & Non co-ethnic Network Variables with Business Growth and

	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>
<u>Control variables</u>			
<u>Pre-experience in hospitality</u>	<u>-.03</u>	<u>-.04</u>	<u>-.05</u>
<u>Age</u>	<u>.20</u>	<u>.09</u>	<u>.06</u>
<u>Education</u>	<u>-.06</u>	<u>-.08</u>	<u>-.11</u>
<u>English skills</u>	<u>.08</u>	<u>.03</u>	<u>.02</u>
<u>Length of stay in Australia</u>	<u>.09</u>	<u>-.07</u>	<u>-.04</u>
<u>Number of Employees</u>	<u>-.13</u>	<u>-.02</u>	<u>-.03</u>
<u>Independent variables</u>			
<u>Coethnic network embeddedness</u>		<u>.28**</u>	<u>.29**</u>
<u>Noncoethnic network embeddedness</u>		<u>.04</u>	<u>.08</u>
<u>Years in operation</u>		<u>.57***</u>	<u>.49***</u>
<u>Interaction</u>			
<u>Coethnic X Years in operation</u>			<u>-.20**</u>
<u>R²</u>	<u>.06</u>	<u>.60</u>	<u>.63</u>
<u>ΔR²</u>	<u>.06</u>	<u>.54</u>	<u>.03</u>
<u>F</u>	<u>.95</u>	<u>40.2***</u>	<u>7.35**</u>

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed)

Figure 1 Theoretical model

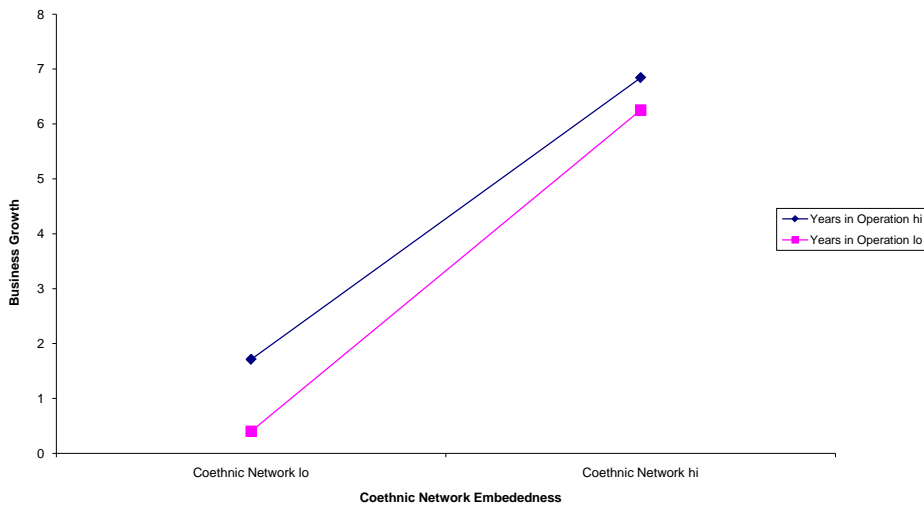
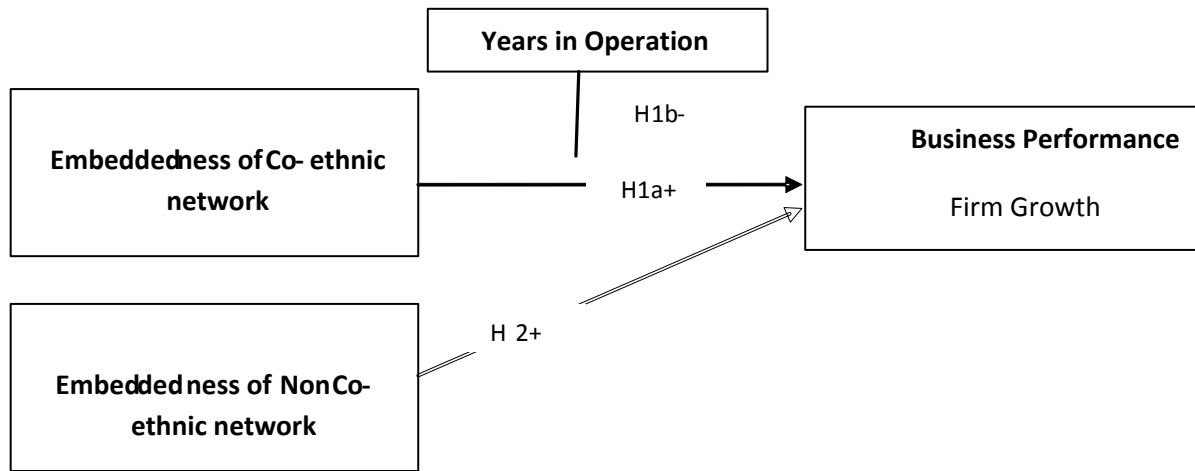


Figure 2 Simple Slop Analyses

