A Quest to Question the Effect of Personal Networks upon Rapid Internationalization of Small Firms

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Abstract

Extensive studies suggest that the entrepreneur's personal networks are vital loci of resources for smaller firms' business development. Most studies are confined to the context of the formation stage of new ventures. Considering internationalization to constitute a unique context of business situations and resource demand, this paper contributes to illustrating explicitly the specific role of personal networks in the internationalization of smaller firms. Evidence from qualitative case studies and quantitative analysis indicates that the use of personal networks in internationalization is of low intensity; personal networks are limited in providing resources to support internationalization. Reliance on networking with existing personal contacts tends to negatively influence rapid internationalization. On the other hand, proactive and deliberate networking effort is observed, which appears to be positively associated with the achievement of rapid internationalization. The paper provides implications for practitioners and policy-makers regarding the significance of deliberate networking in pursuit of rapid internationalization.

Keywords: Personal networks, networking, internationalization, entrepreneurship, small business

Introduction

The entrepreneur's personal networks are highlighted in the entrepreneurship literature to be a significant source of business ideas, financial resources, information and advice, motivation and emotional support, and legitimacy of small firms. The majority of these studies, however, are confined to the context of new ventures at the formation stage in general (Bruderl and Preisendorfer, 1998; Borch and Arthur, 1995; Coviello, 2005; O'Donnell et al., 2001; Shaw and Conway, 2000). Empirical studies on the role of personal networks in the specific context of the internationalization of small firms are indeed limited and much neglected (Holmlund and Kock, 1998; Sasi and Arenius, 2007). Internationalization constitutes a unique context of business situations and resource demand; it requires broader network horizons to make the requisite resources available. This study questions whether the prevailing belief of the significant role of personal networks in the formation stage of firms can be generalized to the context of internationalization.

This study draws evidence from four qualitative cases and quantitative analysis of a large sample survey to examine the utilization of personal networks in internationalization and their effects on internationalization patterns. Because the effects of networks should be determined by their use rather than by their mere existence, the influence of personal networks is analyzed in terms of the resources they provided for the internationalization of firms. The association between the availability of personal networks and rapid internationalization is also examined. The focal research question is: *To what extent do personal networks influence the internationalization of smaller firms?*

Personal networks in this study refer to the connections extending from a focal person, where interactions are conducted at the personal level and are basically informal in contrast with formal interactions on behalf of organizational entities (Dubini and Aldrich, 1991; O'Donnell et al., 2001).

Networks and Small Business Development

Small firms are commonly presumed in business studies to be a disadvantaged group of firms, whose development is hampered by internal resource constraints. Liabilities of smallness (resource scarcity) and newness (lack of market presence and reputation) are the greatest impediment to small new ventures' progressing from mere existence, to survival, and to further growth (Barber, Metcalfe and Porteous, 1989; Buckley, 1989; Kalantaridis, 2004; Penrose, 1995). A significant means to compensate for these liabilities is through accessing and utilizing resources external to the firm (Jarillo, 1989). Networking is a key entrepreneurial activity through which an entrepreneur develops and utilizes networks to access external resources and capabilities for the pursuit of business opportunities (Stevenson and Jarillo, 1990).

The Role of Personal Networks in Small Business Development

While it seems to be accepted as a common wisdom that networks provide benefits to compensate for the liabilities of SMEs, networks are not a natural given but a product of investments by the firms (Bourdieu, 1983; Nahapiet and Ghoshal, 1998). Continuous investments into cultivating long-term relationships with network partners are required to promote reciprocal exchanges of network resources (Bourdieu, 1985; Forsgren and Johanson, 1992; Hoang and Antoncic, 2003; Gnyawali and Madhavan, 2001; Larson, 1991). Relationship building is a resource-intensive process; smaller firms face great initial entry barriers to develop formal business relationships with prospective network partners at the early stage of formation (Forsgren and Johanson, 1992, Stuart, Hoang and Hybel, 1999; Zahra, 2005). The likelihood of small firms, especially new ventures, accessing resources from formal business networks besides the arms' length transactions is presumed to be relatively lower than that of their larger counterparts. Pre-existing personal networks of the entrepreneur become a vital pool of ready resources upon which he/she can immediately draw to support the development of the firm, particularly in its formation and initial development stage (Dubini and Aldrich, 1991; Johannisson, 1988, 2000; Ostgarrd and Birley, 1996; Witt, 2004).

In a small firm, resources are generally originated, collected, organized and transformed into a collective entity by the entrepreneur to act on the business opportunities he/she perceives. Research on networks of small firms often builds on the theoretical foundation that all economic activities are embedded in social context, and hence involvement of personal social relationships in organizational business activities is self-evident (Granovetter, 1985; Johannisson, 1988, 2000; O'Donnell et al., 2001; Shaw 2005; Uzzi, 1997). In particular, personal networks of strong ties are believed to lay the groundwork for independent new ventures (Bruderl and Preisendorfer, 1998; Starr and MacMillan, 1990). It is suggested that strong-tie networks are conducive to speeding up the venturing process of small firms at minimal costs (Dubini and Aldrich, 1991; Gartner, Bird and Starr, 1992; Starr and Macmillan, 1990; Witt, 2004; Zhao and Aram, 1995). Earlier studies have provided the evidence that an entrepreneur often accesses his/her personal networks of strong and social ties such as family, personal friends, former work colleagues and contacts for the initial resources and social support which will transform a business idea into business reality (Birley, 1985; Greve and Salaff, 2003; Jack, 2005; Witt, 2004).

Networks and the Internationalization of Small Entrepreneurial Firms

Considering the additional liabilities of small firms in pursuit of rapid internationalization, it is reasonable to believe that the entrepreneur's personal networks should play an even more significant role (Holmlund and Kock, 1998).

The liabilities of foreignness due to the lack of experiential knowledge of, and viability in, foreign markets further intensify the inherent limitations of small firms in internationalization (Zaheer, 1995). Internationalization of resource-deficient small firms, if possible, should normally follow a gradual process of incremental steps as proposed by the internationalization model (Johanson and Vahlne, 1990). However, the phenomenon of rapid internationalization of smaller firms at inception or at the early stage of formation worldwide challenges the conventional understanding of internationalization as sequential stages (Chen, 2003; Dana, 2001; Knight and Cavusgil, 1996; Madsen and Servais, 1997; McAuley, 1999; Oviatt and McDougall, 1994; Rennie, 1993).

Networks are commonly specified as a denominator of rapid internationalization of smaller firms (Andersson and Wictor 2003; Coviello and Munro 1995; Madsen and Servais 1997; Oviatt and McDougall 1994; Sharma and Blomstermo 2003). It is found that networks often influence smaller firms' choices of foreign market and entry mode (Bell 1995; Coviello and Munro, 1995, 1997). Networks facilitate the international development of smaller firms through providing access to external resources, transferring information and knowledge, providing moral support, establishing firm legitimacy, and creating new opportunities (Bell 1995; Chen, 2003; Chetty and Holm, 2000; Coviello and Munro 1995; Fuller-Love and Thomas, 2004; Holmlund and Kock, 1998; Johanson and Vahlne, 2003). For those small firms seeking rapid internationalization, existing personal networks become the sources of initial opportunities and additional resources required to kick-start and speed up the internationalization process when formal business networks are not fully cultivated to provide such resources. The entrepreneur's proprietary networks therefore are specified as a differentiating attribute of international new ventures (Madsen and Servais, 1997; Oviatt and McDougall, 1995; Vesper and Vorhies, 1979; Witkowski and Thibodeau, 1999).

Although the significant effect of personal networks is widely discussed in studies on the internationalization of SMEs, empirical evidence is indeed scant. Holmlund and Kock (1998, p.51) comment that "the effect of the social (personal) network on the internationalization process has so far been more or less neglected". Witkowski and Thibodeau (1999) also note that most of the studies of personal networks in small business and entrepreneurship literature do *not* explicitly consider the international business dimension. Discussions of the role of personal networks in the internationalization literature often refer to general findings derived from entrepreneurship studies on the formation of new ventures, and many of these studies do *not* consider the unique context of internationalization (Sasi and Arenius, 2007).

Networks of different structural and relational attributes have specific strengths; hence, different network compositions are required to support individual business activities (Granovetter, 1973; Dubini and Aldrich 1991; Elfring and Hulsink 2003; Gargiulo and Benassi, 2000; Jenssen and Koenig 2002; Lechner and Dowling 2003). The entrepreneur's personal networks that extend from one person may be fundamental for launching a new venture, but they may not be adequate to support subsequent business development including foreign business development of the firm (Podolny and Baron, 1997). Furthermore, informal personal networking may not be valid for initiating and sustaining business relationships in the global marketplace, where organizational legitimacy built upon a firm's market [network] position and reputation is essential (Elfring and Hulsink, 2003). The role of personal networks in the internationalization of small firms may be limited; the prevailing belief of the significance of personal networks may not be valid in the context of internationalization. This study provides contextual evidence pertaining personal networks to the internationalization of small firms; it contributes to verifying and enriching existing understanding.

Research Methodology

In response to the call for multi-method studies on network and small business studies (Coviello and McAuley, 1999; Hoang and Antoncic, 2003; Rialp, Rialp and Knight, 2005), the research pursues methodological triangulation by integrating both qualitative and quantitative approaches in a two-stage research process (Jick, 1979; Hurmerinta-Peltomaki and Nummela, 2006). The mixed approach maximizes the research's internal validity with contextualized qualitative data, and its external validity with more objective quantitative analysis (Scandura and Williams, 2000).

Four qualitative case studies were conducted. The cases were composed of two companies in traditional industry (named Neptune and Saturn) and two companies in high-tech industry (named Mercury and Terra). All the companies were founded and started internationalization as small firms defined by number of employees (fewer than 100). They internationalized right at inception or at an early stage of start-up, and had progressed to different stages of internationalization beyond exporting.

In-depth face-to-face interviews with the key informants of the companies were conducted for primary data collection. The personal interview protocol followed a predefined set of semi-structured questions on the utilization of networks and the acquisition of network resources for foreign business development. All interviews were tape-recorded, and transcribed for coding and analysis. Secondary data which were used to validate and enrich the primary data included inquires with third parties who had knowledge of the companies, key informants, company publications and records, press speeches of the key decision-makers, and news scripts. Within- and cross-case analysis was conducted following the recommendation by Eisenhardt (1989) and Miles and Huberman (1994). The first-stage qualitative case findings provide fine-grained information of the research subject with a specific immediacy to the context of internationalization of small firms.

A large sample survey was conducted as an independent but complementary method to support more rigorous quantitative analysis in the second stage. A postal survey was conducted in Hong Kong, while a drop-and-collect survey through a local market research company was adopted in Beijing. The quantitative analysis assesses the validity of the qualitative case findings, in order to increase the confidence of statistical generalization and prediction. A structured questionnaire, composed mainly of close-end and rating questions, and forward-backward translated into the local language, was used for data collection. The questions and corresponding items were developed with reference to existing empirical studies and the case findings. The questionnaire was sent for review by academics and practitioners to enhance its content validity. Samples were selected based on three criteria, they are: 1) Companies are SMEs defined by number of employees (with 250 domestic employees or fewer); 2) The founder(s) and key decision-makers(s) are native Chinese; 3) Companies are already involved in foreign business activities. Although empirical data were collected from the Chinese context, the study is intended to provide findings and implications that apply to other contexts generally. The significant role of personal networks of firms in the business development of smaller firms in the Chinese context provides an amplifying lens to derive fine-grained knowledge of the subject. It is also believed that the internationalization patterns of the SME sector in Hong Kong to a large extent resemble those in highly industrialized small economies (such as Scandinavian countries and New Zealand); while business development of SMEs in mainland China is representative to the experience of those in planned and transition economies. Data collected from the two locations therefore enhances the generalizability of the empirical findings.

In sum, a total of 210 completed questionnaires representing a 38.4% usable response rate were collected. The t-test statistics of the non-response bias tests based on early and late response proposed by Armstrong and Overton (1977) indicate that non-response bias was apparently not a problem.

Empirical Findings - The Effect of Personal networks upon Internationalization

Case Findings

The effects of personal networks were analyzed in terms of the resources they provided for internationalization. Resources are categorized into financial resources, human capital, foreign business networks, foreign market information and knowledge; these resources are most relevant and critical to the foreign development of small firms. The network channels utilized to obtain the external resources were specified, and among which personal networks were highlighted (Table 1).

Table 1: Main Sources of Resources in the Internationalization of the Cases (*Personal networks in ***Bold Italic***)

	Financial Resources	Human capital	Foreign business network	Market information
Neptune Start-up	• ***Self-funding from partners***	• ***Colleagues (founding partners)*** • Job market	• ***Founder's personal work and business contacts*** • Trade fairs • Direct marketing • Industrial associations	• Industrial associations • Official trade council • Market research institutes
Ongoing	• Operating capital	• Job market • Subcontracting (foreign sales and manufacturing) • Localized staff referrals	• Referrals by key business contacts • Internal and subcontract sales force • Trade fairs • Direct marketing	• Internal marketing function • Industrial associations • Official trade council • Market research institutes
Saturn Start-up	• ***Self-funding from partners***	• ***Spouse (founding partners)*** • ***Local relatives*** • Job market	• Retailing shops • Trade fairs • Industrial association	• Foreign suppliers and customers • Informal information collection • Official trade council • Industrial associations
Ongoing	• Operating capital	• Job market	• Retailing shops (closed in 2004) • Internal sales force • Key business customers • Trade fairs	• Internal marketing function • Informal information collection • Official trade council • Industrial associations • Exchanges with key customers

	Financial Resources	Human capital	Foreign business network	Market information
Mercury Start-up	• ***Self-funding from the founding team*** • Venture capitalists • A foreign company in the same industry	• ***Colleagues (the founding team)*** • Job market • Subcontracting (production)	• ***Previous business contacts*** • Exhibitions and conferences • Internal sales force • Authorized sales representatives and dealers	• Direct and indirect marketing networks
Ongoing	• Operating capital • Equity capital	• Job market • Academic institutes • Collaborations • Subcontracting (production)	• Referrals by key business contacts • Exhibitions and conferences • Internal sales force • Authorized sales representatives	• Direct and indirect marketing networks • Strategic clients/partners
Terra Start-up	• ***Funding from the founding team*** • An anonymous investor	• ***Business associates (the founding team)*** • Job market • Acquisitions	• ***Previous work and business contacts*** • Exhibitions and conferences • Acquisitions • Direct marketing	• Direct and indirect marketing networks
Ongoing	• Operating capital • Equity capital	• Job market • Acquisitions • Collaborations	• Referrals by key business contacts • Foreign branches • Direct marketing • Exhibitions and conferences • Acquisitions • Collaborations and affiliation	• Direct and indirect marketing networks • Strategic partners

Source: The author

Cross-case analysis reveals the following patterns concerning the utilization of personal networks and their effects on internationalization.

The founders' background to a large extent determined the choice of business sector, in which they created their own businesses that resembled their previous employment (Birley, 1985; Lechner and Dowling, 2003; McDougall, Oviatt and Shrader, 2003). Except for the founders of Saturn, who had limited prior industrial experience, the founders of other three companies already had rich industrial knowledge and experience, and had worked at senior positions in large corporations for over ten years prior to forming their own companies.

The founders' personal experience determined the availability of the initial networks essential to kick-start the foreign business development of the companies. The founders who had a rich industrial background had proprietary access to requisite resources to secure capital, business contacts, and customer orders right at the beginning. Pre-existing networks to a certain extent compensated for the liabilities of smallness and newness of the companies in the early stage (Ellis, 2000; Holmlund and Kock, 1998; Lipparini and Sobrero, 1997; McDougall, Shane and Oviatt, 1994; Witt, 2004; Starr and MacMillan, 1990).

Strong personal background was influential in securing initial funding. Personal networks, however, were not an adequate means to sustain ongoing financing for foreign business development.

In the cases of Neptune and Saturn in traditional industry, starting the companies on a manageable scale and flexible form minimized the capital required. The founders were reluctant to approach personal contacts for funding because potential failure was seen as disruptive to existing personal relationships and a loss of 'face' among personal contacts. They found the funding application procedures of formal channels complicated and the subsidies insignificant. They therefore decided to self-fund the start-up on a smaller scale, and re-invest operating capital into growing subsequent foreign business. Starr and MacMillan (1990, p.81) describe this strategy as '*asset parsimony'* that is often applied by small new ventures.

High-tech firms operating in knowledge- and capital-intensive industries faced higher demands for start-up capital and long-term financing, thus, wider sources of funding were necessary to grow their foreign business. Due to high operating costs, slow development cycle, and unpredictable R&D outcomes, substantial capital investments were required to kick-start operations. Mercury and Terra could not rely only on the founding teams' collective resources to fund the ventures; external funding was vital to start the businesses.

Mercury and Terra were able to secure substantial initial investments from business angels because of the strong industrial track records of the founding team. These investors were well-informed about the capabilities and potential of the founding team as an organizational entity in the industry to justify their investment decisions. Establishment of the organization's market recognition and acceptance was essential to broaden its business horizons to compete in foreign markets in the long-run. The founding teams of both companies recognized that it was impractical to rely on a few network partners for long-term financing; both companies turned to the equity market through public listing within a few years from start-up.

Partnerships with personal contacts created a solid business foundation of collective resources to form the companies. The cases to a certain extent confirm that the entrepreneur's personal networks are the most reliable loci of resources to enable the transformation of a business idea into business reality - the formation of a formal business entity (Ellis, 2000; Holmlund and Kock, 1998; Lipparini and Sobrero, 1997; McDougall, Shane and Oviatt, 1994; Witt, 2004; Starr and MacMillan, 1990). Frequent and long-term personal interactions are crucial to cultivate the level of trust and confidence in establishing business partnership. Trust and confidence between the partners were rooted in shared business vision and goals, similar work approach and attitude, and ongoing contributions of the partners to the business. The presence of prescriptive ties such as blood ties, on the other hand, was not a sufficient criterion.

Strong personal ties such as kinship did not play any significant role in start-up and subsequent foreign business development. Except Saturn who had once used two local relatives to oversee its foreign operations, involvement of kin and personal friends was not observed in the other cases. The founders of Saturn removed the relatives as soon as the operations became stable; Saturn was reluctant to employ relatives again because they were an obstacle to professional management practices. The high social content and affection inherent in strong-tie relationships make them a burden on the entrepreneur, and put the entrepreneur in a difficult position in making sound business decisions when problems arise (Chell and Baines, 2000; Elfring and Hulsink 2003; Gulati and Gargiulo 1999; Uzzi 1997). The limited role of strong personal ties can also be explained by the fact that the founders of the companies were 'self-made' business people, who did not have strong family business backgrounds. Their strong-tie networks, particularly kinship networks, were domestically focused and could not provide the resources required to support foreign business development (Chow and Ng, 2004; Krug and Polos, 2004; Tseng, Tansuhaj and Rose, 2004). The findings are to a certain extent in contrast with the common understanding of the important role of strong personal ties in the venturing process of small firms.

Case findings show that personal networks were not utilized as a significant channel for recruiting human capital other than the founding team. Formal channels, rather than personal contacts and connections, were used to locate and recruit professional staff. Professional management was highlighted in all cases to be a crucial element to lead a company into the global marketplace (Chell and Baines, 2000; Chen, 2003). The high demand for talent and knowledge workers made it a common practice for the two high-tech companies to collaborate with universities, research institutes, or other market players to take advantage of collective human capital at shared costs. Collaboration and affiliation were conducted as organizational-level resource exchanges (Powell, 1998), and occurred only after the companies had established certain market presence as organizational entities.

Personal networks provide the opportunities to start initial contacts with prospective business associates. Referrals provide SMEs the opportunities to gain initial contacts with the in-group business networks of the personal contacts. 'Word of mouth' is particularly powerful when the referrer has a strong reputation in the industry (Lechner and Dowling, 2003). The referee is benefited by the prestige effect of these reputable network parties (Elfring and Hulsink, 2003; Starr and MacMillan, 1990; Stuart, 1998). The founders of

Neptune, Mercury and Terra gained initial entrance into foreign business networks at the formation stage through referrals by pre-existing business contacts. Referrals only occur between network parties with long-term mutually satisfying relationships and a high level of trust. In the case of Saturn, it had to find and establish business relationships from scratch. Nevertheless, referrals only open an opportunity to prospective relationship building. The outcome of relationships is rooted in practical business considerations of costs and benefits.

Motivation to and reliance on using informal personal networks to acquire information and knowledge by the entrepreneurs was low. The founders of Mercury, Neptune and Terra had clear visions and comprehension of the global business environment based on their own industrial knowledge and experience. The entrepreneurs with rich experience were more confident and capable to formulate strategies. In the case of Saturn whose founders had limited prior business experience, they acquired information and learned from experienced customers and suppliers with whom they had business relationships. They also set up a marketing department and recruited professional marketing staff to collect market information.

Quantitative Findings

Quantitative analysis of the survey data obtained from a larger sample of SMEs provides evidence in alignment with the case findings.

The rating on a five-point Likert scale of eight factors influencing the commencement of foreign business development (Table 2), which are adapted from Holmlund and Kock's study (1998), suggests that the presence of personal networks was not particularly important. The interest of the key decision-makers in expanding the business and the business idea to develop foreign market at the start-up were regarded as two key factors driving the commencement of internationalization of the firm (Ganitsky, 1989; Holmlund and Kock, 1998). The commencement of internationalization was also strongly influenced by general market and industrial trends as proposed in the international new venture literature (Madsen and Servais, 1997; Oviatt and McDougall, 1994). The finding provides evidence for the spirit of entrepreneurship in that the entrepreneur is driven primarily by the opportunities identified and the belief that he/she can obtain the resources to act on those opportunities; hence existing resources are not a major constraint (Stevenson and Jarillo, 1990).

Table 2: Factors Influencing the Commencement of Internationalization

Factors	Total Mean* (Rank)	SD
1. Business idea at the start-up.	**3.93 (3)**	1.216
2. Interest of the key decision-maker in expanding the business.	**4.43 (1)**	0.823
3. Demands of key business partners (e.g., customer, supplier, collaborator).	3.91 (4)	0.989
4. Response to government sponsorship and promotion.	2.71 (8)	1.343
5. Response to key competitors' actions.	3.29 (7)	1.092
6. Response to unsolicited inquiries and orders.	3.89 (5)	1.092
7. Response to general market and industrial trends.	**4.00 (2)**	0.876
8. The key decision-maker has potential networks in foreign countries.	3.42 (6)	1.196

*A five-point Likert scale: 1 = 'Not important at all', 5 = 'Very important'

Based on the rating of the amount of resources made available from five categories of personal networks (defined based on the studies of Bruderl and Preisendorfer (1998), and Starr and MacMillan (1990)) for foreign development, strong-tie personal networks provided limited resources. Weak-tie business and industrial contacts in both domestic and foreign markets were relatively more important to make resources available to support internationalization (Table 3).

Table 3: The availability of resources from personal networks

Personal Networks	Total Mean*	SD
1. Family, relatives and personal friends.	2.21	1.066
2. Former work colleagues (e.g., employers, co-workers).	2.60	1.037
3. Fellow members in participating clubs, associations, unions, etc.	2.32	1.173
4. Past industrial and business contacts in domestic market.	**3.56**	1.106
5. Past industrial and business contacts in foreign market	**3.67**	1.081

*A five-point Likert scale: 1 = 'None', 5 = "A Great Deal'

In order to investigate the association between personal networks and the internationalization of small firms, two sets of regression were conducted.

The first set of regression tests the association between the utilization of network channels and the availability of network resources. The utilization of network channels is measured by the extent to which a list of twenty network channels was utilized to acquire resources for foreign business development. The list was developed based on an extensive review of literature (e.g., Birley, 1985; Cavusgil and Naor, 1987; Chell and Baines, 2000; Ellis, 2000), and respondents rated each channel on a five-point Likert scale. The factor analysis of the twenty network channels results in three latent factors: personal contacts, direct business channels (e.g., trade fairs, business and industrial associations) and institutional channels (e.g., official departments, academic and research institutes). All the three latent factors have a Cronbach's alpha over the cut-off value of 0.7 (Nunnally, 1978). The dependent variable, i.e., the availability of network resources, is measured by the amount of resources acquired from networks for foreign business development. Respondents rated on a five-point Likert scale a list of ten categories of resources, which are derived from earlier studies (e.g., Elfring and Hulsink, 2003; Holmlund and Kock, 1998; Westhead et al., 2001), discussions with academics and practitioners, and the case findings. Factor analysis identifies two latent factors: general organizational resources (e.g., capital, business reputation and status, technology and technical know-how, and human resources) and foreign business resources (e.g., foreign market information and knowledge, foreign business networks, foreign sales and distribution channels). Both factors have a Cronbach's alpha over the cut-off value of 0.7.

Multiple regression tests show that the utilization of personal contacts is *insignificantly* association with the availability of network resources (either organizational or foreign business resources). The utilization of formal business channels has a *positive and significant* association with the availability of foreign resources; while the utilization of institutional channels has a *positive and significant* association with the availability of general organizational resources (Table 4). The regression results provide evidence of the inadequacy of personal networks to make the requisite resources available for the foreign business development of firms: the utilization of a more diverse and formal network channels is necessary.

Table 4: The utilization of networks and the availability of resources

Dependent Predictor	Network resources	Network resources – Organizational resources	Network resources-Foreign business resources
Personal Networks	.079	.066	.058
Direct business channels	.325***	.126	.488***
Institutional channels	.310***	.437***	-.0175
R^2	.305	.271	.207
Adjusted R^2	.295	.260	.218
F-ratio	29.895***	25.234***	18.981***

*$p \leq 0.05$, ** $p \leq 0.01$, ***$p \leq 0.001$

The second set of regressions investigates the association between the availability of personal networks and the formation of international new ventures (INVs). The availability of personal networks is measured by the amount of resources obtained from personal networks for foreign business development. The formation of INVs is a categorical dichotomy variable, of which the samples are classified into two categories: 'International New Venture' (coded as 1) and 'Traditional Internationalized Firm' (code as 0). 'International New Venture' (INV) is defined by Oviatt and McDougall's (1994, p.49) original definition as "a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of output in multiple countries". Three criteria implied in this definition and clearly specified in Oviatt and McDougall's subsequent papers (e.g. Oviatt and McDougall, 2005), i.e., *time of initial foreign business development, significant of the sale of output, and the involvement in multiple countries*, were used as an aggregate measure of the categories. Firms that started foreign business activities within 6 years of establishment (Oviatt and McDougall, 1997; Zahra, 2001), *and* had over 50% of foreign sales revenues to total sales revenues (Prashantham, 2005a; Dimitratos et al., 2005), *and* conducted business activities in multiple countries are classified as 'International New Ventures'. Those firms that do not meet any one of the three criteria are classified as 'Traditional Internationalized Firms'. Industry is included as a control variable because earlier studies show that the high-technology industry is inherently globally-oriented in nature, and hence firms in the industry are more likely to pursue rapid internationalization that those in traditional industry.

The logistic regression results show that the availability of personal networks has a *negative and significant* association with the formation of INVs (Table 5). The result appears to challenge the prevailing belief, but data need to be collected in order to further verify the findings.

Table 5: The availability of personal networks and the formation of INVs

	B	S.E.	Wald	*Df*	Sig.	Exp (B)
Industry (Control)	.653	.318	4.210	1	.040	1.921
Personal Networks	-.455*	.207	4.851	1	.028	.634
Constant	1.229	.662	3.444	1	.063	3.418

Omnibus Test: 9.643 (2) **
Hosmer and Lemeshow Test: 5.697 (7)
Predicted % correct: 60.3%
**p* ≤0.05, ** *p* ≤ 0.01, ****p*≤0.001

Conclusions, Implications, and Limitations

The case findings show that the entrepreneur's pre-existing network resources to a certain extent compensated for the liabilities of new ventures, when formal business networks had not yet fully cultivated to generate and give access to network resources. However, the effect of personal networks in the internationalization of small firms, in terms of the resources acquired and utilized, was limited. The pursuit of internationalization demands greater variety and volume of resources. That means networks of wider span and different mixes of structural characteristics are needed (Dubini and Aldrich, 1991). The cases show that personal networks that extend from a focal individual are inevitably concentrated and path dependent on the individual's background; personal networks are limited in diversity. Findings also show that informal personal networking may not be valid to trigger and promote business relationships in the foreign business context, when market position and organizational reputation are essential consideration in formal business decision-making. It is necessary to differentiate personal reputation from organizational legitimacy despite the intertwining socio-business context of smaller firms. Formalized business networking at the organizational level is fundamental to sustaining development of firms in the global marketplace.

The limited effect of personal networks is to certain extent the outcome of the entrepreneur’s choice of not using pre-existing personal networks. The entrepreneurs in the case companies valued their independence, and were reluctant to involve personal networks in their business which might be interpreted as dependence on others that would put doubt on the entrepreneur’s own capabilities (Curran et al., 1993; Johannisson, 2000). Entrepreneurs with rich industrial experience have relatively lower motivation to utilize personal networks due to high self-confidence and self-efficacy. The networking orientation of the entrepreneur strongly influences his/her firm’s development and utilization of networks for pursuit of internationalization. Further investigation is needed to identify and understand the key factors pre-conditioning entrepreneurs’ networking orientation and capabilities.

Many studies highlight the unplanned and emergent nature of networking activities of the entrepreneur, and inertia of smaller firms in networks (Curran et al., 1993; O’Donnell, 2004). The entrepreneurs of the four case companies were proactive in exploring and exploiting diverse network channels right from start-up to obtain resources to support foreign business development. Although a diverse network may make more resources available, it is impractical for small firms to network extensively in the long run. Extensive networking creates a heavy resource burden to small firms. The entrepreneurs of the case firms were able to align their networking activities with overall strategic directions. They had shifted responsively from extensive networking at the early stage of the start-up, to deliberate networking when strategic network parties were identified. Their successful internationalization experience demonstrates that it is essential to leverage ‘higher potential’ network relationships to sustain mutual growth. Networking should be articulated from being a daily ‘personal’ routine of the entrepreneur to an organizational capability (Dubini and Aldrich, 1991; Hite, 2005; Jarillo, 1989).

The study enriches existing understanding of the role of personal networks in business development of firms generally; it contributes to more fine-grained knowledge pertaining personal networks to rapid internationalization of firms. Important implications for smaller firms towards the deliberate use of their limited resources to network strategically to pursue foreign business growth are provided.

The study has several limitations. Firstly, findings of this study are discussed based on a pre-defined scope of personal networks. Due to the diverse definitions and ambiguous contents of ‘personal networks’ in existing studies, it is difficult to compare findings across studies to achieve generalization (Shaw, 2006). Secondly, this study analyzes the effect of personal networks in two broad phases of internationalization, i.e., the initial start and the ongoing phase. The findings ignore those in-between processes/stages; they are limited to construct a full picture due to the lack of longitudinal data. Thirdly, primary data were collected from a single key informant in each company. The findings may to a certain extent suffer from the single respondent bias.

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