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TITLE: FORMATION OF VALUE-CREATING INTER-FIRM NETWORK

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FORMATION OF VALUE-CREATING INTER-FIRM NETWORK

Abstract This theory-building, cross-national, multiple-case study explores the impact of the interaction between the environment and the firm on its development of international business network ties for value creation. By analyzing the data collected from eight entrepreneurial designer fashion firms from two nations, this paper postulates that i) in responding to the perceived increase of environmental turbulence, a firm's proactiveness in developing international business networks ties increases and consequentially, the breadth and depth of acquired value also increase; ii) a network structure that comprises of relatively more non-redundant ties than redundant ties allows a firm to gain the most benefits from its relational investment.

Keywords: strategy and network theory, environment, inter-firm network for value creation

INTRODUCTION

Network research has been growing rapidly in management during the last few decades (Borgatti and Foster, 2003). However, views are still diverse on how networks are formed amongst the different schools of thoughts. The traditional strategic management literature usually put a stronger emphasis on the planning and intentionality elements (Jarillo, 1988, 89) whereas the network theorists commonly advocate the natural emergence perspective (Axelsson, 1992; Johanson and Mattson, 1992) in network formation. Whether networks are formed intentionally or emerged naturally remains inconclusive. Perhaps in many instances, depending on the embedded environment, network formation can be both intentionally planned and organically evolved (Gulati and Gargiulo, 1999). This leads to a fundamental question - what specific environmental conditions will lead to different degrees of intentionality in forming network?

Entrepreneurial activities are very much affected by the context of the entrepreneur's embedded environment (Baker et al. 2005). The notion that firms are embedded in country-specific institutional context is being recognized in most international management research (Busentz et al., 2000). Nonetheless, the major environmental factors (institutional and industrial) affecting entrepreneurs' internationalizing behavior are still unexplored (Zahra and George, 2002). Although the different levels of

entrepreneurial activity across countries may be caused by the differences in national institutions, most cross-national study mainly emphasized the cultural factors (Bartholomew, 1997). To narrow this gap, this study focuses on the institutional and industrial contexts in defining the environment.

Adding to the complexity of studying the network formation phenomenon is the debate on whether closed network with many redundant ties (Coleman, 1988) or open network with relatively more non-redundant ties (Burt, 1992) provide firms with more benefits (Walker et al., 1997). Some authors argue that closed or redundant ties will provide the firm with fine-grained information (Uzzi, 1997) whilst some argue that loose or non-redundant ties will supply the firm with more new and diverse information (Burt, 1997; McEvily and Zaheer, 1999). Besides, most network research has been focusing on the outcome effect of network structures, little has been done on the causes of network structures (Borgatti and Foster, 2003). Therefore, this study seeks to examine both the causality and outcome effect of network structure. That is, how the interaction between the environment and the firm (cause) influence the firm's proactiveness in forming the different type(s) of business network ties for value creation (outcome effect). The co-evolutionary perspective, which considers change as 'the joint outcome of managerial intentionality, environment, and institutional effects', (Lewin and Volberda, 1999:p.526) is adopted for such exploration.

Network is especially important to entrepreneurs, who often need to leverage external resources in pursuit of opportunities (Jarillo 1988, 1989). Most previous related studies focused on MNCs in North America or Scandinavian countries (Liao et al., 2003). Whether the findings from these studies are applicable to the SMEs are questionable. Thus, this study focuses on internationalizing entrepreneurial SMEs in the Asia Pacific region.

The entrepreneurial behaviour of developing international business network ties for value creation corresponds to McDougall and Oviatt (2000) definition of international entrepreneurship – 'A combination of innovative, proactive, and risk-seeking behavior that crosses or is compared across national borders and is intended to create value in business organizations'. In fact, international entrepreneurship research has in many instances adopted the strategy theories, while integrating

international business and entrepreneurship in explaining complex organizational phenomena (Zahra and George, 2002). In the same line, this study adopts multiple theoretical approach in explaining the cause and effect of network structure in different environmental contexts. Overall, this paper aims to add to the stream of comparative study in international entrepreneurship by cross-fertilizing the strategic and network theory to explain firms' behavior in forming business network ties during internationalization.

The contributions made by this study are: It examines both the causality and consequence of network structure. A multidisciplinary theoretical approach is adopted in explaining the complex phenomenon. By investigating the formation process of international business network ties in two nations (Hong Kong and New Zealand) within one global industry – the designer fashion industry, this study attempts to theorize on the major interacting variables involved. A theoretical framework, depicting the relationships of the critical interacting variables, was developed. The two significant but under-explored environmental factors – institutional and industrial, are being addressed. The findings provides explanation on how and why firm develop business network ties as well as the outcome effect of network structure on value creation.

CROSS-FERTILIZATION OF STRATEGIC MANAGEMENT AND NETWORK THEORIES

Due to changing global environmental demand which leads to the increasing need for external information and resources, there is a growing trend of cross-fertilization of the strategic management and network theories. The importance of relationships and networks is widely acknowledged in the strategic management literature (Campbell and Wilson, 1996; Gulati et al., 2000; Nohria, 1992; Pettigrew et al. 2002; Sanchez and Heene, 1997; Venkatraman and Subramaniam, 2002) whilst network theorists (Axelsson, 1992; Gadde et al. 2003; Håkansson and Ford, 2002; Johanson and Mattson, 1992; Jüttner and Schlange, 1996) have postulated that well-structured networks can enhance firm's performance. Interfirm network relationships can become a form of strategic resource and a source of sustainable competitive advantage (Gulati et al. 2000). Although the strategic importance of networks is recognized by both strategic management and network theorists, how networks evolve and change over time remains unclear (Nohria, 1992).

In reacting to the changing environment, the most effective competitive structural form has changed from atomistic, independent to relational, interdependent. As the environment has changed from stable, certain and deterministic (Ansoff, 1965; Porter, 1985; Lieberman, 1987) to dynamic and complex (Axelsson and Easton. 1992; Baum et al. 2000; Gadde et al. 2003; Gulati et al.. 2000; Kogut, 2000; Snow and Miles, 1992), strategy has evolved from the view of strategy as a portfolio of business (Venkatraman and Subramaniam 2002) to a portfolio of relationships. Strategic processes have shifted from planned-rational, to planned-emergent-dynamic-interactive (Tikkanen and Halinen, 2003).

STRATEGIC VALUE OF NETWORKS IN ENTREPRENEURSHIP

A common theme in the strategic management and network perspectives is the value creation concept. A connection between the network configuration and value creation is suggested by the strategic network perspective (Burt, 1992). It is argued that the heart of contemporary strategic analysis is now the value-creating system, within which different economic actors cooperate to co-produce (Norman and Ramirez, 1993; Parolini 1999; Porter, 1996) or co-create value (Prahalad and Ramaswamy, 2000, 2004) value. Network partners coordinate activities, apply and mobilize resources to create value or cater for changing customer demands. Interfirm relationship can be a distinctive and productive resource for value creation and realization (Madhok and Tallman, 1998).

Interfirm network ties can serve as an inimitable resource that allows a firm to acquire competitive advantage (Galaskiewica and Zaheer, 1999). Firms are increasingly seen as embedded in extensive and overlapping networks of ties with customers, suppliers, competitors, government and other institutions (Granovetter, 1985) which act as channels for resources and information flows as well as referrals and influence (Burt, 1992). Strategically developed networks facilitate knowledge-sharing and learning (Shapiro and Varian, 1999; Anand and Khanna, 2000).

Interfirm network is becoming increasingly important to entrepreneurial firms for identifying and realizing their opportunities (Hitt et al. 2001; Jarillo, 1988). Internationalizing entrepreneurial SMEs, in particular, need to leverage resources through interfirm network to overcome size-related constraints

(Dubini and Aldrich, 1991; Coviello and McAuley, 1999; Mort and Weerawardena, 2006). By developing ties with business partners that possess complementary resources and capabilities, entrepreneurs may enhance their competitive position by identifying and capitalizing on synergistic value-creating opportunities (Dyer and Singh, 1998; Lado et al., 1997; McEvily and Zaheer, 1999). Being well-connected in a business network can be a crucial strategic advantage (Madhavan et al. 1998). Therefore, it may be fruitful to integrate the strategic, entrepreneurial (Ireland et al. 2001), and network perspectives in investigating entrepreneurial behavior that create value/wealth through international business network ties.

Entrepreneurial Behavior and Network Development

The three basic characteristics of entrepreneurial orientation are: innovative, proactive, and risk seeking behavior (Covin and Slevin, 1989). For the purpose of this study, I will focus on the proactive behavior in developing the theoretical framework. Firm's proactiveness depends on how it responds to the environment - takes actions to shape the environment by innovation or just passively react (Miller and Friesen, 1978). Borrowing from what has been proposed from previous studies, I define proactiveness in here as i) continuous and deliberate scanning of environment to identify opportunities (Lumpkin and Dess, 1996; Venkatraman, 1989) for network development; ii) investing to identify potentially valuable partnering opportunities, and iii) initiating preemptive actions in response to identified opportunities (Sarkar et al., 2001). Expanding to overseas market can be considered an entrepreneurial action (Lu and Beamish, 2001). In this study, the entrepreneurial characteristics of the firms are defined as – growth oriented, have already taken the first step to enter overseas market, investing to develop valuable overseas business network ties for creating new products, new markets, new sources of supply and new ways of production (Harris and Wheeler, 2005; Schumpeter, 1942).

Entrepreneurial SMEs and Network

SMEs are increasingly active in pursuing opportunities in international markets (Knight, 2000; Mort and Weerasardena, 2006). Entrepreneurial SMEs are playing an increasingly significant role in providing the impetus for economic growth, employment creation and innovation (Buckley, 1996; Busenitz et al., 2000; Dana and Wright, 2004; OECD-APEC, 2006; Reynolds, 1997; Rondinelli and Kasarda, 1992). However,

they seem to be under-represented in the international economy relative to their contribution to national and regional economies (OECD-APEC, 2006). In the large body of organizational adaptation literature, most studies focused on large, well-established firms, very little has been done in the context of SMEs (Liao et al., 2003). The extent to which findings from research based on large, mature firms is applicable to SMEs is questionable. Therefore, this study focuses on SMEs to fill the void in the literature.

Business Networks

Amongst the different types of networks, this study focuses on business network. Business network can be defined in various ways. It can be defined as ‘the long-term business relationships that a firm has with its customers, distributors, suppliers, competitors and government, the actors in a business network’ (Johanson and Mattson, 1988) and it embraces the idea of the firm as capable of creating and enacting business opportunities instead of just reacting to the environment (Håkansson and Snehota, 1989).

The business network can be a value creation network as it can provide the means for a group of independent firms to raise their joint performance by creating additional value in the chain and by developing a collective strategy (Astley 1984; Holm et al. 1996). A recent definition of strategy in business network which encompasses deliberate action, reaction and re-reaction on the basis of its own perceived network environment and the outcomes of the interfirm interactions, integrates strategy elements (Ford, 2003). In this paper, ‘international business networks’ refer to the sets of connected relationships formed between the focal firm (the designer fashion firm) and its major overseas business partners (for example, suppliers, customers/buyers, and manufacturers) during the course of its internationalization.

FORMATION OF INTERNATIONAL BUSINESS NETWORK - THE COEVOLUTIONARY PERSPECTIVE

It is unclear in the extant literature under what conditions network will be proactively developed or will emerge naturally. As suggested by Ahuja (2000), network formation can be ‘both the actor’s inducements to form linkages and his/her opportunities to collaborate’. Both strategic needs and social opportunities

are critical for network relationship development (Eisenhardt and Schoonhoven, 1996). Whether business networks are formed intentionally or emerge organically is arguable. Perhaps it depends on the firm's embedded environment and the way the firm interact with its embedded environment.

By postulating that network formation can be the result of the intertwining effect of managerial intentionality and environmental effects, the coevolution perspective helps explain the complex network formation phenomenon (Lewin et al., 1999). It may also help to integrate the micro- and macro-level evolution within a unifying framework (Lewin and Volberda, 1999), given that the 'structure of interfirm relations is portrayed as a 'macro' phenomenon emerging out of the 'micro' decisions of firms seeking to gain access to resource' (Gulati and Gargiulo, 1999:1475).

Environment – Institutional and Industrial

A firm's environment constitutes a significant part of the context in which it operates (Madsen and Servais, 1997). This paper focuses on the task environment (Liao et al., 2003) which includes components like technology, competitors, customers, and regulatory bodies, that impact directly on the firm's international competitive position. The components are categorized as institutional and industrial environment (which are crucial in affecting entrepreneurial internationalizing behavior (Busenitz et al., 2000; Zahra and George, 2002)) under the task environment.

Different levels of international economic growth and entrepreneurial growth across countries can be attributed to the differences in national institutional conditions (Busenitz et al., 2000; Chetty et al., 2006). Thus, the institutional environment may influence the firm's approach in developing network ties. In defining the institutional environment, I adopted and adapted Busenitz et al.'s (2000) country institutional profile (which was based on Kostova's (1997) three-dimensional approach – regulatory, cognitive, and normative).

The industrial context in which the firm operates may have significant impact on its internationalizing behavior (Oviatt and McDougall, 1994; Kulvalainen et al., 2004). A firm's decision-making and strategic direction can be influenced by the decision-maker's perceptions of industry complexity and turbulence (Keiser and Sproul, 1982). Since the appropriateness of theories may depend on the industrial context to

which it is applied (Andersson, 2004), different industry conditions may lead to the development of different form(s) of network ties (Borgatti and Foster, 2003).

Perceived Environmental Turbulence and Firm's Proactiveness

Environmental turbulence is most important in influencing firms' adaptation behavior. Turbulence can be defined as high levels of interperiod change of key environmental variables (for example, technology) and the uncertainty in relation to the values of these key variables (Dess and Beard, 1984; Bourgeois and Eisenhardt, 1988; Glazer and Weiss, 1993; Sinkula, 1994; Liao et al. 2003). The reliability and external validity of the objective measures developed for turbulent environment may be unstable across industry and over time (McCann and Selsky, 1984). Measures such as, munificence, dynamism, and complexity (Aldrich, 1979; Covin and Slevin, 1989; Duncan, 1972) developed in previous study may be restricted in describing the dual characteristics of 'rate of change' and 'unpredictability of change' of turbulence (Cameron et al. 1987). Therefore, in defining the environmental turbulence for this study, four sources of turbulence: changes in customer preference, competitor intensity, technological turbulence, and regulatory/institutional environment, are adopted and adapted from previous studies (Dwyer and Welsh, 1985; Jaworski and Kohli, 1993; Busenitz et al. 2000; Kuivalainen et al. 2004). The first three sources are grouped under industrial environment. The main exploratory concern for each source of environmental turbulence is given in Table 1 below.

[Insert Table 1 about here]

Management perception of the environment is central to strategy-making (Mathews and Scott, 1995) and a firm's strategic choices are influenced by its perceptions of the environment (Keats and Hitt, 1988; Yeoh and Jeong, 1995) and environmental turbulence (Keiser and Sproul, 1982). In responding to increasingly turbulent environment, proactive firms attempt to manipulate some determining factors in the environment (Pfeffer, 1976; Kotler, 1979). A combination of institutional, industry, and organizational factors may increase international expansion by new entrepreneurial firms (Brush and Vanderwerf, 1992; Busenitz et al. 2000; Zahra et al., 2000). Applying the same rationale to the entrepreneurial SMEs, they may become more proactive in developing international business network ties for leveraging resources (for example,

knowledge) (Becherer and Maurer, 1997) for internationalization if the environment is perceived to be increasingly turbulent.

The above review was synthesized into propositions that guided this research. The first proposition is:

Proposition 1. *The higher the perceived degree of environmental turbulence, the higher the proactiveness in developing the international business network ties.*

NETWORKS TIES AND VALUE CREATION

By adopting the business network approach in its value system activities allows the firm to have more interdependent exchange, hence creating additional value along the system as compared to arm's length transaction. However, given that different types of network ties may function differently in different conditions (Borgatti and Foster, 2003; Jack, 2005), what network structure is most beneficial to the focal firm (Walker et al., 1997) still need to be explored. In the extant literature, one view opts for dense/closed networks (comprising mainly redundant ties) (Coleman, 1988; Walker et al. 1997) whilst an alternate view opts for sparse/open networks (containing mainly non-redundant ties) (Burt, 1992).

Constructing networks with relatively more non-redundant ties may allow the firm to gain the most benefits by saving on costs of network maintenance for redundant ties (Burt, 1992). Network positions that provide the firm with the highest economic return can lie between instead of within dense areas of relationships (Burt, 1992) and these sparse areas are referred as structural holes (Walker et al. 1997). Entrepreneurs may act as bridges between the structural holes and take advantage of entrepreneurial opportunities presented by those networks abounded with structural holes (Burt, 1997). By bridging structural holes, which present opportunities for brokering information flows among firms, the focal firm can obtain better economic payoff by establishing ties that bridge these otherwise unconnected firms. This provides the focal firm opportunities to develop diverse, non-redundant ties and helps increasing its exposure to novel information/knowledge that facilitates learning and development of value-creating capabilities (McEvily and Zaheer, 1999; Baum et al, 2000). In bridging structural holes, partner selection is assumed to be the principle determinant for effective cooperation between firms (Burt, 1992). This puts

an emphasis on proactiveness rather than reactivity in forming network ties. Thus, internationalizing entrepreneurial SMEs competing in an environment perceived to be increasingly turbulent are likely to be more proactive in developing more non-redundant ties for enhancing its value-creating capabilities. Taken together with the arguments for proposition one, the second proposition is:

***Proposition 2a.** The higher the proactiveness in developing international business networks in a turbulent environment, the more non-redundant ties will be formed.*

***Proposition 2b.** The more non-redundant ties are formed in a turbulent environment, the more value will be created.*

Network Structure and Value-creating Capabilities

It is argued that an optimal network should contain both strong/redundant and weak/non-redundant ties but non-redundant ties tend to be more beneficial for entrepreneurs (Jack, 2005). A balanced network consisting of both weak and strong ties, may become the most beneficial and valuable (Uzzi, 1996). According to Uzzi's (1997) paradox of embeddedness - 'There is diminishing utility of added linkages in general, whereas there is an increasing utility for adding the right kind of linkages' (Hagedoorn and Duysters, 2002: 527). By prioritizing the level of relationship involvement with different business partners, analyzing and planning the relational investment may help the firm to avoid being locked into unproductive relationships (Gadde et al. 2003). Maximizing the number of non-redundant ties and minimizing the number of redundant ties (those providing overlapping information) may allow more efficient utilization of time and resources (Burt, 1992; McEvly and Zaheer, 1999). Finally, building on the first two propositions the third proposition is:

***Proposition 3.** An optimal network structure that provides the most value in a turbulent environment consists of relatively more non-redundant ties than redundant ties.*

METHODOLOGY - The Industrial Characteristics

In collecting data to provide evidence to support or refute the propositions, eight designer fashion entrepreneurial firms (four Hong Kong, four New Zealand) were selected. A large proportion of SMEs in

Hong Kong have less than fifty employees (Lui and Wong 1994; Sit and Wong, 1989). Similarly, the designer fashion industry in New Zealand comprises mainly of small firms (Blomfield, 2002). The designer fashion industry is classified under the creative industry category, which is an industry recently targeted for development by both the New Zealand and Hong Kong governments (www.industry.govt.nz/industry/creative-industries/default.asp; www.tdctrade.com/econforum/tdc/tdc020902.htm).

The major reasons for the surging importance of designer fashion in the two countries are as follows. In New Zealand the apparel industry suffered severely from deregulation in the 1980s when the tariff protection against imports decreased and quotas were abolished. Showing their resilience, New Zealand manufacturers became focused on niche export market and consequently stimulated the recent rapid growth of designer fashion (Blomfield, 2002). With joint efforts among the government, the big commercial organizations, and the fashion designers, New Zealand launched its first international fashion week in 2001.

In Hong Kong, garment manufacturers, pressured by the increasingly tightened quotas imposed in its export markets, have been endeavoring to add value to their products since the 1960s. With the joint efforts of the Federation of HK Industries, HK Trade Development Council (a semi-governmental body), the garment manufacturers, and the fashion designers, Hong Kong has been putting up numerous international fashion trade fairs and fashion shows since mid-60s but local designer label with export quality appeared only in late 1980s (Skov, 2001). In both HK and NZ, the fashion events served not only to promote the designer fashion but also the international image of the country as a whole (Blomfield, 2002).

Most of the new generation of HK fashion designers studied overseas (in western countries), and had international experience gained either personally or through work. Given that they grew up in the colonial era, they were very much influenced by the western culture. Besides, designer fashion tends to be a more individualistic industry. The emerging designer fashion entrepreneurs thus become a new breed of entrepreneurs compared to the traditional ones in HK (Skov, 2001). Due to their small size and limited

available resources, these entrepreneurial firms in both nations are aware of the importance of forming and utilizing business network ties for value creation and thus enhanced international competitiveness.

Hong Kong and New Zealand are small economies facing great pressures to add and/or create value to their products. Both nations acknowledge the strategic importance of the creative industries to their economy and their designer fashion industries are at the emerging stage. These fundamental similarities make it appropriate to do a comparative study between the two countries to provide empirical evidence for this research.

Method

The study used a qualitative approach to data since it focused on exploring the dynamics of interactions as a socially constructed reality involving multiple perspectives (Flick, 2002). Such approach is justified since the data involved firm perceptions of the environment and, although business networks are increasingly important, network research is a relatively new field and some underlying concepts are not yet clearly defined (Achrol and Kotler 1999; Möller and Halinen 1999) and thus still require theory development (Shaw 1999). A case study method was used since the research focus was on the development of international business network ties which involved investigating “a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin 2003:13).

The case study is perhaps the most commonly used method in industrial/business network research (Bonoma 1985; Easton 1995; Eisenhardt 1989; Möller and Rajala 1999; Romano 1989; Woodside and Wilson 2003; Yin 2003). Since business networks are context specific, that is embedded in different environmental conditions (Halinen and Tornroos 2005), the case study captures the dynamics of this complex contemporary phenomenon (Eisenhardt 1989) and the processes and mechanisms of international business network development (Yeung 1995). Case research situates the research issues in their context from multiple perspectives. It is also particularly suited to situations where little is known about the phenomenon and where existing theories seem inadequate (Easton 1995; Eisenhardt 1989; Yin 2003), and

it enables the exploration of contextual factors and process elements in a real-life situation (Halinen and Tornroos, 2005).

The goals of data collection for case studies are description, classification, theory development, and limited theory testing (Bonoma 1985), which fit with those of this study. A theoretical framework was developed based on *a priori* constructs drawn from the literature. With the aim of theory development, this framework consisted of relationship among core concepts (perceived environmental turbulence, entrepreneurial proactiveness, international business networks, nature of ties and value creating capabilities) and was used as a guide for interviewing and subsequent cross-case analysis. Such theoretical frameworks can also inform the development of tightly focused research questions and propositions (Yin2003) and the tighter the theory, the better case studies can be conducted to generate results that support propositions or hypotheses (Halinen and Tornroos, 2005).

The collected data are analyzed to see whether they provide evidence for the research propositions. The unit of analysis was the entrepreneurial designer fashion firm within a single-unit, multiple-case design (Yin 2003). Due to the small size of the firms (less than 15 full-time staff) the key respondents were the designer fashion entrepreneurs, who were also the owners and major decision makers of the firms. The network boundaries were defined by the key informants' perceptions, and the cases in each country were juxtaposed to identify what was specific in each country environment in relation to the theoretical framework and propositions.

Four case studies from each country were conducted, using purposive theoretical sampling rather than random sampling to ensure that they provided data relevant to the research problem and questions (Eisenhardt 1989; Marshall and Rossman 1995). Additional criterion sampling (Patton 1987) was also adopted. An overview of the cases is given in Table 2. Applying a triangulation strategy in data collection, that is, obtaining data/materials from multiple sources, (Denzin 1970) validity and reliability were enhanced. Primary data were collected through in-depth face-to-face interviews with the fashion entrepreneurs, a representative of each countries' trade councils, and a representative of the two fashion designer associations; as well as direct observation by attending and observing behavioral events – such as

industry shows. These were then complemented by secondary data from archival records (for example, information from websites of the trade councils and individual firm) and industry reports. The interviewees were initially contacted through e-mail and phone calls, and were interviewed at their business premises. The duration of the interviews ranged from one hour to three hours. A simplified version of the interview guide was sent to each interviewee before the interview.

[Insert Table 2 about here]

A case study protocol was developed, a pilot case was conducted and the questions in the semi-structured interview guide were then refined and clarified. The protocol covered an overview of the case study project; field procedures; and case study questions (Yin 2003). The questions covered possible types of network relationships, general description of each relationship, forms of network ties, benefits/exchanges and perceived degree of environmental turbulence. In the data analysis the key steps taken were: within-case analysis (analysis for each individual case); cross-case analysis within the same country; and cross-case analysis between the two countries on the basis of the thematic framework. Techniques of pattern matching and cross-case synthesis were utilized to link data to the propositions for empirical support and refinement of the emerging theory.

By juxtaposing the eight cases, commonalities and differences were identified and analyzed based on the theoretical framework and propositions. The results of cross-case analysis provided either support or suggestions for refinement to the proposed theory which helped to improve the possibility of generating an accurate and reliable theory, that is, a theory that fitted closely with the data. Construct validity (establishing correct themes or pattern for the theoretical concepts being studied) was improved by using multiple sources of evidence. Both theory and replication logic were used in the multiple-case study design to improve external validity (establishing the domain to which a study's findings can be replicated and eventually be generalized analytically). Finally, reliability (demonstrating that the operations of a study can be repeated with the same results) was enhanced by using the full case study protocol (Yin 2003).

DATA AND FINDINGS

This section highlights some of the key findings of the study, summarizes the illustrations and evidence for the research propositions and shows how the theoretical framework was refined in light of the findings.

Conclusions on the Propositions Across All Cases - Proposition One. Conclusions made on proposition one were based on the designers' answer to the questions in the semi-structured interview guide. Three levels – low, medium, and high were used to show the degree of the designers' perceived environmental turbulence and proactiveness. In general, the NZ designers did not perceive the competition they were facing as very intense although they realized the need to improve their international competitiveness. They did not think that the customers demand was changing very frequently and they found the institutional environment rather favorable. Amongst the NZ designers, Designer B was most active in participating in international fashion and fabric shows as well as related trade fairs. Therefore, her proactiveness was regarded as higher than the rest. Designer C had a relatively higher awareness of the increasing pressure posed by international competitors than A and D by planning to take a more proactive approach in developing overseas ties in the near future. Only two NZ designers were directly linked to overseas suppliers and only one had contract overseas manufacturers for accessories. Their major overseas business network ties were formed with agents/distributors. As a result, it can be said that their international involvement was relatively low and perceived environmental turbulence was low to medium.

The HK designers perceived environmental turbulence as medium to high with an overall tendency towards high. In general, they perceived higher competitive intensity and found the institutional environment less favorable than the NZ designers. Designer E's degree of proactiveness was the highest amongst all HK designers. Not only was Designer E exceptionally active in participating in international fashion shows, he was also linked to the PR agents in major overseas markets. Designer H, seeing the environment as increasingly more turbulent than Designer F and G, was gearing up to attend more overseas fashion and trade shows. Hence, Designer H's degree of proactiveness was relatively higher than F and G. Designer G's skepticism on the usefulness of overseas fashion websites and relatively low frequency of contact with overseas buyers revealed that he has the lowest degree of proactiveness amongst

the HK designers. Overall, HK designers have relatively more direct and indirect ties to overseas suppliers and manufacturers than NZ designers. Their overseas sales ratios were also higher than the NZ designers in general. Hence, the HK firms' perceived turbulence was ranked as medium to high and international involvement was also medium to high. Based on the designers' activities in response to the perceived degree of environmental turbulence, the HK designers' degree of proactiveness in developing international network relationships was ranked as medium to high with Designer E at the high end, whereas the NZ designers' proactiveness was low to medium. One major difference between the HK and NZ designer fashion firms regarding proactiveness is that, HK firms took the initiative to contact the potential customers while attending overseas fashion/trade shows while NZ firms did not.

Overall, the comparison of both HK and NZ designers in terms of their perceived degree of environmental turbulence and degree of proactiveness can be depicted as in Figure 1.

[Insert Figure 1 about here]

Figure 1 shows that the perceived degree of environmental turbulence and the degree of proactiveness in developing international network relationships were strongly associated within each group of cases, thus providing strong support for proposition one - *The higher the perceived degree of environmental turbulence, the higher the proactiveness in developing the international business network ties.*

Proposition Two (a and b) In illustrating proposition 2a and 2b – 2a) '*The higher the proactiveness in developing international business networks in a turbulent environment, the more non-redundant ties will be formed.*' and 2b) '*The more non-redundant ties are formed in a turbulent environment, the more value will be created.*' – the following summary table (Table 3) of the value derived from the overseas business network ties for all designers was used.

[Insert Table 3 about here]

Overall, the table shows that HK designers were enjoying more information, knowledge and resource benefits than the NZ designers by forming more non-redundant ties with the overseas business partners. Taken together with the results for proposition one, they provide strong agreement for proposition two. That is, those designers who were more proactive in developing their international business networks due to higher perceived degree of environmental turbulence, could acquire more benefits through diverse and

distant network ties. The difference in the number of non-redundant ties each firm had may contribute to the difference of the breath and depth of the acquired value for each individual firm. Generally, the HK firms managed to develop more value-creating non-redundant ties than the NZ firms. These findings provided strong support for proposition 2a and 2b.

Proposition Three To illustrate proposition three – ‘*An optimal network structure that provides the most values in a turbulent environment consists of relatively more non-redundant ties than redundant ties.*’ - the following table (Table 4) showing the form of tie (D = direct, I = indirect) and the approximate count of each form of ties with the existing overseas business partners for each designer was used.

[Insert Table 4 about here]

Table 4 shows that HK designers were exposed to more direct and indirect non-redundant ties than the NZ designers by having more ties (both direct and indirect) with overseas business partners. By forming non-redundant ties with the overseas business partners, they were also benefited from the indirect non-redundant ties brought through them. An illustration of non-redundant tie is given in Figure 2. Since the manufacturers (clustering in certain regions) provided overlapping information and know-how, the ties with the manufacturer were mainly redundant. The designers used these redundant ties as a buffer for sudden change, for example, when there was sudden increase in orders. Forming ties with more overseas buyers allowed the designers to acquire more benefits. But when the number of direct overseas ties became too overwhelming, they would opt for a representative agent who acted as a bridge between them and the distributors. This allowed them slack resources for handling potential new ties in new markets. Both redundant and non-redundant ties were useful but more benefits can be acquired by having relatively more non-redundant ties. It can be concluded that the results provided strong support for proposition three.

[Insert Figure 2 about here]

DISCUSSION

Overall, the results provided strong support for the three propositions developed based on the theoretical framework. The results also showed that entrepreneurial firms embedded in different environment might

have different perceived level of environmental turbulence and thus their degree of proactiveness in developing international business ties might differ. Even though the firms might be embedded in the same environmental context and their perceived levels of environmental turbulence were similar, their degree of proactiveness might still vary slightly. Participation in trade events is a conventional way for SMEs to generate the opportunities for forming business network ties (Ellis, 2000, Meyer and Skak, 2002). By being eager to expand overseas and intentionally plan for and invest in participation of overseas trade events, the firms were exhibiting entrepreneurial proactive behavior.

The findings demonstrated that as the firms formed more non-redundant ties with major overseas partners, their accessible information, knowledge and resources increased which in turn enhanced their value-creating capabilities. Due to the limited resources that the firm possessed and to avoid being locked into redundant or unfruitful relationships, the firm would opt for a network structure that consisted of relatively more non-redundant ties (ties that lead to new, diverse, and non-overlapping information or knowledge) than redundant ties (ties that lead to same/overlapping information or knowledge). Such a structure facilitated effective and efficient acquisition of novel and diverse information and created the optimum condition for delivering the best value to its customers. By identifying and constructing appropriate levels of relational involvement with individual partners (Gadde et al. 2003), maximum returns from relational investments can be achieved.

The coevolutionary perspective in network formation was reinforced by the findings. Instead of being shaped by the environment, the designer fashion entrepreneurs acted proactively to reshape the environment (although at different degree). The individual firm was coevolving with the environment by combining efforts with government and local institutions, proactively create, identify, and exploit the opportunities for developing valuable overseas business network ties. Their behavior was influenced by the history of changes in the industry and institution environment. Their proactiveness in developing international business network ties for overseas expansion can be regarded as an emergent strategy in reacting to and enacting on the changing environment.

The findings provided suggestions for the refinement of the constructs of the variables (Table 6) as well as the preliminary theoretical model (Figure 3). According to all the designer fashion entrepreneurs, fashion design is about craftsmanship, the impact of technological change was perceived as insignificant. Therefore, this construct was removed from the model.

[Insert Table 5 and Figure 3 about here]

Contextualization

Since every legitimate theory is only valid in certain subject domain, it is crucial that context settings are explicated. As urged by Meyer (2007) and Redding (2005), more attention should be paid to context in international business research for theory building and providing relevant insights. The theoretical model and research design of this study provided the contextualized setting for understanding the complex phenomenon of international business network formation (which to a rather large extent, can be shaped and deliberately designed (Lorenzoni and Lipparini, 1999)). The firms' interaction with the particular environmental conditions in the two relatively internationalized small economies provided the causal explanation for the formation of a network structure that contained relatively more non-redundant ties than redundant ties. The contextual setting also helped advance the understanding of the significance of the different types of network ties (redundant and non-redundant) for value creation (outcome effect).

IMPLICATIONS

By adopting a qualitative approach, the goal of this study is inductive theory building. The rationale for adopting such approach is: i) Lack of comprehensive model explaining the mechanism of network formation in the extant literature; ii) Divergent views regarding the utility and function of the different types of network tie; iii) Lack of consensus on the definition of the involved variables in previous study; iv) Commonly used definitions may not be applicable in this research context. Thus, inductive theory building is needed to be done first before moving to any deductive theory testing. Basically, induction is 'the process of proceeding from particulars to the general' (Locke, 2007). By observing reality, perceptual

knowledge of certain causal relationships is generated and integrated into concepts which in turn can be integrated into theories (Locke, 2007).

Cooperative strategies (Osborn and Hagedoorn, 1997) and network strategy (Gomes-Casseres, 1996) in the international context are likely to continue to shape future competition. Cross fertilization of strategic management and network theory can i) provide contemporary and unequivocal illustrations for this shift of focus which is a promising area of future research, ii) enable network research in the international entrepreneurship domain becomes more focused (Ritter and Gemünden, 2003). Also, this study may be considered as setting the stage for future longitudinal coevolutionary study.

LIMITATIONS AND CONCLUSION

Although the results of this study provided strong support for the propositions and reinforced the theoretical themes derived from the theoretical framework, only qualitative methodology was used. To enhance the generalizability and external validity, the model can be adopted in a larger explanatory survey research. The data and material were collected only from the focal firm that is, one side of the dyad. To obtain a more comprehensive understanding of the formation of international business networks may require the collection of data from the overseas business partners as well. However, the level of subjectivity is reduced by adopting a triangulation approach in data collection. This study was based on retrospective data instead of longitudinal data due to the small project size. By recalling past events, the informant might have missed out some important ones during the interviews. Nevertheless, this study manages to achieve the theory-building objective by fulfilling the ‘What’, ‘When’, ‘How’, ‘Why’ requirements as suggested by the theory-development authorities, and the relationships between the variables in the proposed theoretical model are yet to be tested (Whetten, 1999).

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Table 1: Four Sources of Environmental Turbulence

Source of turbulence	Main exploratory concern
Customer environment	The frequency of changes in customers' demand.
Competitive environment	Changes of the major competing factors and the firm's existing capability in dealing with these factors.
Technological environment	The impact of technological/IT change on the firm's business.
Institutional environment	Whether the three-dimensional profile: 1) regulatory (government policies), 2) cognitive (entrepreneurial business knowledge as widely shared social knowledge), and 3) normative (social norms and values regarding entrepreneurial activities), is perceived to be favorable or not at different time periods. (Busenitz et al., 2000).

Source: (Duncan, 1972; Dwyer and Welsh, 1985; Jaworski and Kohli, 1993; Kuivalainen et al., 2004)

Table 2: Overview of Cases

Designer	Gender	Location	Age of firm	No. of overseas stockists	Sales Ratio- Local : Overseas	Existing overseas market(s)
NZ – A	F	Grey Lynn, Auckland, NZ	6	9	85:15	Australia, Singapore
NZ – B	F	Newton, Auckland, NZ	10	35	30:70	Australia, Singapore, Dublin
NZ – C	F	Newton, Auckland, NZ	10	18	50:50	Australia, Singapore
NZ – D	F	Kingsland, Auckland, NZ	8	3	90:10	Australia and Brunei
HK – E	M	San Po Kong, Kowloon, HK	11	114	20:80	Australia, US, Japan, Dubai, Singapore, Indonesia
HK – F	M	Central, HK	5	8	0:100	Australia, Japan, Taiwan
HK – G	F	Central, HK	9	28	40:60	US, Canada, Denmark, Australia, and Israel
HK – H	F	Lai Chi Kok, Kowloon, HK	5	6	30:70	Australia, Japan, Singapore, Dubai

Table 3: Value derived from business network ties (NZ and HK)

	Suppliers	Manufacturer	Agent/Distributor	PR Agent
Technological bond ¹ – Access to: i) design/ production skills; ii) related technologies	HK = 2 HK = 2, NZ = 1	HK = 4, NZ = 1	NZ = 1	
Social bond ¹ - General information sharing	HK = 2	HK = 3	HK = 3, NZ = 3	HK = 1
Knowledge bond ¹ – Access to: specialist know-how	ALL	HK = 3, NZ = 1	HK = 4, NZ = 2	HK = 1
Logistic/ Distribution bond ¹ – i) Time saving; ii) Risk reduction	HK = 4, NZ = 2 HK = 1	HK = 2	HK = 4	
Financial bond ¹ - costs saving	HK = 4, NZ = 2	HK = 4, NZ = 1	All	
Advice contacts ² – i) Joint problem solving; ii) Ensure resource availability; iii) Expert Advice	HK = 2 HK = 4, NZ = 2	HK = 4, NZ = 1	HK = 3, NZ = 2	HK = 1 HK = 1
Innovation contacts ² - New, diverse information sharing	HK = 4, NZ = 1		HK = 3, NZ = 1	

Source: Contractor and Lorange, 1988; ¹Hallen and Johanson, 1989; Porter, 1986; ²Rodan and Galunic, 2004; Uzzi, 1997

Table 4: Direct and indirect overseas business network ties (NZ and HK)

Designer	Approximate count of ties							
	Manufacturer		Supplier		Agent		Distributor	
	D	I	D	I	D	I	D	I
A				3-6			9	
B	3-6		6-10	2-3	1		2	33
C				3-6	1		12	6
D			3-6	3-6			3	
E	3-6		3-6	>10	3		10	104
F	6-10		6-10	>10			8	
G	3-6		6-10	>10			28	
H	3-6		3-6	>10			6	

[D – Direct ties, I – Indirect ties]

Table 5: Refined Constructs of Major Variables

Perceived environmental turbulence – perceived degree of changes in:

- Customers’ preferences/demand;
- Competitive intensity in the embedded business market; and
- Institutional (regulatory, cognitive, normative) environment (whether such environment is perceived as favourable or not)

Degree of Proactiveness – amount of endeavour (for developing international business network ties) given in response to the perceived degree of environmental turbulence:

- Frequency or tendency of participation in international industry events;
- Amount of investment (in terms of effort, time, and money) made in developing value-creating ties.
- Level of initiatives undertaken to interact with and respond to the institutional and industrial environment.

Figure 1: Relationship between Perceived environmental turbulence and proactiveness (NZ and HK)

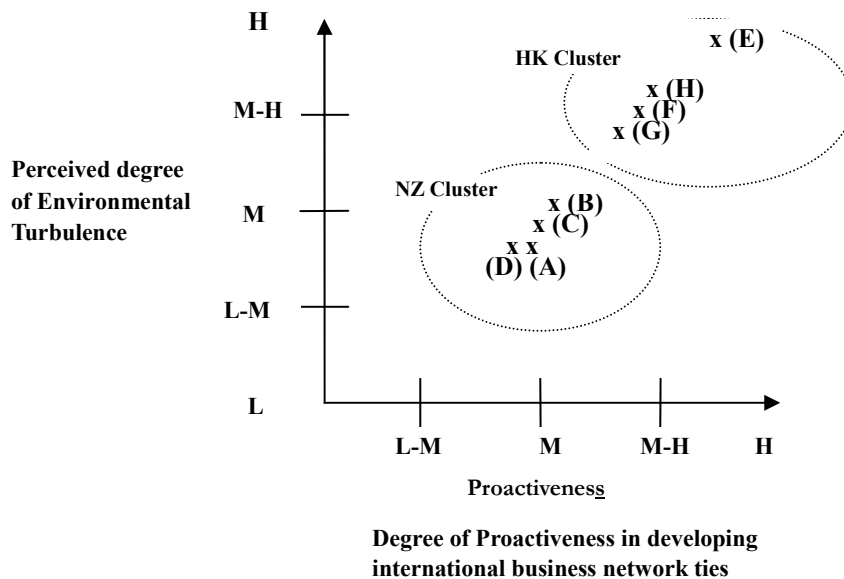
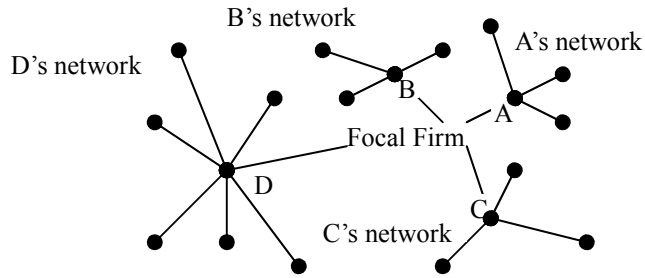


Figure 2: Illustration of Non-Redundant Tie



A, B, C – overseas suppliers
 D – overseas distribution agent
 The focal firm has no relationship with anyone in its overseas business partners' network. When a direct non-redundant tie is formed between the focal firm and its major business partner, indirect non-redundant ties are also formed between the focal firm and its major overseas business partners' contact.

Figure 3: Modelling Environmental Turbulence and Network Ties

