

TECHNOLOGY CAPABILITY AND THE INTERNATIONALIZATION STRATEGIES OF NEW VENTURES

Huan Zou

Business School, Loughborough University, United Kingdom

Xiaohui Liu

*Business School, Loughborough University, United Kingdom**

Pervez Ghauri

The Department of Management, King's College London, United Kingdom

Abstract. *This study investigates the impact of technological capability and the combination of technological capability, networking capability and financial capital on growth strategies adopted by new ventures in China. Technological capability needs leveraging through the process of combining with other capabilities. The results show that the interaction between technological capability and networking capability increases the possibility that a new venture chooses an internationalisation strategy. Technology capability provides a base to allow networks to have a positive impact on internationalisation strategies. The findings from the study provide a better understanding of technology capability and its impact on internationalisation strategies. This study also generates some important implications for high-tech new ventures in emerging economies.*

Keywords: *internationalisation strategies, new venture, technological capability, networking capability, financial capital, China*

Introduction

Technology capability plays a critical role in determining the success of new ventures, both in domestic and international marketplaces (Zahra 1996; Yiu et al., 2007). It is regarded as an important strategic resource, enabling new ventures to gain market acceptance and achieve long-term competitive advantage through continuous innovation and the introduction of new products (Lee et al., 2001; Ghauri & Cateora, 2006; Hsieh & Tsai, 2007). Superior technological capability can provide the potential for new ventures to make initial market entry by differentiating their products from com-

* Corresponding author. Mailing address: Business School, Loughborough University, Leicestershire, LE11 3TU, UK. Email: X.liu2@lboro.ac.uk

petitors' offerings (Teece et al., 1997) or by achieving cost-advantages with similar products or services (Covin et al., 2000), and it helps new ventures to overcome the disadvantage of foreignness in international markets (Rhee, 2008). New ventures may be more adept at learning about advanced technology in international markets, which in turn contributes to their subsequent growth and profitability (Zahra et al., 2000; Spence & Crick, 2006).

While recent entrepreneurship studies have paid significant attention to the importance of technology capability on the speed at which international new ventures are established (Pla-Barber & Escribá-Esteve, 2006; Acedo & Jones, 2007) as well as to their performance (Gleason & Wiggenhorn, 2007; Zahra & Hayton, 2007), considerably less attention has been given to the impact of technological capability on different growth strategies that new ventures adopt, except for earlier work done by McDougall and her colleagues (1989; 1994). This is partly because the literature on new venture growth often focuses on why some firms grow faster than others, instead of understanding "where that growth is occurring (i.e. domestically or internationally)" (Gilbert et al., 2006, p. 937). The empirical findings on the role of technological capability in the internationalisation or domestic-focused strategies of new ventures are inconclusive. For instance, Oviatt and McDougall (1994; 1995) note that the main reason many international new ventures seek foreign market entry is to recoup sunk R&D expenditure that might be too large to recoup in their home markets from a transaction cost perspective. Alternatively, Zahra *et al.* (2000) argue that new ventures expand into new markets in order to obtain technology learning. However, few studies investigate how technological capability affects different growth orientations between domestic new ventures and international new ventures, and attempt to differentiate the impact of technological capability on different growth choices.

In addition, some researchers (Christensen & Bower, 1996; Noda & Collis, 2001) call for more studies to explore how organizations leverage technological capability and transform technology applications through combination with other capabilities for growth and renewal. However, few studies attempt to answer this question apart from Danneels' (2007) pioneering study which provides some evidence concerning the process of technological competence leveraging, based on qualitative case analysis.

Extending the previous research, this paper proposes that the different choices between domestic-focused and internationalisation strategies by new ventures are dependent not only on the ventures' technological capability, but also on technology leveraging. This proposal implies the combination of an existing technological capability and the exploration of other resources and capabilities in order to compete in global markets (Ghauri et al., 2005; Danneels, 2007; Elg et al., 2008). In particular, this paper investigates how the interaction between technological capabilities, networking capability and financial capital jointly contributes to different growth strategies.

This paper concentrates on high-tech new ventures in China to analyze the impact of technological capability and its interaction with financial capital on different growth strategies. The reason for focusing on Chinese high-tech new ventures is two-fold. First,

as the world's most influential emerging economy, China has been making remarkable efforts to catch up with developed countries in high-tech sectors. The Chinese government has placed great emphasis on developing high-tech industries and has heavily invested in research and development (R&D). China's spending on R&D grew at an average of 22.54% annually between 2001–2007 (China Statistical Yearbook, 2008). Encouraged by the supportive government policy, such as tax subsidies and financial incentives, the number of high-tech new ventures has grown substantially and has become the driving force of economic growth. However, very limited research has been conducted on high-tech new ventures in China. In particular, high-tech new ventures from China have an increasing tendency to engage in international activities and to establish their global presence. The report by Deloitte Touche Tohmatsu (2007) identifies that, of the top 100 fast-growing Asia-Pacific new ventures, 18 firms are from China and over half of these have achieved an international presence. This new phenomenon represents an important but under-explored topic.

Second, whether theoretical or empirical, limited research focuses on firm internationalization from emerging economies. Within the limited studies, most focus on the internationalization of high-profile companies from China, such as Lenovo, Haier and Huawei. Despite the increasing expansion of small and new firms entering foreign markets, including developed economies, research on the internationalization strategies of such ventures from emerging economies, such as China, remains an unfilled gap (Yamakawa et al., 2008).

This study takes a step towards empirically demonstrating the significance of technological capability on the internationalization strategies of Chinese companies. The study contributes to new venture growth literature by making a link between technological capability and growth strategies. This study further provides new insights into how technological capability is leveraged through the combination of financial capital and networking capability to affect the growth path of new ventures. The findings from this study also help to advance knowledge of the hidden 'process black box' (Priem & Bulter, 2001, p. 33) in exploiting technology resources and generating important managerial implications.

Theory and hypotheses

In terms of domestic and international focus, growth strategies are complex choices for new ventures because of resource constraints (Penrose, 1959), environmental uncertainty (Ensley et al., 2006) and the different perceptions of entrepreneurs (Begley & Boyd, 1987). Earlier studies adopt the Uppsala model to explain the internationalization strategy of firms; however, some recent studies argue explicitly that the emergence of born global firms or international new ventures contradicts the Uppsala model (McDougall et al., 1994; Knight & Cavusgil, 1996; Crick & Spence, 2005). Internally, international new ventures face constraints to international growth in terms of limited capital, management, time, experience and information resources (Freeman

et al., 1983; Bruton & Rubanik, 2002). Externally, the dynamic environment due to technological, social and economic changes, (McDougall & Oviatt, 2000) as well as the fast obsolescence of products or limited domestic demand (Crick & Spence, 2005), urge new ventures to have an international focus from their inception. Following this reasoning, these firms do not follow a systematic and sequential internationalization process as suggested by the Uppsala model. This paper stands upon the resource-based perspective and social capital theory to offer an alternative explanation (Chandler & Hanks, 1994; Gilbert et al., 2006). According to the resource-based view (RBV) (Barney, 2001; Newbert, 2007), new ventures are diverse collections of tangible and intangible resources, with the desire to identify, acquire and accumulate resources to pursue perceived opportunities (Ireland et al., 2001; Roberts et al., 2006). To decide whether to internationalize or not, as one of the main scopes of corporate strategy, is a challenging task, especially for young and small ventures. The decision requires new ventures first to examine their initial resource endowments which enable them to tackle challenges and opportunities in international markets, as Chandler and Hanks (1994) suggest that specific resources provide the basis for the development of tactical and strategic decisions and actions. As a result, the configuration of a new venture's resources and capabilities can contribute to the effective resource allocation (Arthurs & Busenitz, 2006) and enables new ventures to manipulate their growth orientation, and pursue growth objectives effectively (Chandler & Hanks, 1994; Brush & Chaganti, 1999).

New ventures not only depend on internal resources and technology capability for business growth, but they also need to obtain knowledge and business information externally within firms' networks and through human relations. Social capital theory places a great emphasis on human relations. Specifically, social relations underline the links between social capital and access to resources including both interpersonal relationships and the resources embedded in the relationships. They are intangible resources that are difficult to replicate, thus providing new ventures with a significant advantage (Burt, 1997; Peng & Luo, 2000; Lin, 2001). Such social capital is particularly important to many small firms, as described in some studies (Davidson & Honig, 2003; Peng & Zhou, 2005).

Social capital in the form of networks is the relational and structural resource attained by individuals/firms through a network of social relationships (Adler & Kwon, 2002; Cooper & Yin, 2005; Hadjikhani et al., 2008). Social capital that new ventures develop in the form of international networks can act as a bridge between the domestic context and international markets. This type of social capital may help new ventures reduce the uncertainty embedded in international expansion, or access valuable resources, thus facilitating international-oriented growth strategies.

Building on these theoretical perspectives, this paper adopts an integrated theoretical framework to examine the relationship between the characteristics of new ventures, such as technology capability, networking capability and financial capital, and their growth strategies. In particular, this study is interested in how new ventures' technology leverage, which is defined as the combination of technology capability and net-

working capability, as well as financial capital, affects the international-oriented growth strategy. Based on the integrated framework discussed above, this paper develops a number of testable hypotheses.

Technological capability and internationalisation strategies

Generally, advanced technology and new products and a quick response to changing market demands are the key characters of new ventures (Siegel et al., 1993; Covin et al., 2000). Yet how ventures value their technological capability as the basic advantage for their strategic options influences the international involvement of new ventures (Molero, 1998). In other words, the adoption of internationalization strategies depends on the extent to which they feel confident and comfortable to commercialize and maximize their existing technological capability beyond domestic markets. The way new ventures can effectively and efficiently operate in international markets therefore relies on their existing technological capability. Extensive empirical evidence shows that large firms with higher levels of technological capability are more likely to internationalize (Dunning, 1993; Hennart & Park, 1993), and technological capability also helps new ventures to operate in different countries (Yiu et al. 2007). Unlike the internationalization of large firms, new ventures do not have abundant resources and capabilities identified as “ownership advantage” (Dunning, 1980; 1993) due to their size and experience (Brush & Chaganti, 1999). To offset these liabilities, new ventures tend to make their initial step by making best use of their technological capability to introduce better products, or position themselves in global niche markets (Rhee, 2008). Zahra and Garvis (2000) further emphasize that new ventures need to continuously develop technological knowledge alongside the internationalization process. The development of technological knowledge not only influences a high-tech new venture’s ability to adapt its product to local market conditions but also to identify emerging technological changes (Zahra, 1996; Zahra et al., 2000). The underlying assumption for the development of technological knowledge is that new ventures have already established their knowledge pool so that they can further widen and deepen their knowledge base. It can be difficult for a new venture to start from scratch in international markets without any technological capability. Hence:

H1. New ventures with greater technological capability will be more likely to choose internationalisation strategies.

Networking capability and internationalisation strategies

Social capital theory stresses that social capital in the form of business networks is a powerful tool for new ventures, enabling them to gain access to resources and identify growth opportunities (Burt, 1997; Hitt & Ireland, 2000; Alvarez & Barney, 2001). Being embedded in social networks helps new ventures establish credibility and access critical resources, including knowledge and technology (McDougall et al., 1994).

Networking capability refers to the capacity of the new venture to identify, establish, coordinate and develop a variety of relationships with different players in the market, resulting in the generation of a new resource configuration and the venture's capacity to integrate, reconfigure, gain and release resource combinations (Eisenhardt & Martin, 2000; Ritter et al., 2002; Mort & Weerawardena, 2006; Ghauri et al., 2008). New ventures' networking capability may have an important impact on their international-oriented growth strategy by reducing information asymmetries and providing the ventures with important knowledge and resources. Such social capital-related factors may enable new ventures to access valuable information and create global value chains to target international niche markets (Coviello & Munro, 1997; Zahra et al., 2000). Some empirical studies reckon that a new venture is more likely to internationalize due to the large social networks that start-up team members establish, and that networking capability facilitates foreign entry (Zhou et al., 2007). Hence:

H2. New ventures with greater networking capability are more likely to adopt internationalisation strategies.

Financial capital and internationalisation strategies

Cooper, Gimeno-Gascon and Woo (1994) argue that a higher level of financial capitalization and a variety of capital sources enable new ventures to undertake more ambitious strategies or meet the financing demands that are required to sustain growth. This is in accordance with the concept of ownership advantages (Buckley & Casson, 1976; Dunning, 1993). Compared with large firms, new ventures normally lack financial capital, which plays an important role in the internationalization process of firms. However, compared with domestic-oriented new ventures, international new ventures are more likely to be capable of exploring new sources of funds for more ambitious investment and operations in overseas markets. While the initial financing for a new venture normally comes from the entrepreneur's personal funds, or from relatives or friends (Harrison & Mason, 1992), the amount of financing required for ambitious growth strategy is often beyond one's own resources or network of personal resources. Government support and banks, or even venture capitalists, are all important sources of financial capital and cash flow for international strategy (Winters & Murfin, 1988; Harrison & Mason, 1992; Hitt et al., 2006). In particular, international-oriented growth strategies demand substantial financial capital, which plays an important role in supporting international expansion as existing studies suggest (Harrison & Mason, 1992; Hitt et al., 2006). Therefore, new ventures' financial capability, and/or access to external financial capital through different channels are particularly important for international oriented growth strategy. Hence:

H3. New ventures with sufficient financial capital are more likely to adopt internationalisation strategies.

Technology leveraging and internationalisation strategies

The hypotheses above emphasize separately the importance of technology capability, networking capability and financial capital in international-oriented growth strategies. However, they may be inter-related in the sense that some factors may complement or reinforce others in terms of technology leverage. Therefore, in addition to the proposed three individual hypotheses, this section considers interactions between technology capability and networking capability, as well as technology capability and financial capital.

A new venture needs to leverage its technological capability to extract more value, and the mechanisms by which this may occur are the venture's networking capabilities. There are a number of ways in which networking capability affects technology leveraging when the strategic focus of a new venture is on internationalisation. First, a new venture often lacks sufficient knowledge about foreign markets, which may indicate high levels of uncertainty and risk in pursuing international expansion. Networking capability helps mitigate challenges stemming from market uncertainty (Peng & Luo, 2000; Hadjikhani & Ghauri, 2001; Hadjikhani et al., 2008). In addition, under great uncertainty, entrepreneurial networks and the ability to strengthen relationships with existing partners and expand networking circles can create more stable and reliable relationships with the external environment (Luo, 2002). Second, during its international operations, a new venture can use its networking capability to refine its products and understand the features of particular product offerings to satisfy consumer needs in international markets. Although the globalization trend encourages homogeneity across national boundaries, diversity in political, economic, social and cultural aspects in different countries still exists and continuously influences market competition and firm behavior (Spence & Crick, 2006; Manolova et al., 2008). Therefore, relationships with international partners enable new ventures to generate ideas for developing knowledge-intensive products, improving customer services and even reducing production and inventory costs through collaboration with network partners (Baucus et al., 1996; Walter et al., 2006). For new ventures from emerging markets such as China, it is critical that they adapt their technology capability to host markets through networks and therefore better position themselves in the global market and generate long-term competitive advantages (Makino et al., 2004). Third, a new venture can benefit from its political networking with government officials. This represents a unique type of resource in a transitional economy due to the government's great control of strategic resources and considerable power to approve projects (Park & Luo, 2001). Given the government's important role in developing and supporting high-tech industries, new ventures with extensive networks with government officials can obtain information and funding for further technological development and product improvement (Li & Zhang, 2007) and even for their international operations (Yiu et al., 2007). Therefore:

H4a. The greater the degree to which their technological capability is combined with networking capability, the greater the propensity of new ventures to choose internationalisation strategies.

As discussed in H3, financial capital represents important resources which allow new ventures to pursue a broader range of activities and new product development. New ventures can invest financial resources in R&D and employ more R&D related personnel, hence further enhancing their technological capability which may enable them to enter new markets for the first time (Westhead et al., 2001). Developing innovative technologies through securing and utilizing financial capital is a key task for ventures operating in international markets (Zahra et al., 2000). In this regard, new ventures can leverage technological capability with available financial resources which jointly affect the growth strategies of new ventures (Figure 1). Hence:

H4b. The greater the degree to which their technological capability is combined with abundant financial capital, the greater the propensity of new ventures to choose internationalisation strategies.

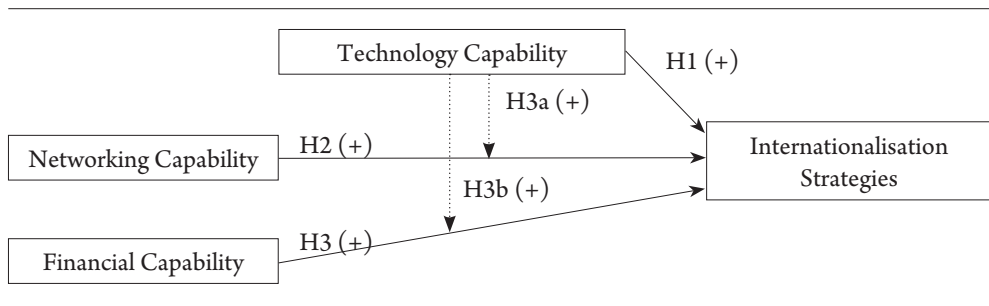


FIGURE 1. A Framework of Internationalisation Strategies

Research Method

Sampling and Data Collection

The study sample consists of new ventures operating in high-tech sectors in Shanghai, China. As the most advanced region for technology development, Shanghai has approximately 35 high technology science parks and incubators, with a total of more than 2,300 high-tech ventures and a total industrial output of 4,197 billion RMB by 2005 (STCSM, 2006). Administrative offices of high-tech zones and incubators as well as industrial associations were contacted initially to obtain firm lists, and then 400 firms were randomly selected. Formal and informal sources of information provided the names of senior managers from the firm list. Telephone calls and emails were used to explain the purpose of the study and invite their participation. Of the 400 firms contacted, 306 agreed to participate in the survey. A good key informant, mostly from within the founding team, or top management team, with sufficient knowledge and rich information about strategy decision-making and company performance was identified and contacted to secure an interview.

Many previous studies recognize the difficulties in collecting primary data from firms in China (Park & Luo, 2001; Zhou et al., 2007). In order to overcome the problems of

low response rate, distrust and managers' unwillingness to respond, local research assistants were employed to conduct interview-based questionnaire surveys, which is similar to a method used by Zhou et al. (2007). Four final-year postgraduate students at the School of Economics and Management of Tongji University, one of the leading universities in China, underwent training to conduct face-to-face field visits from April to August 2007. These selected research assistants were provided with financial support to conduct interviews and collect data. With adequate knowledge about the research project, they were instructed to take, in person, an official letter to the senior managers of the selected firms. These actions were taken in order to ensure good response rates and data reliability (Hoskisson et al., 2000; Ghauri & Gronhaug, 2005; Gao et al., 2007).

An initial screening of the questionnaires ensured that the respondents had sufficient knowledge to respond to the questionnaire. All respondents were informed of the confidentiality of their responses in advance. The average time for each interview was 45 minutes. A total of 306 responses were collected. 89 responses were excluded from the analysis because they failed to meet the age criteria (six years old or less) of international new ventures (Brush, 1995). Thus, this study has a final sample of 217 high-tech new ventures, with a response rate of 54% of the total sample (217 out of 400 firms). Within these new ventures, 76 ventures had implemented international operations while the remaining 141 ventures were regarded as domestic new ventures.

The annual sales of the sample firms range from 20,000 RMB to 15 million RMB, with a mean value of 160,000 RMB. All the ventures that operate in international markets have been in business for up to 6 years. These ventures operate in high-tech sectors, such as information technology, software development, biotechnology, and electronics product development. Most of the managers (98%) are between 24 and 45 years of age. Over 40% of the respondents have a Master's or a PhD degree. All respondents are involved in strategic decision-making processes, as defined by their position or responsibilities.

Measures

This study mainly adopts the measures from established studies in entrepreneurship, with modifications to represent the research context of Chinese high-tech industries. The measures were translated into Chinese, followed by a back-translation procedure, in accordance with common standards to verify the equivalence between the English and Chinese versions (Peng, 2001; Sinkovics et al., 2008). In addition, marketing and economics professors of Chinese origin as well as managers who have at least three years business experience in high-tech industries were consulted to ensure the validity and accuracy of the measures (Atuahene-Gima, 1995), before finalizing the questionnaire.

Dependent Variable: Strategic Orientation

Unlike previous studies which classify new ventures according to the percentage of their sales in the international market (McDougall, 1989), this study asked respondents to indicate whether or not their firms implemented international operations. Spe-

cifically, ventures with no international operations were considered “domestic” new ventures (coded as 1) and ventures with international operations as “international new ventures” (coded as 0).

Independent Variables

Technological Capability

According to prior research, technological capability includes the use of advanced technology, valuable technology sources, patents and copyright (Roure & Maidique, 1986; Siegel et al., 1993; Zahra, 1996; Lee et al., 2001). Following prior research, this study uses five questions in the questionnaire to measure the technological capability variable. These questions on a seven-point Likert scale, focus on the degree of importance of the establishment and utilization of technology in product development: (1) We have a large number of financial investments in R&D and product development; (2) We have high-profile technological background personnel in our founding team; (3) We have our own product or process patents/copyrights; (4) In the firm, founding entrepreneurs encourage innovative ideas and their implementation; (5) Internal research and development is greatly emphasized. The five items load on to a single factor, with high loadings and Eigen values exceeding 1.0. The cumulative variance explained is 70%.

Networking Capability

Extensive strategic management and entrepreneurial studies investigate networking capability, known as social capital (Baron & Markman, 2000), external links (Shepherd, 1991; Lee et al., 2001) or personal networks (Ostgaard & Birley, 1994). In this study, networking capability refers to the ability to initiate, maintain and utilize relationships with various partners by recognizing the potential of partners, contacting and coordinating with partners, and strengthening the relationships. This variable is constructed on the basis of five questions where managers were asked to judge (on a 7-point Likert scale) the importance of networking capability: (1) We can deal flexibly with our partners; (2) We appoint coordinators who are responsible for the relationships with our partners; (3) We almost always solve problems constructively with our partners; (4) We depend on close individual relationships to seek desirable resources in terms of personnel and finances; (5) We discuss regularly with our partners how we can support each other in our success. Factor analysis confirms that these five questions load on to one factor, with Eigen values exceeding 1.0, and the cumulative variance explained is 80%.

Financial Capital

Existing literature acknowledges financial resources or capital as one of the most critical factors, based on the logic that organizational performance largely depends on the money invested during the development period of new ventures. Following Gilbert et al. (2006), this study includes the financial capital of new ventures to explore how financial capital interacts with technological capability to enable firms to grow, in addition to its direct impact on growth strategies (Pissarides, 1999; Gilbert et al., 2006). The

measurement for financial capital is based on information from the respondents who evaluate their propensity to acquire financial capital from various sources including internally generated funds, bank loans/debts, government funds and more advanced financing through public equity offerings (Winborg & Landstrom, 2001). These four items load on to one factor, with Eigen values exceeding 1.0. The reliability coefficient of Cronbach's Alpha for the variable is 0.73.

Control Variables

Four control variables – firm size, firm age, firm life cycle and the industry life cycle – were used to account for the effects of extraneous variables. Firm age is measured as the logarithm of the number of years that a firm has operated in the industry and firm size is the logarithm of the number of employees in the company (Lee et al., 2001). Prior studies suggest that firm stage and industry stage, from the life cycle perspective, can influence strategic decisions (McCann, 1991; Bantel, 1998; Robinson, 1999). The firm life-cycle and industry life-cycle variables were computed by using dummy variables denoting infancy (very early growth stage), early growth stage (rapid, still increasing rate of growth), late growth stage (growing, but at a slowing rate), mature (about as fast as it will get) and decline (decreasing growth rate), as operationalized by McCann (1991).

Results

Descriptive Statistics and Correlations

Table 1 reports the means, standard deviations, and correlations for the variables used in the present study. No correlation between the variables was deemed large enough to raise serious concerns about multicollinearity.

TABLE 1. Means, Standard Deviations, and Correlations

	Mean	S.D.	1	2	3	4	5	6	7	8
1. Strategic Orientation	0.65	0.48	1.00							
2. Technological capability	0.04	0.99	-0.18**	1.00						
3. Networking capability	0.02	0.99	-0.09	0.00	1.00					
4. Financial capital	0.03	0.99	-0.30**	0.00	0.00	1.00				
5. Firm age	4.68	1.98	0.16*	-0.12	-0.16*	-0.16*	1.00			
6. Firm size	1.49	0.34	0.03	0.02	-0.20**	0.12	-0.03	1.00		
7. Firm life-cycle	3.19	0.73	-0.11	0.08*	-0.01	-0.18**	0.32**	0.11	1.00	
8. Industry life-cycle	2.74	0.68	0.20**	-0.17*	-0.12	-0.19**	0.46**	-0.14*	0.41**	1.00

Note: **p <0.01, *p <0.05 (two-tailed).

Hypotheses Tests

The hypotheses related to strategic orientation were tested using a binomial logistic model in which the regression coefficients estimated the impact of the independent variables on a new venture's choice of internationalization strategies or a domestic strategy. A positive/negative coefficient means that the independent variable tended to increase the probability that a new venture would choose domestic-focused /internationalisation strategies. A total of three logistic regression models were estimated. As shown in Table 2, one model includes control variables only; one further incorporates the main explanatory variables, such as technological capability, networking capability and financial capital, and the third model includes the hypothesized interaction terms between technological capability, networking capability and financial capital.

TABLE 2. Results of binomial logit analyses on strategic orientation

	Model 1	Model 2	Model 3
Control variables			
Firm age	1.148** (0.085)	0.125 (0.093)	0.140 (0.096)
Firm size	0.657 (0.458)	1.234* (0.511)	1.455** (0.534)
Industry life-cycle	0.904*** (0.264)	0.830** (0.285)	0.752** (0.293)
Firm life-cycle	-0.994*** (0.274)	-1.264*** (0.298)	-1.181*** (0.306)
Explanatory variables			
H1: Technological Capability (T)		-0.362† (0.219)	-0.501* (0.234)
H2: Networking Capability (N)		-0.003 (0.223)	-0.075 (0.234)
H3: Financial Capital (F)		-0.879*** (0.202)	-0.910** (0.252)
H4a: Technology Leveraging: T*N			-0.369* (0.158)
H4b: Technology Leveraging: T*F			-0.231 (0.218)
-2 Log-likelihood	255.411	227.806	217.703
Chi-sq. (d.f.)	25.642*** (4)	53.248*** (7)	61.750*** (9)
Cox and Snell R ²	0.111	0.218	0.248
N	217	217	217

Note: *** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$, † $P < 0.10$

Model 1 in Table 2 reports the results from the base model with the control variables only. Firm size is not a significant determinant of a venture's selection of international-oriented strategy, but industry life-cycle and firm life-cycle are all statistically significant.

The results suggest that industry factors and firm life-cycle play an important role in new ventures' internationalization strategies. Model 2 tests the effects of the independent variables on new ventures' growth strategies. Technological capability, which is a root of the technology-based competitive advantages, is negatively and significantly associated with the probability of choosing a domestic-oriented strategy, thus providing support for Hypothesis 1. In other words, new ventures with greater technology capability are more likely to choose international-oriented growth strategies. The coefficient for financial capital in Model 2 is also negative and significant, indicating that abundant financial capital accumulated by new ventures is likely to increase the possibility of operating in international markets. However, the result for the networking capability variable is statistically insignificant. Hence, the result does not support H2. The results in Model 3 show that the coefficient for the interaction term between technology capability and networking capability variables is negative and significant, thus providing support for Hypothesis H4a. On the other hand, the coefficients for the interaction term between technological capability and financial capital is insignificant which is not in line with Hypothesis H4b.

Discussion

The empirical results of the present study reveal that the internationalization strategies of new ventures can be predicted by the resource-based framework that researchers extensively apply to and test with established organizations like multinational corporations.

By focusing on fundamental competitive advantage – technological capability and technology leverage – this study examines the relationship between technological capability and the strategic orientation of new ventures in terms of where growth should be pursued. The findings have significant implications because the differences in domestic new ventures and international new ventures are well predicted by the previous studies based on technological capabilities. However, the results from this study indicate that including additional perspectives, such as technology leverage and the interrelation between technological capability and networking capability can significantly help us predict a new venture's international strategic orientation. Specifically, as technologies usually cannot be fully utilized (Zahra & Bogner, 1999), the way firms leverage their technological capability greatly influences their strategic orientation.

This study finds that high technological capability does enable new ventures to expand their business to global markets. The results are noteworthy in establishing a link between technological capability and strategic-orientation choices. The findings suggest that besides contributing to their competitive advantage through innovation and new product launch (Lee et al., 2001; Hsieh & Tsai, 2007), technological capability can provide new ventures with opportunities for future development by influencing their strategic growth choices. This study finds that other types of capabilities can affect a firm's growth orientation patterns as well. Specifically, the result shows that financial capital is positively related to the possibility of choosing an internationalisation

strategy. Financial capital empowers the firm to meet the financing demands so as to sustain rapid and ambitious growth development outside its home market, as existing studies suggest (Cooper et al., 1994). The results above lend support to the resource-based view in international entrepreneurship literature, particularly in the field of new venture growth.

As technological capability is critical, yet often underutilized, firms need to leverage it by combining its exploitation with the utilization of other capabilities to extract more value from it (Danneels, 2007). This study predicts networking capability and financial capital as two levers that enable new ventures to leverage their technologies for growth objectives through international participation. Although networking capability alone is not significant, the combination of technological capability and networking capability is an important factor affecting firms' internationalization strategies. This finding indicates that the interaction between technological capability and networking capability increases the possibility that a new venture chooses an international-oriented strategy. Technology capability provides a base where networks have a positive impact on internationalization strategies. Close relationships with high-profile partners can provide young ventures with attributions of quality and reliability, especially when their own capacity is rather limited (Stuart et al., 1999) and the overseas market is uncertain and risky (Peng & Luo, 2000). These findings extend current understanding of the process of technological competence leveraging through market-related capabilities as discussed by Danneels (2007).

Conclusions

This study investigates the determinants of new ventures' growth strategies and how technological capability combined with networking capability and financial capital affects the strategic orientation of new ventures. The results suggest that technology needs to be leveraged through a process of combining with other capabilities in order to fully realize its potential. This study contributes to a better understanding of technology leveraging and its impact on international-oriented growth strategy. The study advances existing knowledge of the hidden 'process black box' (Priem & Bulter, 2001, p.33) in exploiting technology resources.

The findings have some important implications which are not only relevant to Chinese high-tech new ventures, but also can be generalised to other large emerging economies where the governments have adopted catch-up strategies and placed high-tech sectors as a top priority. In addition, new ventures from these large emerging economies, such as India, Brazil and Russia, are facing the same challenges in internationalisation as Chinese firms.

Our findings suggest that new ventures should highlight the importance of building up their technological capability, especially when they position themselves in global markets. Therefore, these new ventures should develop and enhance their in-house R&D continuously to launch new products or extend current product offerings. While

it is beneficial to emphasize internal technological breakthroughs for new ventures, it is even more critical for these firms to understand how to leverage their technological capability through a combination of internal resources and capabilities with those of network partners (Ghauri et al., 2005; Elg et al., 2008). Therefore, new ventures should be aware of the effective mechanisms and processes through which technological innovation can be commercialized and improved in order to exploit valuable resources and capabilities for sustainable growth.

This study has its limitations and consequently leaves some areas in need of further research. First, the study focuses only on organizational capabilities based on the notion of Arthurs and Busenitz (2006) that resources or capabilities are of great significance because entrepreneurs must have access to resources to execute their strategic endeavors. However, future research needs to explore the interplays between different types of factors. Second, this study uses a single informant approach in our data collection as Kumar, Stern and Anderson (1993) recommend choosing appropriate respondents who are well informed about their own organization to alleviate some potential problems. Though this is a common practice in new venture research, the use of multiple informants represents a more rigorous test (Zahra, 1993; Dess et al., 1997). Third, this study made an attempt to explore how these high-tech new ventures in China choose either domestic-focused or internationalisation strategies. Their strategies are based on their ability to leverage their technological capability, to respond to the call from Gilbert et al. (2006) to address the strategic decision that causes ventures to grow in different ways. The results show that in fast-growing economies such as China, new ventures that are more capable of leveraging their core capability through combining technological capability and networking relationship are more likely to internationalise. However, whether those international new ventures from emerging markets such as China perform better than their domestic counterparts remains a question for future research.

References

- Acedo, F.J., Jones, M.V. (2007). Speed of Internationalization and Entrepreneurial Cognition: Insights and a Comparison between International New Ventures, Exporters and Domestic Firms. *Journal of World Business*, 42(3), 236–252.
- Adler, P.S., Kwon, S.-W. (2002). Social Capital: Prospects for a New Concept. *The Academy of Management Review*, 27(1), 17–40.
- Alvarez, S., Barney, J. (2001). How Entrepreneurial Firms Can Benefit from Alliances with Large Partners? *Academy of Management Executive*, 15, 139–148.
- Arthurs, J.D., Busenitz, L.W. (2006). Dynamic Capabilities and Venture Performance: The Effects of Venture Capitalists. *Journal of Business Venturing*, 21(2), 195–215.
- Atuahene-Gima, K. (1995). An Exploratory Analysis of the Impact of Market Orientation on New Product Performance a Contingency Approach. *Journal of Product Innovation Management*, 12(4), 275–293.
- Bantel, K.A. (1998). Technology-Based, “Adolescent” Firm Configurations: Strategy Identification, Context, and Performance. *Journal of Business Venturing*, 13(3), 205–230.

- Barney, J.B. (2001). Is the Resource-Based 'View' a Useful Perspective for Strategic Management Research? Yes. *Academy of Management Review*, 26(1), 41–56.
- Baron, R.A., Markman, G.D. (2000). Beyond Social Capital: How Social Skills Can Enhance Entrepreneurs' Success. *Academy of Management Executive*, 14(1), 106–116.
- Baucus, D.A., Baucus, M.S., Human, S.E. (1996). Consensus in Franchise Organizations: A Cooperative Arrangement among Entrepreneurs. *Journal of Business Venturing*, 11(5), 359–378.
- Begley, T.M., Boyd, D.P. (1987). Psychological Characteristics Associated with Performance in Entrepreneurial Firms and Smaller Businesses. *Journal of Business Venturing*, 2(1), 79–93.
- Brush, C.G. (1995). *International Entrepreneurship: The Effects of Firm Age on Motives of Internationalization*. New York: Garland.
- Brush, C.G., Chaganti, R. (1999). Businesses without Glamour? An Analysis of Resources on Performance by Size and Age in Small Service and Retail Firms. *Journal of Business Venturing*, 14(3), 233–257.
- Bruton, G.D., Rubanik, Y. (2002). Resources of the Firm, Russian High-Technology Startups, and Firm Growth. *Journal of Business Venturing*, 17(6), 553–576.
- Buckley, P.J., Casson, M.C. (1976). *The Future of the Multinational Enterprise*. London: Homes & Meier.
- Burt, R.S. (1997). The Contingent Value of Social Capital. *Administrative Science Quarterly*, 42, 339–365.
- Chandler, G.N., Hanks, S.H. (1994). Market Attractiveness, Resource-Based Capabilities, Venture Strategies, and Venture Performance. *Journal of Business Venturing*, 9(4), 331–349.
- China Statistical Yearbook (2008). Beijing: China Statistical Press.
- Christensen, C.M., Bower, J.L. (1996). Customer Power, Strategic Investment, and the Failure of Leading Firms. *Strategic Management Journal*, 17(3), 197–218.
- Cooper, A.C., Gimeno-Gascon, F.J., Woo, C.Y. (1994). Initial Human and Financial Capital as Predictors of New Venture Performance. *Journal of Business Venturing*, 9(5), 371–395.
- Cooper, A.C., Yin, X. (2005). Entrepreneurial Networks. In Michael Hitt, Duane Ireland, (Eds.), *The Blackwell Encyclopedia of Management: Entrepreneurship* (pp. 98–100). Malden, MA: Blackwell Publishers Inc.
- Coviello, N., Munro, H. (1997). Network Relationships and the Internationalisation Process of Small Software Firms. *International Business Review*, 6(4), 361–386.
- Covin, J.G., Slevin, D.P., Heeley, M.B. (2000). Pioneers and Followers: Competitive Tactics, Environment, and Firm Growth. *Journal of Business Venturing*, 15(2), 175–210.
- Crick, D., Spence, M. (2005). The Internationalisation Of "High Performing" UK High-Tech SMEs: A Study of Planned and Unplanned Strategies. *International Business Review*, 14(2), 167–185.
- Danneels, E. (2007). The Process of Technological Competence Leveraging. *Strategic Management Journal*, 28(5), 511–533.
- Davidson, P., Honig, B. (2003). The Role of Social and Human Capital among Nascent Entrepreneurs. *Journal of Business Venturing*, 18(3), 301–331.
- Dess, G.G., Lumpkin, G.T., Covin, J.G. (1997). Entrepreneurial Strategy Making and Firm Performance: Tests of Contingency and Configurational Models. *Strategic Management Journal*, 18(9), 677–695.
- Deloitte Touche Tohmatsu. *Stellar Performers: Technology Fast 500 Asia Pacific Ranking and CEO Survey 2007*.
- Dunning, J.H. (1980). Toward an Eclectic Theory of International Production: Some Empirical Tests. *Journal of International Business Studies*, 11(1), 9.
- Dunning, J.H. (1993). *Multinational Enterprises and the Global Economy*. Wokingham: Addison-Wesley.
- Eisenhardt, K.M., Martin, J.A. Dynamic Capabilities: What They Are? *Strategic Management Journal*, Special Issue 21(10–11), 1105–1121.

- Elg, U., Ghauri, P.N., Tarnovskaya, V. (2008). The Role of Networking and Matching in Market Entry to Emerging Retail Markets. *International Marketing Review*, 25(6), 674–699.
- Ensley, M.D., Pearce, C.L., Hmieleski, K.M. (2006). The Moderating Effect of Environmental Dynamism on the Relationship between Entrepreneur Leadership Behavior and New Venture Performance. *Journal of Business Venturing*, 21(2), 243–263.
- Freeman, J., Carroll, G.R., Hannan, M.T. (1983). The Liability of Newness: Age Dependence in Organizational Death Rates. *American Sociological Review*, 48, 692–710.
- Gao, G.Y., Zhou, K.Z., Yim, C.K. (2007). On What Should Firms Focus in Transitional Economies? A Study of the Contingent Value of Strategic Orientations in China. *International Journal of Research in Marketing*, 24(1), 3–15.
- Ghauri, P.N., Cateora, P.R. (2006). *International Marketing* (2nd Ed.). London: McGraw-Hill Publishing Company.
- Ghauri, P.N., Gronhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide*, 3rd Edition. London: FT-Prentice Hall.
- Ghauri, P.N., Hadjikhani, A., Johanson, J. (2005). *Managing Opportunity Development in Business Networks*. London: Palgrave.
- Ghauri, P.N., Tarnovskaya, V., Elg, U. (2008). Market Driving Multinationals and Their Global Sourcing Network. *International Marketing Review*, 25(5), 504–519.
- Gilbert, B.A., McDougall, P.P., Audretsch, D.B. (2006). New Venture Growth: A Review and Extension. *Journal of Management*, 32(6), 926–950.
- Gleason, K.C., Wiggernhorn, J. (2007). Born Globals, the Choice of Globalization Strategy, and the Market's Perception of Performance. *Journal of World Business*, 42(3), 322–335.
- Hadjikhani, A., Ghauri, P.N. (2001). The Behaviour of International Firms in Socio-Political Environments in the European Union. *Journal of Business Research*, 52(3), 263.
- Hadjikhani, A., Lee, J.-W., Ghauri, P.N. (2008). Network View of MNCs' Socio-Political Behavior. *Journal of Business Research*, 61(9), 912–924.
- Harrison, R.T., Mason, C.M. (1992). International Perspectives on the Supply of Informal Venture Capital. *Journal of Business Venturing*, 7(6), 459–475.
- Hennart, J.-F., Park, Y.-R. (1993). Greenfield Vs. Acquisition: The Strategy of Japanese Investors in the United States. *Management Science*, 39(9), 1054.
- Hitt, M., Ireland, D. (2000). The Intersection of Entrepreneurship and Strategic Management In D. Sexton, H. Landstrom, (Eds.), *Handbook of Entrepreneurship*. Oxford: Blackwell Publishing.
- Hitt, M.A., Bierman, L., Uhlenbruck, K., Shimizu, K. (2006). The Importance of Resources in the Internationalization of Professional Service Firms: The Good, the Bad, and the Ugly. *Academy of Management Journal*, 49(6), 1137–1157.
- Hoskisson, R.E., Eden, L., Lau, C.M., Wright, M. (2000). Strategy in Emerging Economies. *Academy of Management Journal*, 43(3), 249–267.
- Hsieh, M.-H., Tsai, K.-H. (2007). Technological Capability, Social Capital and the Launch Strategy for Innovative Products. *Industrial Marketing Management*, 36(4), 493–502.
- Ireland, R.D., Hitt, M.A., Camp, S.M., Sexton, D.L. (2001). Integrating Entrepreneurship and Strategic Management Actions to Create Firm Wealth. *Academy of Management Executive*, 15(1), 49–63.
- Knight, G., Cavusgil, S.T. (1996). The Born Global Firm: A Challenge to Traditional Internationalization Theory. *Advances in International Marketing*, 8, 11–26.
- Kumar, N., Stern, L.W., Anderson, J.C. (1993). Conducting Interorganizational Research Using Key Informants. *Academy of Management Journal*, 36(6), 1633–1651.
- Lee, C., Lee, K., Johannes, M.P. (2001). Internal Capabilities, External Networks, and Performance: A Study on Technology-Based Ventures. *Strategic Management Journal*, 22(6/7), 615.

- Li, H., Zhang, Y. (2007). The Role of Managers' Political Networking and Functional Experience in New Venture Performance: Evidence from China's Transition Economy. *Strategic Management Journal*, 28(8), 791–804.
- Lin, N. (2001). *Social Capital, a Theory of Social Structure and Action*. Cambridge: Cambridge University Press.
- Luo, Y. (2002). Capability Exploitation and Building in a Foreign Market: Implications for Multinational Enterprises. *Organization Science: A Journal of the Institute of Management Sciences*, 13(1), 48.
- Makino, S., Beamish, P.W., Zhao, N.B. (2004). The Characteristics and Performance of Japanese FDI in Less Developed and Developed Countries. *Journal of World Business*, 39(4), 377–392.
- Manolova, T.S., Eunnii, R.V., Gyoshev, B.S. (2008). Institutional Environments for Entrepreneurship: Evidence from Emerging Economies in Eastern Europe. *Entrepreneurship: Theory & Practice*, 32(1), 203–218.
- McCann, J.E. (1991). Patterns of Growth, Competitive Technology, and Financial Strategies in Young Ventures. *Journal of Business Venturing*, 6(3), 189–208.
- McDougall, P.P. (1989). International Versus Domestic Entrepreneurship: New Venture Strategic Behavior and Industry Structure. *Journal of Business Venturing*, 4(6), 387–400.
- McDougall, P.P., Oviatt, B.M. (2000). International Entrepreneurship: The Intersection of Two Research Paths. *Academy of Management Journal*, 43(5), 902.
- McDougall, P.P., Shane, S., Oviatt, B.M. (1994). Explaining the Formation of International New Ventures: The Limits of Theories from International Business Research. *Journal of Business Venturing*, 9(6), 469–487.
- Molero, J. (1998). Patterns of Internationalization of Spanish Innovative Firms. *Research Policy*, 27(5), 541–558.
- Mort, G.S., Weerawardena, J. (2006). Networking Capability and International Entrepreneurship: How Networks Function in Australian Born Global Firms. *International Marketing Review*, 23(5), 549–572.
- Newbert, S.L. (2007). Empirical Research on the Resource-Based View of the Firm: An Assessment and Suggestions for Future Research. *Strategic Management Journal*, 28, 121–146.
- Noda, T, Collis, D.J. (2001). The Evolution of Intraindustry Firm Heterogeneity: Insights from a Process Study. *Academy of Management Journal*, 44(4), 897–925.
- Ostgaard, T.A., Birley, S. (1994). Personal Networks and Firm Competitive Strategy – a Strategic or Coincidental Match? *Journal of Business Venturing*, 9(4), 281–305.
- Oviatt, B.M., McDougall, P.P. (1994). Toward a Theory of International New Ventures. *Journal of International Business Studies*, 25(1), 45–64.
- Oviatt, B.M., McDougall, P.P. (1995). Global Start-Ups: Entrepreneurs on a Worldwide Stage. *Academy of Management Executive*, 9(2), 30–44.
- Park, S.H., Luo, Y. (2001). Guanxi and Organizational Dynamics: Organizational Networking in Chinese Firms. *Strategic Management Journal*, 22(5), 455–477.
- Peng, M.W. (2001). How Entrepreneurs Create Wealth in Transition Economies. *Academy of Management Executive*, 15(1), 95–108.
- Peng, M.W., Luo, Y. (2000). Managerial Ties and Firm Performance in a Transition Economy: The Nature of a Micro-Macro Link. *Academy of Management Journal*, 43, 486–501.
- Peng, M.W., Zhou, J.Q. (2005). How Network Strategies and Institutional Transitions Evolve in Asia. *Asia Pacific Journal of Management*, 22(4), 321–336.
- Penrose, E. (1959). *The Theory of the Growth of the Firm*. New York: Oxford University Press.
- Pla-Barber, J., Escribá-Esteve, A. (2006). Accelerated Internationalisation: Evidence from a Late Investor Country. *International Marketing Review*, 23(3), 255–278.

- Priem, R.L., Bultner, J.E. (2001). Is the Resource-Based 'View' a Useful Perspective for Strategic Management Research? *Academy of Management Review*, 26(1), 22–40.
- Rhee, J.H. (2008). International Expansion Strategies of Korean Venture Firms: Entry Mode Choice and Performance. *Asian Business & Management*, 7(1), 95–114.
- Ritter, T., Wilkinson, I.F., Johnston, W.J. (2002). Measuring Network Competence: Some International Evidence. *Journal of Business & Industrial Marketing*, 17(2/3), 119–138.
- Roberts, M.J., Stevenson, H.H., Sahlman, W.A., Marshall, P., Hamermesh, R.G. (2006). *New Business Venture and the Entrepreneur* (6th ed.). New York: McGraw-Hill/Irwin.
- Robinson, K.C. (1999). An Examination of the Influence of Industry Structure on Eight Alternative Measures of New Venture Performance for High Potential Independent New Ventures. *Journal of Business Venturing*, 14(2), 165–187.
- Roure, J.B., Maidique, M.A. (1986). Linking Prefunding Factors and High-Technology Venture Success: An Exploratory Study. *Journal of Business Venturing*, 1(3), 295–306.
- Shepherd, J. (1991). Entrepreneurial Growth through Constellations. *Journal of Business Venturing*, 6(5), 363–373.
- Siegel, R., Siegel, E., Macmillan, I.C. (1993). Characteristics Distinguishing High-Growth Ventures. *Journal of Business Venturing*, 8(2), 169–180.
- Sinkovics, R.R., Penz, E., Ghauri, P.N. (2008). Enhancing the Trustworthiness of Qualitative Research in International Business. *Management International Review*, 48(6), 689–714.
- Spence, M., Crick, D. (2006). A Comparative Investigation into the Internationalisation of Canadian and UK High-Tech SMEs. *International Marketing Review*, 23(5), 524–548.
- STCSM. 2006 Shang Hai Ke Ji Jin Bu Bao Gao Science and Technology Commission of Shanghai Municipality.
- Stuart, T.E., Huang, H., Hybels, R.C. (1999). Interorganizational Endorsements and the Performance of Entrepreneurial Ventures. *Administrative Science Quarterly*, 44(2), 315–349.
- Teece, D.J., Pisano, G., Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509–533.
- Walter, A., Auer, M., Ritter, T. (2006). The Impact of Network Capabilities and Entrepreneurial Orientation on University Spin-Off Performance. *Journal of Business Venturing*, 21(4), 541–567.
- Westhead, P., Wright, M., Ucbasaran, D. (2001). The Internationalization of New and Small Firms: A Resource-Based View. *Journal of Business Venturing*, 16(4), 333–358.
- Winborg, J., Landstrom, H. (2001). Financial Bootstrapping in Small Businesses: Examining Small Business Managers' Resource Acquisition Behaviors. *Journal of Business Venturing*, 16(3), 235–254.
- Winters, T.E., Murfin, D.L. Venture Capital Investing for Corporate Development Objectives. *Journal of Business Venturing*, 3(3), 207–222.
- Yamakawa, Y., Peng, M.W., Deeds, D.L. (2008). What Drives New Ventures to Internationalize from Emerging to Developed Economies? *Entrepreneurship: Theory & Practice*, 32(1), 59–82.
- Yiu, D.W., Lau, C., Bruton, G.D. (2007). International Venturing by Emerging Economy Firms: The Effects of Firm Capabilities, Home Country Networks, and Corporate Entrepreneurship. *Journal of International Business Studies*, 38(4), 519–540.
- Zahra, S.A. (1993). Environment, Corporate Entrepreneurship, and Financial Performance: A Taxonomic Approach. *Journal of Business Venturing*, 8(4), 319–340.
- Zahra, S.A. (1996). Technology Strategy and New Venture Performance: A Study of Corporate-Sponsored and Independent Biotechnology Ventures. *Journal of Business Venturing*, 11(4), 289–321.
- Zahra, S.A., Bogner, W.C. (1999). Technology Strategy and Software New Ventures' Performance: Exploring the Moderating Effect of the Competitive Environment. *Journal of Business Venturing*, 15, 135–173.

Zahra, S.A., Hayton, J.C. (2007). The Effect of International Venturing on Firm Performance: The Moderating Influence of Absorptive Capacity. *Journal of Business Venturing*, 23(2), 195–220.

Zahra, S.A., Ireland, R.D., Hitt, M.A. (2000). International Expansion by New Venture Firms: International Diversity, Mode of Market Entry, Technological Learning, and Performance. *Academy of Management Journal*, 43(5), 925–950.

Zhou, L., Wu, W., Luo, X. (2007). Internationalization and the Performance of Born-Global SMEs: The Mediating Role of Social Networks. *Journal of International Business Studies*, 38(4), 673–690.