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Building international entrepreneurship through entrepreneurship capital perspective

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Is entrepreneurship capital theory useful for international entrepreneurship research and practice? In this paper, we describe how international entrepreneurship research can benefit from including the concept of entrepreneurship capital at the individual level of analysis. We define entrepreneurship capital as a composite measure of entrepreneurial proclivity, human capital, and social capital of the entrepreneur. We present a conceptual framework that defines the relationship between entrepreneurship capital, the local and target business environment and international entrepreneurship. We argue for the moderating effect of the business environment between the relationship of entrepreneurship capital and international entrepreneurship. Moreover, we argue that entrepreneurship capital at the individual level will be an important predictor of survival rates of international entrepreneurship in benign and hostile targeting business environments when business firms explore the internationalization strategy. Finally, managerial implications and future research directions are discussed.

Key words: International entrepreneurship, entrepreneurship capital, entrepreneurial proclivity, human capital, social capital.

INTRODUCTION

Is entrepreneurship capital theory useful for international entrepreneurship research and practice? As a field of research and practice, international entrepreneurship is an area of increasing importance (Oviatt and McDougall, 2005). Since entrepreneurs play the important role in the internationalization process (Alvarez and Busenitz, 2001), it is our argument that the entrepreneurship capital perspective (Audretsch, Bönte, and Keilbach, 2008) gives us a new approach to explore the phenomenon.

In this paper, we describe how international entrepreneurship research can benefit from including the concept of entrepreneurship capital at the individual level of analysis. Specifically, the paper presents our conceptual framework for entrepreneurship capital at the

individual level into three dimensions, including entrepreneurial proclivity of the entrepreneur, human capital of the entrepreneur, and social capital of the entrepreneur. In view of the growing recognition that the strategic value of individual capabilities of the entrepreneur depends upon different external environments (Miller and Shamsie, 1996; Eisenhardt and Martin, 2000). This paper explores an important environmental context (environmental dynamism, economic conditions, and regulatory structure) in which the strengths of the association between entrepreneurship capital and international entrepreneurship were likely to vary across different business firms. Discerning the moderating effects of external environment on the relationship between entrepreneurship capital and international entrepreneurship is important for our understanding of the conditions under which firms are more likely to reap the benefits from investments in entrepreneurship capital for the particular entrepreneur.

The rest of the paper proceeds as follows. The next

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section presents a literature review of the emerging resource-based view of the strategic roles of entrepreneur to provide the conceptual foundation for linking entrepreneurship capital and international entrepreneurship. This is to be followed by a discussion of the concept of entrepreneurship capital at the individual level (entrepreneurial proclivity, human capital and social capital). The relationship between entrepreneurship capital and international entrepreneurship, and the moderating effects of business environment are then examined. Moreover, we also discuss the role of the entrepreneurship capital in predicting the survival rates of international entrepreneurship in benign and hostile targeting business environments in international markets. The following section discusses the theoretical contributions and practical implications of the research findings. Finally, the paper presents the conclusion and some suggestions for future research and practice.

LITERATURE REVIEW

International entrepreneurship

According to Zahra and George (2002), international entrepreneurship was first mentioned by Morrow (1988) in his article which highlighted recent technological advances and cultural awareness for new ventures to exploit foreign markets. McDougall (1989) studied it by comparing domestic and international new ventures in order to explore the essence of the international entrepreneurship. Building on popular business interest in rapid internationalization, Oviatt and McDougall (1994) provided a theoretical base for the study of international new ventures, which they defined as business organizations that, from the start, seek to derive significant competitive advantages from the use of resources and the sale of outputs in multiple countries. Thus, international entrepreneurship began with an interest in new ventures. Wright and Ricks (1994) focus on international business to study international entrepreneurship, which was very important for cross-cultural scholarly investigations in entrepreneurial activity. Many scholars study international entrepreneurship using a variety of theories and models. Cox (2004) wrote a literature review on the topic of international entrepreneurship based on fifty-one international entrepreneurship articles. His study divided the articles into four segments: (a) individual entrepreneurs and their traits, (b) entrepreneurial processes, (c) environmental factors, and (d) small and entrepreneurial ventures. Oviatt and McDougall (2005) studied international entrepreneurship with two branches focusing on cross-national-border behavior of entrepreneurial actors and cross-national border comparison of entrepreneurs. They also stated the model should explain the traditional cross-

border behavior, not for accelerated internationalization or entrepreneurial behavior. Muzychenko (2007) studied international entrepreneurship through developing a global mindset emphasizing entrepreneurship education, who found a new way to contribute to facilitating international entrepreneurship and considered education as an effective vehicle for stimulate entrepreneurial activity should based on advancements in international entrepreneurship research.

More recently, scholars studying international entrepreneurship have focused on the process of international entrepreneurship (Giamartino et al., 1993), and the role of the entrepreneur's education and global mindset in the internationalization (Ruzzier et al., 2007). These are important for the paper because we focus on the entrepreneur as the unit of analysis. And we also consider the international entrepreneurship strategy in the context of the particular strategy. Here we propose a specific relationship between entrepreneurship capital and international entrepreneurship, with moderating effects of the business environment.

Entrepreneurship capital as a resource

Resource-based theory has been central to the strategic management literature (Barney, 1991, 1997), particularly in explaining competitive advantage. According to this theory, competitive advantage comes from assets and capabilities that are valuable, rare, imperfectly imitable, and non-substitutable. Peteraf (1993) suggested that competitive advantage needs to meet four conditions for sustainability: one, superior resources (heterogeneity within an industry); two, ex post limits to competition; three, imperfect resource mobility; and four ex ante limits to competition. Using the rationale of resource-based theory, Knight and Cavusgil (2004) suggested that born global firms leverage a collection of fundamental, intangible, knowledge-based capabilities in the cultivation of foreign markets early in their evolution. We argue that the entrepreneur as the focal actor draws upon important resources and capability in international entrepreneurship.

The important role of the entrepreneur in the internationalization process

The entrepreneur is regarded as crucial for a firm's international strategies and the central factor explaining a firm's international behavior (Andersson, 2000). Studies about the internationalization of small and medium-sized enterprises have emphasized the role of entrepreneur-related elements that impact export performance, for example: strategy (Baird et al., 1994), attitudes and perceptions (Jaffe and Pasternak, 1994) and the international experience of managers (Andersson, 2000).

Entrepreneurs have individual assets that help them recognize new opportunities and assemble resources for new ventures. The entrepreneur of small and medium-sized enterprises is one key and unique resource that can become especially influential on the organization as this person acquires new knowledge (Alvarez and Busenitz, 2001).

In small and medium-sized enterprises (SMEs), the personal resources of an entrepreneur become crucial since the internationalization process often centers around one such key person and their knowledge, experience, and network of relationships (Ruzzier et al., 2007). Once engaged in exploiting the opportunity, or in the process of internationalization, entrepreneurs are responsible for many internationalization-related tasks such as: evaluation of the opportunities, gathering information of the new market, availability of resources, and implementing internationalization strategies. The degree of export aggressiveness to some extent reflects the desire, willingness, and determination of the decision-maker to promote the export side of business in the organization and this can, in turn, be attributed to certain entrepreneurial characteristics (Leonidou et al., 1998). The personal factors of entrepreneurs can be strong influences on the internationalization of SMEs

Entrepreneurship capital perspective

Audretsch et al. (2008) believe that entrepreneurship capital can be built on the basic typology and defined at the economic (region and industry), organizational, and personal (team and individual) levels of analysis. We have summarized the various definitions of entrepreneurship capital in [Table 1](#). In this paper, we focus on the individual level of analysis because the lead entrepreneur's capital is the most influential for the new venture. We acknowledge that a team perspective may be useful for exploring entrepreneurship capital but see this as a composite of the individual levels of entrepreneurship capital. Therefore, we will only focus on the relationship between the individual levels and the firm strategies.

We argue that the entrepreneurship capital perspective is important for international entrepreneurship, and see it as comprised of entrepreneurial proclivity, human capital and social capital. We use proactiveness, innovation and risk taking to define the entrepreneurial proclivity of the entrepreneur. Building on the work of Florin et al. (2003) and Oviatt and McDougall (1994), we believe that human capital and social capital are important to new international ventures along specific dimension. We discuss each in detail below.

Entrepreneurial proclivity

Entrepreneurial proclivity is defined by the individual's

predisposition to engage in entrepreneurial processes, practices, and decision making, with the characteristics of proactiveness, innovativeness and risk taking. Here, we employ the term entrepreneurial proclivity to describe the equivalent generalized concept for the entrepreneurs when they pursue the international entrepreneurship.

According to Zhou (2007), previously validated scales were adopted for the three dimensions of entrepreneurial proclivity such as proactiveness, innovativeness and risk taking, which represent several commonly used items for the construct of entrepreneurial proclivity as previously used by Covin and Slevin (1989) and Lumpkin and Dess (1996) and developed from such sources were eight items scale created by Knight and Cavusgil (2004). Following these efforts, further items were added and refined which reach a total of fourteen items to derive a more comprehensive measurement to operationalize the three dimensional domains of entrepreneurial proclivity in the internationalization process. We place these items in appendix A as a reference point for this concept.

Human capital

Human capital relates to the human resources that people bring to the firm (Wright et al., 2001). Human capital refers to the range of valuable skills and knowledge a person has accumulated over time that help the firm start the international entrepreneurship. The most important characteristic of human capital is that it resides in the individual (Becker, 1993). Entrepreneurs draw upon their human capital (knowledge, skills, and values) to advance the interests of their organizations. The knowledge entrepreneurs accumulate has two complementary dimensions: tacit and explicit. The former cannot be clearly articulated and gives meaning to its complementary explicit dimensions, which represent a broader concept or skill that can be articulated. Such an example of the tacit dimension could be knowledge of a foreign market, while the explicit dimension could be exemplified by the ability to do business in that market. Tacit knowledge and its corresponding explicit dimensions are acquired over time and are inherently non transferable and associated with increases in productivity and efficiency (Becker, 1993).

Entrepreneurs draw upon their human capital such as knowledge, skills, and values to boost the performance of their organizations when they enter the international markets. The international experience of entrepreneurs is an inimitable and irreplaceable resource for their firms, which will bring the competitive advantage in international entrepreneurship, compared with their competitors.

Social capital

Granovetter (1985) argues that social capital has been taken to mean the structure of network ties, the quality of

Table 1. Definition of the entrepreneurship capital

Author	Year	Definition
Erikson	2002	Entrepreneurial capital has been defined as the multiplicative function of perceived entrepreneurial competence and commitment, which reflects the potential for future entrepreneurial behavior of an individual or a team.
Audretsch and Keilbach	2004a	By entrepreneurship capital of an economy or a society we mean a regional milieu of agents that is conducive to the creation of new firms. This involves a number of aspects such as social acceptance of entrepreneurial behavior but of course also individuals who are willing to deal with the risk of creating new firms and the activity of bankers and venture capital agents that are willing to share risks and benefits involved. Hence entrepreneurship capital reflects a number of different legal, institutional, and social factors and forces.
Audretsch and Keilbach	2004b	Entrepreneurship capital can be defined as a region's endowment with factors conducive to the creation of new businesses, which involves aspects such as a high endowment with individuals willing to take the risk of starting up a new business.
Audretsch and Keilbach	2005	The notion of entrepreneurship capital of an economy, a region or a society can be defined as being a regional milieu of agents and institutions that is conducive to the creation of new firms. This involves a number of aspects such as social acceptance of entrepreneurial behavior but of course also individuals who are willing to deal with the risk of creating new firms and the activity of bankers and venture capital agents that are willing to share risks and benefits involved.
Audretsch and Keilbach	2005	Entrepreneurship capital is a specific type of social capital and refers to the capacity of a society to generate entrepreneurial activity.
Audretsch and Keilbach	2007	The notion of the entrepreneurship capital of a region can be defined as its capacity to generate entrepreneurial behaviour in general and the start-up of new firms in particular. It includes not only the set of economic opportunities and human capital that is conducive to entrepreneurship but also institutions, sets of values, cultural traditions and the habits that do so.
Audretsch and Monsen	2007	Entrepreneurship capital can be built on the basic typology and defined at the economic (region and industry), organizational, and personal (team and individual) levels of analysis.
Audretsch et al.	2008	Regional entrepreneurship capital is the capacity of a region, city or state to not just encourage entrepreneurs, but actually support entrepreneurs as they navigate the bureaucracy to start new businesses, seek money to start their firms, and provide moral support when the entrepreneur has problems.

exchange relationships, or both. In most cases, social capital offers some potential for integrating the proliferation of network. Therefore, an entrepreneur's network can in turn provide a significant source of social capital, which increases a new venture's likelihood of the business success. According to Woolcock (1998), social capital can be considered as encompassing the norms and networks facilitating collective action for mutual benefit. Adler and Kwon (2002) think social capital is a resource for individual and collective actors located in the network of their more or less durable social relations. According to Aldrich (1999), social networks make social capital available to help newcomers start businesses. Therefore, social capital means the social connections and interpersonal resources people have that help them

achieve their goals (Coleman, 1988; Kim and Aldrich, 2005). The importance of inter-personal relationships has increasingly been acknowledged in entrepreneurship and international business research.

We have long realized that people draw on their social relations to support business start ups (Aldrich, 1999). Focusing on social networks turns attention to relationships between entrepreneurs and others that deliver important resources in establishing a business. According to the research by Carayannis (1998), there is no doubt that entrepreneur is a key agent or gatekeeper of building a network to start his business. And most importantly, they do this only because they enjoyed meeting and talking to new people, in that time he established many connections which he still has today.

When these relationships occur across national boundaries this will strengthen the ability for the entrepreneur to discover and exploit business opportunities.

Researchers of industrial marketing relationships have not only seen that inter-personal relationships help the internationalization process, they have also examined how they do this (Harris and Wheeler, 2005). Relationships enable the parties to link their activities, tie together their resources, and to develop bonds between people. This enables the accumulation of knowledge, the creation of new resources, and the development of new activities. There is no doubt that by these kinds of inter-personal relationships, entrepreneurs accumulated their knowledge and created new sources. Therefore, the functions of inter-personal relationships in the internationalization process are much more profound than previous research would indicate.

Relationships between the elements of entrepreneurship capital

We argue that the components of the entrepreneurship capital (human capital, entrepreneurial proclivity, and social capital) are correlated with each other and have a reinforcing effect to each other.

First, entrepreneurial proclivity is fundamental to human capital and social capital. Being proactive, innovative and risk taking means that the entrepreneur will have the motivation and intention to go forward to learn knowledge and enlarge the social network.

Second, human capital can support the creation of social capital. Usually, the entrepreneur with high-valued human capital can achieve better performance, which will help to enhance their reputation in the industry. These can help the entrepreneur to enlarge the social network. Moreover, human capital can help the entrepreneur to improve the interpersonal and communication skills and improve the value of the social capital.

Third, high quality social capital can improve human capital. The entrepreneur will acquire the useful information from the social network in order to learn the new knowledge, which will increase the human capital (Florin et al., 2003).

Therefore, we argue that entrepreneurship capital at the individual level is comprised of entrepreneurial proclivity of the entrepreneur, human capital of the entrepreneur, and social capital of the entrepreneur and they have a positive and reinforcing effect on each other.

Entrepreneurship capital and international entrepreneurship: A conceptual framework

According to Zahra and George (2002), international entrepreneurship can be defined with three dimensions:

internationalization (measured by how many new international markets entered or how much profit depends on the foreign income), speed (period from company founding to first international business income) and area (geographical and product area). Based on the following conceptual framework in Figure 1, we analyze the influencing mechanism of entrepreneurship capital, including entrepreneurial proclivity, human capital and social capital of the entrepreneur, to international entrepreneurship. And also, we consider the moderating effect of different business environments. In the following, we will discuss the relationship between entrepreneurship capital and international entrepreneurship.

The direct relationship between entrepreneurship capital and international entrepreneurship

First, it is a commonly held assumption that international markets are hostile to foreign companies trying to enter them. One reason is that the external environments firms face in competing internationally are much different in that companies must address diverse and inconsistent laws, national cultures, and industry forces (Rosenzweig and Singh, 1991). In other words, the risk of exporting is greater than the risk of operating in domestic markets. A firm, therefore, needs to invest heavily in understanding local conditions in the target international market, often for years without any guarantees of success. Government policies in protecting national markets can also increase perceived environmental hostility. Therefore, an entrepreneurs' propensity to internationalize is positively related to the level of entrepreneurial proclivity such as risk tolerance and proactiveness inclination. When entrepreneurs are willing to assume risk and act ahead of time, the degree of risk that they attach to export situations is reduced. Consequently, risk-taking and proactive entrepreneurs are more likely to respond favorably to internationalization opportunities and carry out the international entrepreneurship strategy with the innovative products/services.

Furthermore, many scholars argue that human capital of the entrepreneur will have a positive effect to international entrepreneurship. At the national level, Novak and Bojnec (2005) conducted the research and found that human capital of the entrepreneur is an important factor for economic development and firm growth. Similarly, at the individual level, the acquisition of human capital improves the conditions for an entrepreneur to act in innovative ways to create solutions in the organization (Coleman, 1990). When profitable opportunities for new economic activities exist, entrepreneurs with a higher level of human capital should be better in identifying and exploring them. Once engaged in the internationalization process, such individuals should also have a superior ability to exploit

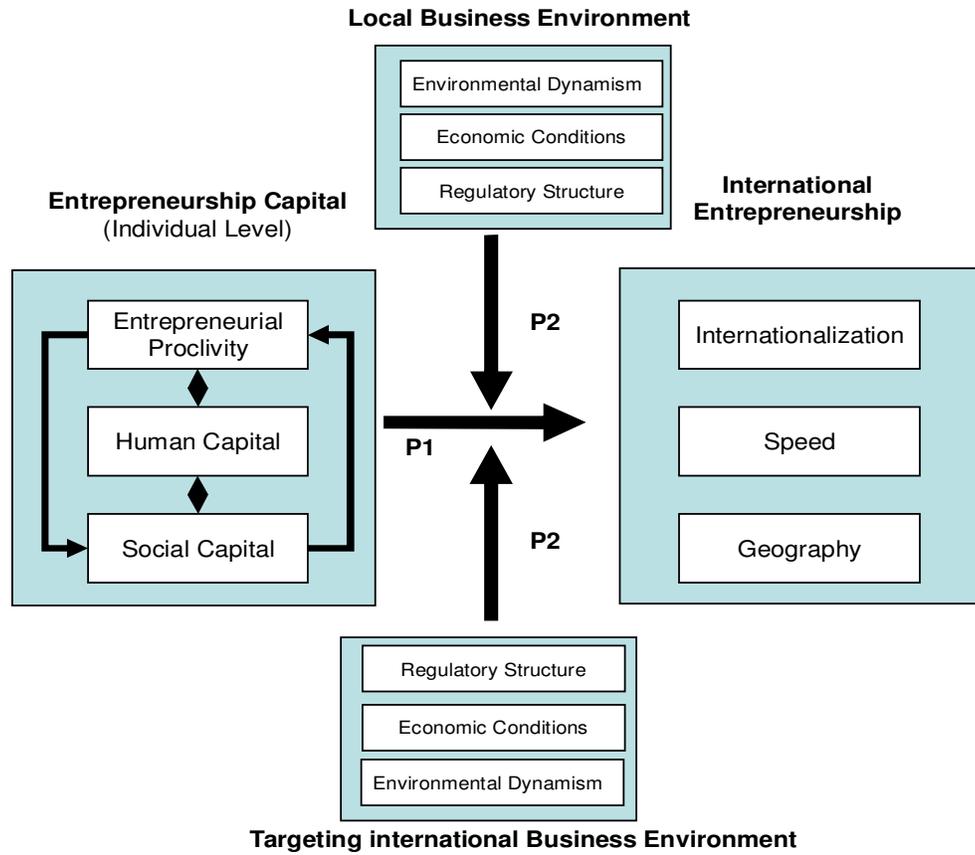


Figure 1. A conceptual model.

these opportunities (Davidsson and Honig, 2003).

Finally, let us analyze the effect of social capital of the entrepreneur to the international entrepreneurship. Carpenter et al. (2000) found an international network of professional colleagues outside the firm is likely to bring a deeper understanding of international trade policies, exchange rate risks, and an appreciation for other national cultures, all of which will yield skills and capabilities with broad international applicability. Moreover, entrepreneurs' personal networks and relationships in international markets are also important for the internationalization of the SMEs (O'Farrell and Wood, 1998). SMEs need to appreciate the importance of the client-supplier interaction because a variety of demand-side factors influence the reason for foreign market entry; while supply-side factors can influence a business firm's ability to internationalize. Such observations underscore the role of social capital nurtured through supporting relationships with other economic actors, especially potential clients (Pennings et al., 1998).

To sum up, we can conclude that the entrepreneurship capital (entrepreneurial proclivity, human capital, and the social capital) is positively associated with international entrepreneurship. We thus suggest:

Proposition 1: Entrepreneurship capital at the individual level will have a positive relationship with international entrepreneurship.

The moderating effect of the business environment between entrepreneurship capital and international entrepreneurship

Generally speaking, the business environment can be defined as the composite of the environmental dynamism, economic conditions and the regulatory environment. Environmental dynamism describes the rate and unpredictability of changes in a firm's external environment (Dess and Beard, 1984). For firms within industries exhibiting greater environmental dynamism such as rapid changes in technologies especially in international market, entrepreneurs must employ the innovative solution to deal with the international changing business climate (D'Aveni, 1994).

Research in the resource-based view of competitive advantage has increasingly recognized that the strategic value of a entrepreneur's resources or capabilities depends on specific market contexts (Miller and Shamsie, 1996; Eisenhardt and Martin, 2000). For example,

Entrepreneurship capital	High	First local, then international entrepreneurship	International entrepreneurship
	Low	Local entrepreneurship	Local entrepreneurship
		Benign	Hostile

Local business environment
Proposition 2

Figure 2. Possible outcomes.

Ruzzier et al. (2007) used a structural equation modeling technique to predict the internationalization of SMEs from the perspective of entrepreneur's human capital and really found that international orientation and environmental risk perception predicted internationalization in a changing and unpredictable environment. Through influencing the strategic values of fast response and mental model building capabilities of the entrepreneur, environmental dynamism, in particular, may affect the process of the internationalization.

Facing rapid changes in technologies, markets, and competition, entrepreneurs rely more on the fast response capabilities to cope with the changing external conditions and thereby survive and/or prosper in the new environment. Hence, the greater demands that the dynamic external environment places on entrepreneurs' fast response capability and the ability to test, correct and revise mental models suggest that firm's internationalization would benefit more from entrepreneurship capital for fast response in a dynamic environment than in a stable environment.

To explain this further we have created two figures (Figures 2 and 3). When entrepreneurship capital at the individual level is low, the business firms will be apt to adapt the local entrepreneurship strategy, no matter the local business environment or target international business environment are benign or hostile. Because when entrepreneurship capital is low, the entrepreneur dares not to compete in international entrepreneurship. On the contrary, when entrepreneurship capital is high,

the business firms will follow the local entrepreneurship strategy first, and then go to the international strategy when the local business environment is benign. In this circumstance, because the local business environment is benign, the business firms will receive above average benefits, if the entrepreneur has high entrepreneurship capital. As the business grows, the entrepreneur will become more confident and want to open new markets for the product, pushed by internal motivation or outside pressure such as government. Therefore, international entrepreneurship is the later choice. Meanwhile, when the local business environment is hostile, the competition in the local market will be intense. The entrepreneur, with the level of entrepreneurship capital, will consider adapting to the new market strategy to go abroad and broaden the operating market so that they can get more customers in the international market (Figure 2).

Now we consider the target international business environment. In this circumstance, when entrepreneurship capital is high, we propose that business firms will follow the local entrepreneurship strategy first, and then go to the international strategy when the target international business environment is hostile. When the target international business environment is benign, the business firms will adapt to the international entrepreneurship strategy with high entrepreneurship capital.

Figure 2 elaborates on each of the combinations of entrepreneurship capital and types of local business environments. And Figure 3 elaborates on each of the

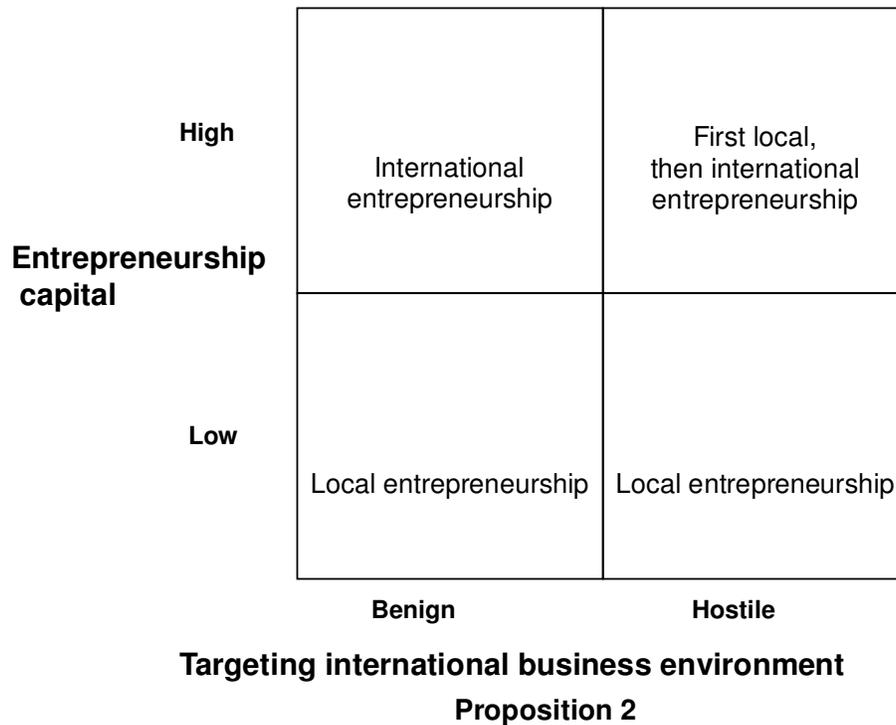


Figure 3. Possible outcomes.

combinations of entrepreneurship capital and types of the international business environments. Through the discussion above, we predict that the type of business environment will moderate the relationship between entrepreneurship capital and international entrepreneurship.

Proposition 2: The relationship between entrepreneurship capital at the individual level and international entrepreneurship will be moderated by the local and target business environments.

The effect of entrepreneurship capital on survival rates in international entrepreneurship

Figure 4 elaborates on each of the combinations of entrepreneurship capital in the international target business environment. The target business environment can be benign or hostile when entrepreneurs conduct international entrepreneurship activities. For similar reasons we described above, we predict that the entrepreneur with a high degree of entrepreneurship capital will have higher survival rates, no matter the targeting business environment is benign or hostile. On the contrary, when entrepreneurship capital is low, the new venture will have the lowest survival rate when targeting a business environment that is hostile. Moreover, when targeting a business environment that is

benign, there will also be a low survival rate. We, therefore, propose:

Proposition 3: Entrepreneurship capital will be an important predictor of survival rates of international entrepreneurship in benign and hostile business environments.

DISCUSSION AND CONCLUSION

This paper is one of the first steps in developing and testing the entrepreneurship capital perspective for business firms in different business environments. In this regard, we developed a conceptual framework of entrepreneurship capital at the individual level and the relationship with international entrepreneurship. We also predicted the role of business environment in which the business firms emerge. Through our theorizing, we have argued that the entrepreneur plays the important role in the internationalization process of the firm. The education, the familial and social situations, the different personal experiences such as successes and defeats, etc, are many factors which directly influence the entrepreneurship capital they have achieved, and will be reflected in the international entrepreneurship. In the paper, we make three contributions with the theory of entrepreneurship capital and international entrepreneurship. One central contribution of our paper is

Entrepreneurship capital	High	Highest survival rate	High survival rate
	Low	Low survival rate	Lowest survival rate
		Benign	Hostile

Targeting international business environment

This assumes international entrepreneurship – We predict success/survival
Proposition 3

Figure 4. Possible outcomes.

the identification and conceptualization of entrepreneurship capital at the individual level. Specifically, based on the literature review, we divide the entrepreneurship capital at the individual level into entrepreneurial proclivity of the entrepreneur, human capital, and social capital of the entrepreneur, which contribute greatly towards enhanced success of international entrepreneurship. They are supportive of earlier assertions that business firms with excellent entrepreneurs will have the distinctive capabilities to create, define, discover, and exploit opportunities ahead of their rivals (Andersson, 2000).

A second contribution of our paper is that we elaborate on the combination of entrepreneurship capital and international entrepreneurship in the local and target business environments, especially with an attribute of being benign and hostile. Although the evidence supports that entrepreneurship capital has a positive impact on the organization (Audretsch and Keilbach, 2007), the relationship between the entrepreneurship capital and international entrepreneurship has not been explored. This paper provides a better understanding of the components of entrepreneurship capital that are relevant to international entrepreneurship. This understanding will guide how entrepreneurs and their firms should allocate their resources and capabilities in search of sustainable competitive advantage.

The last contribution of this paper is that we predict how levels of entrepreneurship capital relate to the local

and target business environments. The maximum survival rate can be achieved by matching levels of entrepreneurship capital to the nature of the business environment. This is very useful for the business firms to make the decision whether they should enter the new target international market or not.

Implications for practitioners

Business firms must be concerned with the environmental dimension with the hostile and benign characteristics such as the local and targeting international business environments. Therefore, business firms should adapt the different entrepreneurship strategy in the context of the specific business environment. Our predictions suggest that entrepreneurs need to follow a logic and sequenced pattern to enter international markets effectively and efficiently, based on the entrepreneurship capital that they have and the business environment where they emerge. Business firms should be more ambitious and self-confident when they have high entrepreneurship capital in international activities. Entrepreneurs with more international experience, a positive perception of the international competition and more social capital in international markets realize and adapt their international entrepreneurship strategy more readily than entrepreneurs without these attributes, no matter that the business environment is benign or hostile.

In addition, our ideas provide policy-makers in the government with additional insights into the key successful factors associated with international entrepreneurship strategy. For example, the government should make the policy to encourage entrepreneurs to go abroad in order to understand the competitive strategy in the international context, which will reduce the perceived risks and increase the entrepreneurial proclivity with greater confidence in succeeding in international markets. Moreover, the government also can encourage local universities to hold lectures about the competitive strategy in the internationalization for the local entrepreneurs so that they know the relevant knowledge and increase their human capital. Finally, the government can encourage business firms in the same industry to build associations so that they know each other and share the resources and knowledge about international entrepreneurship.

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REFERENCES

- Adler PS, Kwon S (2002). Social capital: prospects for a new concept. *Acad. Manage. Rev.*, 27: 17-40.
- Aldrich H (1999). *Organizations Evolving*. Thousand Oaks, CA: Sage Publications.
- Alvarez SA, Busenitz LW (2001). The entrepreneurship of resource-based theory. *J. Manage.*, 27: 755-775.
- Andersson S (2000). The internationalization of the firm from an entrepreneurial perspective. *Inter. Stud. Manage. Org.*, 30: 63-92.
- Audretsch DB, Bönte W, Keilbach M (2008). Entrepreneurship capital and its impact on knowledge diffusion and economic performance. *J. Bus. Venturing*, 23: 687-698.
- Audretsch DB, Keilbach M (2004a). Does Entrepreneurship Capital Matter? *Entrepreneurship Theory and Pr.*, 28: 419-429.
- Audretsch DB, Keilbach M (2004b). Entrepreneurship Capital and Economic Performance. *Reg. Stud.*, 38: 949-959.
- Audretsch DB, Keilbach M (2005). Entrepreneurship capital and regional growth. *Annals of Reg. Sci.*, 39: 457-469.
- Audretsch DB, Keilbach M (2007). The localisation of entrepreneurship capital: Evidence from Germany. *Reg. Sci.*, 86: 351-365.
- Baird IS, Lyles MJ, Orris JB (1994). The choice of international strategies by small businesses. *J. Small Bus. Manage.*, 32: 48-59.
- Barney JB (1991). Firm resources and sustained competitive advantage. *J. Manage.*, 17: 99-120.
- Barney JB (1997). *Gaining and Sustaining Competitive Advantage* MA: Addison-Wesley.
- Becker GS (1993). *Human capital: A theoretical and empirical analysis with special reference to education*. Chicago: The University of Chicago Press.
- Bird BJ (1992). *The Roman God Mercury: An Entrepreneurial Archetype*. *J. Manage., Enquiry* 1: 205-212.
- Bruce M (2006). *Theoretical milestones in international business: The journey to international entrepreneurship theory*. *J. Int. Entre.*, 4: 5-25.
- Burt RS (1992). *Structural holes: The social structure of competition*. Cambridge: Harvard University Press.
- Busenitz L, Barney J (1997). *Differences between entrepreneurs and managers in large organizations: biases and heuristics in strategic decision-making*. *J. Bus. Venturing*, 12: 9-30.
- Carayannis EG (1998). The strategic management of technological learning in project/program management: the role of extranets, intranets and intelligent agents in knowledge generation, diffusion, and leveraging. *Technovation*, 18: 697-722.
- Carpenter MA, Sanders WG, Gregersen HB (2000). International assignment experience at the top can make a bottom-line difference. *Hum. Res. Manage.*, 39: 277-285.
- Carter S, Jones-Evans D (2006). *Enterprise and Small Business: Principles, Practice and Policy*. United Kingdom: Pearson Education Limited.
- Casson M (1982). *The Entrepreneur: An Economic Theory*. Oxford: Martin Robertson.
- Chua JH, Chrisman JJ, Sharma P (1999). *Defining the family business by behavior*. *E. T. & P.*, 23: 19-39.
- Cole AH (1959). *Business enterprise in its social setting*. Cambridge: Harvard University Press.
- Coleman J (1988). Social capital in the creation of human capital. *Am. J. Sociol.*, 94: 95-120.
- Coleman J (1990). *Foundations of social theory*. Cambridge: Harvard University Press.
- Collins J, Moore D (1970). *The Organization Makers*. New York: Appleton-Century-Crofts.
- Cooper AC, Woo CY, Dunkelberg WC (1988). Entrepreneurs' perceived chances for success. *J. Bus. Venturing*, 3: 97-108.
- Covin JG, Slevin DP (1989). Strategic management of small firms in hostile and benign environments. *Strategic Manage. J.*, 10:75-87.
- Cox LW (2004). *International Entrepreneurship: A Literature Review*. <http://sbaer.uca.edu/research/icsb/1997/pdf/32.pdf>.
- D'Aveni RA (1994). *Hyper-Competition: Managing the Dynamics of Strategic Maneuvering*. New York: Free Press.
- Davidsson P, Honig B (2003). The role of human capital among nascent entrepreneurs. *J. Bus. Venturing*, 3: 301-331.
- De Vries MK (1989). *Can you survive an entrepreneur? In Entrepreneurship, Creativity and Organization*, NJ: PrenticeHall.
- Dess GG, Beard DW (1984). Dimensions of organizational task environments. *Admin. Sci. Q.*, 29: 52-73.
- Eisenhardt KM, Martin M (2000). Dynamic Capabilities: What Are They? *Strat. Manage. J.*, 21: 1105-1121.
- Erikson T (2002). Entrepreneurial capital: the emerging venture's most important asset and competitive advantage. *J. Bus. Venturing*, 17: 275-290.
- Fletcher D (2004). *International entrepreneurship and the small business*. *Entre. R. D.*, 16: 289-305.
- Florin J, Lubatkin M, Schulze W (2003). A social capital model of high-growth ventures. *Acad. Manage. J.*, 46: 374-384.
- Giamartino GA, McDougall PP, Bird BJ (1993). *International Entrepreneurship: The State of the Field*. *E. T. & P.*, 18: 37-42.
- Granovetter M (1985). Economic action and economic structure: the problem of embeddedness. *Am. J. Sociol.*, 91: 481-510.
- Harris S, Wheeler C (2005). Entrepreneurs' relationships for internationalization: functions, origins and strategies. *Int. Bus. R.*, 14: 187-207.
- Hisrich RD, Honig-Haftel S, McDougall PP, Oviatt BM (1996). Guest Editorial: *International Entrepreneurship: Past, Present, and Future*. *E. T. & P.*, 20: 5-7.
- Jaffe ED, Pasternak H (1994). An attitudinal model to determine the export intention of non-exporting, small manufacturers. *Int. Market. Rev.*, 11(3):17-32.
- Kim PH, Aldrich HE (2005). *Social Capital and Entrepreneurship*. *Foundations and Trends in Entre.*, 1: 1-52.
- Knight GA, Cavusgil ST (2004). Innovation, organization capabilities, and the born-global firm. *J. Int. Bus. Stud.*, 35: 124-141.
- Leonidou LC, Katsikeas CS, Piercy NF (1998). "Identifying managerial influences on exporting: past research and future directions. *J. Int. Mark.* 6: 74-102.
- Littunen H (2000). Entrepreneurship and the characteristics of the entrepreneurial personality. *Int. J. Entre. Behav. R.*, 6: 295-310.
- Lumpkin GT, Dess GG (1996). "Clarifying the entrepreneurial orientation construct and linking it to performance. *Acad. Manage. Rev.*, 21: 135-172.

McClelland DC (1961). *The achieving society*. Princeton, NJ: Van Nostrand.

- McDougall P, Oviatt B (2000). International Entrepreneurship: The Intersection of Two Research Paths. *Acad. Manage. J.*, 43, 902-906.
- McDougall PP (1989). International versus domestic entrepreneurship: New venture strategic behavior and industry structure. *J. Bus. Venturing*, 4: 387-399.
- Miller D, Shamsie J (1996). The Resource-based view of the firm in two environments: the Hollywood film studios from 1936 to 1965. *Acad. Manage. J.*, 39: 519-543.
- Morrow JF (1988). International entrepreneurship: A new growth opportunity. *New Management* 3: 59-61.
- Muzychenko O (2007). Facilitating International Entrepreneurship through Developing a Global Mindset. In: *Proceedings of the 30th Institute for Small Business and Entrepreneurship Conference*, edited by, pp 1-10. Glasgow, Scotland: Institute for Small Business and Entrepreneurship.
- Novak M, Bojnec S (2005). Human capital and economic growth by municipalities in Slovenia. *Managing Global Transitions* 3: 157-177.
- O'Farrell PN, Wood PA (1998). Internationalisation by business service firms: towards a new regionally based conceptual framework. *Environment*, 30: 109-128.
- Oviatt BM, McDougall PP (1994). Toward a theory of international new ventures. *J. Int. Bus. Stud.*, 25: 45-64.
- Oviatt BM, McDougall PP (2005). Defining International Entrepreneurship and Modeling the Speed of Internationalization. *E. T. & P.*, 29: 537 - 554.
- Pennings MJ, Lee K, Witteloostuijn A (1998). Human Capital, Social Capital, and firm Dissolution. *Acad. Manage. J.*, 41:425-440.
- Peteraf MA (1993). The Cornerstones of Competitive Advantage: A Resource-Based View. *Strat. Manage. J.*, 14:179-191.

- Rosenzweig PM, Singh JV (1991). Organizational environments and the multinational enterprise. *Acad. Manage. Rev.*, 16: 340-361.
- Ruzzier M, Antoncic B, Hisrich RD, Konecnik M (2007). Human Capital and SME Internationalization: A Structural Equation Modeling Study. *Can. J. Adm. Sci.*, 24: 15-29.
- Woolcock M (1998). Social capital and economic development: toward a theoretical synthesis and policy framework. *Theor. Soc.*, 27: 151-208.
- Wright PM, Dunford BB, Snell SA (2001). Human resources and the resource based view of the firm. *J. Manage.*, 27: 701-721.
- Wright RW, Ricks DA (1994). Trends in international business research: Twenty-five years later. *J. Int. Bus. Stud.*, 25: 687-701.
- Zahra SA, George DM (2000). International corporate entrepreneurship and firm performance: the moderating effect of international environmental hostility. *J. Bus. Venturing*, 15: 469-492.
- Zahra SA, George G (2002). International entrepreneurship: The current status of the field and future research agenda. In *Strategic entrepreneurship: Creating a new mindset*, edited by Hitt MA, Ireland RD, Camp SM, Sexton DL, Oxford, UK: Blackwell Publishers. pp: 255-288.
- Zhou LX (2007). The effects of entrepreneurial proclivity and foreign market knowledge on early internationalization. *J. World Bus.*, 42: 281-293.

The references colored RED is not cited in the work

Appendix A: Entrepreneurial proclivity

Sources: (Covin and Slevin, 1989; Lumpkin and Dess, 1996; Knight and Cavusgil, 2004; Zhou, 2007).

Proactiveness

- (1) I have regularly attended local/foreign trade fairs.
- (2) I have usually spent some time abroad to visit.
- (3) I actively seek contact with suppliers or clients in international markets.
- (4) I regularly monitor the trend of export markets.
- (5) I actively explore business opportunities abroad.

Innovativeness

- (1) I always encourage new product ideas for international markets.
- (2) I am very receptive to innovative ways of exploiting international market opportunities.
- (3) I believe the opportunity of international markets greater than that of the domestic market.
- (4) I continuously search for new export markets.
- (5) I am willing to consider new suppliers/clients abroad.

Risk taking

- (1) I focus more on opportunities than risks abroad.
- (2) When confronted with decisions about exporting or other international operations, I am always tolerant to potential risks.
- (3) I have shared vision towards the risks of foreign markets.
- (4) I value risk-taking opportunities abroad.