The network approach to rapid internationalization among Born-Global and Born-again Global firms: The case of the “Global Innovation Network”

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International activities are increasing and the modes of internationalization are becoming more diverse. Numerous SMEs, especially in high technology environments such as “born global” or “born-again global” internationalize faster and faster. However, a general constraint that many of these small innovative firms face is relatively restricted resources. In our study, we focus on explaining how international network acts to reduce fundamentally internationalization liabilities and perceived risk and how rapid internationalization of SMEs is possible through this formal network. Common over the literature is the focus on patterns of internationalization of SMEs rather than on the network itself. The need for in-depth case study on network specific to rapid internationalization among Born-Global and Born-again Global firms has been recognized by Arenius (2002), Andersson and Wictor (2003), Sharma and Blomstermo (2003), Autio (2005) and Coviello (2006). In the paper, we describe the beneficial aspects and also potential negative effects (called by Elango and Pattnaik, 2007) of a specific international network developed in Belgium.

Given the current limited understanding of international network activities, it appeared that a qualitative research method would be the most appropriate. The extended case study for this paper consisted of the Global Innovation Network. The objectives of the network representatives are to provide information and advice regarding the opportunities offered by foreign markets and to build global companies through the simultaneous commercialization of new worldwide technologies. The main form of data collection of this study was official papers and in-depth interviews during 2 years (2010-2012). This network offers a fascinating context in which to explore the potential contribution of international networks to rapid internationalization process in terms of information, resource and control benefits. This sharing of technology, capital, between firms, universities, incubators, and partners within the Global Innovation Network open up an array of opportunities that would otherwise not be available to internationalizing SMEs. International networks for innovative SMEs may then provide an answer to the challenge of globalization for smaller companies.

Keywords: International Entrepreneurship, Network of collaboration, Innovation.
1. Introduction

The current economic environment reflects the complex integration of global economies. Rapidly changing international markets create a lot of challenges and uncertainty for internationalizing companies. International activities are increasing and the modes of internationalization are becoming increasingly diverse. Firms often start their internationalization via import or export and then gradually increase their international commitment. However, an increasing number of enterprises, especially in high technology environments such as “Born Global” or “Born-again Global” internationalize faster and faster. The global restructuring process is accompanied by increasing scarcity of resources, forcing firms and governments to think about opportunities for sustainable growth. This is particularly evident in Belgium, a country that has developed into one of the most globalized countries in the world. This openness has an important impact on the behavior and the performance of firms located in Belgium. Rapid changes in the global economy confront firms with a myriad of strategic challenges for successful growth. Belgium is an interesting country to analyse due to its small and open economy with a very limited domestic market. With respect to environmental factors, an important driver for internationalization relate to the size of the domestic market of the focal firm vis-à-vis the potential of the international market (Knight and Cavusgil, 1996), and the relative ease of access to the latter markets. In a country where the domestic market size is small, internationalization is an important growth strategy (Sapienza, Autio, George, & Zahra, 2006).

International innovative Small and Medium-size Enterprises (SME) play a major role in the Belgian economic growth. However a general constraint that many of these small innovative firms face is relatively restricted resource as compared to what is available to larger firms. The internationalization process requires a level of investments and resources that smaller companies typically do not possess. SME may be constrained by the high and increasing costs of search partners and contract negotiation. One solution for these entrepreneurial firms to overcome this constraint is by cooperating. Companies more and more internationalize and simultaneously open up their innovation process to

*Handbook on community state aid rules for SMEs, February 2009.*
collaborate with external partners (suppliers, customers, universities)†. This clearly has important implications for policy making, given the contribution of innovation to economic growth. The concept of network for SMEs is not totally new but the organization of innovative activities across firm boundaries is clearly on the increase, with more balance between internal and external sources of innovation. Even so, the entire system of collaborative innovation activities stimulates innovation of a country. The increasing worldwide economic integration leads to the creation of new world-wide networks. New communication technologies simplify interaction within SMEs and create new opportunities for collaboration between them, including the intensive use of international sourcing. International sourcing from external parts is often used to increase competitiveness (Coucke and Sleuwaegen, 2007). International networks for innovative SMEs may then provide an answer to the challenge of globalisation for smaller companies. It may offer a less costly alternative for obtaining access to local centres of knowledge around the world. International network may speed up the internationalisation of innovation in smaller high-technology companies.

The paper proceeds by reviewing important features of the internationalization pattern. Next, drawing on this selective literature review, we describe four barriers to internationalization for SMEs and suggest the network approach as a way to overcome these liabilities. In the section following that, because our interest was in model development, we chose the single-case method as our research strategy. Our approach responds to the recent calls for more in depth case study in internationalization and network theory (Oviatt and McDougall, 2003; Arenius, 2002; Andersson and Wictor, 2003; Sharma and Blomstermo, 2003; Autio, 2005; Coviello, 2006). Common over the litterature is the focus on patterns of internationalization rather than on the network itself. Our study emphasize on a specific international network developed in Belgium (The “Global Innovation network”). After, we describe the beneficial aspects of network for internationalization and also the risks it may cause. In their review of the literature, Elango and Pattnaik (2007) called for work indicating potential negative effects of such an approach. Finally, the model we develop in this paper proposes that the international network decrease the four types of liabilities for internationalization and affects the speed

at which SMEs penetrate foreign market. In the concluding section we discuss implications of the framework for SME and public policy, as well as limitations and opportunities for future research.

2. Theoretical Framework

2.1. Features of the internationalization pattern

Internationalization can be defined as “the process of adapting firms’ operations (strategy, structure, resource, etc.) to international environments” (Calof and Beamish, 1995, P. 116). The main theoretical frameworks on the internationalization process are those of Johanson and Vahlne (1977) and Oviatt and McDougall (1994). Oviatt and McDougall have positioned their work as a challenge to the received Uppsala model but the two frameworks appear complementary. The purpose of Johanson and Vahlne was to explain the gradual, constrained pattern of internationalization whereas Oviatt and McDougall’s model emphasizes enabling factors (Autio, 2005).

The stage models, which started in the ‘70 in the Nordic countries, assume that internationalization process starts with sporadic overseas sales and continues with bigger and bigger commitments in the foreign markets through sales (Kalinic, 2009). The traditional pattern is a process in which a firm gradually increases the number and diversity of markets it serves (Johansson and Vahlne, 1977). Several studies have critiqued this traditional, incremental internationalization models which have mostly focus on large firms (Coviello and Munro, 1995; Knight, 1997; Knight and Cuvusgil, 2004; McDougall, Shane, and Oviatt, 1994; Moen and Servais, 2002).

The main models challenging the ‘traditional’ process we can identify in the literature at the beginning of the ‘90 are the ‘born-global’ (Knight and Cavusgil, 2004; Rennie, 1993) and ‘born-again global’ internationalization patterns (Bell, McNaughton and Young, 2001; Bell, McNaughton, Youngh and Crick, 2003), which differ in terms of pace and degree of internationalization. These authors found that some SMEs are able to internationalize more rapidly than the stage models predict, jumping over some stages (Oviatt and McDougall 1994, 2005). A new subfield in International Business emerged:
“International Entrepreneurship”. International entrepreneurship is “the discovery, enactment, evaluation, and exploitation of opportunities, across national borders, to create future goods and services” (McDougall and Oviatt, 2000).

Born-Global firms (BGs) are firms that are internationally oriented since their inception, or soon after it, and manage to reach a certain degree of internationalization within a relatively small number of years (Kalinic, 2009). Born-again Global firms (BaGs) are firms that are well established in their home markets, and have suddenly embraced rapid internationalization (Bell et al., 2001, 2003). BGs are then early and rapidly adopters of internationalization whereas BaGs are rapidly but not early adopters of internationalization. This type of behaviour is often a response to a ‘critical’ incident which is either internal or external (Bell et al., 2003). SME can speed up their internationalization process if there is a critical event that increases their knowledge intensity such as the access to new global networks. BG and BaG are internationalization process with strong innovative characteristics. Similar to innovation BGs and BaGs are required to be able to adapt a changing environment and demonstrate new ways of thinking in order to succeed in addressing the challenges posed by the process (Uri and Shoham, 2011). Firms with highly sophisticated knowledge bases are likely to internationalize much more rapidly than those with more basic capabilities (Bell et al., 2003).

Surprisingly the extant literature does not give detailed information about BG or BaG internationalization patterns (Kuivalainen et al., 2012). There are several definitions of rapidly internationalizing firms (Bacq and Coeurderoy, 2011) but the results are hard to compare. Following Kuivalainen (2012), there have been only a few attempts to establish a rigid typology of internationalizing SMEs (see e.g., Apselund and Moen, 2005). Although authors do not give detailed classification criteria for BG or BaGs, there is sufficient evidence of the phenomenon to justify further investigation of these specific firms. In the literature, there are three dimensions that make a distinction between traditionally internationalizing firms and internationalization of BGs and BaGs: Time, Scale and Scope.
TIME is defined through two criteria: the time lag between the founding of a firm and the commencement of its international operations (PRECOCITY) and the speed of a firm’s subsequent international growth and development (SPEED) (Autio, Sapienza and Almeida, 2000; Jones and Coviello, 2005, Zuchella et al., 2007). According to the first criteria, Traditional Firms and BaG are firms that first established themselves domestically. They operate for a long time in their home markets before entering international markets. BGs on the other hand aim for international markets from inception. According to the second criteria of time, the speed of internationalization, traditional firms gradually increases the number of the markets they serve. BGs and BaGs internationalize rapidly, they jump over some stages and reach a certain degree of internationalization within a relatively small number of years.

<table>
<thead>
<tr>
<th></th>
<th>Traditional Firms</th>
<th>Born-Global firms</th>
<th>Born-Again Global firms</th>
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<tbody>
<tr>
<td><strong>TIME (precocity)</strong></td>
<td>Operate for a long time in their home markets</td>
<td>Aim for international markets from inception</td>
<td>Operate for a long time in their home markets</td>
</tr>
<tr>
<td><strong>TIME (speed)</strong></td>
<td>Gradually increase the number of markets</td>
<td>Reach a certain degree of internationalization within a small number of years</td>
<td>Reach a certain degree of internationalization within a small number of years</td>
</tr>
<tr>
<td><strong>SCOPE</strong></td>
<td>Market concentration (narrow geographic scope at the beginning of international operations)</td>
<td>Market diversification (broad geographic scope almost from inception)</td>
<td>Market diversification (broad geographic scope almost from the first international involvement)</td>
</tr>
<tr>
<td><strong>SCALE</strong></td>
<td>Slow, evolutionary path of development</td>
<td>Internationalize rapidly with a high share of foreign sales</td>
<td>Internationalize rapidly with a high share of foreign sales</td>
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Figure1. Exploratory typology of internationalizing SMEs

The SCOPE dimension refers to the number of countries or markets where the firm internationalize. The traditional process of internationalization is characterized by a market concentration. Firms should have a narrow market scope at the beginning of its international expansion (Johansson and Vahlne, 1977). The BGs and BaGs process is characterized by a market diversification. SMEs begin to operate in multiple countries on international markets almost from inception (BGs) or almost from the first international involvement (BaGs).
The *SCALE* dimension relates to the extent of a firm’s international operations. The most common indicators seem to be the export ratio. Whereas traditional firms tend to follow a slow, evolutionary path of development, BGs and BaGs internationalize rapidly with a high share of foreign sales.

2.2. *Liabilities of expansion, newness, foreignness and perceived risk*

Traditional internationalization of SME is a process characterized by many uncertainties due to the limited knowledge of the foreign country and limited resources (Kalinic, 2009). Internationalizing SMEs face constraints arising from their intrinsic deficiencies in resources and capabilities. Such constraints make internationalization a challenge to most of these firms (Oviatt and McDougall, 1994). In internationalization process, additional resources may be necessary in the new countries that are not necessary in the home country. Since the internationalizing firm will need to incur expenses that local competitors do not, the lack of such resources can negatively affect the operations in the new country vis-à-vis the local competitors. In the literature, the liability has been broadly defined as all the additional costs a firm operating in a market overseas incurs and that a local firm would not incur (Hymer, 1976). The literature is extensive with studies on how international business can incur different sets of costs compared with those taking place domestically (Eden and Miller, 2004). While some of those costs may stem from the different economic structure of the foreign countries involved, many of them can be traced at the efforts expanded to adapt the local business to the cultural norms and systems that prevail in the foreign country. Psychic distance, defined as the factors that make it difficult to understand foreign environment, is a key explanatory variable regarding the firm’s expansion into foreign markets (Johanson and Vahlne, 1990). Markets differ in terms of factors such as language, culture, business practices, education, industrial development and political systems. Firms must then adjust to a foreign national culture and be prepared for challenges, such as differences in lifestyles, cultural standards, consumers preferences, and purchasing power (Sousa and Bradley, 2005).
A basic assumption of the internationalization model is that the lack of knowledge about foreign markets is a major obstacle to international operations as it is difficult to manage a firm spanning more than a single region. In this paper, we used the three types of difficulties in internationalization, suggested by Cuervo-Cazurra et al. (2007), based on the nature of the complementary resources and we add a fourth dimension which is the perceived risk:

**Liability of expansion.** The SME may lack of complementary resources needed to operate at a larger scale. More specifically, SMEs which intend to go abroad can suffer from lack of knowledge about how to conduct a business in a foreign country. Internationalization is often accompanied by adding new operations. It requires the firm to deal with additional transportation, communication and complexity costs (Tallman and Li, 1996). These managerial costs involved with internationalization are usually higher than in a domestic context (Vernon, 1977). The liability of expansion represents then the additional costs of doing a business abroad. These costs are directly associated with spatial distance, such as cost of travel and coordination over distance and across time zones (Zaheer, 1995). A firm as a reduced threat of facing the liability of expansion when it has already developed experience and resources from operating across several geographic locations. We hypothesise that SMEs could overcome this liability of expansion through international business knowledge and services.

**Liability of newness.** The SME may lack of complementary resources needed to operate in a new competitive environment. When the firm moves to another country, the competitive environment often differs, requiring some additional resources that the firm does not have. Difficulties in establishing international partnerships have been recognized as one of the major factors slowing down internationalization (Karagozoglu and Lindell, 1988). The pace at which an international venture penetrates a new market is affected by speed at which it is able to locate customers, suitable partners, and close deals. For entering a new country market, the inexperienced firm will experience several transaction costs (Teece, 1986) such as search costs to find reliable local sales agents; negotiation cost to negotiate favorable contractual arrangements; compliance and enforcement costs to monitor the conduced deal effectively.
In her study, Arenius (2005) shows that another important barrier for internationalization was caused by the lack of legitimacy and influence in the new environment. Internationalizing ventures lack attractiveness in the eyes of potential customers and partners because they lack information about the venture’s competence and reliability. We hypothesise that SMEs could overcome the liability of newness by actively acquiring information about foreign potential partners and developing the complementary resource needed to compete in the new environment.

**Liability of foreignness.** The SME may lack of complementary resources needed to operate in a new institutional environment. Internationalizing firms suffer from liability of foreignness because they are new to foreign country; they have no active presence on the market and are missing a shared history and a shared context. International commerce is considered risky because it may involve loss of assets as a result of changes in political, economic, social and legal factors in foreign markets where local firms compete. When the SME moves into a new country with a different institutional environment, it may need complementary resources for dealing with other entities and prevailing rules of behavior (Zaheer, 2002). The institutional environment, the set of norms and rules that constrain human behavior, such as culture, language, religion, and the political, legal and economic systems (North, 1990), affects all firms operating in the country. This lack of complementary resources needed for understanding the new institutions create difficulties. In order to enhance the success of their operations abroad, SMEs need to learn about the institutions that define how people act and interact in the new environment. It include laws and written conventions but also codes of conduct, norms, values and behavioural conventions (North, 1990). The liability of foreignness implies that a lack of knowledge of local cultures and institutions increases the failure rate of foreign expansions (Barkema and Drogendijk, 2007). We hypothesise that SMEs can overcome the liability of foreignness by developing the complementary resources internally, the development of tacit knowledge of how to operate in the new institutional environment (Eriksson et al., 1997), and the creation of new informational sources (Zaheer, 2002).
Perceived risk. The success or the failure of the firm when entering a new foreign market will also be closely linked with the additional level of threat to its proprietary intellectual assets, especially in high-technology industry. The inability to define complete contracts and the lack of resources to defend their legal rights are likely to encourage opportunistic behaviour by local competitors. The risk could be exacerbated because the local competitors have better knowledge of domestic regulatory frameworks and business rules. The SME have to accept the imminent prospect of additional technology transfer risks when entering into the foreign market. These potentials intellectual proprietary threats include: the “hold-up” of specific assets; the appropriation or technological leakage and the spill over of key information to competitors in international alliances (Williamson, 1991; Ahuja, 2000). We hypothesise that social embeddedness within network partners may decrease opportunistic behaviors and perceived risk.

2.3. Network theory and International Entrepreneurship

These three types of liabilities and perceived risk negatively affect the speed at which SMEs penetrate foreign market. Because learning cultural and institutional differences take time, the internationalization process tends to be gradual and incremental. Research shows that network ties are an important resource facilitating internationalization, especially among SMEs with limited resources for internationalization (Kontinen and Ojala, 2011). In the network theory, internationalization is seen as an entrepreneurial process that is embedded in an institutional and social web which supports the firm in terms of access to information, human capital, finance, and so on (Bell et al., 2003). The companies develop their capabilities throughout the entire network and improve their international competitiveness. In organizational settings, networks may involve social relationships among individuals embedded in a formal structure of business connections or an informal structure of personal relations bounded in geographical, social, or institutional spaces (Hitt et al., 2002). The focus of our study is the formal network of international collaboration relationships. Internationally oriented firms are engaged in a diverse range of cross-border relations and exchanges (Ellis, 2000).
Liesch et al. (2002) indicate that building and maintaining network relationships are considered an integral part of the internationalization process. By accessing international knowledge base through network, internationalizing SMEs can expedite its learning process (Eriksson et al., 1997). Networks help sharpen international vision and managerial openness (Oviatt and McDougall, 2005), they represent an important source of valuable information (Ellis, 2000) and knowledge for developing new organizational capabilities (Park and Luo, 2001). The network can also be extended to identifying foreign market opportunities (Ellis, 2000; Ellis and Precotich, 2001; Harris and Wheeler, 2005) and are useful for screening and evaluating potential exchange partners (Ellis, 2000). In international network, the knowledge gained about the markets, competitors, suppliers and customers offers important clues about new market to enter (Arenius, 2002). Besides, social ties appear to have enhanced legitimacy and the reputation of the internationalizing SMEs (Chetty and Wilson, 2003; Coviello, 2006). Network can then act as a bridge to foreign markets and represents critical avenues for the acquisition of resources necessary for firm international survival and growth (Gulati, 1998).

In the literature we have identified twenty-one articles (see figure 2) focused on Network Theory and International Entrepreneurship. International Entrepreneurship’s general interest in networks and relationships is first highlighted by Coviello and Munro (1995, 1997). They introduce the influence of network ties on the internationalization process of small firms. Network relationships were recognized to be indispensable for SMEs to achieve international growth (Coviello and Munro, 1997). At the same period, Zacharakis (1997) applies the transaction cost theory to discuss the entrepreneurial entry strategies into foreign markets. It seems that the network thematic area ‘re-born’ in 2005 with an article that show how entrepreneurial corporate new ventures use partners in their internationalization (Varis et al., 2005). In 2006, a plethora of network-focused research began to appear with Coviello’s famous article “The network dynamic of international new venture” (Coviello, 2006). The period 2006-2008 comprise the bulk of the studies in the network thematic area. This stream of research stresses the importance of social relationships, which may often replace the ownership of physical resources by the access to resources. International network can then help SMEs learn new capabilities and provide access to resources and knowledge.
What is interesting in this table is that all these studies focused on the SMEs and its social relationships but not on the network itself. Our approach responds to the calls for more in depth case study in internationalization and network theory (Oviatt and McDougall, 2003; Arenius, 2002; Andersson and Victor, 2003; Sharma and Blomstermo, 2003; Autio, 2005; Coviello, 2006). Common over the above literature is the focus on patterns of internationalization of SMEs rather than on the network itself. Our study sheds light on a specific international network developed in Belgium (the “Global Innovation Network”). In our empirical research we then focus on explaining how this network acts to reduce fundamentally the three types of liabilities and perceived risk and how rapid internationalization of Born Global firm or Born-again Global firm is possible through this type of formal network.
<table>
<thead>
<tr>
<th>Authors</th>
<th>Journal</th>
<th>Key focus</th>
<th>Key insight</th>
<th>Type of study</th>
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<tbody>
<tr>
<td>Coviello and Munro, 1995</td>
<td>European Journal of Marketing</td>
<td>Network relationships</td>
<td>The use of network relationships to pursue foreign market opportunities and conduct international marketing activities</td>
<td>Four in-depth case studies in New Zealand software industry and mail survey</td>
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<td>Coviello and Munro, 1997</td>
<td>International Business Review</td>
<td>Network relationships</td>
<td>The influence of network relationships on the internationalization process of small firms</td>
<td>Multi-site case research in Software industry</td>
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<td>Zacharakis, 1997</td>
<td>Entrepreneurship Theory and Practice</td>
<td>Network relationships</td>
<td>Use transaction cost economics to provide a theoretical basis for exploring entrepreneurial entry strategies into foreign markets</td>
<td>Model development</td>
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<td>Vans et al., 2005</td>
<td>Journal of International Entrepreneurship and Practice</td>
<td>Network partners</td>
<td>How entrepreneurial corporate new ventures use partners in their international marketing</td>
<td>A single-case study approach of a software firm</td>
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<td>Coviello, 2006</td>
<td>Journal of International Business Studies</td>
<td>Network dynamics</td>
<td>Set of propositions regarding the network dynamics of early-stage international new ventures</td>
<td>Case research: three organizations in an accelerator facility in New Zealand</td>
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<td>Coviello and Cox, 2006</td>
<td>Journal of International Entrepreneurship</td>
<td>Network benefits</td>
<td>How network facilitate resource development in the international new venture</td>
<td>Case research: three organizations in an accelerator facility in New Zealand</td>
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<tr>
<td>Han, 2006</td>
<td>Journal of International Entrepreneurship</td>
<td>Network ties</td>
<td>Comprehensive distinctions of network relationships, such as in the strength, number and content of ties</td>
<td>Model development</td>
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<tr>
<td>Mort and Weerawardena, 2006</td>
<td>International Marketing Review</td>
<td>Network capability</td>
<td>The role and characteristics of the entrepreneurial owner and the development of networking capability over time</td>
<td>Six exemplar case studies in Low and hi-tech industry sectors in Australia</td>
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<tr>
<td>Wakkée, 2006</td>
<td>Journal of International Entrepreneurship and Practice</td>
<td>Network development</td>
<td>To map international network development (longitudinal qualitative method)</td>
<td>In-depth case study in Dutch International New Venture</td>
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<tr>
<td>Ruokonen et al., 2006</td>
<td>International Journal of Entrepreneurship and Innovation</td>
<td>Network development</td>
<td>The role of partnerships in the internationalization of small software firms</td>
<td>Two case studies: Small software firms</td>
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<tr>
<td>Zain and Ng, 2006</td>
<td>Thunderbird International Business Review</td>
<td>Network benefits</td>
<td>How indigenous Malaysian SMEs use their network relationships to facilitate their internationalization process</td>
<td>Four multi-site case study method of software firms</td>
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<td>Zhou et al., 2007</td>
<td>Journal of International Business Studies</td>
<td>Network benefits</td>
<td>Mediating role of home-based social networks in the relationship between inward and outward internationalization and firm performance</td>
<td>Large-scale Survey questionnaire of SMEs in China</td>
</tr>
<tr>
<td>Prentice et al., 2007</td>
<td>International Business Review</td>
<td>Social capital</td>
<td>Social capital as a critical source of knowledge acquisition abroad</td>
<td>A geographical cluster of micro and small high-tech firms</td>
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<td>Pisano et al., 2007</td>
<td>International Journal of Technology Management</td>
<td>Social capital</td>
<td>A theoretical analysis of the means firms employ to create and exploit competitive advantages in emerging economies</td>
<td>Model development</td>
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<td>Al-Laham and Souitaris, 2008</td>
<td>Journal of Business Venturing</td>
<td>Network relationships</td>
<td>Whether inter-organizational factors influence firms’ propensity to internationalize by forming international research alliances</td>
<td>Longitudinal event history dataset of German biotech firms</td>
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<td>Vagola et al., 2008</td>
<td>Journal of International Entrepreneurship and Practice</td>
<td>Network ties (MNCs and SMEs)</td>
<td>Why and How MNCs complement their in-house R&amp;D by forming strategic alliance constellations with small, innovative born globals</td>
<td>Two cases: MNCs in Global high tech industry</td>
</tr>
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<td>Sasi and Aremius, 2008</td>
<td>European Management Journal</td>
<td>Network social relationships</td>
<td>Role of networks particularly social networks in the rapid internationalization process</td>
<td>Ten case companies from Finland in ICT</td>
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<tr>
<td>Prashantham, 2008</td>
<td>European Management Journal</td>
<td>Social capital</td>
<td>Social capital as a resource for innovation and strategic renewal in new venture internationalization</td>
<td>Conceptual study</td>
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<td>Kins and Danius, 2008</td>
<td>European Management Journal</td>
<td>Network institutional context</td>
<td>The role of social networks in the internationalization processes of new ventures in contexts characterized by different levels of institutional development</td>
<td>Model development</td>
</tr>
<tr>
<td>Blomqvist et al., 2008</td>
<td>Journal of Engineering and Technology Management</td>
<td>Trust and contracts</td>
<td>The role of trust and contracts in technology-intensive Born-GLOBAL firms</td>
<td>Conceptual study</td>
</tr>
<tr>
<td>Berg et al., 2008</td>
<td>International Journal of Entrepreneurship and Innovation</td>
<td>Social capital</td>
<td>The role of social capital relationships in the establishment, management and performance of international governance structures</td>
<td>Conceptual study</td>
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Figure 2. Literature review of Network Theory applied to International Entrepreneurship
3. Research strategy

Because our interest was in model development, we chose the case method as our research strategy. Our approach responds to the recent calls for more in-depth case study in International Entrepreneurship and Network Theory. Common over the literature is the focus on patterns of internationalization of SMEs rather than on the formal network itself. Our study emphasize on a specific international network for innovative SMEs developed in Belgium. Given the current limited understanding of international networks activities, it appeared that a qualitative research method would be the most appropriate for the study reported here. This stream of research draws our attention to the international network as a preemptive strategy to access knowledge and deploys the relevant resources for a rapid internationalization.

3.1. Methodology

We utilized a single-case study approach similar to the methodology introduced by Eisenhardt (1989) and Yin (1989). The case study method makes possible an in-depth investigation and is relevant when the study covers a real-life environment in which a particular action take place (Yin, 1989). The main form of data collection of this longitudinal study was official papers and in-depth interviews during 2 years (2010-2012). The primary data-collection method consisted of formal interviews with a semi-structured questionnaire in the case network. The interviews were conducted each three/four month with the director of business development and partnerships for AWEX or other persons in charge of the coordination of the network. In addition, in order to enhance the reliability of the study, multiple secondary data sources were also used including formal documents, agreements and collaboration forms. The interviews lasted 10 hours in total, covering the network basics, and particularly the partner SMEs evaluation and selection process. Most of the interviews were recorded and all were transcribed. The final version was checked with the interviewees.
3.2. National context of the research

With a foreign trade to GDP ratio of 90%, Belgium is one of the most open economies in the world (ING, 2012). Ernst & Young’s Globalization Index ranks Belgium as the fourth most globalized economy in 2011, after Hong Kong, Ireland and Singapore. Since economic growth in Belgium is to a large extent determined by its international performance, it is imperative that Belgian firms maintain or improve their position in world markets. However, Belgium is losing market share in world markets. Export from Belgium is growing slower than the import of our trade partners. The relative decline in export share is due to structural and competitive factors. These structural factors include the limited focus on high growth countries and knowledge intensive activities. Belgium’s export of goods and services are less oriented toward countries outside the European Union (EU). This unfavourable trade structure limits the growth potential of exporting Belgian SMEs. Belgium has not yet been able to reduce this gap and to increase its orientation towards high growth markets. Exports are not only focused on the European market, but those exports outside the EU-27 are less technology intensive products when compared to other EU countries’ exports (source: UNCTAD).

Whereas many developed economies specialize in high technology and knowledge intensive goods and services, which are expected to contribute most to growth (Haussmann et al., 2007). Belgium does not appear to be strongly focused on these industries and is not characterized by a high R&D intensity. Although the share of high technology products in total exports has increased over the past decade, Belgium is still ranked 11th out of EU-15 countries in terms of its share of high technology exports.

We know from a substantial literature that technology-based firms are particularly likely to internationalize quickly (Brugel and Murray, 2000; Rialp et al., 2005). Madsen and Servais (1997) has suggested that this phenomenon may be the result of insufficient, aggregate home demand for highly specialized, that is, niche, products and services. Another argument that has been suggested is that overseas sales are the individuals firm’s response to excessive domestic competition (Shrader, 2001). These arguments are essentially a description of defensive actions by firms pushed out or beyond their home small markets, such as Belgium (Coeurderoy and Murray, 2008).
3.3. **Single-case study**

The extended case study for this paper consisted of the Global Innovation Network. In order to match the growing demand for innovation, with the worldwide supply of science and technology, the Wallonia Export and Investment Agency (AWEX) is developing a Global Innovation Network to provide information and advice regarding the opportunities offered by foreign Market. The AWEX is a government agency responsible for stimulating economic activity in the Wallonia region. The AWEX has signed since 2006 a cooperation agreement with the Texas A&M University System, one of the largest systems of higher education in the United States, in order to help technological development of Wallonia innovative SMEs and foster their access to the American market. Technological industry is a key area of focus for cooperation and the Global Innovation Network has started to identify synergies around cross-boundary projects. Innovative SMEs increasingly adopt “ecosystems of innovation” across countries. They link into these international networks with people, institutions (universities, government, and agencies) and other companies from different countries. The Global Innovation Network include own Research & Development facilities abroad as well as collaborative arrangements with external partners such as incubators and clusters.

Exploring the development of this network may help understand the potential contribution of international networks to rapid internationalization process of Born- Globals and Born-again Globals.

4. **Findings**

In our empirical research we focus on explaining how the Global Innovation Network acts to reduce fundamentally the three types of liabilities and perceived risk and how rapid internationalization of Born Global firm or Born-again Global firm is possible through this formal network.
4.1. The role of network in facilitating and speeding internationalization process

In our case study, the ‘distance’ separating North America, India and Europe remains substantial. This distance is a mix of cultural, administrative, geographic and economic roots with important implications for the internal functioning of the internationalizing SME. We hypothesize that international networks offer a potentially efficient way to overcome resource and capability deficiencies for internationalizing Born-Globals and Born-again Globals. We argue that the Global Innovation Network play a key role in facilitating and speeding the internationalization process of SMEs. In the following, examples of these are presented from the case material.

Co-invest and co-locate to overcome the liability of expansion. The Global Innovation Network representatives work cooperatively to identify technology and commercialization opportunities. As a foreign trade agency, The Wallonia Export and Investment Agency (AWEX) carry out a mission of information and promotion, benefiting Wallonia innovative SMEs. The network representatives select the member innovative SMEs through a collaboration form. The SME owner has to fill in a three page form with descriptive information in order to create their technology offer. The Global Innovation Network focus on six promising sectors: Agriculture and Food Science, Life Science, Aerospace, Environment and Sustainability, Mechanical Engineering Transportation and Logistics. And the criteria of selection are the following: the uniqueness of the technology, the global market potential, the commercialization stage, the level of intellectual property protection and the objectives of their participation in the program.
Besides, the AWEX offers a wide range of export-oriented services and activities such as training in international careers, and financial support (investments supports, technology fund and subsidies). The SOFINEX (Société de Financement de l’Exportation et de l’Internationalisation des Entreprises Wallonnes) support investment of Walloon SMEs abroad by providing bank guarantees, financing, equity participations. In the context of the Marshall Plan 2.Vert, the Government of Wallonia has recently approved the setup of a 2 million euro investment fund. This fund will contribute towards the creation of companies and joint ventures, established under the agreement concluded between the AWEX and Texas A&M. Any SME possessing offices in Wallonia can also benefit from financial aids when prospecting international partnerships projects that have the potential of bringing positive returns to the region. They consist of up to 50% subsidies in costs related to the preparation and the starting up of the partnership; such as travel expenses, hiring of experts and translation costs.

The Global Innovation Network appears to create international knowledge advantages to the SMEs and facilitate learning internationalization process. Experimentation in the Global Innovation Network is essential for the BGs and BaGs to discover the winning business model and market recipe. These informational and financial benefits can then help internationalizing firms overcome the liability of expansion that frequently constrain innovative SMEs expansion.

*Co-identify to overcome the liability of newness.* The second role of the Global Innovation Network is to connect companies in Wallonia and the United States for the creation of technological or commercial partnerships. Their objective is to build global companies through the simultaneous commercialization of new technologies in Europe and the United States, developed within the Texas A&M System and Universities or companies in Wallonia. SMEs may then obtain valuable contact from the Global Innovation Network. The search for international exchange partners is generally characterized by greater uncertainty and complexity which combine to increase search costs. The Global Innovation Network is also a means of economizing on these higher
search costs. As firms gain more experience and acquire more knowledge from relationships, uncertainty about competitive foreign markets can be reduced. SMEs may then rely on the network to identify potential partners and economize on these costs. For example, the Global Innovation Network prospects multinationals in the field of R&D in order to present them research capabilities available in Walloon universities and within the Texas A&M System.

The Global Innovation Network also provide credibility and market power by offering a wide range of foreign market knowledge, including: establishing contacts with international organizations and promoting Wallonia's export potential abroad. The Global Innovation Network is then a very attractive proposition for innovative SMEs to connect with foreign partners as it has scale and credibility in Texas. For internationally oriented SMEs, the Global Innovation network is an efficient means of developing competitive foreign market knowledge and business connections not otherwise available.

**Co-market to overcome the liability of foreignness.** A third role of the Global Innovation Network is to facilitate the penetration of Walloon start-ups in the US market by providing them the right to use services provided by Texas A&M System Office of Technology Commercialisation, its Research Parks and Incubator; together with a privileged access to the university network. The AWEX also helps by providing access to regional Research & Development assistance program and grants and offering connections to a network of experts in social and tax matters who can provide assistance during every step of the internationalization process.

The network representatives also organize international technological missions. During these missions, trade delegations representatives from the AWEX and entrepreneurs from selected Belgian SMEs met representatives from the Texas A&M and activities are organized such as institutions presentations, press conference, fair trade and B2B meetings in order to ‘match” Belgian and American companies.
Some examples:

- **April 2011.** Visit in Wallonia of Texas A&M System Office of Technology Commercialization Director
- **May 2011.** Workshop Wallonia Tech in India
- **August 2011.** First technological mission of 8 Indian enterprises in Wallonia
- **September 2011.** Visit in Wallonia of Texas A&M System Office of Technology Commercialization and AWEX Trade commissioner in Houston
- **October 2011.** First technological mission of 10 Belgian enterprises at Texas A&M in the US
- **April 2012:** First Technological mission of 6 US enterprises in Wallonia
- **November 2012:** Technological mission of 6 Indian enterprises in Wallonia

The Global Innovation Network is then a way of gaining access to these tacit knowledge about cultural, social, legal norms, contributing to SMEs’ ability to internationalize rapidly. This institutional knowledge may instills in them greater confidence in their ability to cope with psychic distance. The Global Innovation Network then facilitates exchanges and market transactions with foreign partners and enables successful cross-border business operations.

**Co-protect to overcome the perceived risk.** This conflict stems from the fact that conditions necessary to facilitate the sharing and learning process simultaneously magnify the danger of losing core and proprietary knowledge. This conflict is specifically relevant in our case study because the transfer of novel technologies raises the potential threat of appropriation. The intangibility of the technological component of the product or service increases the opportunity cost for BGs or BaGs. Concerning these opportunity cost concerns, the referral benefit of the Global Innovation Network relies to a high level of trust among value network partners. The agreement between the AWEX and the Texas A&M University signifies a real commitment to work together. This social engagement which can alleviate appropriation concerns is often necessary to establish reliability in advance of commencing negotiations. According to Adler and Know (2002), strong social norms and beliefs within the network encourage compliance with business rules and solidarity.
Belgium's intellectual property laws differ somewhat from those of the US but the AWEX provides internationalizing SMEs with experts in legal matters that can be of great help when expanding outside Wallonia. Besides, each year, the Global Innovation Network organized visits for Belgian entrepreneurs at Texas A&M University. These visits are a great opportunity for entrepreneurs to solidify the relations and further get to know the people they will maybe working with.

4.2. The potential negative effects of international network

The field of international entrepreneurship has mostly highlighted the benefits of networks, paying less attention to the conditions under which knowledge network ties becomes conducive to rapid internationalization. The paradox is that, although the knowledge and information available through international network is necessary to internationalize, it simultaneously raises difficulties. In their review of the literature, Elango and Pattanaik (2007) did not indicate any published work indicating potential negative effects of such an approach. However, in the Global Innovation Network, establishing new relationships consumes time and energy. We highlight that the willingness to devote time and effort to meet network members or potential foreign partners and sharing knowledge should not be taken for granted. They are still costs or difficulties associated with the decisions to integrate an international network. Another factor that could potentially dampen the effect of an international network would be the differences in languages and perspectives. Following Burt (2000) and Mors (2010), as the knowledge available across national boundaries tends to be diverse and heterogeneous, the difficulties could be the lack of common understandings, shared meanings and also coordination problems within the international network. In our case material, the network representatives paid attention to these potential communication problems and tried to promote the formation of a common language (English) and shared understandings of the network objectives among the partners involved. This common view or social embeddedness is critical to overcoming interpretative barriers and achieving the successful integration of international collaborations.
Finally, the Global Innovation Network offers an efficient way to overcome resource and capability deficiencies for internationalizing BGs and BaGs. International network can alleviate the liabilities of expansion, newness, and foreignness and perceived risk and then accelerate the internationalization process.

The AWEX has now developed the same partnership in India and is discussing to extend it in China, New Zealand, South Africa and in the Middle East. Their goal is to build global companies through the simultaneous commercialization of new technologies around the world. Today, 30 SMEs are members of the Global Innovation Network and seven of them are now creating their American/Indian branch or joint-venture. The Global Innovation Network has invested in these companies and has played a key role in identifying technologies and foreign partners.

Exploring the development of this network help us understand the potential contribution of international networks to rapid internationalization process of Born-Globals and Born-again Globals. This sharing of technology, capital, between entrepreneurs, universities, incubators, and partners within the Global Innovation Network open up an array of opportunities that would otherwise not be available to internationalizing SMEs.

5. Synthetic framework

A cornerstone of the Uppsala Model was that the three types of liabilities and the perceived risk will decrease concurrently with the firm’s knowledge of the market, and so will its perceived need for incremental behaviour. In order to develop international operations quickly, firms need to have access to prior knowledge in dealing with differing institutions, as well as differing managerial approaches (Cohen and Levinthal, 1990). The more market knowledge the firm acquire through international network, the less are the liabilities and the perceived risk and the higher is the propensity to go rapidly abroad. In order to speed up the internationalization process of Born-Globals or Born-again Globals we argued that SMEs need to overcome these liabilities and perceived risk through formal network.
As we have seen in our research study, international network provides firms with these important knowledge and connections facilitating internationalization of operations. The roles of international network accruing internationalizing SMEs fall into two categories: information and resource benefits (knowledge about foreign partners and new competitive market) and control benefits (trust, embeddedness among network partners). Figure 3 provides a graphical overview of our proposed model. Liabilities of expansion, newness and foreignness and perceived risk increases the time needed to penetrate the foreign market. The three types of liabilities and perceived risk cause information, resource and control problems that international network can partially solve. International network may then help the BGs or BaGs to overcome the liabilities and the perceived risks and thus enable them to penetrate the foreign markets at an increased speed. The model proposes international network as a mean to speed up the internationalization process. BGs or BaGs within an international network can then expand at a higher speed at distant markets.

Figure 4. Proposed model of international network and the speed of internationalization
6. Conclusion

The Uppsala model suggests that companies internationalize in small, incremental steps, as risk-averse managers seize expansion opportunities in its local foreign environment. However, the improvements in global communications and transport combined with the increasingly liberalized global trading regimes have enabled the rise of a new class of small firms that span international borders. As observed in our case study, innovative SMEs are capable of exploiting global market opportunities more rapidly and efficiently. According to these new realities, our original features of the internationalization pattern have changed in many ways. This type of behaviour is often a response to a ‘critical’ incident which could be the access to new international networks. Networking activities is an essential strategy pursued by BGs and BaGs in order to gain access to resources, and cope with environmental uncertainty and weaknesses in their operations.

Recognizing international networks as an efficient means of helping internationally oriented SMEs to go international more rapidly contributes to the Network Theory and to the study of International Entrepreneurship. Common over the literature is the focus on patterns of internationalization of SMEs rather than on the formal network itself. The need for research on network specific to rapid internationalization has been recognized by Arenius (2002), Andersson and Wictor (2003), Sharma and Blomstermo (2003), Autio (2005) and Coviello (2006). In this paper we examine the extent to which international networks accelerate the process of internationalization and highlighted some potential negative effects of such an approach (called by Elango and Pattnaik, 2007).

The literature and our case material have confirmed the importance of international network in: providing information about international business practices and institutional knowledge; helping stimulate awareness of foreign market opportunities and identify foreign exchange partners; providing legitimacy and attractiveness of the internationalizing firm and promoting moral obligation within the network of partners. International network ease and accelerate the development of the innovative SME and lead to increased resource commitments in foreign markets.
The Global Innovation Network developed by the Wallonia Export and Investment Agency (AWEX) offered a fascinating context in which to explore the potential contribution of international networks to rapid internationalization. This network represents a new generation of innovative collaborations as they are connecting technologies and expertise across countries. The AWEX help technologies developed in Wallonia access faster new markets in our global economy. This sharing of technology, capital, between entrepreneurs, universities, incubators, and partners within the Global Innovation Network open up an array of opportunities that would otherwise not be available to internationalizing SMEs. As the Global Innovation Network is quite young and is in the developing period, this study need to be further explored. The AWEX and Texas A&M are now working together on the development of similar relationships with institutions in China, New Zealand, South Africa and in the Middle East. Future research could also aim to look into how learning is transferred to members within the international network or how do firms in international network capitalize on these foreign business knowledge and institutional knowledge.

From a perspective of firm strategy, evidence of the role of networks in providing useful knowledge on international markets suggests that firms must prioritise the participation in networks and pursue such opportunities in an assiduous and strategic manner. We also encourage firms to recognise government support as an integral part of their knowledge development and international expansion. The financial crisis has changed public opinion, and governments are pushed to change regulations and stimulate growth. Proactive regulations and well-functioning government are crucial for countries’ competitiveness. There is a clear need for a better climate for SMEs and to stimulate internationalization, leading to increased productivity (Flemish Foreign Affairs Council, 2010). The European commission (2011) pushes governments to play a more active role in helping firms overcome the barriers of internationalization. SMEs in particular benefit from public policy support, given their limited resources. However, only 7% of internationalized SMEs use available support mechanisms, calling for a greater awareness of support initiatives. This clearly has important implications for policy making, given the contribution of innovative SMEs to economic growth.
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