

Network Dynamics and Resource Outcomes throughout the Internationalization Process of SMEs

Master Thesis

Behavioural Management & Social Sciences

Name:	Ruben Brinkman
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Study:	Master Business Administration - Innovation, Technology & Entrepreneurship
1 st supervisor:	Dr. R. Harms
2 nd supervisor:	Dr. A.M. von Raesfeld-Meijer
External supervisor:	Drs. M. Klein Gunnewiek

UNIVERSITY OF TWENTE.

Abstract

There is increasing evidence of the facilitating role of external relationships and networks on the internationalization process of SMEs. Yet, a dearth of understanding continues to exist on how these networks develop over time. Another prevalent gap lies in the fact that relational characteristics are often neglected, which has resulted in a fragmented, inconclusive discussion on how relationships are built and which relationships (weak or strong) are most beneficial during internationalization. This current study tackles these research gaps by integrating process- and outcome oriented aspects of networked internationalization. A qualitative analysis on the network strategies of decision makers from seven environmental technology firms, supplemented by one industrial firm, generated new insights on the dynamic aspects of networks, and its resource outcomes, throughout the internationalization process.

Three key learning points can be derived from the analysis: 1) Most SMEs were able to enter foreign markets through strong business relationships, while serendipity also played a role for others; 2) During post-entry operations, networks were characterized by the strengthening of one central bridging tie into the market; 3) Some networks were more dynamic than others in which the dropping of ties, the weakening of ties, and making use of weak ties to attain new knowledge and opportunities were also observed. These findings result in several managerial implications, which are discussed before presenting some areas suitable for future research.

Keywords: dynamic networks, embeddedness, SME internationalization, Revised Uppsala model, relational aspects, resource outcomes

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Internationalization has been a passion of mine since the beginning of my studies; something I hope adequately resonates with this final thesis that lies before you.

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IV. List of Definitions

This section provides an overview and definition of the core concepts from the literature adopted in this study. This will ensure consistent usage of terminology, while also facilitating easier comparison with other studies.

Foreign Market Knowledge

Foreign market knowledge is concerned with the awareness of cultural matters and ways of conducting business in foreign countries (Johanson & Vahlne, 2009). It consists of *institutional knowledge* (of local culture, regulation and languages) and *business market knowledge* (of market developments, active organizations, competitors and customers).

Internationalization

Generating sales revenue from international operations is a boundary condition adopted by most scholars when accrediting firms as ‘international’ (Johanson & Kao, 2010). This logic is adhered in this study. A distinction is made between the foreign market-entry phase (which the overwhelming majority of IE research focusses on) and the subsequent, post-entry phase within a market.

International opportunity

The chance to conduct exchange with new, or previously existing, partners in foreign markets.

Networks

Networks are quite generally defined as “a set of actors and some set of relationships that link them” (Hoang & Antoncic, 2003, p.167). These can constitute of: “. . . relationships between a firm’s management team and employees with customers, suppliers, competitors, government agencies, distributors, bankers, families, friends, or any other party that enables it to internationalize its business activities” (Zain & Ng, 2006, p. 184). The relationships that play a role in the internationalization process of the focal firm is called the “internationalization-relevant” network (cf. Schweizer, 2013). In

this study, the interpersonal networks of decision makers are studied on the ego-network level. The ego-network is defined as the aggregation of the overall dyadic relationships of a focal decision maker.

Relational embeddedness

Relational embeddedness is conceptualized based on the seminal, and subsequent, work of Granovetter (1973; 1992) in which a distinction is made between *weak* and *strong* relationships. His conceptualization is adapted to exclude the frequency of contact (cf., Jack, 2005; Kontinen & Ojala, 2011a; 2012) as a factor that constitutes a strong relationship. Instead, a strong relationship is close, and based on commitment, mutual respect and trust. On the contrary, a weak relationship is characterized by more sporadic transactions, in which the actors do not know each other well and typically encompass limited (emotional) investment (Söderqvist & Chetty, 2009; Uzzi, 1997).

1. Introduction

1.1 Overview

An ever increasing amount of small- and medium sized enterprises (SMEs) have been observed to enter new foreign countries, survive, and even prosper (Hånell & Ghauri, 2016; Lindstrand, Mélen & Roviera Nordman, 2011; Oviatt & McDougall, 2005). This means that despite the known resource limitations of these smaller firms, international markets are no longer solely the domain of large, experienced firms (Child & Rodrigues, 2008; Gjellerup, 2000). Compared to larger firms, who often have the ability to deploy resources in order to accumulate knowledge about foreign markets and business opportunities, smaller firms are often less able to do so (Child & Rodrigues, 2008). Instead, these resource constraints may cause SMEs to rely on external relationships that its executives possess in order to venture abroad. Consequently, the international entrepreneurship (IE) literature has increasingly directed its focus towards the influence of external networks as a means for smaller firms to overcome their resource limitations during, and preceding, internationalization (Chetty & Blankenburg Holm, 2000; 2015; Coviello & Munro, 1997; Ellis, 2011; Oviatt & McDougall, 1994; 2005; Johanson & Vahlne, 2009).

Becoming embedded in internationalization-relevant networks can therefore be considered as a prerequisite for successful, continued internationalization (Johanson & Vahlne, 2006; 2009; Zain & Ng, 2006). Network theory postulates that newly internationalizing firms inevitably suffer from a lack of embeddedness in foreign market networks through which they aim to internationalize. This *liability of outsidership* can be overcome by building a strong position in internationalization-relevant networks (Johanson & Vahlne, 2006, 2009; Rialp, Rialp & Knight, 2005; Sharma & Blomstermo, 2003; Uzzi, 1997). Hence, internationalization is often conceptualized as changing the position of a firm from one of outsidership towards insidership (Blankenburg, Johanson & Kao, 2015; Johanson & Vahlne, 2009).

Networks are therefore inherently dynamic, changed over time in order to better align with the firm's environment (Slotte-Kock & Coviello, 2010). In order to keep growing within a market, the internationalizing firm has to continuously engage with different actors, or strengthen existing relationships, in order to attain access to new networks (Blankenburg Holm et al., 2015), local market knowledge (Coviello & Munro, 1997; Johanson & Vahlne, 2009) and new business opportunities (Ellis, 2011; Johanson & Vahlne, 2009).

These social, dynamic networks are therefore likely to be idiosyncratic across entrepreneurs and firms (Ellis, 2011) and the quantity and quality of the resources derived from the network are dependent on the quality of the relationships within each network (Johanson & Vahlne, 2009; Moran, 2005; Uzzi, 1997). This also means that the relational aspects of a network can also be constraining, since over

dependency on a limited amount of strong relationships potentially impedes the attainment of novel information (Andersson, Blankenburg-Holm & Johanson, 2005; Ellis, 2011; McEvily & Zaheer, 1999). The primary motive of this study is thus to enhance our understanding of how SMEs embed themselves in internationalization-relevant networks. This will be done by studying how the interpersonal networks of organizational decision makers develop over time, and how they influence the attainment of resources throughout the internationalization process.

1.2 Problem discussion & Research question

1.2.1 Literature gaps

Network research has repeatedly been criticized of lacking dynamic elements (Hoang & Antoncic, 2003; Jack, 2010; Slotte-Kock & Coviello, 2010). Although multiple studies have focussed on the impact of networks on entrepreneurship, process-oriented approaches have been found to be far less popular (*ibid.*). This shortcoming of network research in general is equally prevalent in an internationalization context, as the IE literature often limits itself to the influence of the networks during, or preceding, the initial market entry phase (Johanson & Kao, 2010; Mainela, Puhakka & Servais, 2014). Therefore, topics such as how network embeddedness develops once a foreign market has been entered remain underexplored (Kontinen & Ojala, 2012). However, these dynamic elements of network embeddedness are important “as they elicit the fact that networks are never stable, and this ever-changing characteristic is best captured within a time dimension, or by the demonstration of how changes take place” (Johanson & Kao, 2010: p. 18).

The revised Uppsala model (Johanson & Vahlne, 2009) encapsulates these dynamic network elements by positing that internationalizing firms continuously change the composition of their internationalization-relevant network during the process of moving abroad. In order to successfully enter, and grow within, foreign markets, firms will have to strengthen existing ties, or acquire new ones, in order to attain new foreign market knowledge and opportunities. Hence, the embeddedness within networks affects the resource outcomes for the internationalizing firm, and vice versa.

When analyzing the effects of network embeddedness on organizational outcomes however, researchers have predominantly studied structural aspects of embeddedness, which can be defined as “the impersonal configuration of linkages between people or social units” (Nahapiet & Ghoshal, 1998: p. 244). Examples hereof are the size, configuration and density of the network. Relational aspects of embeddedness (defined as the “personal relationships people have developed with each other through a history of interactions” (Nahapiet & Ghoshal, 1998: p. 244) such as closeness, trust, and commitment have been largely neglected (Jack, 2010; Moran, 2005; Musteen, Datta & Butts, 2013; Ratajczak-Mrozek, 2017). The effect of relational embeddedness has, however, been indicated to be a

more significant contributor to entrepreneurial performance than its structural counterpart (Moran, 2005). The high levels of risk and uncertainty associated with entrepreneurial activities warrant decision makers to put higher emphasis on interpersonal trust and commitment when executing them (Uzzi, 1997).

The process of internationalization “resembles entrepreneurship and may be described as corporate entrepreneurship. Internationalization too is characterized by high degrees of uncertainty” (Johanson & Vahlne, 2009, p. 1423). The influence of relational aspects of embeddedness on internationalization is therefore postulated as a promising and relevant area of research to further the IE literature (Hoang & Antoncic, 2003; Jack, 2010; Johanson & Kao, 2010; Johanson & Vahlne, 2009). This is echoed by Ratajczak-Mrozek (2017), who argues that “what is really crucial is the emphasis on the quality and content of relationships with key actors identified by a given focal company in its network context” (p. 221).

A dearth of understanding regarding the dynamic, relational aspects of how SMEs embed themselves in internationalization-relevant networks continues to prevail in the current literature, as this study reveals through a systematic review (chapter 3). This reinforces the observation that although networks are often acknowledged to be dynamic (Johanson & Vahlne, 2009) very few studies try to empirically explore the dynamic processes that are displayed within networks (Hoang & Antoncic, 2003; Jack, 2010; Slotte-Kock & Coviello, 2010) during internationalization (Blankenburg Holm et al., 2015; Hohenthal et al., 2015; Johanson & Kao, 2010). The discussion regarding how the relational aspects of networks enable, or constrain, internationalization remains equally inconclusive. While some scholars advocate strong (or, the strengthening of) relationships (e.g., Johanson & Vahlne, 2009; Odlin & Benson-Rea, 2017) others stress the added value of incorporating weaker ties in the ego-network due to their ability to provide non-redundant knowledge (Burt, 1992; Granovetter, 1973; 1992; Sharma & Blomstermo, 2003; Nowiński & Rialp, 2016).

So even though the importance of networks remains undisputed, topics regarding the dynamic aspects of the formation of networks and the role these networks play remain underexplored (Jack, 2010). These gaps warrant further inquiry into the relationship-building process of SMEs during their internationalization, and how this leads to the attainment of resources. This study aims to alleviate these theoretical gaps by elaborating on SME internationalization through the following guiding research question: *How do SMEs embed themselves in relevant networks throughout the internationalization process?*

This study draws on the notion that the internationalization process does not stop at market entry, as internationalizing SMEs have to continuously engage in relationship building activities during post-

entry operations: the network is thus a dynamic entity, subjected to change throughout the entire process of internationalization (Johanson & Vahlne, 2009). The aim of the following sub-question is to capture these dynamic aspects of networks. SQ1: *How does the network of SMEs change throughout the internationalization process?*

It is assumed that the relational characteristics of the ego-network in which the firm is embedded shape the internationalization process since they affect the attainment of resources for the focal firm (Andersson et al., 2005; Kontinen & Ojala, 2012; Moran, 2005). Since “interdependence between relationships and performance is complex and context dependent, an attempt to determine the outcomes of embeddedness in domestic and international relationships cannot be limited to assessing its impact on general performance” (Ratajczak-Mrozek, 2017, p. 221). Therefore, the outcomes of relational embeddedness that will be studied are foreign market knowledge and opportunities, since these intangible resources play a crucial role throughout the internationalization process (Johanson & Vahlne, 2009). This brings us to the second sub-question, SQ2: *How does the network of SMEs affect the attainment of resources throughout the internationalization process?*

1.2.2 Intended contributions

The aim of this study is to better understand how networks develop over time, and how they are utilized, throughout the internationalization process. A social network perspective is adopted in a qualitative multiple case-study on 8 internationalized Dutch SMEs in order to uncover the networking behaviours of the respondents. Network process- and outcome oriented perspectives are integrated and viewed through the relational lens of Granovetter’s (1973) strong- and weak tie concept. This has been anticipated to lead to important insights regarding “how networks evolve, change and develop over time, as well as the extent to which networks support and/or constrain the ways in which entrepreneurs and their ventures function, operate and are managed” (Jack, 2010: p. 120).

First, this study adheres to the call of scholars for more in-depth networked internationalization studies that do not limit itself to the foreign market entry phase (e.g., Hohenthal et al., 2015; Kontinen & Ojala, 2012; Lindstrand et al., 2011; Lindstrand & Hånell, 2017). This is relevant as it has been suggested that post-market entry expansion can be a more challenging endeavour for small firms than the initial market entry itself (Lindstrand et al., 2011): an inability to successfully grow in a market might therefore be a valid reason to involuntarily withdraw from a market (Benito & Welch, 1997). By focussing on both the market entry process and the post-entry operations within a single foreign market, a dynamic view is provided on how these internationalization-relevant networks develop over time.

Secondly, I generate further insight on how the relational characteristics of an SME’s network affect the attainment of market knowledge and opportunities required to further internationalize. The

discussion between the usage of strong- and weak ties, which is characterized by “some disagreement concerning the real value and significance of these different ties” (Jack, 2005: p. 1234; Rowley, 2000), is thereby extended to an international context. This is deemed important since the relational characteristics within the network are posited to either enable or constrain internationalizing firms (Andersson et al., 2005) which implies that firms should ‘choose their friends carefully’ (Prashantham & Birkinshaw, 2015). However, the influence of relational characteristics on resource outcomes has been shown to be an under-explored topic which requires further illumination.

Thirdly, since SMEs often pursue the attainment of intangible resources in their external environment (Musteen et al., 2013), internationalizing SMEs are a particularly interesting type of firm to study in a network context. This also constitutes a practical contribution to the field, since managers and policymakers have called for a more nuanced understanding of how SMEs can successfully internationalize. Small-and-medium sized enterprises (SMEs) play a significant role in the global economy (Cavusgil & Knight, 2015). Scholars and policymakers have therefore deemed it essential to enhance our understanding of how these firms successfully overcome their size-related challenges and engage in international operations (OECD, 2009; Zander, McDougall-Covin & Rose, 2015). The smallness of these firms also brings about a methodological advantage in network research, since their networks are often smaller than those of larger firms and their impact therefore more distinguishable. Despite this, large multi-national enterprises (MNEs) have often been the focus in network embeddedness research (Ratajczak-Mrozek, 2017). On that account, the SME context can provide new, valuable insights about the role and dynamics of networks during internationalization.

2. Theoretical Foundations

2.1 Networked Internationalization

2.1.1 A process view on internationalization

Before the impact of network relationships had become apparent amongst business scholars, the Uppsala model (Johanson & Vahlne, 1977) was probably the predominant model used to analyse the process of firm internationalization (Ratajczak-Mrozek, 2017). The fundamental idea behind the model is that, after firms have gained experience in their domestic markets they gradually develop their operations abroad. At first, markets that are 'close' to the domestic market in terms of psychic distance are entered, after which increasingly remote countries will be taken into consideration. Uppsala scholars coined the term psychic distance as being one of the central elements in their internationalization model, defining it as "factors preventing or disturbing the flow of information between firm and market" (Johanson and Wiedersheim-Paul 1975, p. 308). This perceived disturbance can be of a cultural, political, or educational nature, or related to differences in economic development between the domestic- and foreign market. Although this often correlates with physical distance, there is no geographic element to psychic distance per se.

According to this model, countries that are most similar to the domestic market will be the preferred market to enter for newly internationalizing firms, due to fewer national differences and lower levels of uncertainty. By developing knowledge and experience about the workings of international markets, firms become increasingly committed to, and confident with, their operations abroad which leads to riskier modes of entry (from exports to establishing foreign subsidiaries) (Johanson & Vahlne, 1977). This, in turn, leads to more knowledge and experience, and hence the cycle continues.

Despite its popularity amongst scholars, criticism on this presupposed step-wise approach arose quickly: The Uppsala model was deemed too deterministic and could not account for the behavior of firms that internationalized rapidly after inception (e.g., Coviello, 2006; Oviatt & McDougall, 1994; Rialp et al., 2005). Also, research showed that the international performance of these firms did not correlate with international experience (Autio, Sapienza & Almeida, 2000), thereby discrediting the model's notion of experiential learning over time. Instead, several scholars noted that firms engaged with their networks in order to obtain (in)tangible resources such as emotional support, advice and market knowledge. Networks thus helped these firms to overcome the barriers of internationalization rapidly, even without the experiential learning that was deemed so crucial in the original Uppsala model. Since then, a vast amount of scholarly attention has been directed towards social network research in the intra-organizational, inter-organizational and inter-personal context (for recent

reviews, see Brass, Galaskiewicz, Greve, & Tsai, 2004; Hoang & Antoncic, 2003; Jack, 2010; Johanson & Kao, 2010; Zaheer, Gözübüyük & Milanov, 2010).

2.1.2 A network view on internationalization

Most of the network scholars start from the premise that networks generate social capital, which can be defined as “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet and Ghoshal 1998, p. 243). In its general form, social capital theory depicts how entrepreneurs and firms create value from the network of relationships in which they are embedded (Nahapiet & Ghoshal, 1998). In an international context, the theory allows for a better understanding of how external networks can be used to facilitate expansion towards foreign markets (Chetty & Wilson, 2003; Coviello, 2006; Yli-Renko et al., 2002). As such, this changed the perspective from an autonomous, self-reliant view of organizational decisions and outcomes to one that is essentially relational (Johanson & Vahlne, 2009). In contemplating the aforementioned, Johanson and Vahlne (2009) revised their original Uppsala model and created the revised Uppsala model (figure 2.1 below). This model provides a multi-level framework that aims to capture the processual- and outcome-related aspects of internationalization in a network context.

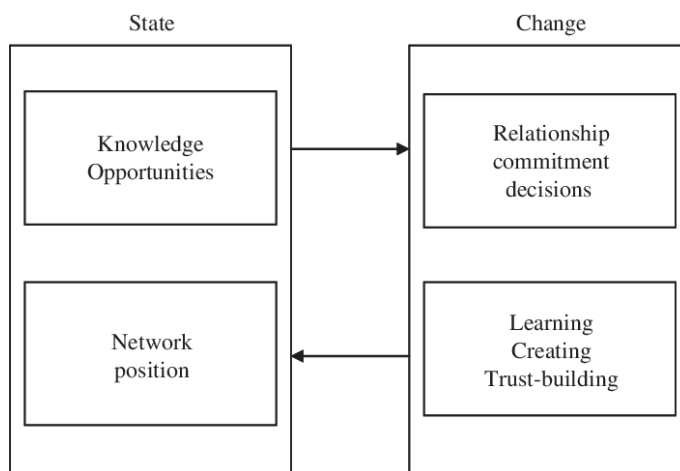


Figure 2.1: The revised Uppsala model
(Adopted from Johanson & Vahlne, 2009: 1424)

In their revised model, Johanson and Vahlne (2009) display internationalization as a continuous process that is pursued within a network of relationships. The position in the network, (i.e., the way the focal firm is embedded in the network) affects the knowledge and opportunities that are derived from it. The amount of knowledge and opportunities that are attained through these networks in turn affects the ‘relationship commitment decisions’ taken. Decision makers are expected to increase or decrease the level of commitment to relationships based on the potential knowledge and opportunities that can be achieved through them. This change in commitment can mean that relationships are strengthened, weakened, or even disbanded over time. When a firm is not satisfied

with the outcomes of its current configuration of relationships, it may choose to strengthen existing ties or to build bridges to new networks, thereby filling new structural holes and getting access to new previously unknown knowledge and opportunities (Burt 1992). This logic does not confine itself to the process of entering a market, but also applies to expansion within a foreign market (Johanson & Vahlne, 2009). The model can therefore be perceived as being a methodological answer to the observation that network research is often static in nature (Agndal, Chetty & Wilson, 2008; Partanen, Möller, Westerlund, Rajala & Rajala, 2008).

2.2 Foreign Market Knowledge & Opportunities in networks

The crucial role of learning during internationalization towards new markets (Johanson & Vahlne, 1977) has not been omitted in the revised model, but has rather experienced a switch from experiential knowledge to attained knowledge through networks. Although different types of knowledge arise during the internationalization process, foreign market knowledge has been deemed the most critical (Barkema et al., 1996; Johanson & Vahlne, 1977; 2006; 2009) as acquiring knowledge of foreign markets reduces uncertainties and risks associated with venturing abroad, thereby enhancing international performance (Stoian, Rialp & Dimitratos, 2017).

Eriksson, Johanson, Majkgård and Sharma (1997) differentiate between two types of foreign market knowledge: the first type, *institutional knowledge*, pertains to the knowledge regarding the laws, rules and languages that are in effect in a foreign market. The second type, *business market knowledge*, encompasses new technological developments, market trends, innovations from key customers and competitors, and awareness of issues that potential customers experience (Yli-Renko et al., 2002; Wiklund & Shepherd, 2003).

Opportunities became the central, most crucial form of foreign market knowledge in the revised Uppsala model, as its authors perceive it to be the most valuable resource that drives the continuous internationalization process (Johanson & Vahlne, 2009). Interaction with network ties may allow for the discovery of opportunities not readily available for actors outside the network (Agndal & Chetty, 2007) and may therefore be more contextual than opportunities derived from market research activities (Andersson et al., 2005). Commitments to exploit international opportunities drive the internationalizing firm to reconfigure their engagement with different network ties and the learning, trust building and creating that comes with it. This in turn leads to new relationships within the network, different knowledge and opportunities that can be exploited, and so the cycle continues (Johanson & Vahlne, 2009). The quantity and quality of the attained knowledge and opportunities is therefore dependent on the level of embeddedness within the network. Hence, being embedded (an 'insider') in relevant networks is deemed crucial for successful internationalization (Johanson &

Vahlne, 2009). Due to this view that the outcome of economic exchange is embedded in social structure (Uzzi, 1997), it became imperative to explore the positive and negative effects of being embedded in networks (Hoang & Antoncic, 2003).

2.3 Embeddedness in Networks

2.3.1 Interpersonal embeddedness

The concept of network embeddedness was popularized by the work of Granovetter (1985), who contemplated the presupposed, but predominantly neglected, notion that economic exchange is “closely embedded in networks of interpersonal relations” (Granovetter 1985, p. 504). He distinguishes between two dimensions of embeddedness: structural and relational, “a distinction essentially between the configuration of one’s network and the quality of those relationships” (Moran 2005, p. 1131). In other words, the structural embeddedness is concerned with *whom knows who*, whereas relational embeddedness is concerned with *how well one knows them* (Moran, 2005). It must be pointed out that, due to the nature of the research question of this study, and the fact that it has hitherto been largely neglected compared to structural embeddedness, a predominantly relational conceptualization of embeddedness will be adopted.

The analysis of this study therefore lies on the interpersonal (or, social network-) level, rather than on the interorganizational network level which has dominated past network research (Johanson & Mattsson, 1988). The distinction between interpersonal and interorganizational networks mainly lies in the level of analysis. The social network can be defined as the sum of relationships linking one person with other people (Burt, 1992). The interfirm network, on the other hand, is predominantly described as a set of relationships linking one firm with other firms (Johanson & Mattsson, 1988).

In recent years, however, these two types of network analyses have become rather indiscernible since it is often assumed in interorganizational network research that business relationships are comprised of social exchanges between individuals (Chetty & Blankenburg Holm, 2000; Johanson & Kao, 2010; Ratajczak-Mrozek, 2017). This observation is reflected by the fact that both interpersonal and interorganizational scholars draw on the same theoretical foundations (regarding social capital and personal relationships) in order to support their analyses and conceptualizations (Ratajczak-Mrozek, 2017). Johanson and Vahlne (2009), for example, draw on the work of Granovetter (1985; 1992), and Nahapiet and Ghoshal (1998), scholars that focus on interpersonal embeddedness, as a base for their revised Uppsala model, which describes interorganizational embeddedness. Even though these types of embeddedness (interpersonal and interorganizational) overlap, it is important to clarify the fact that this study focusses on the interpersonal level of embeddedness in order to reduce potential theoretical misconceptions (Ratajczak-Mrozek, 2017). In the context of this study, interpersonal embeddedness is

therefore defined as the “social conditions of economic behaviour and the impact of social or personal relationships on companies’ activities” (Ratajczak-Mrozek, 2017: p. 5).

2.3.2 Relational Embeddedness and quality determinants

Relational embeddedness encompasses the network content that is exchanged and the actors that exchange them (Granovetter, 1973; 1992), and can be defined as the “personal relationships people have developed with each other through a history of interactions” (Nahapiet & Ghoshal, 1998: p. 244). Relational embeddedness is thereby seen as a gradable concept that can vary in its degree: the strength of the relationship determines the level of embeddedness, where ‘weak’ and ‘strong’ relationships embody two opposite sides of a spectrum (Granovetter, 1973; Moran, 2005; Ratajczak-Mrozek, 2017; Uzzi, 1997).

To study the influence of relational embeddedness, and distinguish between different relationships, it first needs to be determined how to differentiate relationships in terms of quality. Much of the research regarding the quality of the relationship between actors is based on Granovetter’s (1973) seminal article on the influence of relational strength on economic exchange. Granovetter’s dichotomous distinction between weak and strong ties is based on the following criteria: the frequency of contact between the actors, the emotional intensity of the relationship and the degree of intimacy, and reciprocal commitments between the actors involved (Granovetter, 1973; 1992).

Analyzing the frequency of contact, however, can be misleading when the strength of ties is to be established (Jack, 2005; Uzzi, 1997), even though this has been found to be the most widely adopted measure of tie strength in quantitative research (possibly due to its relatively straightforward operationalization) (Jack, 2005). The aforementioned author argues, however, that relationships that are committed to each other and which are mutually beneficial have bonds that are strong enough to cope with infrequent contact (*ibid.*). Although it is often noted that frequent interaction between two actors is prone to give rise to trust and commitment (Granovetter, 1985; Uzzi, 1997; Moran, 2005) a level of closeness is not necessarily developed through repeated contact (Jack, 2005; Johanson & Vahlne, 2009).

Reservations have also been made about the ‘emotional intensity and the degree of intimacy’ as a valid tie strengthener (Jack, 2010). The level of commitment between two actors in a business relationship seems to depend more on trust (Johanson & Mattson, 1988; Johanson & Vahlne, 2009), constituting the belief that the exchange partner will stand by its words, fulfills its obligations, and is reliable (Forsgren, Holm & Johanson, 2005; Moran, 2005; Ratajczak-Mrozek, 2017). Furthermore, instead of being emotionally close to each other, actors in the business relationship calculate the expected benefits of the relationship, altering their commitment to the relationship based on its presumed value (Forsgren et al., 2005). Hence, relationship commitment is defined as “believing that an ongoing

relationship with another is so important as to warrant maximum efforts at maintaining it” (Morgan & Hunt 1994, p. 23). This does not mean that ‘emotional’ aspects play no part since sharing the same values and respecting each other can be considered prerequisites for long-term collaboration (Johanson & Vahlne, 2009).

Strong, embedded ties are therefore defined as relationships that are based on commitment, mutual respect and trust (cf. Kontinen & Ojala, 2011). Strong ties imply a tight connection between actors, which potentially takes time, effort and resources to maintain. On the contrary, a weak relationship is characterized by more sporadic transactions, in which the actors do not know each other well and typically encompass limited (emotional) investment (Söderqvist & Chetty, 2009; Uzzi, 1997).

2.3.3 Relational embeddedness in an ego-network structure

The revised Uppsala model (Johanson & Vahlne, 2009) implies that rather than just developing dyadic relationships, internationalization necessitates becoming part of a network. Hence, it is important to understand the broader social environment of decision makers since they engage with it, alter it, and draw resources from it (Granovetter, 1992; Slotte-Kock & Coviello, 2010). Jack (2005) echoes this view by noting that relational aspects should be studied at two levels: 1) dyadic interactions, and 2) the larger network, stating that: “the nature of networks is about the links and bonds that form the foundations of the network and shape its structure” (p. 1253). Hence, the development of the network and its influence on resource outcomes cannot be thoroughly studied without taking the aggregation of dyadic relationships that surround the focal actor into consideration (Andersson et al., 2005; Jack, 2005; 2010; Granovetter, 1992; Moran, 2005).

Studying the aggregation of the overall dyadic relationships of a focal actor is also referred to as the analysis on the *ego-network* level (Zaheer et al., 2010). An example configuration of the ego-network is depicted in figure 2.2 (below). The focal actor (*ego*) is connected with *alteri* (actors 1, 2 and 3) through dyadic relationships. Instead of focusing on the entire network (a method often adopted by purely structural-oriented scholars), the ego-network is the part of the network with whom the decision maker has direct or indirect contact, but all lie within the horizon this actor considers relevant (Johannisson, 1998). In this example, all these ties function as bridging ties towards networks in foreign markets, which can either be weak (dotted line) or strong (solid line), and can originate from the domestic market (actors 1 and 3) as well as international markets (actor 2) (Johanson & Vahlne, 2009).

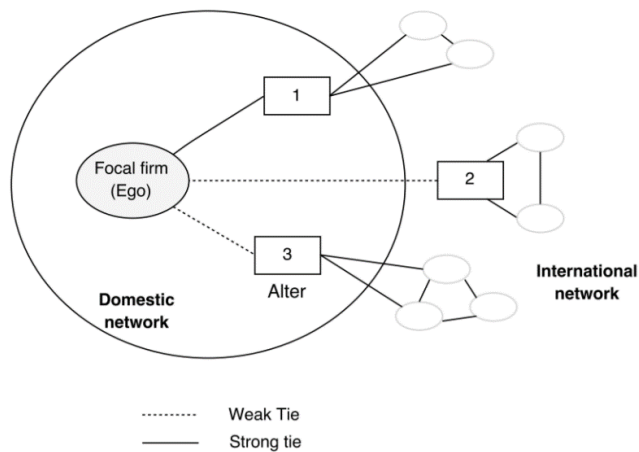


Figure 2.2: Ego-network configuration (example)

The debate on the usefulness of strong and weak ties

Social capital theory implies that differences in the configuration and quality of relations within the ego-network influences the organizational outcomes for the focal actor (Andersson et al., 2005; Granovetter, 1983; Johanson & Vahlne, 2009; Moran, 2005; Ratajczak-Mrozek, 2017) as all firms operate in a social structure of network actors that influence their competitive behaviour (Hite, 2003). Networks are idiosyncratic between organizations and actors, and the “type of network in which an organization is embedded defines the opportunities potentially available” (Uzzi, 1996: p. 675). Research on embeddedness in a domestic context has resulted in conflicting views on which types of ties (strong or weak) should be incorporated in networks in order to maximize business outcomes (Jack, 2005; Rowley et al., 2000).

Weak ties, even though they are characterized by lower levels of trust and reciprocity, may provide invaluable knowledge due to their non-redundancy beyond the focal firm’s established network (Granovetter, 1973; 1983; Hite, 2003; Uzzi, 1997). Incorporating many weak ties in the network may thereby safeguard firms from becoming overly dependent on a limited amount of strong ties, whose knowledge may become redundant over time (Rowley et al., 2000; Moran, 2005). Instead, these weaker ties make it more likely to attain novel and more timely information (Granovetter, 1973). Although most studies solely focus on stronger ties (Hite, 2003), including these weaker, arm’s length ties in the analysis therefore seems valuable (Uzzi, 1997) as this provides the full spectrum of degree of embeddedness (McAvily & Zaheer, 1999).

The other side of the coin is that although the mere existence of multiple weak relationships grants the potential for exchange (Burt, 1992) the actual transaction of valuable resources, aid, and know-how is more likely to occur between two actors who maintain a closer relationship (Moran, 2005). The transfer of fine-grained, sensitive information is also posed to be transacted more smoothly between strong ties because they operate on ‘the same level’ (ibid.). Granovetter (1983) seems to, at least

partially, conform to this rationale as he notes that “... strong ties can also have value. Weak ties provide people with access to information and resources beyond those available in their own social circle; but strong ties have greater motivation to be of assistance and are typically more easily available” (p. 209).

The discussion on the strength of ties (Granovetter, 1973; 1983) was extended by Burt (1992) who argued that the importance of the strength of a dyadic relationship is inferior to the redundancy of the information, or access to other networks, that they can provide. In other words, the added value of these ‘bridging ties’ does not depend on their strength but on their ability to span structural holes. The author does, however, advocate a network composition with novel (weaker) ties in order to maximize the gathering of novel and more diverse information, thereby enhancing the totality and usefulness of organizational social capital (Burt, 1992). These weak ties, he argues, serve as better bridges towards new networks and information. This statement goes beyond the sheer quantity of contacts, but stresses the accumulation of relationships that generate access to new knowledge, technologies and legitimacy (McAvily & Zaheer, 1999).

Solely relying on strong ties may, therefore, prove to be disadvantageous. Strengthening a relationship requires the investment of time and resources and by continuously engaging with each other, dyadic actors adapt to each other’s needs and expectations (Forsgren et al., 2005). When business actors engage in extensive relationships these mutually beneficial exchanges might cause a ‘lock-in’ effect, thereby making it difficult to replace the partner or to invest in other valuable relationships (Andersson et al., 2005; Forsgren et al., 2005). Or, as Johanson and Vahlne (2009) put it: “...dependency is an unavoidable by-product of a beneficial relationship” (p. 1417). These lock-in effects inhibit the absorption of novel information provided by other contacts. In that sense, relational embeddedness is not universally beneficial (Nahapiet and Ghoshal 1998) as there is a risk of ‘overembeddedness’ (Elfrink & Hulsing, 2003; Jack, 2005). It can be argued that these negative lock-in effects potentially put a significant burden on small, resource constrained firms since operational flexibility is one of their major strategic advantages that allows for competition with larger, less agile firms (Crick & Spence, 2005).

2.4 Summary of theoretical foundations

Despite the notion that networks are dynamic, previous literature reviews on networks indicated the field to be dominated by static viewpoints (Hoang & Antoncic, 2003; Jack, 2010; Johanson & Kao, 2010; Slotte-Kock & Coviello, 2010) and therefore, “surprisingly little is known about how an organization’s social capital and its utilization evolve over time” (Agndal et al., 2008: p. 513). The revised Uppsala model (Johanson & Vahlne, 2009) poses that increased commitment to network relationships (i.e., increased embeddedness) leads to more knowledge and opportunities that allow for further growth

in international markets. However, in a domestic context different studies have brought forward conflicting results with both weak and strong ties being recommended as facilitators for organizational growth (Jack, 2005; Rowley et al., 2000). The discussion seems to show that strong and weak ties have different purposes in different contexts. To put it differently: weak ties are perceived to be the most helpful when one wants to acquire novel information and contacts, while strong ties are needed when one actually wants to get something done.

Social capital theory postulates that the characteristics of networks are idiosyncratic across firms and actors, leading to dissimilar outcomes in terms of the knowledge and opportunities they provide. This discussion is now transcended to an internationalization context, which has been posited to lead to several theoretical advances. The following chapter encapsulates a systematic literature review in order to uncover what is currently known in the literature on how SMEs embed themselves in internationalization-relevant networks throughout the internationalization process. The implications and gaps of the reviewed literature will form the base for the subsequent empirical study (chapter 4).

3. Systematic Literature Review

A central question that guided this systematic review of the literature could be described as “What do we know about how SMEs embed themselves in internationalization-relevant networks throughout the internationalization process?”. Conducting a systematic analysis seemed warranted since the literature concerning internationalization- and network related activities is voluminous, wide-ranging and fragmented (Johanson & Kao, 2010) and previous reviews on network studies had been published some years ago (e.g., Hoang & Antoncic, 2003; Slotte-Kock & Coviello, 2010).

3.1 Search Strategy

The general inclusion criteria are defined as follows: First, the papers should explicitly mention some form of the network, or actors within it, in order to be included in the analysis. Network-related keywords that ensured that these types of papers were found were “network”, “relations”, “ties”, “relationships”, and “social capital” (cf. Johanson & Kao, 2010). Second, since the scope of this study lies within the field of internationalizing SMEs, papers that discuss the effects of network ties in a non-international context were omitted from the results. Terms such as “international”, “internationalization”, “global”, and “foreign market” ensured the inclusion of international-oriented papers. Third, since small- and medium sized firms are under study, papers that study firms (or people working in firms) that did not conform to the adhered criteria of SMEs were excluded.¹ Studies that focus on start-up ventures were included. Fourth, the articles adopted needed to involve empirical data gathering, which could be both of a qualitative and quantitative nature.

In order to maximize the chance of finding papers that adopted dynamic viewpoints in their research, keywords relating the development of the network such as “development”, “dynamics” and “process” were added as well to complement the initial search.

¹ These criteria are discussed in the methodology section of this paper (chapter 4.1).

3.2 Search Results

The article search process was conducted through electronic search methods. The bibliographic databases Scopus, Web of Science and Google Scholar were employed in order to facilitate this process. The search process and its outcomes are visually represented in figure 3.1 below.

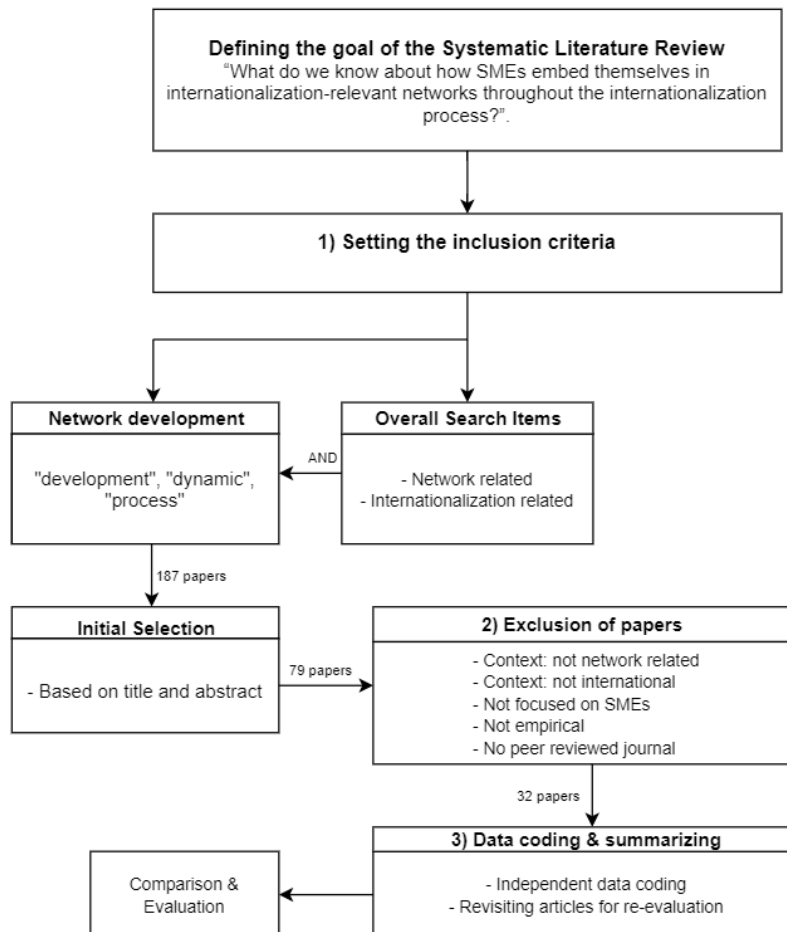


Figure 3.1: Systematic literature review – article search- and evaluation procedure.

An initial Scopus search query (limited to the areas of ‘Business, Management and Accounting’, and ‘Economics, Econometrics and Finance’) was executed. The results were sorted based on ‘relevance’, which yielded a preliminary selection of 187 papers (based on title alone). After reading the abstracts of these papers, 76 papers remained. Through a Web of Science search query, 3 more articles were added to the list. These 79 papers were then subjected to the four general inclusion criteria mentioned above (network-, international-, size, and empirical related criteria). Papers that did not meet these general criteria were excluded. Due to quality concerns, papers that were not published in peer-reviewed journals were excluded as well. Articles that were not conducted in an international context (e.g., Strand & Leydersdorff, 2013), or that studied larger firms instead of SMEs (e.g., Fang, Wade, Delios & Beamish, 2013) were excluded from the review. Eventually, this resulted in a total of 32 highly relevant papers which are summarized in Appendix I.

At first, the articles were read and structured according to their *static* or *dynamic* viewpoint on networks during internationalization. In this sense, a dynamic viewpoint entails studies that either 1) incorporate dynamic elements of the network itself or 2) dynamics regarding the *use* of the networks by the focal firm / actor over time. The reason this rather broad conceptualization of ‘dynamic’ elements was adopted was because previous literature reviews have highlighted the fact that dynamic studies were severely lacking. Adopting a broad definition helps in preventing the exclusion of potentially relevant, dynamic aspects of network studies (Slotte-Kock & Coviello, 2010).

3.3 Analysis of Articles

The articles were analysed again more thoroughly in order to uncover which aspects of networks they focussed on, what the role of the networks were, and, in case of dynamic studies, how the (use of the) network developed over time.

3.3.1 The overall role of networks in SME internationalization

Internationalization networks can be described as “. . . relationships between a firm’s management team and employees with customers, suppliers, competitors, government agencies, distributors, bankers, families, friends, or any other party that enables it to internationalize its business activities” (Zain & Ng, 2006, p. 184). These networks are often classified into social, business, and institutional ties. Social ties can be defined as friends and family members which are often connected to each other in an informal way (Coviello, 2006, Kontinen & Ojala, 2011; Vasilchenko & Morrish, 2011), with business ties being defined as two or more connected actors (which can be both formal and informal) with the primary focus of the exchange being business-related (Kontinen & Ojala, 2011b, Vasilchenko & Morrish, 2011). Institutional ties, which remain largely neglected, are defined as “publically funded formal institutions, such as the ministry of foreign trade/industry, trade promotion councils, internationalization assistance organizations, research institutions, credit unions, embassies, chambers of commerce and national trade delegations” (Oparaocha, 2015, p. 862).

Network actors are posited to play an important role in the discovery and exploitation of opportunities (Chandra et al., 2009; Kontinen & Ojala, 2011b, Musteen et al., 2013; Zain & Ng, 2006). These opportunities, in turn, appear to affect the initiation of the internationalization process (Coviello & Munro, 1997; Kontinen & Ojala, 2011b; Zain & Ng, 2006) with most scholars perceiving SME internationalization to be ‘opportunity driven’. Opportunities were not often considered as a form of market knowledge (as suggested by Johanson & Vahlne, 2009) although some studies did adopt this viewpoint (cf. Musteen et al., 2013). These latter authors developed an overview of the scale items they used to quantify foreign market knowledge (including opportunities). Since this conceptualization was based on a thorough literature review, no reason was found to disagree with their

conceptualization and it was deemed useful to adopt these scale items in this study (see Appendix II). As per the authors' encouragement, these scale items were used during the coding process of the empirical study that followed this review (Chapter 4).

Opportunities are not always the result of the network, with several scholars emphasizing the effect of serendipity (or, chance encounters) on initial firm internationalization. In these studies, there is a common understanding that strategic planning had limited explaining value. The discovery of these opportunities that gave rise to internationalization is instead often the result of luck and serendipity (Agndal et al., 2009; Chandra et al., 2009; Crick & Spence, 2005; Sharma & Blomstermo, 2003; Prashantham, 2006; Vasilchecenko & Morrish, 2011; Zaefarian, Eng & Tasavori, 2016). These serendipitous encounters may then facilitate contextual knowledge about markets and access to new customers (Kontinen & Ojala, 2011b; Vasilchenko & Morrish, 2011). It is also noted that entrepreneurs should maximize the chance of encountering serendipitous opportunities by embedding themselves in relevant networks (Vasilchenko & Morrish, 2011), and that the success in exploiting these opportunities is partially determined by the activeness with which the entrepreneur acts on these opportunities (Chandra et al., 2009). Conflicting results have been reported by Ellis (2011) who found no role for serendipity through her quantitative analysis: opportunities were discovered intentionally through the network rather than accidentally.

Most IE scholars distinguish between the recognition and exploitation of opportunities with most studies focusing on the recognition (or, discovery) of new (international) opportunities. This distinction has also been nuanced, however, in recent literature. In studying the international opportunity recognition of entrepreneurial firms some scholars contemplated that the only recognized opportunities that have value are those that are being exploited (Chandra et al., 2009; Ellis, 2011; Sharma & Blomstermo, 2003). Entering and expanding in a market is seen as an interactive process of recognizing and exploiting opportunities, which can therefore be perceived as interrelated processes (Lindstrand & Hånell, 2017). In that sense, market entry and international expansion can be regarded as 'evidence' for the recognition and exploitation of international opportunities (Ellis, 2011).

This study follows this logic and measures the opportunities recognized by the focal firm that were actually acted upon. Ellis (2011, p. 101) defined international opportunity "as the chance to conduct exchange with new partners in new foreign markets". Since it is also noted that such exchange in the context of internationalization can occur with both new and with existing partners (Johanson & Vahlne, 2009) and, since internationalization also entails the post-entry operations within a market (ibid.) it does not confine itself to 'new' markets. I therefore define international opportunity as "the chance to conduct exchange with new, or previously existing, partners in foreign markets".

With regards to country market, almost all of the studies that were reviewed focussed on the host-market specific networks, albeit some notable exceptions of studies that incorporated the home-market networks (Fernhaber & Li, 2013; Prashantham, 2006) and other international networks (Lindstrand & Hånell, 2017) into their analysis. One study found the opportunities discovered (or co-created) with local domestic partnerships to be more contextual and valuable than opportunities derived from foreign ties (Prashantham, 2006). In addition to this the author established that the four case firms often found new contacts in foreign markets through their local partnerships, hence aiding internationalization (ibid.). International social capital, on the other hand, was found to be an enhancer of the knowledge attained through market-specific social capital (Lindstrand & Hånell, 2017). Taken alone, however, international social capital could not account for heightened foreign market knowledge levels (ibid.), hinting at the potential supporting role of international social capital on market penetration.

Overall, the fact that networks from the foreign host market network affect the attainment of foreign market knowledge (Jin & Jung, 2016; Stoian et al., 2017; Yli-Renko et al., 2002; Zain & Ng, 2006) and opportunities (Chetty & Blankenburg Holm, 2000; Kontinen & Ojala, 2011b; Lindstrand & Hånell, 2017), and the importance of these resources for internationalization, seems to be well established.

3.3.2 Network dynamics throughout the internationalization process

Time-based concepts such as evolving networks, change and development seem to gain less interest compared to static viewpoints. However, adopting a broad spectrum on what constitutes a 'dynamic' study (cf. Slotte-Kock & Coviello, 2010) has culminated in a total of 13 research papers that reported some form of dynamic elements in network structures, relational aspects, or the use of networks, throughout the internationalization process. All these papers (which can be found in the first part of Appendix I) are of a qualitative nature, which is not surprising considering the complex decision processes that often underlie network outcomes and developments. Some of these studies, however, put far less emphasis, or produced less concrete results, regarding dynamics (e.g., Crick & Spence, 2005; Freeman et al., 2006) than others (e.g., Coviello, 2006; Kontinen & Ojala, 2011a; 2012).

The most prominent dynamic aspects that were discussed were the differences in the *usage* or *outcomes* of the networks over time. For example, Oparaocha (2015) found that internationalizing SMEs were most influenced by the support activities of institutional ties in the market entry phase, but continued to seek support after markets had been entered (although to a lesser extent). Knowledge about cultural, institutional factors was perceived to be rather unimportant by internationalizing SMEs. Instead, these firms started accumulating these types of knowledge through business relationships after market entry (Sharma & Blomstermo, 2003). The longitudinal case study of Hånell & Ghauri (2016) showed that the case firm tended to engage with political actors during latter phases of the

internationalization process. These findings indicate that political support and legitimacy can still be a prerequisite after a market has been entered, something that can be achieved by interacting with business and institutional ties.

Dynamic aspects regarding the usage of weak and strong ties has also received some, albeit limited, discussion and the results remain inconclusive. Sharma and Blomstermo (2003) found that internationalizing SMEs were predominantly aided by a large amount (weak) relationships with customers. The authors noted that every relationship functioned as a bridge for new knowledge and other relationships, and therefore argue that an increasing amount of weak ties should be maintained until an optimum is reached (Sharma & Blomstermo, 2003). These weak ties are sometimes transformed into strong ties, and vice versa, but no detailed description is provided as to how, or why, this happens.

A more elaborate description was provided by Agndal et al. (2008) and Kontinen & Ojala (2011a) who noted that internationalizing SMEs were inclined to depend on weak ties when entering a market, while the use of stronger, more formal ties emerged during post-entry expansion within the market. Kontinen and Ojala solely focussed on the changing role of the bridging tie that enabled the focal SME to internationalize towards the French market (2011a). They found that most of their case firms did not have previously established bridging connections and needed to develop them, something they predominantly achieved by participating in trade fairs, a process most often characterized by serendipity. During the post-entry phases, these ties were strengthened which enabled some firms to change their entry modes to riskier endeavours (i.e., from a sales agent to a foreign subsidiary).

These prior examples give rise to the notion that not only the usage, but also the *networks itself* develop over time. However, only a very limited amount of studies incorporated elements of changing, dynamic networks or relationships. These limited studies do give rise to some interesting conclusions, the most prominent, and undisputed, one being that internationalization-relevant networks develop over time (e.g., Coviello, 2006; Kontinen & Ojala, 2011a; 2012; Lindstrand et al., 2011; Schweizer, 2013; Sharma & Blomstermo, 2003).

Research on young, international-from-inception firms (often named Born Globals, or international new ventures) showed that internationalization-relevant networks sometimes originate from pre-internationalization, or even pre-founding, phases (Coviello, 2006; Sharma & Blomstermo, 2003). During further development, Sharma and Blomstermo found that SMEs adopted a reactive approach throughout the internationalization process, and noted that “the history of network ties shapes (the firm’s) future” (2003, p. 749). To some extent this matches the, previously mentioned, observations that encounters were often initiated by serendipity (Crick & Spence, 2005) in the sense that the

network is perhaps not always actively managed. It contrasts, however, with the observations of Schweizer (2013) whose case firm actively surrounded itself with relevant network actors, strengthening ties with those that held the most promise for future expansion. It further contrasts with other studies who found internationalizing SMEs to be lacking previously established ties that would allow for internationalization: instead, they had to find these first (Kontinen & Ojala, 2011a). This indicates that the development of networks is potentially a very contextual occurrence, depending on the industry and technology of the firms (Coviello, 2006) or the phase of their (international) development.

3.3.3 Relational embeddedness and resource outcomes

Relational aspects of networks appear largely neglected in the reviewed literature. This seems to be partially caused by the fact that many scholars that adopt relational qualities use them implicitly, or explicitly, without proper definition and conceptualization prior to their empirical analysis (see, for example: Agndal et al., 2008; Komulainen et al., 2006; Nowinski & Rialp, 2016; Odlin & Benson-Rea, 2017; Schweizer, 2013). Of the studies that did adopt Granovetter's (1973) conceptualization of relational qualities, each study differentiated between weak and strong ties based on trust, respect, commitment (e.g., Chandra et al., 2009; Kontinen & Ojala, 2011a; b; 2012), sometimes complemented by 'friendliness' (Presutti, Boari & Fratocchi, 2007) and frequency of contact (Musteen et al., 2013; Sharma & Blomstermo, 2003).

Some relationally-oriented researchers postulate that weak ties are more useful than strong ties in attaining (more diverse) knowledge about foreign markets prior to internationalization (Nowiński & Rialp, 2016; Presutti et al., 2007; Sharma & Blomstermo, 2003). Somewhat similar findings were displayed by Agndal et al. (2008) who argued that new and unexpected knowledge was more likely to be generated through indirect relationships characterized by "low amounts of mutual commitment". Agndal et al. (2008) also note, however, that direct ties (which they implicitly view as 'strong') play an important role in the exploitation of opportunities in post-market entry operations. This mixed-model approach is echoed by Chandra et al. (2009) whom indicated that weak ties enable the acquisition of knowledge by bridging different networks together, while strong ties facilitated the transfer of knowledge from one actor to another.

Somewhat contrasting results have been displayed by Musteen et al. (2013) whom, in studying the relational and structural embeddedness of international networks during early internationalization, found that a diverse network characterized by strong relations aided the accumulation of foreign market knowledge in key decision makers, thereby aiding SMEs' international performance. The downside of their quantitative approach, however, is that they used a 'name generator' which prompted the respondents to note the 3-5 most important network actors that aided their

internationalization. Naturally, the outcomes of this methodology will be somewhat skewed towards stronger relationships. Nevertheless, these strong ties facilitated the accumulation of foreign market knowledge which was beneficial to early venture internationalization.

Dyadic trust seems to be an important factor in the initiation of foreign market entry with successful firms altering their orientation towards stronger relationships when the need arises (Lindstrand et al., 2011). When deciding which country to enter, the trustworthiness was concluded to be even more important than the country of origin of the network tie (Kontinen & Ojala, 2011b). Other studies also portrayed strong ties as being important bridges towards foreign markets (Komulainen et al., 2006; Odlin & Benson-Rea, 2017) although the relational conceptualization of these studies lack clarity. It has been noted that in order to successfully exploit these opportunities SMEs strengthen their engagement with these ties, thereby actively transforming weak ties into strong ties (Schweizer, 2013). The aforementioned author stresses the need for management to transform weak ties (with unilateral dependence) into strong ties (with bilateral interdependence) since this will generate higher levels of trust and greater commitment from both sides (ibid). Hence, these results imply that SMEs should strengthen existing ties for successful continued internationalization (Lindstrand et al., 2011; Schweizer, 2013).

The downside hereof is that once the progress within a market furthers and relationships are continuously strengthened, difficulties can arise when these partners no longer prove useful and need to be replaced (Kontinen & Ojala, 2012; Lindstrand et al., 2011). These authors argue that SMEs might become limited in their further expansion abroad by solely relying on stronger, previously established relationships. Kontinen & Ojala (2012), who focussed on the expansion within a single market, found that SMEs were inclined to strengthen existing ties instead of finding new ones. Only when the need truly arose (e.g. when a strong tie proved to no longer be valuable) was the search for new ties initiated. Although the authors did not specifically focus on resource outcomes, they did hint at the fact that spanning new structural holes, instead of further closing existing networks, might facilitate further expansion through new opportunities.

A somewhat similar conclusion is drawn by Ellis (2011), who focussed on the internationalization towards multiple markets. Although he did not specifically study the 'strength of ties' (which he later postulates as a valuable topic to include in further research), he does argue that the exchange opportunities derived from network contacts are limited by the psychological, linguistic and geographical boundaries under which these ties operate. Firms will be limited in their internationalization towards markets that lie outside these boundaries if they do not search for other, non-redundant ties who can provide the entrepreneurs with different opportunities. Decision makers

from SMEs have, however, been shown to be reluctant to do so (Kontinen & Ojala, 2011a; 2012; Lindstrand et al., 2011).

3.3.4 Implications and gaps of the reviewed literature

The majority of the reviewed literature focusses on the effects of networks during (or predating) the foreign market entry phase (e.g., Chandra et al., 2009; Chetty & Blankenburg Holm, 2000; Kontinen & Ojala, 2011b) even though a more dynamic view of networks during post-entry operations is acknowledged as a promising, and currently lacking, area for future research (Jin & Jung, 2016). This shortfall in IE research is remarkable since it has also been acknowledged that international expansion can be a more challenging endeavour than the initial market entry phase itself (Lindstrand et al., 2011). The predisposition amongst scholars to focus on these early phases becomes apparent with some scholars defining the internationalization of a firm as “the recognition and exploitation of entrepreneurial opportunity that leads to new international market entry” (Chandra et al., 2009; p.31). This dominating viewpoint has left the realization of opportunities post-market entry (i.e., the subsequent expansion within foreign markets) severely understudied. Hence, the knowledge about network development throughout the internationalization process is also limited.

Most of the studies analysed the overall social-and business network during internationalization towards multiple markets. To some extent, this seems counterintuitive since it is also argued in the literature that the usefulness of networks is market-specific due to their possession of local market knowledge and contacts (e.g., Lindstrand & Hånell, 2017; Presutti et al., 2007; Sharma & Blomstermo, 2003; Zaefarian et al., 2016). Definitive conclusions regarding the ego-network development during internationalization into a single market cannot be drawn from these studies. Exceptions to this are the studies of Kontinen & Ojala (2011a; 2012) whom studied the development of networks within a single market. Although they departed from a predominantly structural perspective, they also found that family SMEs tend to rely on strong ties during early internationalization whereas weak ties were often discarded over time (Kontinen & Ojala, 2012). The authors did not specify, however, how these changing ego-networks impacted the resource outcomes during internationalization.

From a relational perspective, a very little amount of studies actually adopted Granovetter’s (1973) strong/weak ties concept (e.g., Chandra et al., 2009; Lindstrand et al., 2011). Some studies hinted at the importance of trust on network-related outcomes (e.g., Odlin & Benson-Rae, 2017; Prashantham, 2006; Stoian et al., 2017; Jin & Jung, 2016) but often these concepts were very poorly defined and not specifically included in the analysis. The discussion regarding the usefulness of strong and weak ties in an ego-network is limited and inconclusive in the domestic context (Moran, 2005; Rowley et al., 2000) but this appears to be equally true for internationalization studies. These gaps in the literature are visually displayed in table 3.1 below.

Network concept studied	Static viewpoint	Dynamic viewpoint
Structural (or undefined)	Bruneel et al. (2010), Chetty & Blankenburg Holm (2000), Evers & Knight (2008), Fernhaber & Li (2013), Jin & Jung (2016), Komulainen et al. (2006), Lindstrand & Hånell (2017), Milanov & Fernhaber (2014), Nówinski & Rialp (2016), Odlin & Benson-Rea (2017), Stoian et al. (2017), Yli-Renko et al. (2002), Zain & Ng (2006)	Agndal et al. (2008), Crick & Spence (2005), Freeman et al. (2006), Hånell & Ghauri (2016), Oparaocha (2015), Prashantham (2006), Schweizer (2013), Vasilchenko & Morrish (2011), Zaefarian et al. (2016)
Relational	Chandra et al. (2009), Kontinen & Ojala (2011b), Musteen et al. (2013), Presutti et al. (2007), Ellis (2011)	Kontinen & Ojala (2011a; 2012), Lindstrand et al. (2011), Sharma & Blomstermo (2003)

Table 3.1: Most prevalent gap in the reviewed literature (highlighted square).

In addition to this, most internationalization studies that try to encapsulate the effects of network relationships focus on the network abroad, or network located in the host market. The interplay between ties from the home-, host-, and international markets is therefore mostly neglected (Lindstrand & Hånell, 2017), which goes against the notion of network theory that connections span across country borders, interlinking one market with the other (Johanson & Mattson, 1988). The effects of home networks on firm internationalization, for example, are still less understood than that of their foreign counterparts (Milanov & Fernhaber, 2014; Prashantham, 2006), even though it has been argued that the value of the home network should not be neglected (Johanson & Vahlne, 2009).

The aforementioned considerations are reflected in the empirical research model (see figure 3.2 below). Social, business and institutional ties from the home-, host-, and international markets make up the ego-network, and a distinction will be made with regards to their relational strength. Together, these interpersonal relationships make up the firm's market-specific ego-network. These relationships can provide the internationalizing firm with knowledge and opportunities that facilitate internationalization.

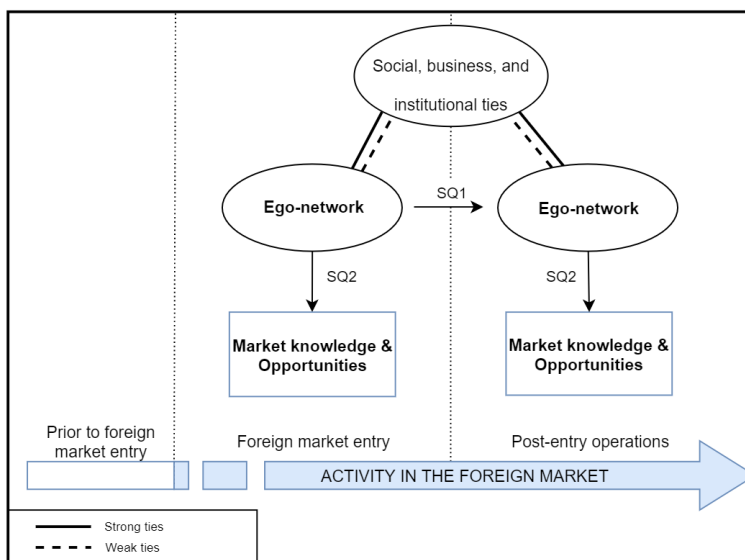


Figure 3.2: Research model

By empirically studying the ego-network during the foreign market entry and the post-entry expansion within the market, two dynamic aspects will be perceived: how the ego-network, and the relationships within it, develops over time (see SQ1), and how knowledge and opportunities are derived from it through the process (see SQ2). Hence, the empirical part of this study combines processual- and outcome- oriented aspects of networked internationalization, a method that is posited to result in several theoretical advances (Hoang & Antoncic, 2003; Jack, 2010).

4. Methodology

Based on the gaps that were perceived in the reviewed literature, I concur with previous scholars in the fact that a qualitative approach is the most appropriate methodology. A qualitative approach allows for further “understanding of what really goes on in networks; provides more knowledge about the content of network relations; the processes involved; how networks evolve, change and develop over time” (Jack 2005; 2010, p. 120). In short, qualitative work will be able to bring forth richer and more dynamic data (Hoang & Antoncic, 2003), making it suitable methodology for the research focus at hand. Furthermore, the objectives of this study relate to understanding the phenomena at hand, rather than measuring them (Jack, 2005).

A multiple-case study is adopted, which is defined as “a research strategy that can be qualified as holistic in nature, following an iterative-parallel way of preceding, looking at only a few strategically selected cases, observed in their natural context in an open-ended way, explicitly avoiding (all variants of) tunnel vision, making use of analytical comparison of cases or sub-cases, and aimed at description and explanation of complex and entangled group attributes, patterns, structures or processes” (Verschuren, 2003, p. 137). This qualitative approach will bring forth valuable, contextual insights in what the decision makers deemed as relevant (Bryman & Bell, 2015) during the internationalization process.

4.1 Data sampling

The goal of this study is to generate an in-depth understanding of the networked internationalization process. For that reason, a predominantly theoretical sampling strategy is adopted in order to ensure the selection of cases that best suit this research goal and provide the richest context. This strategy allows for the selection of information-rich cases with experience regarding the theoretical phenomena under study (Patton, 2001). The sampling parameters of this study which, according to Miles & Huberman (1984) consist of the setting, actors, events and processes under study, are described below.

The *setting* of this research is small- and medium sized Dutch environmental technology firms and their internationalization-relevant networks. The decision to focus on SMEs is grounded on the current network literature, which predominantly focusses on the networks of large firms. However, networks have been shown to be an important pool of resources and contacts, which are especially valuable for size- and resource constrained SMEs (Hoang & Antoncic, 2003). A further methodological consideration pertained to the smaller size of SMEs’ networks which, compared to their larger counterparts, makes it easier to analyse these networks and compare relevant findings in cross-case analyses.

Definitions of what sort of companies qualify as an 'SME' differ around the globe. The European commission analyses factors such as the amount of employees, the turnover, the balance sheet total and the ownership structure in order to distinguish SME's from larger corporations (European Commission, 2016). The most important threshold, the amount of employees, goes until 250 employees in the EU. This study adheres to this threshold in its selection of sample companies (cf. Wolff & Pett, 2000).

The case-companies are environmental technology SMEs that originate from The Netherlands, a small, open economy that has always put great emphasis on maintaining international trade relationships (Gehlen, 2002). From an economic perspective, internationalization plays a very relevant role in countries of relatively limited domestic market size. Therefore, firms originating from these types of economies are more inclined to internationalize in order to ensure continuous growth and survival (Autio et al., 2000).

Environmental technology can be defined as "goods and services that have as a central component the reduction of energy or materials consumption or the reduction of environmental impact during use or upon disposal" (U.S. International Trade Commission, 1995). Due to the increasing concern over global warming, population growth and environmental protection, the environmental technology industry offers enormous growth potential. This means that besides economical value, societal incentives to better understand and support this sector are present as well. A pressing example of this is that due to exponential global population growth, the amount of clean water available per head of the population in 2015 is projected to be one third of what it was in 1950. The global necessity for innovative environmental solutions is high, which highlights the importance of elaborating on, and clarifying, the networking strategy of these types of firms (Harryson, Dudkowski, & Stern, 2008).

Since the dynamics of internationalization-relevant networks within a certain foreign market are under study, the *events* that will be analysed for each case are the foreign market entry and post-entry operations within that market. The *processes* under study that occurred during these events constitute of the relational development of the ego-network and the resources that were obtained during internationalization. The *actors* under study will thus be decision makers who oversaw international operations and facilitated entry and expansion within at least one international market (e.g., CEOs, export managers). These sampling parameters are summarized in table 4.1 below.

Sampling parameters	Choices
Settings	Internationally active Dutch environmental technology SMEs.
Actors	Decision makers regarding the particular foreign market under study.
Events	Foreign market entry and post-entry operations within a particular foreign market.
Processes	The relational development of the network throughout the internationalization process, and the resources (FMK en opportunities) that are derived from it.

Table 4.1: Sampling frame of this study.

Based on the sampling frame (table 4.1), an initial selection of 53 potential case companies was drafted. Decision makers of these companies were contacted by an interview invitation letter (see Appendix IV) which was later followed up by telephone calls. Some companies proved to be unsuitable for analysis due to a lack of international operations, or because they were of a size that did not adhere to the European thresholds of what constitutes as an 'SME'. Therefore, these companies were discarded from the list. In terms of quantity, the ideal number of cases in qualitative research lies anywhere between four and ten companies (Eisenhardt, 1989). The author argues that below four cases it is difficult to draw meaningful conclusions from the data, and with more than 10 cases, the volume of data is difficult to cope with.

This theoretical sampling method led to the inclusion of seven environmental technology SMEs that adhered to all previously established criteria and were willing to participate. However, during the data collection (chapter 4.2) process the idea unfolded to also include a company operating outside of the environmental technology, thereby adhering to the call of Zain & Ng (2006) to include control firms in network-related research. The reason for this is that most of the environmental technology SMEs seemed to enjoy a certain level of reputation, which might have been caused by the fact that the environmental technology sector of the Netherlands is held in high-regard internationally. This form of *emergent sampling* (Patton, 2001) led to the inclusion of a Dutch plastic injection moulding machine production SME. The aim of this approach was to enable an interesting comparison between industries, thereby providing richer data.

Beside the fact that this control firm does not operate in the environmental technology sector, it still adheres to all the other sampling criteria (being Dutch, being an SME, and having international operations). Hence, theoretical and emergent sampling has led to the inclusion of eight interesting and suitable case companies, the descriptions of which can be viewed in the table below. In their respective firms, the interviewees were solely responsible for the international business development towards the countries under study. This ensured that the interpersonal internationalization-relevant networks of these decision makers adequately reflected the firm's network in that market.

Firm	Main product / service	Function of interviewee	% of Sales from offshore markets	Firm size (No. of employees)	Country under study
Firm A	Industrial waste water purification plants	Sales manager	80%	70	Saudi-Arabia
Firm B	Industrial waste water purification plants	Owner / Director	50%	10	Germany
Firm C	Water purification & water management	Sales manager (MENA region)	66%	170	Egypt
Firm D	Vertical storage tanks (gas / fluids)	Owner / Director	15%	35	Belgium
Firm E	Static fluid mixers	Sales manager	95%	10	France
Firm F	Injection moulding machines	Sales manager	85%	150	United States
Firm G	Composting systems	Sales manager	50%	50	England
Firm H	Water purification & water management	Owner / Director	70%	20	Germany

Table 4.2: Sample companies' description.

4.2 Data collection

The primary form of data collection was achieved through semi-structured, in-depth interviews with key decision makers from the eight case companies. During the semi-structured interviews, a list of questions formed the base of the conversation (see Appendix III). The questions were designed to be as non-leading as possible. Hence, the opportunity was there to deviate from these pre-established questions and elaborate freely on any topics that the interviewee deemed interesting. This approach meant that the interviewees were able to fully explain which network relations they deemed important during the internationalization process, and why. Furthermore, this approach also allows for asking additional questions on interesting topics as they arise. The semi-structured interviews thus give more freedom to both the interviewer as the interviewee, thereby producing richer, more distinct data (Yin, 2003).

The interviews deviated from one another, but could roughly be structured in three segments. First, the interviewee gave a quick introduction of the company, his/her function, and his/her role in recent internationalization events. The countries towards the firm has internationalized were listed, and the general internationalization approach was discussed. Hereafter, a specific country in which the decision maker has had a significant impact (i.e., entered, and expanded within) was further elaborated upon. This included the internationalization-relevant ego-network at the time of market entry, the interaction with those network ties, and any foreign market knowledge and international opportunities derived from this network (the conceptualizations of these resources can be found in Appendix II). Then, the interviewee was asked to elaborate on the expansion within the market, with again the ego-network, foreign market knowledge and opportunities being the focus of the interview. Specific attention was also paid to how and why this network developed over time throughout the internationalization process.

During the interviews, it had to be considered that the nature of the research approach necessitates a partial focus on retrospective data. Cognitive limitations of the interviewee might potentially lead to imperfect or incomplete recollection of events, or a recollection that is biased due to their intrinsic motivation to present themselves in an (overly) positive way (Huber & Power, 1985). This was accounted for by 1) asking about concrete facts and events, 2) stimulating interviewees to be precise instead of solely relying on their opinions, 3) compare their perceptions with secondary data (cf. Kontinen & Ojala, 2012).

One follow-up interview was conducted in order to clarify certain aspects of the internationalization process as described by one interviewee. All interviews were recorded in order to ensure the information was captured to its full extent. In most cases, ad-verbatim transcription occurred on the same day. By cross-validating my perception of the data with the interviewees after each interview to confirm what was said and to clear out any possible ambiguities, confirmation bias was diminished. Interviewee anonymity was ensured by anonymizing all references to the interviewee, the company they work for, and all the references of people and companies mentioned during the interview. The interviews lasted between 31 and 67 minutes, which were conducted through Skype due to time-frame and logistical issues. This, however, ensured that the interviewees were able to respond to a safe environment of their own choosing.

4.3 Data analysis

The analysis of the data obtained in a multiple-case study can be quite complex and the techniques for analysing this data are often not well defined (Gilgun, 2005). Developing a general analysis approach prior to the data collection process will therefore facilitate easier analysis and comparison of the data (Yin, 2003). In order to cope with the large amounts of data that come with qualitative studies, researchers are advised to begin their analysis with individual cases before moving on to the broader cross-case analysis (Eisenhardt, 1989; Yin, 2003). The goal of this individual case analysis is to become “intimately familiar with each case as a stand-alone entity. This process allows the unique patterns of each case to emerge before investigators push to generalize patterns across cases” (Eisenhardt, 1989, p. 540).

The theoretical foundations (chapter 2) and perceived research gaps (chapter 3) guided the organising process of the data, with the goal of exploring these theoretical gaps and furthering our understanding of these pre-established concepts (cf. Vasilchenko & Morrish, 2011). These concepts have been transformed into codes, which were used to separate the data into meaningful parts. Qualitative coding can be defined as “the process by which segments of data are identified as relating to, or being

an example of, a more general idea, instance, theme or category” (Lewins & Silver, 2007, p. 81). A concise overview of the theory-based codes, including example quotes from the interviews, can be viewed in table 4.3 below.

Codes	Description	Example quote
Network ties		
Social ties	Friends and family.	<i>N.A.</i>
Business ties	Two or more connected actors (which can be both formal and informal) with the primary focus of the exchange being business-related.	"This was a French distributor who was looking for a reliable supplier"
Institutional ties	Formal institutions, such as the ministry of foreign trade/industry, trade promotion councils, internationalization assistance organizations, research institutions, credit unions, embassies, chambers of commerce and national trade delegations.	"During the entry of the market, I had some contact with the NWP (Netherlands Water Partnership)"
Relational embeddedness		
Weak ties	Characterized by more sporadic transactions, in which the actors do not know each other well and typically encompass limited (emotional) investment.	"Contacts remained a little bit superficial, but I knew some people there"
Strong ties	Relationships that are based on commitment, mutual respect and trust.	"We had an immediate connection. It was good right from the start"
Dyadic relational development (stronger)	Relationships that have grown stronger over time.	"We've increasingly learned to trust each other and collaborate even better now than before"
Dyadic relational development (weaker)	Relationships that have grown weaker over time.	"Back in the days it was good, but now it isn't that good anymore. It has its ups and downs"
Dyadic relational development (tie dropped)	Relationships that have been dropped over time.	"So you have to be flexible in it. Sometimes you need to find new partners."
Foreign market knowledge		
Institutional knowledge (attained through network tie)	Knowledge regarding the laws, rules and languages that are in effect in a foreign market.	"You have several water-regulations, it is a bit strange because I think we have the KIWA certificate, in Germany the DNV. [...] The distributor helped significantly with that"
Business knowledge (attained through network tie)	Knowledge about new technological developments, market trends, innovations from key customers and competitors, and awareness of issues that potential customers experience within a foreign market.	"They provided us with knowledge regarding what is going on in Egypt, how the market develops, and in which way we could profit"
Opportunities (attained through network tie)	The chance to conduct exchange with new, or previously existing, customers in foreign markets.	"Our agent covers a certain geographical area. When he heard about the potential new project, he immediately got in touch with me"

Table 4.3: Coding descriptions and examples

During the computer-assisted qualitative data analysis (Atlas.ti 8.0) procedure, the data was first segmented based on these pre-established codes as this ensured easier cross-case analysis. Each of the ties mentioned were also coded in terms of their origin: 'home-network', 'host-network', and 'international network'. The relevant data that was derived from this initial axial coding was then separated as per the two different phases of internationalization: market entry and post-entry expansion. This enabled the comparison of the ego-network between these different internationalization phases, hence providing an initial glance at how these networks developed over time.

The fact that the coding process was driven by prior theories from the network- and IE literature means that the data analysis procedure adopted has been of a predominantly deductive nature (Gilgun, 2005). However, since much is still unknown about how firms operate during post-entry operations, it was deemed illogical to discard all the data that did not confirm to these pre-established codes. Therefore, the unused data was re-analysed through a more explorative, inductive lens and was subjected to a new round of open- and axial coding. This procedure ensures the potential identification of new dimensions of social phenomena that might otherwise have been missed (Gilgun, 2005). Codes that were generated included segments about opportunities that were generated through 'reputation', 'serendipity' or the 'internet', and the attendance of 'trade fairs'.

After all individual cases had been coded, visual 'network maps' were drawn, for which the qualitative structural analysis (QSA) approach of Herz, Peters & Truschkat (2015) was adopted. The authors drafted this approach after examining the current literature on network visualizations and concluding that many qualitative studies were not really that qualitative at all. The aim of this approach was to "apply the structural approach when analysing qualitatively generated network data, using the standards set in qualitative social research" (Herz et al., 2015, p. 6). In practice, this entailed the drawing of network maps based on the researcher's own perception of the data instead of letting the respondent draw their own map, or by generating data through survey results. During the interviews, emphasis was put on describing each tie (and their relational qualities) thoroughly, which allowed for a good distinction between weak and strong ties.

The network maps are ego-centred and constitute of all the internationalization-relevant ties (which were also referred to as 'relationships' or 'contacts') that were mentioned during the interview. Different types of resources (foreign market knowledge and opportunities) that were derived from actors in this network were indicated with different colours (yellow and blue, respectively), and difference in dyadic tie-strength (weak and strong) were denoted by different lines (dotted and filled, respectively). These visualizations have also been sent to the interviewees, together with the aforementioned summaries, in order to reduce bias and confirm the interpretations. The advantage of

this form of visualization is that the changes in the network of the focal firm between the different internationalization phases are more easily distinguishable. Also, these forms of display facilitate more convenient cross-case comparison since the different visualizations contrast against one another (Spiggle, 1994).

The individual case analysis was coupled with a cross-case search for patterns and differences. This is deemed important, since incorporating divergent ways of analysing the data counteracts the researcher's inclination to draw conclusions prematurely based on appealing, individual cases (Eisenhardt, 1989). The pre-established theoretical dimensions were identified and adopted to search for differences and similarities between the cases. Then, cases were paired based on these similarities and differences in order to compare them and extract meaningful patterns.

5. Findings

5.1 Internationalization process - individual case analysis

The internationalization process of the individual case companies is outlined briefly in this section. The aim hereof is to sketch a picture of how these firms went about their internationalization, how their networks developed over time, and how this network aided them in the attainment of resources.

The market-specific network maps are presented for each firm. Each network map depicts the network contacts that originate from the home network (the Netherlands) above the time-line. Contacts that originate from the host-network are depicted below this line. The foreign market entry period is depicted by the 'I' symbol in the time-line: all relationships on the left side helped in the entry of the market. The period on the right of the | symbol denotes the post-entry expansion. When a 'cross' is depicted, this means that the relationship was not maintained over time. This is explained in each of the accompanying case stories. Social ties (e.g., friends and family) did not play any role during the internationalization processes, hence these ties are not incorporated in any of the figures nor the accompanying legends.

Firm A

The entry of firm A into Saudi Arabia was facilitated by a strong connection with a domestic sister-company, who had a local agent in the host market. The interviewee lifted on this pre-established agent through good, repeated contact with the sister company. The relationship with the agent was strong, characterized by mutual trust and respect. This allowed the interviewee to fulfil the first project within the market, and to attain foreign market knowledge (denoted as 'FMK' in the legend).

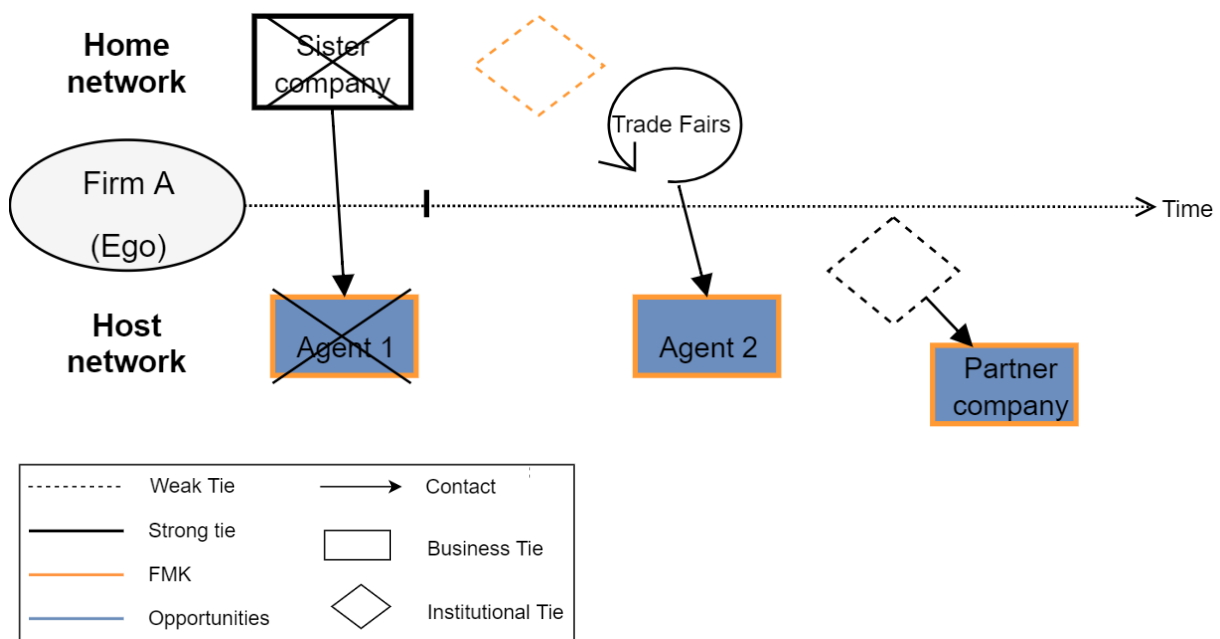


Figure 5.1: Network development of firm A.

During the post-entry operations, the sister-company and Firm A disbanded contractual business relations. Some years later, the interviewee disbanded the relation with the previously established agent, even though their business relationship was strong and had resulted in previous knowledge and opportunities. A relationship with a new agent was established soon after, which the interviewee met at a trade fair and immediately had a good connection with. But the interviewee did not solely rely on this agent in developing operations within the market: the interviewee reached out to an institutional tie in the home market to learn more about the host market, and reached out to an institutional tie in the host market in order to get in touch with a large, dominant firm from the host market. This firm became a partner company through which new knowledge and opportunities were attained.

Firm B

The entry of firm B into the German market was enabled by a distributor in the host market, whom the interviewee had met at an international trade fair in the Netherlands.

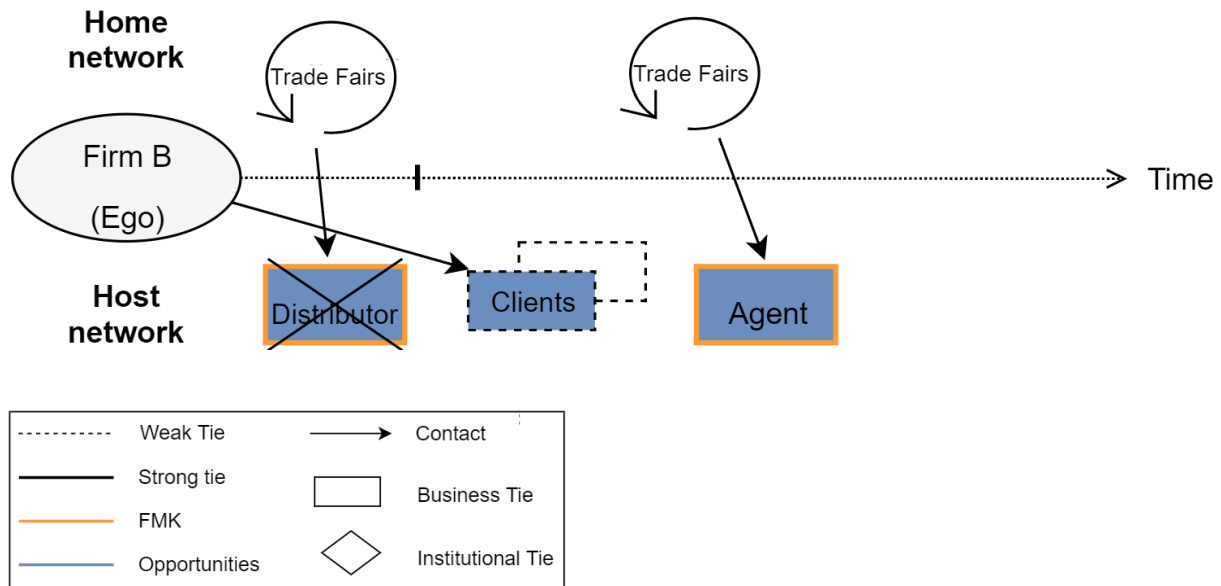


Figure 5.2: Ego-network development of firm B.

Post-entry operations were initially characterized by slow progress, although Firm B's export did grow and they did attain knowledge about German customs and regulation from their distributor. However, when the distributor filed for bankruptcy, Firm B decided to serve the market alone and actively pursued clients. During these years, Firm B ran into an agent on a trade fair who wanted to join efforts in positioning Firm B in the market. The fact that the agent lived right across the border and had an informal way of conversing appealed to the interviewee. Throughout the years that followed, bonds were strengthened with this agent and through extensive collaboration opportunities and market knowledge were attained. The interviewee later stayed in touch with previous clients which sometimes resulted in further opportunities for growth.

Firm C

Foreign market entry into the Egyptian market was initiated by a local sales agent with whom relationships had always been good, but contact had faded over the past years. This agent provided the interviewee with a sudden opportunity to enter the market. The agent had good ties with the local institutional organization that issued the project, which made him aware of the opportunity. Together with the agent, the interviewee strengthened connections with this local institution in order to attain the project and realize the opportunity. In order to facilitate this process, market knowledge was sought beforehand through sporadic contacts with an institutional, export-promoting organization in the Netherlands.

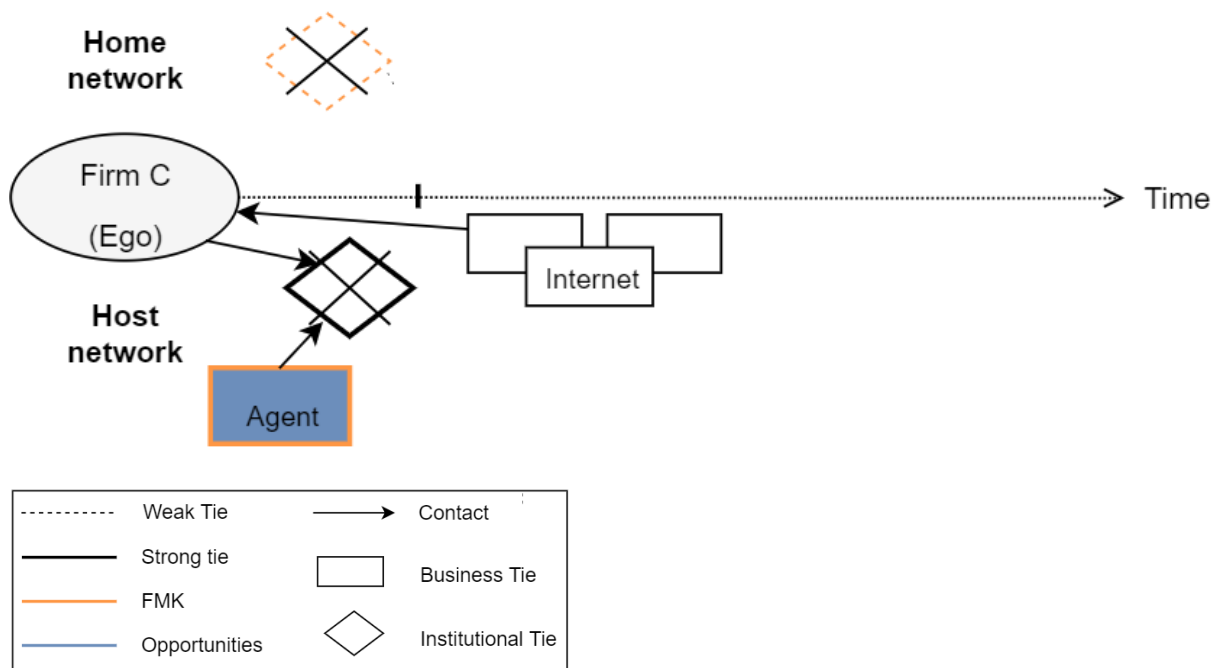


Figure 5.3: Ego-network development of firm C.

Post-entry operations were aided by the fact that the first project had been executed successfully, which caused the name of Firm C to be well-known in the market. The local agent, whom had very good connections with local organizations and institutions, continued to provide Firm C with knowledge about the market and opportunities. Firm C is no longer in touch with institutions themselves (both from the home- and host market) since this was only deemed necessary in the FME phase. Opportunities now also reach Firm C through the internet, through which they are sometimes contacted directly.

Firm D

The foreign market entry of Firm D towards the Belgian market was characterized by serendipity. Before the opportunity was known, the purchasing department of their first future client was required to request quotations from at least 4 companies who could design and build storage tanks. When relations between this department and one Belgian competitor diminished, the purchasing team decided to look online to find a suitable replacement across the border. Although Firm D had some doubt about the seriousness of this request, they decided to act upon it pro-actively by getting in touch with the potential client. Ultimately, they got the project.

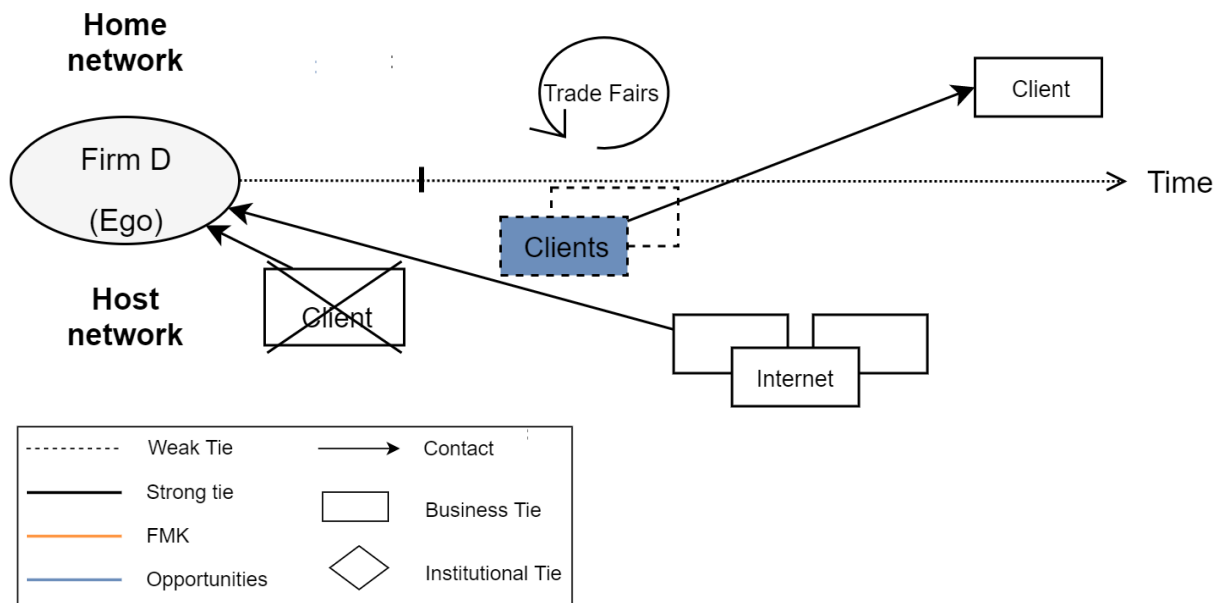


Figure 5.4: Ego-network development of firm D.

During post-entry operations, the relationship with their first client was not maintained. Firm D did not have a local sales agent, distributor or partner. Instead, they tried to strengthen its position and reputation by regularly attending trade fairs, although no concrete opportunities had arisen from this. Some new opportunities arose by keeping in touch with previous customers and through the internet. One weak relationship in Belgium even resulted in a new client in the Netherlands, with whom talks are currently ongoing. Overall, growth in the market remains dissatisfactory.

Firm E

The foreign market entry of Firm E into the French market was triggered by a serendipitous event: Firm E was approached by a distributor in the French market who was dissatisfied with the products of a competitor of Firm E. The fact that the owner of the distributor was married to a Dutch woman, thereby already familiarizing him with the Dutch culture, aided their choice to reach out to firm E. From the first contact onwards, the relationship between Firm E and the distributor was characterized by trust and familiarity.

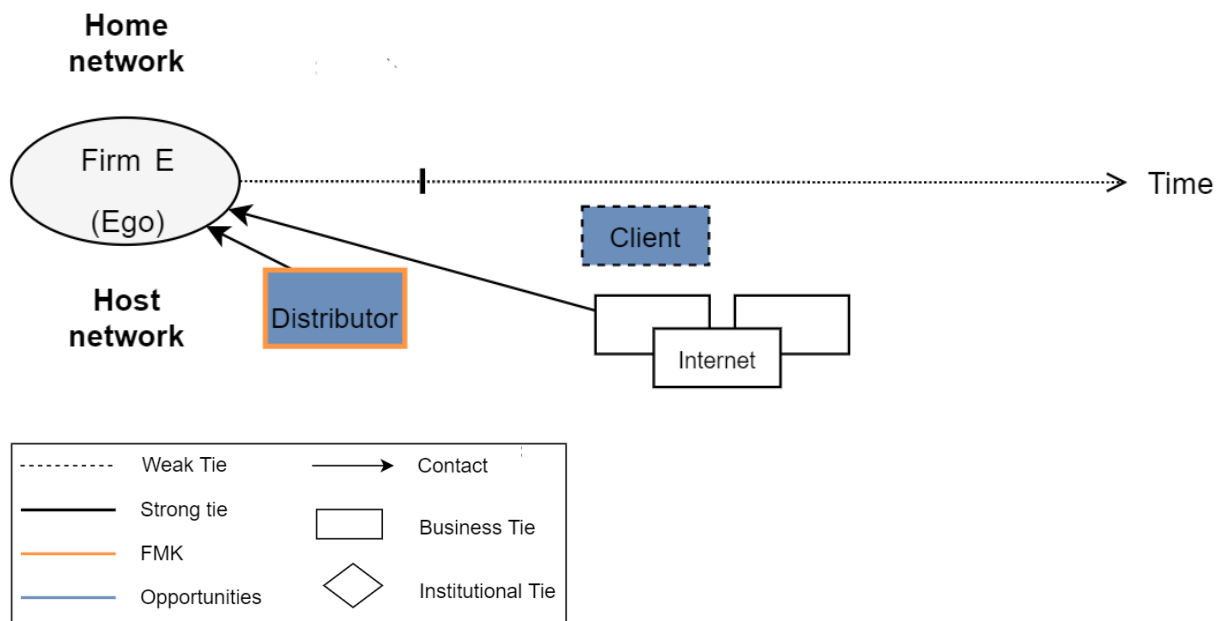


Figure 5.5: Ego-network development of firm E.

During the post-entry operations, bonds were further strengthened with the distributor. Frequent engagement between the interviewee and the distributor was required in order to make the distributor more familiar with their product. The distributor is not a very innovative company, but their value lies in their connections and strong roots within the French market, which allowed Firm E to attain a lot of knowledge about the market. Firm E also ensured that their reputation was strengthened by ensuring that their online profile was up-to-date and in French. Since then, several other French companies reached out to firm E online. A somewhat stable, but superficial relationship is maintained with a very large French client with whom several projects have been executed.

Firm F

Foreign market entry was triggered by an opportunity that arose through a large European firm that wanted to venture into the United States. They reached out to Firm F and proposed the opportunity for them to become their main supplier of injection moulding machines in the United States. Even though no previous knowledge of this market was obtained, Firm F decided to piggy-back along with the opportunity. This large Danish firm had established a project manager in the United States, with whom some contacts were established in order to finalize the deal.

Firm G

Before any projects had been executed in the English market, the interviewee reached out to a company in England who played an advisory role within the area of composting. They partnered up with this company since this company had a good relationship with a governmental organization who issued most of the new projects within a certain geographical area. The relationship with the people from this partner company were good right from the start. Some small projects were executed, but progress was dissatisfactory and the interviewee wanted to further develop the market.

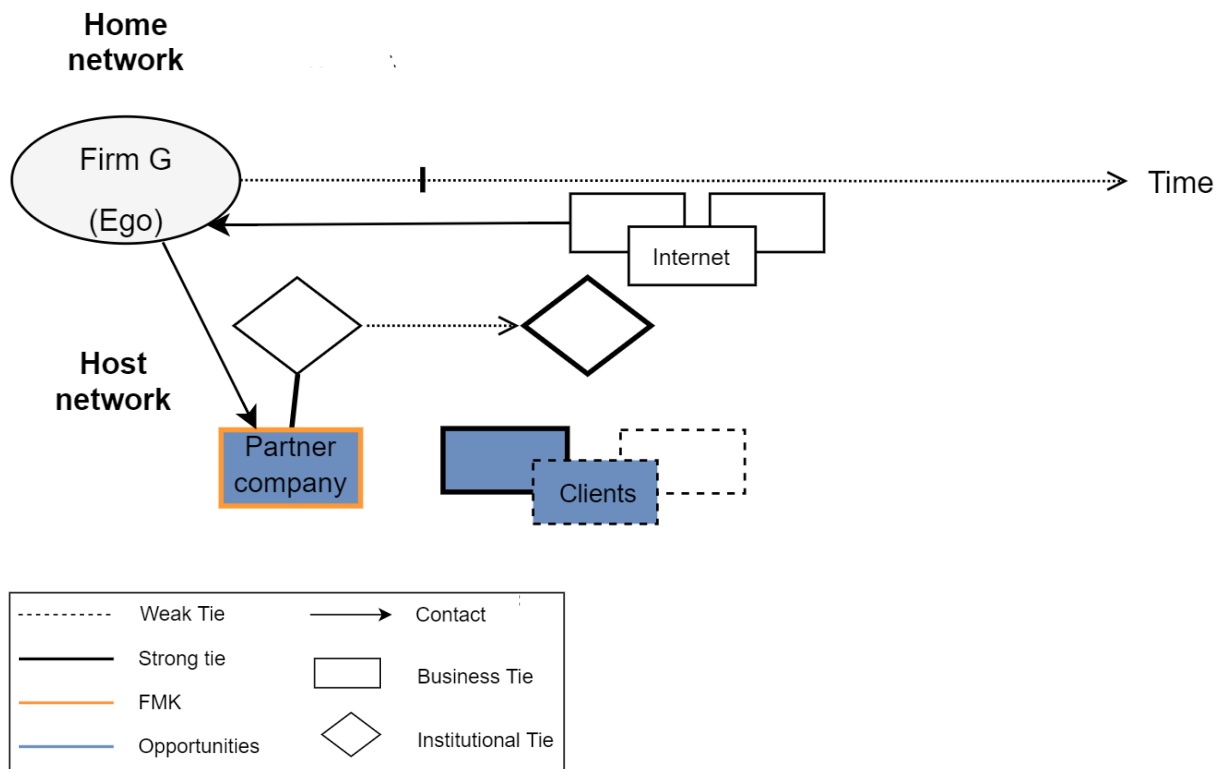


Figure 5.7: Ego-network development of Firm G.

Post-entry operations were professionalized by the interviewee, who further strengthened relationships with the local partner company and formalized the relationship contractually. Firm G managed to improve his own relationship with the council as well. Together with their partner company, some fruitful opportunities arose which were awarded to them by the council. This also gave them a significant increase in reputation within the market, which led to increased amounts of unsolicited orders through the internet. By also maintaining relationships with existing clients, Firm G managed to gain further opportunities for expansion.

Firm H

Foreign market entry into the German market had long been a fruitless endeavour for Firm H. Some requests to execute projects had been received over the internet, but there was no continuity within the market and the interviewee had not achieved any knowledge about this market yet.

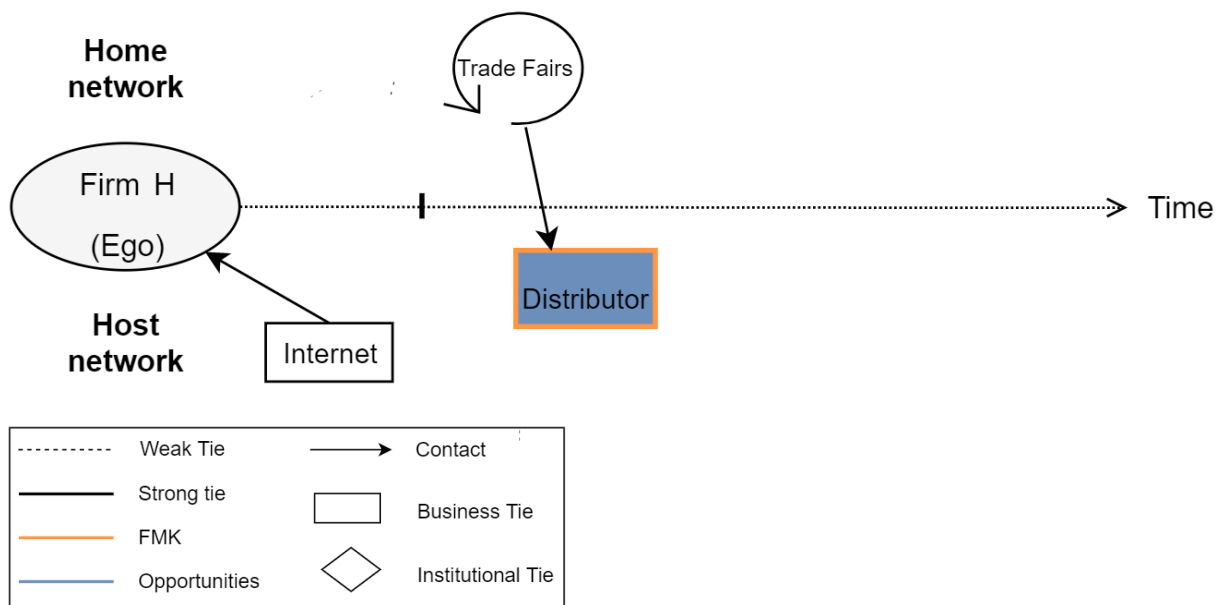


Figure 5.8: Ego-network development of Firm H.

Somewhere during post-entry operations, the interviewee participated in a matchmaking event at a trade fair. During this event, he got in touch with a local German distributor who felt that both parties could help each other expand by making use of their complementary product portfolios. Over the years, this partner proved to be of great value: exports to Germany doubled every year, and the interviewee gained a lot of knowledge about the market through this connection. The relationship, which had been strong from the beginning, grew stronger and turned into a friendship characterized by mutual trust and commitment. The interviewee never felt the need to look beyond this partner because this distributor “covered the entire market” by incorporating an extensive network of sub-distributors. Hence, this local partner functioned as a bridging network towards many different networks.

5.2 Network Development

The individual case analyses above are followed up with a cross-case analysis, the results of which are described in the following paragraphs. In order to comprehensively depict the development that occurred within the case-companies' networks, a distinction is made between the internationalization-relevant network during the initial foreign market entry, and during the post-entry operations.

5.2.1 Foreign market entry

Overall, foreign market entry was generated through opportunities that presented themselves: in most cases, it was not strategically planned. Network contacts played a major role in the initiation of market entry, with most ties depending on a strong tie that facilitated the process. Collaboration with these strong ties was sometimes enough to facilitate market entry. In other cases, these strong ties were used to get in touch with other ties in the host market. Here, market entry was facilitated by closely collaborating with these strong ties. Inter-group differences and patterns were found with regards to the possession (or lack) of a strong, central tie originating from the *host market* that enabled entry into the market.

A strong bridging tie in the host-market

Firms A, B, C, E, G were all in the possession of a strong tie in the host market that allowed for entry into that market. These ties were attained in several ways: some were pre-established, and others arose due to serendipitous events or encounters on trade fairs.

A pre-established relation with a domestic sister company enabled firm A to get in touch with a local agent in the host-market. Firm C had pre-established a local agent in the Egyptian market with whom no business had yet been conducted since the moment they first met. Some years later, this local agent hinted Firm C at a potential opportunity which they actively pursued together, thereby facilitating the FME. This was done by actively strengthening bonds with the foreign institution that generated the opportunity, and by seeking knowledge about the market through a Dutch institutional tie.

Firms that entered their host markets with a strong tie that was not pre-established had to find these partners first. For firm B this occurred by participating in an internationally-oriented Dutch trade fair. A distributor in the German market wanted to work together with them, and together they started operating in the German market. Although Kontinen & Ojala (2011 a; b) considered these encounters to be serendipitous, I do not agree with this. Firm B actively placed itself in an environment where the chances of encountering a like-minded individual who could be of future help was maximized. This can hardly be described as luck, but is rather a form of intelligent, active networking (Vasilchenko & Morrish, 2011).

Firm G, on the other hand, actively reached out to a company in the host market in order to become partners. In the case of Firm E, the owner of a French distribution company was dissatisfied with one of his French suppliers. Since his wife was Dutch, he was already familiar with the Dutch culture. According to the interviewee of firm E this contributed significantly to the French supplier reaching out to them, thereby facilitating the FME.

No strong bridging tie in the host-market

Firms that entered their markets without a strong tie in the host market were subjected to other means of achieving market entry. In the case of Firm D, the foreign client initially limited its search for a potential contractor to the Belgian market, but due to a diminishing relationship with one of these Belgian counterparts the search had to be extended towards the Dutch market as well, thereby reaching out to Firm D. Firm F 'piggybacked' into the host market through the efforts of a large international (European) client to which they had previously supplied machinery. When those European clients moved to the US, they asked Firm F to tag along and supply machinery for their overseas venture, which Firm F accepted. Firm H on the other hand had executed some projects that arrived over the internet, which allowed them to become active in the market, meaning that not every market entry was facilitated by network contacts.

5.2.2 Post-entry operations

Findings pertaining to the first sub-question (*How does the network of SMEs change throughout the internationalization process?*) indicate that almost all SMEs actively changed their relations, although some to a much greater extent than others. At first, the developments of the dyadic relationships with the bridging ties who facilitated foreign market entry which, for most firms, remained the most important tie into the market. Hereafter, the developments of the ego-network (i.e., other contacts besides the central bridging tie) are discussed.

5.2.2.1 Dyadic relationships with bridging ties

All of the case firms used exporting as their mode of entry towards their foreign market. In practice, this meant that most firms (except firm D) remained very dependent on central bridging ties in the host market. Table 5.1 and 5.2 (see below) present the relational developments between the respondents and their central bridging ties. The strengthening of these ties was a dominant theme during the entire internationalization process, but sometimes ties were disbanded and switched for a new tie. The following section describes *how* and *why* the respondents strengthened, or switched, relationships.

Foreign Market Entry	Firm →	A		B	C
	Type of tie	Sister company	Agent 1	Distributor	Agent
	Contact initiated through:	Pre-established	Pre-established	Trade fair	Pre-established
	Origin	Home	Host	Host	Host
Post-entry developments	Relational development	Not maintained	Disbanded	Disbanded (bankruptcy)	Strengthened
	Type of tie		Agent 2	Partner company	Agent
	Contact initiated		Trade fair	Local institution	Trade fair
	Origin		Host	Host	Host
	Relational development (new ties)		Strengthened	Strengthened	Strengthened

Table 5.1: Relational development with bridging ties (firm A – C)

Foreign Market Entry	Firm →	D	E	F	G	H
	Type of tie	Client	Distributor	Client 1	Partner company	Distributor
	Contact initiated through:	Serendipity	Serendipity	Pre-established	Own initiative	Trade fair
	Origin	Host	Host	International	Host	Host
Post-entry developments	Relational development	Not maintained	Strengthened	Weakened	Strengthened	Strengthened
	Type of tie	Did not maintain a central tie		Client 2		
	Contact initiated			Pre-established		
	Origin			International		
	Relational development (new ties)			Strengthened		

Table 5.2: Relational development with bridging ties (firm D – H)

The strengthening of ties was often done by showing commitment to the relationship and actively engaging the local sales agent / distributor in ongoing sales activities, even if these activities had been generated without the help of these ties. Firm E, who almost solely relied on a strong relationship with their French distributor, stated: *“We’ve always indicated a long-term vision, not to make money for one or two years and then exit the market.”* When asked about how the relationship developed, the interviewee noted: *“In the first years, we were in touch frequently with mutual visits in order to accumulate knowledge about the product and the applications. We visited many [of his] customers in order to hear their questions and bring [the distributor] up to the level that he, let’s say, would be able*

to answer 9 out of 10 questions. That was in the first years, but meanwhile that has greatly diminished. Now we only visit each other when it is necessary." All other respondents that worked with a local agent or distributor shared these ideas of showing commitment to their bridging ties as a means of strengthening the ties.

This commitment was sometimes also expressed outside the purely business-related aspects of social interaction, as firm G noted that it is important to: *"[...] notice that the world is larger than just work. [...] building a relationship is more than just doing business: it means incorporating private life and showing that you are being involved with people"*. The relationship between firm B and firm H and their bridging ties even turned into friendships. *"We even went on a holiday with our mutual families"* (Firm H). The primary motives to strengthen ties, however, were always of an economic motive. Firm E noted: *"It is important for me that in that case the distributor is also engaged so that he knows that we have no intention to do anything behind his back. Because in the end, they have to 'run' for us. And if they have the idea that they constantly have to run very fast for us, but the money is made elsewhere... then something is going wrong."*

A switch of bridging ties was made by firm A, who chose to disband relationships with their bridging tie when this agent no longer proved valuable. *"When the relations are not good between your agent and the end-customer, that can work against you. [...] So you have to be flexible in it. Sometimes you need to find new partners. That's important. [...] There are new opportunities when the market develops, with new people. You have to keep moving"* (Firm A). The interviewee found a suitable replacement at a trade fair. Personal qualities proved very important when taking potential partners into consideration, with the interviewee noting: *"I mean, do you have the same vision? Do you have the same work mentality? When that clicks, you can go on. It's a personal issue"* (Firm A). Instead of solely relying on this tie, another strong bridge into the market was found in a large, domestic partner.

A different pattern was displayed by Firm F, who internationalized through a large, international client. Ties with this partner were weakened due to a mismatch in technological capabilities and requirements, which hindered a successful continuation of the relationship. This displays the risks of piggybacking into foreign markets through large clients, even though this has been found to be a common entry strategy for SMEs (Crick & Spence, 2005; Rodriguez & Child, 2012). Even though another European client could facilitate further operations in the United States, Firm F notes that their unsatisfactory performance in the market could have been significantly better if they had had a local agent: *"What is really important is that you have a network. If you have zero network, you have to build everything from scratch. Even the people with who you get along might take some years to be convinced of buying your product. So if you don't have those years, you will never sell a machine. But if someone walks up to (a potential client) whom he has been doing business with for 20 or 30 years and*

says “look at these machines from Firm F, they are amazing”, then you are immediately at the right place. But if I try to approach a company like that, I won’t even make it past the secretary.”

5.2.2.2 Relational developments on the ego-network level

On the ego-network level, most firms maintained relationships outside of their bridging tie during post-entry operations. Overall, there was a strong tendency to rely on one strong relationship that facilitated post-entry operations. Some firms however, especially those that did not have a strong bridging tie, reached out to other business ties in order to maintain relationships which predominantly stayed weak, but some of which grew stronger.

Domestic ties were hardly present during post-entry operations, with only Firm A engaging with a domestic institutional tie (weak). Firm A also engaged with a local institutional tie in the host market, hence being the only firm who made use of this type of tie during post-entry operations. Other companies did not see the use of these ties during the post-entry phase. Firm H, for example, noted: *“In this case I am not in touch with embassies in Germany. I am only in touch with these types of organizations in a country where I do not know anybody. When contacts have been established, there is no need for it anymore.”*

Most of these firms actively stayed in touch with business clients for whom they had previously fulfilled projects. For Firm D, who did not have a local sales agent, this was the only way to stay in the market. Most of these business with whom the interviewees stayed in touch were weak ties, although Firm F and G maintained stronger relationships with some of them. The resource outcomes of these networks and relationships will be discussed in the following section.

5.3 Relational embeddedness and resource outcomes

Where the previous sub-chapter focussed on the dynamics of, and within, the network, this section will focus on the effects of relational embeddedness within the ego-network on resource outcomes, as stated by SQ2: *How does the network of SMEs affect the attainment of resources throughout the internationalization process?* The ties, and their relational qualities, that enabled each of the case firms to enter and grow (post-entry) in their respective markets through foreign market knowledge and opportunities are depicted in table 5.3 below. The **bold** letters indicate that these firms used **multiple** (at least 2) of these ties. For example, firm G made use of multiple weak- and strong ties through which they attained opportunities during post-entry operations. The implications of this table will be discussed in the paragraphs below.

Int. Phase →	Foreign Market Entry				Post-Entry			
Resources ↓	Weak	Strong	Serendipity	Reputation	Weak	Strong	Serendipity	Reputation
Foreign Market Knowledge	C	C			A	A, B, C, E, G, H		
Opportunities		A, B, C, F, G	D, E	H	B, D, E, G	A, B, C, E, F, G, H		A, C, D, E, G

Table 5.1: Relational embeddedness and resource outcomes throughout the internationalization process.

5.3.1 Foreign market entry

Interest in foreign markets was always triggered through an opportunity that presented itself. Two firms were able to enter foreign markets through serendipitous opportunities (firm D and E), and firm H received an online order of a client from the host-market based on their reputation from the Netherlands. Firm H had received its first project over the internet, based on their good reputation. This implies that not every foreign market entry is facilitated by network relationships (Vasilchenko & Morrish, 2011). All of the other interviewees, however, indicated to have entered their foreign markets through opportunities derived from strong ties in either the domestic market (firm A), the host-market (firm B, C and G) or international markets (firm F). This means that none of the opportunities that lead to market entry were derived from weak ties, but from ties with whom a bond of trust was present (Kontinen & Ojala, 2011b). The importance of these dyadic relational qualities were often stressed in terms of being a trustworthy partner. When asked about why the large MNC (a pre-established connection) approached firm F to be their key supplier in the United States, the interviewee noted: “Deliver good machines and always do as you promise”.

With the exception of Firm C, none of the interviewees indicated to have attained knowledge about the foreign market prior to entering it. This further strengthens the observation that nearly all SMEs internationalized very opportunistically, deciding ‘on the fly’ whether or not to engage in the opportunities that present themselves. Firm C engaged with some (weak) contacts from a Dutch

institutional, export-promoting organization that specifically focusses on the water market, and actively sought out information from the local sales agent in order to learn about the country. None of the interviewees indicated a lack of institutional knowledge to be a barrier to enter the market, as this was often considered a process of “learning by doing” (quote from firm A) (Sharma & Blomstermo, 2003).

5.3.2 Post-entry operations

Whereas the foreign market entry was always triggered by single actors (either previously known or not), the post-entry operations were often comprised of interactions with multiple actors. As was aforementioned, strong bridging ties continued to be the predominant source of opportunities for all firms who made use of sales agents, distributors or partner firms (Firms A, B, C, E, G, H). Therefore, all these firms continuously tried to strengthen the relationships with their local agent/distributor since it was believed that this would enhance the amount of opportunities that would be derived from these ties. In that regard, the local sales agents and distributors are seen as key contacts that enable growth within the market, with Firm E even saying that it would be “nearly impossible” to sell products without a local presence.

Besides opportunities, strong ties also facilitated foreign market knowledge, which interestingly enough was more actively sought after once a market had already been entered, rather than during the prior market entry phase. Once the foreign market had shown to be a potentially lucrative endeavour, multiple firms (A, B, C, E, G) also used their local strong ties in order to gain knowledge about competitor movements and market developments. Firm F, who did not have a local sales agent, executed their own market research during post-entry operations in order to see whether the foreign market held further potential.

Besides strong bonds with the local agents / distributors, good, strong relationships were also maintained with previous clients by Firm F and Firm G which resulted in new opportunities for growth. The importance of strong ties in order to attain opportunities was repeatedly stressed by these firms: *“I mean, in my experience, the moment you have little contact with existing clients then you increasingly grow apart from them and what the company is doing. Companies don’t tell you once a year about their vision, how they want to grow, or which problems they experience when thinking about the environment. We notice that once we have a more intensive relation, we can learn about how they want to grow [...] which enables your chances in attaining projects”* (Interview – Firm G).

Weak ties also played a role in the post-entry phase, with firm A reaching out to a Dutch institutional tie in order to gain knowledge about market- and technology developments in Saudi-Arabia. Furthermore, they also reached out to a local, institutional tie with the goal of getting in touch with a large, dominant business tie since the interviewee believed that their organizations’ product portfolio

could complement each other. This turned into a strong relationship which led to further opportunities and enhanced knowledge of the market. The weak, institutional tie was thus used as a bridge towards a promising business tie.

Besides knowledge and contacts, weak ties were also engaged with in order to seek out opportunities for further growth. Firm B, D, E, F and G all repeatedly tried to get in touch with clients for whom they had previously executed projects, albeit with varying levels of success. Where firm E could limit itself to a couple of representatives from a single large company with whom the interviewee maintained a superficial relationship, firm D and F continuously tried to engage with weak business ties in order to generate new business. A response from firm D highlights the fact that an entrepreneurial mind-set can still be very relevant during post-entry operations when he noted: *"In the past I built a few tanks for a customer, who called me to ask [if I could send him] some documentations: he had lost the drawings. I told him I would give him the drawings for free, on the condition that we would have a coffee together and renew our acquaintance. That interaction resulted in a new project. [...] and currently we are talking about a potential new project in the Netherlands, since they are also active there"*. These results indicate that although engaging with a multitude of weak ties can be time consuming, value can still be derived from them and can even lead to new opportunities on an international level.

Dissimilar results regarding the 'strength of weak ties' were displayed by the control firm (F), who noted that it often took years of dyadic strengthening of relationships in order to convince potential clients to purchase a machine. They maintained multiple weak ties, none of which generated new opportunities. This hints at the fact that with some technologies / products, one is potentially completely dependent on strong ties in order to grow. An interesting, complementing finding pertains to firm G who argued that the commercial value of the projects attained through weak ties was often much lower than those attained through stronger relationships. Similar results have been displayed in past literature, in which it was noted that tie-based exchanges held much greater value than non-tie-based exchanges (Ellis, 2011).

The results in no way imply that all opportunities were generated through the strong and weak ties of firms, since many opportunities arose through unsolicited orders. Where serendipity played a large role for some firms during the market entry phase, none of the interviewees accredited the opportunities attained during post-entry operations to 'luck'. Instead, firm A, C, D, E and G all noted to be approached by multiple organizations from their respective host-markets whom wanted to get in touch with them due to their good reputation. For Firm D, the impact of these unsolicited orders was probably the largest since they did not build any strong relations within the market. Hence, their post-

entry operations depended solely on the opportunities that arose through weak ties and these reputational opportunities.

6. Discussion

The main research question that guided this study was: *How do SMEs embed themselves in relevant networks throughout the internationalization process?* On a general level, the evidence from the seven Dutch environmental-technology SMEs and one industrial firm suggests networks to be extremely influential for both the entry, as well as the post-entry development of operations within a foreign market.

The entering of new markets was opportunity driven, meaning that almost none of the case firms had pre-selected the market in which they would later operate. Instead, the decision makers followed their gut feeling when lucrative opportunities presented themselves. In that sense, strategic planning only seemed to play a very limited role in the initiation of foreign market entry (Crick & Spence, 2005; Sharma & Blomstermo, 2003; Prashantham, 2006; Vasilchenko & Morrish, 2011). This was especially prevalent for two of the eight case firms who were able to enter new foreign markets purely due to serendipitous requests from potential foreign partners. Although unplanned, these events triggered an interest regarding the potential value of the foreign market.

This study found that for most firms, foreign market entry was facilitated by an opportunity that was presented by a strong tie. Some of these were pre-established due to previous business endeavours. For the other firms who lacked bridging ties towards their markets, strong connections were found during participation in trade fairs. These domestic- and international events continued to facilitate the attainment of new connections over the course of internationalization, which strengthens the observation that these business events play a valuable role throughout the internationalization process (Evers & Knight, 2008).

These findings lead to the conclusion that being embedded with international ties potentially enhances, or speeds up, the process of entering foreign markets by being less dependent on serendipitous events. However, it is not a prerequisite for entering foreign markets. It also has to be noted that not 'everything is the network'. Although most of the opportunities to enter foreign markets were generated through interpersonal embeddedness, the ability to act upon these opportunities and convert them into international growth requires additional factors, such as high-quality products and entrepreneurial activeness. Firms and decision makers need to be ready to take advantage of entrepreneurial opportunities for internationalization, and turn them into action, before any results will be achieved. This does not take away the fact that interpersonal relationships play an important role in the facilitation of the process (Ratajczak-Mrozek, 2017).

None of the case firms were able to enter foreign markets because of weak ties (Odlin & Benson-Rea, 2017), which resonates with previous findings of some scholars (e.g., Lindstrand et al., 2011; Musteen et al., 2013) whilst conflicting with the findings of others (eg., Nowiński & Rialp, 2016; Presutti et al., 2007; Sharma and Blomstermo (2003). These distinctions can be caused by several methodological differences. First of all, some of the aforementioned authors did not make a clear distinction between weak ties and 'serendipitous encounters' (Sharma & Blomstermo, 2003), something that is advocated by later scholars (e.g., Kontinen & Ojala, 2011a; Vasilchenko & Morrish, 2011) with whom I concur. Someone whom you do not know cannot be considered a 'tie' until a relationship is built, which can constitute either a weak- or strong relationship. This study also confined itself to the discovery of opportunities that were actually acted upon, in which the trustworthiness of the ties becomes an important determinant of exploitation (Kontinen & Ojala, 2011b; Lindstrand et al., 2011), which might account for the different results compared to other studies.

Furthermore, Sharma and Blomstermo (2003) used 'frequency of contact' as an indicator for a strong relationship, basing it on Granovetter's (1973) original classification. I believe this to be a somewhat misguided assumption leading to potentially biased results, as many case firms within this study argued that frequency of contact diminished over time, while relationships improved. This resonates with the argumentation of previous authors who stated that good relationships do not necessitate frequent interaction (Jack, 2010; Kontinen & Ojala, 2011b; 2012).

A final discrepancy can be found in the fact that Sharma and Blomstermo (2003) studied the internationalization of a young entrepreneurial firm, whom have been shown to be dependent on different ties than other, more experienced firms (Coviello, 2006). For example, none of the case firms engaged with social ties in any way, whereas the study of Nowinski and Rialp (2016) found inexperienced entrepreneurs to greatly rely on strong social ties early internationalization, and Jack (2005) found entrepreneurs to continuously rely on strong social ties in a domestic, low-technology context. The findings of this study thus support the notion that once firms have developed to a certain level of technical expertise or international development to which friends and family no longer can add value, these social ties lose their practical relevance (Coviello, 2006; Kontinen & Ojala, 2011a).

During post-entry operations, two of the eight case firms operated in the host market without making use of central, strong relation. All the other firms made use of local agents, distributors or partner firms. These relationships were all perceived to be highly valuable, due to either their knowledge of the local culture and customs, or their deep connections into the market. Therefore, all these bridging ties were continuously strengthened and remained the backbone of post-entry operations, which concurs with the findings of Kontinen & Ojala (2011a; 2012). These findings contrast, however with the findings of Odlin & Benson-Rea (2017) who found information- and communications technology

(ICT) SMEs to operate without a local presence after markets had been entered, selling directly to the end-customer. These ICT companies had to cooperate intensively with their customers since customer requirements differed significantly per customer segment, and per country. This indicates that SMEs' (international) networking strategies can perhaps differ on both the country (Johanson & Vahlne, 2009) and the industry level (Coviello, 2006). The findings of this study, however, underlie the importance of having a strong relationship in the foreign market that can facilitate internationalization (Lindstrand & Hånell, 2017), since firms that did not maintain a strong central tie struggled to develop a profitable position in their host-markets. Hence, strong market-specific relationships can be perceived as the impetus for SMEs' successful, continuous expansion within a foreign market.

Besides this overall tendency to predominantly rely on these central strong ties, SMEs seem to adopt very different networking strategies. Where some firms confine themselves to these aforementioned strong relationships, other firms actively engage with weak ties in order to attain new knowledge and opportunities during ongoing business activities. Evidently, firms that do not possess a local foot on the ground *have* to engage with a multitude of other ties to further internationalization. Sometimes, domestic institutional ties were engaged with in order to learn about new developments, and local institutional ties served as bridges towards new, lucrative partnerships. Maintaining weak ties by continuously engaging with a multitude of clients and participating in trade fairs in order to attain new networks can be a costly endeavour. However, for some SMEs these were important means to attain new opportunities that allowed for growth. In one case, a weak tie in the host-market even facilitated expansion within the home-market, indicating the supporting capabilities of international social capital on market-specific social capital (Lindstrand & Hånell, 2017). The value of weak ties during the post-entry expansion has thus found some support (Sharma & Blomstermo, 2003), and can be especially prevalent in entry-modes of high levels of dependency, for example with piggy-backing on large MNCs. By engaging with a wide, diverse network these SMEs safeguard themselves from overembeddedness to one central tie, which constitutes a potential risk during post-entry operations.

Opportunities derived from strong ties, however, were found to be more valuable, and contextual, than opportunities derived from weak ties or through unsolicited orders (Andersson, 2005; Blankenburg Holm et al., 2015; Ellis, 2011). Embeddedness leads to more fine-grained information flow between actors which in turn facilitates the co-development of new opportunities within the market. These opportunities are based on the resources between the participating actors. When these resources are combined in order to exploit opportunities, the bonds between these actors are further strengthened. Embeddedness thus generates access to more specific, and otherwise unattainable, opportunities and the exploitation of these opportunities in turn generates further network embeddedness (Andersson et al., 2005). Rather than depending on weak ties, the strengthening of

existing relationships can therefore be deemed essential for internationalizing SME (Lindstrand et al., 2011; Schweizer, 2013). These strong ties can remain non-redundant through their ability to leverage structural holes, which allows the internationalizing SME to gain access to previously unreachable ties (e.g., governmental institutions).

Based on these findings, I disagree with Ellis (2011) who argues that IE research should limit itself the foreign market entry phase since “finding and negotiating an exchange agreement with a new customer in a new foreign market bears all the entrepreneurial hallmarks of opportunity discovery, evaluation, and exploitation” (Ellis, 2011, p. 100). This argument is based it on the Schumpeterian definition of entrepreneurship involving the creation of “new combinations” by using available means. He considers further penetration within existing markets, however, to be “less entrepreneurial, because exchange alternatives are better known” (ibid). I believe some level of nuance should be applied to this line of reasoning, which seems to resonate with the view of multiple IE scholars (e.g., Chandra et al., 2009). Although some SME managers do maintain a relatively ‘simple’ network during post-entry operations which could be described as non-entrepreneurial, other managers creatively engage with existing network means in order to create new, optimal ego-networks. The Schumpeterian aspects of entrepreneurship were definitely prevalent in some case companies’ network strategies that were adopted to facilitate post-entry growth, as existing means were creatively combined in order to generate optimal outcomes. I therefore postulate post-entry expansion to be *at least* as entrepreneurial as the market-entry phase when analysed through a network perspective. By managing and changing the network, decision makers bring together the components that facilitate entrepreneurial activity within foreign markets. Adopting this viewpoint generates countless new reasons to further the area of post-entry expansion within the IE literature, an area that remains unjustifiably neglected.

7. Conclusions

Previous literature has mainly delimited itself to static viewpoints on network embeddedness and internationalization during the (pre-)market entry phase. This study has aimed to alleviate these gaps through the main research question: *How do SMEs embed themselves in relevant networks throughout the internationalization process?* A qualitative approach on SME expansion within a single foreign market was adopted, thereby making a distinction between the foreign market entry and post-entry operations.

This portrayed a dynamic view on 1) the development of the network on the dyadic- and ego-network level – thereby responding to calls for additional research on network development (Jack, 2005; 2005; Johanson & Kao, 2010; Slotte-Kock & Coviello, 2010) within a single market (Kontinen & Ojala, 2012) that integrates process- and outcome related elements (Hoang & Antoncic, 2003). (2) A relational view is adopted, something that has so far been neglected compared to structural analyses (Moran, 2005; Ratajczak-Mrozek, 2017), thereby extending the discussion on how relational qualities develop and affect resource outcomes over time. (3) The study was conducted in an internationalization context that did not confine itself to the (pre-) market entry phase, thereby adhering to the call for more research that focusses on post-entry expansion (Johanson & Kao, 2010). Altogether, this has (4) resulted in a more comprehensive picture of how SMEs make use of their home-, host- and international network throughout the internationalization process. Several managerial recommendations can be derived from this study.

7.1 Managerial implications

Internationalizing SMEs are often constrained by resource limitations and, when trying to internationalize their operations towards any given market, suffer from a liability of outsidership. Since these resource constraints often inhibit SMEs to enter foreign markets on their own, a viable opportunity has to present itself through 1) a serendipitous encounter with someone who can facilitate internationalization, 2) the internet, or 3) a previously-existing international network tie.

The chance of the first aspect, a serendipitous encounter, can be maximized by actively participating in international trade fairs and exhibitions. These chance events predominantly take the form of personal encounters, which can potentially translate into a robust business relationship. The second aspect, opportunities that arrive over the internet, can be strengthened by increasing the online findability of company profiles. As obvious as this may seem, only a few of the case firms incorporated this strategy, with positive results. In order to maximize the chance of the third aspect, opportunities that are derived from international network ties, several methods can be adopted. Besides trade fairs,

institutional ties also play a role in the facilitation of this process. These entities can facilitate international entry by connecting people and providing relevant market knowledge. Furthermore, it can be advised to maintain ties globally since opportunities to internationalize towards country A can also originate from network ties from country B.

These aspects do not lose its importance once a market has been entered, as continuous strategic network efforts can facilitate access to knowledge, opportunities, and new contacts. First, the results from this study suggest that SMEs should look for a potential partner company, agent, or distributor in order to facilitate post-entry operations. In some occasions, this can also be the actor who facilitated market entry. However, decision makers should be careful in the selection of this bridging tie. This is because the second step will inevitably be investing time (and resources) into this relationship in order to familiarize, build trust, and formulate a post-entry expansion strategy. Therefore, this relationship should not be chosen arbitrarily. Ideally, this actor maintains deep ties in the market through a large and diversified network. If this is not the case, it will be a more time-consuming endeavour to develop a network together from scratch. Once a trustworthy partner is chosen, firms are encouraged to show commitment and a long-term orientation towards the relationship, since strong relationships facilitate knowledge exchange and opportunities.

However, there lies a risk in over-attachment to one central tie (the lock-in effect). SME managers seem to have a tendency to focus on only a limited amount of foreign ties, sometimes even confining themselves to one central tie. Therefore, the approach of dyadic tie strengthening is, to some extent, inherently conflictual and brings about two risks that potentially inhibit future growth. First, it might prove to be difficult to replace this tie once the relationship, for whatever reason, has to be terminated. This chance is especially likely when SMEs are piggybacking, thereby being dependent on a large MNC that facilitates host-market operations. If the MNC leaves the market, or terminates the relationship, the SME is left to operate alone. Second, by being confined to one tie there is the possibility that new opportunities and knowledge are missed that would otherwise have been attained through networking activities.

Opportunities can be derived from both weak- and strong business ties, and market knowledge can be obtained from institutional ties originating from both the home- and host market. Managers are therefore advised to maintain a balanced and diverse network of weak- and strong ties whilst also focussing on being a reliable partner themselves. Adopting these procedures will reduce dependency on a single tie while maximizing opportunities for future growth.

7.2 Limitations and future research directions

This study does not come without its limitations. The first limitation lies in the limited amount of case companies studied, since this study was conducted under time-restrictions and data analysis needed to remain manageable (Eisenhardt, 1989). Furthermore, the case companies operate in a very specific, high-technology industry which might impede the applicability of these findings within low-technology, or information- and communications technology industries (Coviello & Munro, 1997). Focussing on case companies from one specific industry was necessary in order to conduct comprehensive analyses. Future researchers are encouraged to execute dynamic network studies across different industrial contexts, and to adopt quantitative methods to enhance the validity of the findings. The same line of reasoning can be applied regarding different cultural contexts, which have been posited to affect networking behaviour (Ellis, 2011; Johanson & Vahlne, 2009) but should not be neglected in further research. Examining the cultural and institutional characteristics of host-countries on networking strategies might very well lead to findings of high theoretical- and practical relevance.

Network scholars are further encouraged to deviate from Granovetter's (1973) dichotomous classification of relational strength. Although the distinctive aspects of a dichotomy allow for an easy comparison of ties, the downside hereof is that a dichotomous approach is lacking the depth required to fully describe relationships. An example: many of the respondents in this study indicated to have strengthened ties that were already perceived 'strong' by the adhered criteria. This methodological gap can be alleviated by viewing weak- and strong ties as two ends of a continuum (Jack, 2005; Ratajczak-Mrozek, 2017) as this allows for more detailed analyses on how dyadic tie weakening- and strengthening takes place.

Another interesting area for further research lies in the fact that this study confined itself to the ego-network development during the expansion within a single market. Adopting this viewpoint potentially leads to a somewhat skewed image of how decision makers should spend their time: the more time is spent on networking, the more diversified the network, which often implies positive outcomes. However, SME export managers are often responsible for the expansion within a group of multiple markets at once. This study has shed light on how the ego-network development within a single market affected expansion within this market, but how does this translate to multiple markets under the manager's supervision? If SME managers focus all their time and energy on networking within a few selective markets, does that impede their growth in other markets? One might dare to hypothesize, for example, that instead of adopting a labour-intensive, mixed network across all markets, maintaining smaller networks characterized by strong, highly non-redundant ties might facilitate more successful overall internationalization. Further analyses of a qualitative- and quantitative nature are required in order to verify these preliminary assumptions.

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Appendix I: Content and Findings of the Systematic Literature Review

Papers adopting a dynamic viewpoint

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Agndal, Chetty & Wilson (2008)	Explores the dynamics of social capital throughout the internationalization across markets.	24 SMEs from Sweden and New Zealand.	Market entry towards multiple markets (from the perspective of the focal firm).	Social capital can comprise of efficacious direct ties and serendipitous indirect ties.	Efficacious and direct social capital is associated with early foreign market entries (FMEs), while serendipitous and indirect social capital is more prevalent with later FMEs, indicating that social capital changes with (and is dependent on) FME.
Coviello (2006)	Explore how the network of INVs develop during internationalization. Focuses on the structural and interactional patterns across various stages of network development.	Decision makers from three case study INV's from New Zealand were interviewed. Quantity (amount and length) of interviews is not discussed.	Pre-founding, pre-internationalization, and internationalization (market entry).	No definition of networks or relationships, but it is mentioned that networks have 'structural' and 'interactional' dimensions, and constitutes the dependent variable. Structural aspects: density, centrality and size (the number of direct ties). Interactional aspects of the network: Content (family/friend or business), direction and duration.	Network relationships provide market access, distribution channels, referrals and a pool of contacts. Ties that facilitated foreign market entry were already present in earlier stages of firm development, and were all business-related. Internationalization-relevant networks are not easily classified, since they differ per firm. Networks expand and become more complex over time, but ties do not necessarily become stronger. Hence, networks tend to loose density over time. Due to these changes, the network can be considered idiosyncratic and unstable through all the stages of venture evolution.
Crick & Spence (2005)	Explores the use of resources and networks during internationalization, with a specific focus on how decision makers deal with unforeseen circumstances and opportunities.	Explorative, qualitative analysis of 12 high-tech SMEs from the UK.	Market entry and subsequent expansion (multiple markets)	Business networks as a means to achieve market entry.	Serendipitous encounters and opportunities derived through networks play an important role in SME internationalisation. The process is therefore not always strategically planned, but often a consequence of reacting to (unforeseen) opportunities. The authors conclude that higher performing managers should embed themselves in relevant networks in order to maximize the chance of these random events to occur.

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Freeman, Edwards & Schroder (2006)	How decision makers within BG's use networks to develop alliances that allows for rapid internationalization, and to explore how relationships develop over time due to changing circumstances.	Three case study firms were analysed, resulting in 20 interviews complemented by focus group discussions.	Not specified.	No definitions of relationships or networks are given, and there is no information on how these concepts were empirically observed. The focus seems to lie on business relationships	The authors develop a conceptual model that accounts for rapid SME internationalization. A key concept of this model is the strategic network partners decision makers engage with, the personal contacts they have, and the followership of clients. Although the development of relationships appeared to be a research goal, no concrete results are reported by the authors.
Hånell & Ghauri (2016)	Influence of network actors on the international opportunity development process.	Longitudinal single case study.	Market entry and expansion (multiple markets).	Network ties can constitute business, social, and political actors. No relational qualities adopted.	Conducting matching activities at different levels (micro, macro and global) helps the firm overcome challenges and succeed in developing new opportunities for continued expansion abroad. The use of social and institutional actors develops over time and should not be neglected.
Kontinen & Ojala (2011a)	The development of the relationship of the bridging tie towards a single market during market entry and post-entry operations.	Case study of 8 family SMEs who internationalized towards the French market.	Market entry and post-entry operations.	Studies the 'role' of social capital (serendipity vs efficacy vs liability). A distinction is made between formal / informal, and weak/strong ties.	During market entry, the bridging ties predominantly fulfilled a serendipity role whereas in post-entry, stronger ties emerged and social capital took on liability or efficacy roles.
Kontinen & Ojala (2012)	Discuss how social capital is developed in the internationalization process of small and medium-sized family enterprises (family SMEs).	Multiple case study: four Finnish manufacturing family SMEs operating in France.	Market entry and subsequent expansion.	Takes a structural perspective on the ego-network level combined with aspects of relational embeddedness (trust).	Family SME international networks are dynamic. Problematic relationships (which lacked trust) are discarded and important ties are strengthened. This is also problematic, due to the irreplaceability of these strong connections when problems arise in the relationship. Their obligations towards these strong ties possibly hindered future market expansion.

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Lindstrand, Melén, & Nordman (2011)	The purpose of this study is to investigate how individuals' social capital and its dimensions affect biotech SMEs' acquisition of FMK and financial resources during their internationalization processes.	A longitudinal qualitative cross-case study of 14 Swedish biotech SMEs.	Entry-phase and subsequent expansion (longitudinal). However, did not focus on one single market. Instead, the overall internationalization (across multiple markets) is studied.	Relational / Cognitive (micro). Focussed on the influence of social relations.	In early internationalization, a lack of trust affects the ability of the SME to attain knowledge about foreign markets. The cases show that depending on the firms' ability to change existing social capital and find new, more useful social capital, their internationalization either proceeds or does not. The existing social capital guides as well as restricts the firm's behavior. When new relationships are engaged, trust and a common understanding need to be developed before the new social capital becomes useful.
Oparaocha, 2015	Examine how institutional networks influence the internationalization activities of SMEs.	Multiple case study of 6 SMEs based in Finland and Sweden.	All phases of internationalization.	Studies ties with government institutions. Relational qualities are not assessed.	The internationalization process of SMEs is influenced by institutional networks through the supply of business contacts, partner searches, market information, and financial support. This translated in increased knowledge, speed, and the mitigation of risks in uncertain, foreign environments. Institutional ties were most influential in the market entry phase.
Prashantham (2006)	The following two issues are dealt with: how foreign (geographically scattered) network relationships are developed and the impact they have on the internationalization of small knowledge-intensive firms (SKIFs)	Case studies of 4 Indian software firms.	Not specified. Focussed on overall internationalization (export % of sales).	No focus on relational embeddedness, although the author does incorporate the notion of trust and frequent contact. Network types could originate from both the home and host market.	Both local and foreign network ties were leveraged to generate new social capital. Opportunities that arose through foreign contacts were often not specified to their area of expertise. Opportunities arising through serendipity should be speedily recognized and effectively exploited. Furthermore, foreign network relationships can be sought for, indirectly, through local network relationships. More social capital is not necessarily better.

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Schweizer (2013)	Generate explorative insights into the process of how SMEs actively enters an internationalization-relevant network.	Single case study of a Swedish science- and technology SME.	Position development within multiple markets.	The author adopts a predominantly structural perspective, focussing on 'who the focal firm knows'. Relational characteristics are mentioned, but not conceptualized prior to the analysis.	The network development increased the pace of the internationalization process and proved to be an important asset to gaining local market knowledge. This was attained through business networks in foreign markets. SME will (re)evaluate its resources and capabilities in general and the existing relationships in particular in order to identify a more suitable network that can help the firm overcome its liability of outsidership. Weak ties were transformed into stronger, more formal ties in order to exploit opportunities.
Sharma & Blomstermo (2003)	Contribute to the development of theory by explaining the internationalization process of Born Globals.	Multiple-case study based on three BG's. The methodology section is lacking.	Pre-market entry and market entry phase (multiple markets).	Relational (strength of ties). No definition of networks or network ties.	The findings show that Born Globals possess international market knowledge before their first foreign market entry. The selection of foreign market entry mode is based on their existing knowledge and the knowledge supplied by their weak network ties. The authors implicitly acknowledge the role of strong ties (in the form of joint ventures / partnerships) when BG's enter foreign markets and exploit on the opportunities discovered in the network. These ties facilitate trust and further expansion.
Vasilchenko & Morrish (2011)	To explore how high-technology firms use established and newly-formed networks to exploit international opportunities.	Case study of four Born Globals from New Zealand.	Not specified. Focussed on overall internationalization.	The network is defined as a set of actors linked by some set of relationships.	The paper concludes with eight propositions. The network is treated as a dependent variable. Social networks are derived through serendipity, trade fairs and personal connections. These networks also facilitate discovery and exploitation of international opportunities. Business networks lead to local market knowledge, credibility, and access to local clients.

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Zaefarian, Eng & Tasavori (2016)	Examines how family firms identify first and subsequent international opportunity. Does this in relation to the entrepreneur's prior knowledge and social/business networks.	Multiple-case study (seven firms) from start-ups in emerging economies.	Pre-market entry and beyond. Focussed on multiple countries.	Distinguishes between social and business networks.	The first opportunity is predominantly identified through social networks, especially those that possess international industry and market-specific knowledge. Subsequent international opportunities are recognized through business networks.

Papers adopting a static viewpoint

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Bruneel, Yli-Renko & Clarysse (2010)	Assess how young SMEs can accumulate the knowledge and skills required for succesful internationalization through their network, thereby overcoming their liability of newness.	Empirical data on 114 young, technology-based firms in Flanders, Belgium.	Not specified. Focussed on the amount of international sales (weighted with the psychic distance of the export countries).	Relational qualities are not specified. The authors acknowledge that this as a limitation and reccomendation for further research. Relationships with informal ties (i.e., non-strategic partners) were analysed.	A firm's level of international experience negatively moderates the effects of congenital and interorganizational learning on the extent of internationalization. That is, the lower a firm's experiential learning, the more significant the effects of the start-up team's prior international knowledge base and the knowledge and skills acquired through key partners. Although the authors also mention knowledge of foreign markets, no distinction is made between other types of knowledge.
Chandra, Styles & Wilkinson (2009)	Providing an explanation of the process of recognizing initial international opportunities, the conditions under which firms deliberately search for vs discover opportunities in international markets, and how the two are connected.	Eight case studies of small and medium-sized enterprises (SMEs) operating in knowledge-based industries in Australia.	Pre-market entry and market entry phase.	Strength of ties is conceptualized based on time, trust, mutual respect and commitment. A firm's network can consist of social and business ties.	The greater the extent to which the weak ties a firm has span structural holes linking different international knowledge networks, the more likely the firm is to discover first time entrepreneurial opportunities in international markets. Through their networks and referrals firms encounter new information but this is only the first part of the process. It is followed by a process of interpreting and recombining of new and prior knowledge in new ways that suggest international market opportunities including new means, new ends, and new means-ends combinations. Experience and luck play a significant part in this process.
Chetty & Blankenburg Holm (2000)	Uses social exchange theory to illustrate how firms develop network relationships organically to internationalise. Based on Johanson & Mattsson's (1988) network model.	Longitudinal case study of four manufacturing SMEs from New Zealand.	Market entry (multiple markets).	Network ties are defined as a set of business actors. Individuals make up the social exchange between businesses. No relational qualities adopted.	Networks can help firms expose themselves to new opportunities, obtain knowledge, learn from experiences, and benefit from the synergistic effect of pooled resources.

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Ellis (2011)	Seeks to address how entrepreneurs discover international opportunities through 4 testable hypotheses.	Survey data was gathered from 230 Chinese light manufacturing (e.g., textiles and toys) companies.	Not specified	Individuals make up the social exchange between businesses. Adopts 'trust' to assess relational quality.	Opportunities are not discovered by accident, but actively pursued. Networks provide entrepreneurs with exchange opportunities, but these opportunities are bounded by psychological, linguistic, and geographical boundaries. If the entrepreneur wants to venture beyond these markets, he/she will need to search for new networks that can provide new opportunities.
Evers & Knight (2008)	Use the network approach to investigate the role international trade shows play in the internationalization process of small exporting firms in Ireland and New Zealand.	Qualitative interviews with 37 companies, followed by in-depth case studies of three export start-ups from Ireland.	Not specified.	Actor interactions during trade fairs. Relationships constitute of social and business factors.	Trade shows go well beyond being a marketing and information platform and make an important contribution to establishment and enhancement of a network infrastructure for enabling small firms to grow and expand internationally. Foreign market knowledge developed through international ties (which may also include government agencies) is deemed more trustworthy than information derived from agents.
Fernhaber & Li (2013)	Effects of international exposure from key informal (geographically proximate firms) and formal (alliance partners) network relationships impacts new venture internationalization.	Sample of 448 high-technology, U.S.-based new ventures.	Not specified.	Formal (alliance partners) and informal (geographically proximate firms) network relationships. Besides age and experience, no relational aspects are taken into account.	Both types of relationships positively affect international exposure which granted international knowledge. The age of the focal firm affects this process, as older firms benefit from formal relationships whereas younger firms benefit more from informal geographically proximate firms.
Jin & Jung (2016)	Explore the role of personal networks and business networks and their impact on foreign market knowledge and performance among small and medium-sized enterprises (SMEs) after international market entry.	Survey results of 105 US based SMEs.	International expansion in several markets.	Networks can consist of informal personal ties and formal business ties. No concept of relational embeddedness adopted, although the authors implicitly assume informal personal ties are strong.	Neither personal nor business networks led to higher international performance in itself. Market knowledge served as a mediator for performance, which was mainly derived from business contacts. Personal networks had no effect.

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Komulainen, Mainela & Tähtinen (2006)	Develop a framework on social networks and their influence on internationalisation.	Single case study of a Finnish high-technology company (software).	Initiation of a firms internationalization (i.e., market entry)	Solely focussed on the 'stronger' relationships that facilitated initial internationalization. How this dyadic strength is assessed is not mentioned.	The framework acknowledges the roles of personal relationships as sources of critical information about foreign business opportunities and potential international business partners. Moreover, social relationships are important door-openers for international relationships.
Kontinen & Ojala (2011b)	Aims to understand how the network ties of family SMEs function in recognizing opportunities to enter foreign markets.	Case studies of eight Finish family SMEs.	Pre-market entry. A single market (France) was studied as entry market.	Strength of ties is conceptualized based on trust, mutual respect and commitment. A firm's network can consist of social, business, and institutional ties.	Weak ties, that were formed during international exhibitions, facilitated opportunities for market entry but only the ties that later turned into strong ties facilitated the actual market entry.
Lindstrand & Hånell (2017)	To investigate the role of social capital on SMEs' abilities to exploit new business opportunities for continued expansion abroad.	Survey data on 239 internationalizing SMEs.	Subsequent market expansion (within multiple markets)	Measure the effects of international social capital. No relational embeddedness adopted.	Idiosyncratic market-specific social capital plays the most important role in knowledge acquisition during internationalization, due to their local market knowledge. International social capital enhances this effect.
Milanov & Fernhaber (2014)	Understand the conditions under which domestic alliances influence new venture internationalization.	Survey data on 194 publicly held INVs.	Not specified.	Focussed on the international experience of partners.	Internationally experienced domestic partners positively influence new venture international intensity, especially when compensating for lack of venture's top management team's internationalization knowledge or when complemented by the presence of foreign alliances in the venture's alliance portfolio.
Musteen, Datta & Butts (2013)	Examine the role of embeddedness (structural and relational) on the first internationalization endeavour of young firms.	Sample of 169 small- and medium-sized enterprises in the Czech Republic.	Pre-market entry or market entry phase (multiple markets).	Predominantly structural approach (network size and density) combined with a relational approach (tie strength).	The authors posit that difficulties associated with internationalization are mitigated when firms have adequate knowledge of foreign markets. Such knowledge is directly related to the presence of international social networks. This knowledge can be leveraged in early stages of internationalization. Network diversity (with strong international ties) contributed to FMK, whereas network density did not have an effect.

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Nowiński & Rialp (2016)	Analysing the impact of network ties on the identification and evaluation of international opportunities.	Case study of four Polish INV's.	Not specified.	Networks can consist of social and business ties. Strength of ties is adopted, but not defined.	Distinction was made based on the experience of the entrepreneur. Experienced entrepreneurs were predominantly affected by their strong business ties, whereas inexperienced entrepreneurs were predominantly relying on weak business ties and strong social ties in the assessment of opportunities.
Odlin & Benson-Rea (2017)	Assess how internationalizing SMEs compete in foreign markets by making use of their networks.	Multiple case study of SMEs specialized in fleet technology, located in New Zealand.	Market entry.	Networks are not explicitly defined, but are conceptualized as a connection between business entities. Relational embeddedness is not defined, although 'committed relationships' are deemed 'strong'.	SMEs should invest time and resources in a small number of close business relationships with whom they co-develop opportunities. These ties form as a bridge to foreign markets. The authors notes that SMEs thereby compete at 'the edge' of the network, although it is not clear how they established that.
Presutti, Boari & Fracocchi (2007)	Adopt social capital theory to analyse the growth of INVs, aiming to verify whether or not networks may be considered as a crucial source of knowledge acquisition in foreign markets.	Survey results of 130 global start-ups.	Not specified.	Analyses vertical social capital between two parties (high-tech firms and key foreign customers). The relational dimension is measured through respect, trustworthiness and friendliness.	The structural dimension (i.e., weak ties) of social capital is positively associated with greater knowledge acquisition, both relational and cognitive dimensions (i.e., strong ties) are negatively linked to knowledge acquisition. Key foreign partners provide the focal firm with weak ties, whom provide the focal firm with knowledge.
Stoian, Rialp, & Dimitratos (2017)	This study investigates the relevance of interorganizational networks for the international performance of small and medium-sized enterprises (SMEs) in relation to the foreign market entry mode (FMEM) selected.	Structural equation modeling is conducted in a sample of 251 U.K.-based internationalized SMEs. Preceded by a pilot study of 60-minute semi-structured interviews.	Not specified.	None, although it was found that higher commitment entry modes ensure higher levels of FMK and innovative outcomes. The authors note that this might hint at higher levels of relationship commitment fostering improved knowledge outcomes.	Networks affect innovative behavior and foreign market knowledge, which, in turn, influence international performance. No direct relation has been established between networks and international performance. Networks should be proactively used in order to generate intermediate outcomes in the form of FMK and innovative behaviour, which in turn enhance performance.

Authors	Focus	Method	Internationalization Phase	Network concept adopted	Findings
Yli-Renko, Autio, Tontti (2002)	The influence of internal and external social capital on the acquisition and creation of knowledge, and how this knowledge relates to international sales performance.	Longitudinal data from 134 Finnish INVs operating in the electronics industry, analysed through structural equation modeling.	Not specified.	Focusses on internal- and external social capital. Predominantly structural approach, although 'involvement of ties' is also analysed.	The amount of external social capital of the management influences the foreign market knowledge levels of the firm. Internal social capital had no significant effect, potentially due to the limited size of INVs. Increased knowledge levels enhanced internationalization.
Zain & Ng (2006)	Explore how SMEs make use of their network relationships to facilitate the internationalization process.	Multiple case study of 3 software firms and one control firm (industrial), all from Malaysia.	Market entry (multiple markets).	Describes the relation between the management team and employees, and external customers, suppliers, competitors, government, distributors, bankers, families, friends, or any other parties that enable the firm to internationalise its business activities. No relational qualities adopted.	Foreign market entry is facilitated by opportunities which are created through network contacts. External relationships also influenced market selection, entry mode, access to additional relationships and established channels, local market knowledge, obtaining initial credibility.

Appendix II: Foreign Market Knowledge & Opportunities – Scale Items

This table is adopted from Musteen, M., Datta, D.K., & Butts, M.M. (2013: 19).

Scale dimension	Theoretical base	Measure items
Knowledge about foreign competitors	Blomstermo, Eriksson, and Sharma (2004); Eriksson et al. (1997); Lindstrand et al. (2011); Morgan, Zou, Vorhies, and Katsikeas (2003); Zhou (2007)	<ol style="list-style-type: none"> 1. Competitors in foreign markets 2. Level of competition in foreign markets 3. Competitive strategies employed by firms in foreign markets
Knowledge about foreign culture	Chetty and Blankenburg Holm (2000); Lindstrand et al. (2011); Morgan et al. (2003); Petersen, Pedersen, and Lyles (2008); Zhou (2007)	<ol style="list-style-type: none"> 1. Values and norms in foreign markets 2. Differences in the business practices in foreign markets 3. Impact of cultural differences on business
Knowledge about foreign political/legal environment	Hadjikhani and Ghauri (2001); Lindstrand et al. (2011); Lord and Ranft (2000); Zhou (2007)	<ol style="list-style-type: none"> 1. Differences in the legal systems in foreign markets 2. Risks associated with doing business in foreign markets 3. Foreign government rules and regulations
Knowledge about foreign customers	Chetty and Campbell-Hunt (2004); Eriksson and Chetty (2003); Eriksson et al. (1997); Lamb and Liesch (2002); Lindstrand et al. (2011); O'Gorman and Evers (2011); Zhou (2007)	<ol style="list-style-type: none"> 1. Customer demographics and segments in foreign markets 2. Foreign customer needs and preferences 3. Trends in customer needs and preferences in foreign markets 4. Existence of unmet customer needs in foreign markets
Knowledge about business opportunities in foreign markets	Burgel and Murray (2000); Chetty and Blankenburg Holm (2000); Chetty and Campbell-Hunt (2004); Hadjikhani and Ghauri (2001); Harris and Wheeler (2005); Lamb and Liesch (2002); O'Gorman and Evers (2011)	<ol style="list-style-type: none"> 1. Opportunities for partnering in foreign markets 2. Opportunities for potential new customers
Knowledge about foreign channels of distribution	Burgel and Murray (2000); Chetty and Campbell-Hunt (2004); Harris and Wheeler (2005); Morgan et al. (2003)	<ol style="list-style-type: none"> 1. Types/quality of available distribution channels in foreign markets 2. Appropriateness of existing foreign distribution channels to your firm 3. Quality of existing distribution channels abroad

Appendix III: Guiding Interview Questions

Section 1: Introduction

About this Study:

- The goal of this study is to understand and explore the internationalization process of small- and medium sized environmental technology companies towards a foreign market. This constitutes both the entry to the market as well as subsequent expansion. Specific attention will be paid to how you made use of your internationalization-relevant network in order to obtain knowledge and opportunities that allowed for this internationalization.
- The study is written in order to obtain my Master's Degree in Business Administration (Innovation, Technology & Entrepreneurship).
- The interview will be recorded and transcribed afterwards. The investigator will be the only person who has access to these transcripts, unless specific permission from your side is given to discuss these results with someone else (for example, to cross-check the data).
- Any information that is obtained during the interviews will be treated with the highest amount of confidence.
- The interview will take about 45-60 minutes to complete. This is, however, an indication as shorter interviews are possible as well. You may terminate the interview at any time, for any reason, without further consequences.

General questions (background):

- Interviewee's profile, job title, international experience and current responsibilities.
- Background of the company: mission, vision, and core business activities
- *The same will be done for the other interviewee (if applicable).*

Section 2: General internationalisation approach

- In which international countries / regions is your company currently operating?
- What is your general approach to entering these countries?
- How would you say that, in general, you discover opportunities to expand towards foreign markets?

After a clear image of the above is depicted, one focus country will be chosen to further elaborate on during the rest of the interview. This will be done in consultation with the interviewee.

Section 3: Market Entry

- Please talk about how you made the first 'breakthrough' in country X? What made you enter this market? What made this market so interesting?
- Where there any external actors that facilitated entry into this market?
 - If so, please elaborate a bit on your relationship with this actor / these actors (trust, commitment, cooperation). How did they aid you in entering the market?
- Where there any external actors that inhibited entry into this market?
 - If so, please elaborate a bit on your relationship with this actor / these actors (trust, commitment, cooperation). How/why did they inhibit the process?
- Where there any external relationships that provided you with the knowledge required to internationalize towards this market?
 - If so, please elaborate a bit on your relationship with this actor / these actors (trust, commitment, cooperation)
- Did you acquire any knowledge about this market prior to, or during, market entry? If so, how did you achieve this knowledge?
 - Knowledge can be: cultural, about customers/competitors, about the political / legal environment, about distribution channels. If it is deemed necessary, I might ask more specific follow up questions about this.
- Which (if any) problems/obstacles has the firm encountered during its entry in the market? How did you overcome these obstacles?
- Where there any other relationships in your network that facilitated entry in the market in any way? (Through, for example, collaboration, knowledge or resources). This can include government agencies, suppliers, customers, competitors, friends/family, strategic alliance partners, etc.

- If so, please elaborate a bit on your relationship with this actor / these actors (trust, commitment, cooperation).

Section 4: Market Expansion

- After you entered the market, what steps did you take to ensure continued growth within the market?
- Did you actively change your network configuration in any way? If so, why?
- Did you learn about new market developments / opportunities? If so, how?
 - If any network actors are mentioned, elaborate on the relationship (trust, commitment, cooperation). How did they help in the discovery of the opportunities?
- What other types of knowledge (e.g., cultural, about customers/competitors, about the political / legal environment, about distribution channels) helped you in growing your operations within this market?
 - If any type of knowledge is mentioned, see if any network actors are mentioned. How did they help?
 - If any network actors are mentioned, elaborate on the relationship.
- Which (if any) problems/obstacles has the firm encountered during its expansion in the market? How did you overcome these obstacles?
- Would you say you changed your networking approach after entering the market?
 - If so, how?
 - If so, how do you think this aided growth within the market?
- Would you say that the importance of strong relationships within the market increases or decreases over time? Why?
- Where there any other relationships in your network that facilitated growth within the market in any way? (Through, for example, collaboration, knowledge, new opportunities or other resources). This can include government agencies, suppliers, customers, competitors, friends/family, strategic alliance partners, etc.
 - If so, please elaborate a bit on your relationship with this actor / these actors (trust, commitment, cooperation).

To do during interview:

Assess to what extent the network has changed. Elaborate on that. See if you can uncover why it has changed, and how it has developed. See if anything is missing. Elaborate.

Section 4: Miscellaneous questions

These questions will only be asked if time allows for it.

- How would you rate your success in the market? Where there any things that you think you could have done better?
 - *Check for any mentions of knowledge, opportunities, and network-related remarks. If they arise, elaborate on them.*
- How do you aim to ensure growth within the market?
 - *Check for any mentions of knowledge, opportunities, and network-related remarks. If they arise, elaborate on them.*

Section 5: Finalizing the Interview

- ❖ Check if interviewee(s) are okay with the use of the obtained data in the writing process of the study.
 - Yes, as an identified case study
 - Yes, as an anonymous case study
 - No
- ❖ Check if there are any answers given that the interviewee would like to omit from the data.

Thank You!