Opportunity Exploration and Exploitation in International New Ventures
A Study of Relationships’ Involvement in Early Entrepreneurial and Internationalisation Events

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Opportunity Exploration and Exploitation in International New Ventures: A Study of Relationships' Involvement in Early Entrepreneurial and Internationalisation Events

Key words: International New Ventures, International Entrepreneurship, Opportunity Exploration, Opportunity Exploitation, Relationships.

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En solig dag i juni 2011,

Anette Söderqvist
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1 INTRODUCTION

The business world of today is characterised by continuous change and fast development. Firms are meeting with intense competition and the scope of firms' markets is increasingly spread out internationally. Globalisation and networks are phenomena that have become constantly recurring in business life. A particular phenomenon that has been identified is the one of firms deviating from earlier theories in their international development – firms that engage very early after their foundation, if not immediately, in international activities. These firms have been called international new ventures (e.g. Oviatt & McDougall, 1994), born globals (e.g. Rennie, 1993; Knight & Cavusgil, 1996) or instant internationals (e.g. McAuley, 1999) to name but a few. The term international new ventures (INVs) will be used throughout this study. This concept stands for business organisations that almost from inception seek to derive significant competitive advantage through resourcing from and/or sales in multiple countries (Oviatt & McDougall, 1994). These firms are found in different parts of the world and research has been done on e.g. American (e.g. Bloodgood, Sapienza & Almeida, 1996; Knight, 1997; McDougall, Oviatt & Shrader, 2003), Australian (e.g. Evangelista, 2005; Mort & Weerawardena, 2006), Canadian (e.g. Spence, 2004); Irish (e.g. Bell, 1995; Loane & Bell, 2006), Italian (e.g. Zucchella, Palamara & Denicolai, 2007), Scottish (e.g. McAuley, 1999), Spanish (e.g. Rialp, Rialp, Urbano & Vaillant, 2005), New Zealandish INVs (e.g. Covelllo & Munro, 1995; Chetty and Campbell-Hunt, 2004) as well as INVs from the UK (Crick & Jones, 2000). A substantial amount of INV research is also done by Nordic researchers. INVs have been studied in Denmark e.g. by Madsen and Servais (1997), in Finland e.g. by Saarenketo (2002) as well as Luostarinen and Gabriëlsso (2004), in Norway e.g. by Moen (2002), and in Sweden e.g. by Andersson and Wictor (2003) as well as Sharma and Blomstermo (2003). INVs are not a very unusual phenomenon in the Nordic countries. One reason for this is that the countries are quite small, and thus, the markets limited. Even small firms have to internationalise rapidly in order to grow or even to survive, especially firms operating in niche markets (e.g. Moen, 2002).

A traditional perspective on small firm internationalisation is incremental internationalisation models like the Uppsala Internationalisation Model. The Uppsala-model is a behavioural approach that emphasises that firms engaging in international activities are considered to follow certain steps depending on the amount of knowledge gained and the commitments made (Johanson & Vahlne, 1977). Firms tend to start internationalising after a long period on the domestic market, that is, when the firm is well-established. International business activities are claimed to start with markets that are culturally and/or geographically close. Furthermore, a firm is said to start with entry modes that do not need substantial commitment and resources. Hence, internationalisation is seen as a process being carried out in a risk-reducing and incremental way. However, in more recent years the network approach has been launched as an alternative way of analysing internationalisation (Johanson & Mattsson, 1988; Holmlund & Kock, 1998; Johanson & Vahlne, 2003; 2006), rather than in terms of obstacles placed by psychic distance, risk and limited market knowledge. Networks are within this approach defined as systems of direct and indirect relationships between firms, involving resource exchange and joint business activities for the purpose of gaining access to external resources (Håkansson & Snehota, 1995). Internationalisation from a network perspective, therefore, focuses on the embeddedness of the firm in its business relationships, and also on the effect of its social relationships for internationalisation (Holmlund & Kock, 1998). Networks and relationships have been related to successful SME internationalisation for example by

Also for INVs networks have been identified as playing an important role. Mostly network relationships have been seen as being positive for rapid internationalisation (e.g. Crick & Jones, 2000; Oviatt & McDougall, 2005; Loane & Bell, 2006), but research also exists that has found that networks are not necessary in order to found a new and from inception highly international firm (Rasmussen, Madsen & Evangelista, 2001). Oviatt and McDougall (2005) have developed a model of factors influencing the fast and early internationalisation of INVs (see figure 4 in chapter 2.1.1 where it is described in more detail). The factors they identify as impacting on fast internationalisation are: entrepreneurial opportunity, technology, competition, entrepreneurial actor perceptions, knowledge, as well as network relationships. Technology and competition can be seen as environmental factors that are factors outside the influence of the entrepreneur and the firm, whereas the others to a large extent are factors that are related to the entrepreneur, that is, they are entrepreneurial factors.

The basis for an INV is according to Oviatt and McDougall (2005) an entrepreneurial opportunity that an entrepreneurial actor somehow has discovered and decided to act upon. Network relationships are one of several factors that influence the fast and early internationalisation of INVs. Thus, network relationships alone do not explain the international development of these firms, but they are tools used by the entrepreneur and regarded as resources that can be used in order to realise their visions (Andersson & Wictor, 2003). This constitutes the foundation of the dissertation and the three most important concepts are entrepreneurial opportunity, relationships and the international ambition inherent in INVs. The dissertation is about entrepreneurs, their network relationships and the way the relationships are involved in identifying and developing business opportunities. In focus are exclusively firms with international ambition from the start, that is, INVs. Within the model of Oviatt and McDougall (2005) how an opportunity has been identified is not the focus. However, it is the focus of attention in this dissertation. Thus, entrepreneurs’ relationships are studied from the perspective of how they have been involved in opportunity exploration and exploitation during pre-founding, start-up and early internationalisation. This specific focus has not received particular attention in existing research.

The context of INVs is chosen as INVs are associated with successful opportunity development through generation of innovations and entry into new, foreign markets. Early and rapid internationalisation largely builds upon the capability to identify opportunities, such as, innovative products and new markets. (e.g. Knight & Cavusgil, 2004). Thus, successful exploration and exploitation of opportunities are central to these firms. This is partly an outcome of the entrepreneurs’ own ability to respond to opportunities, but their relationships are also of importance. Also in the literature arguments have been brought forward regarding the importance of studying the phenomenon of INVs. Oviatt and McDougall (2005) point out that INVs are an important topic within international entrepreneurship and that explaining their accelerated internationalisation is an important focus of research. This is also emphasised by Hurmerinta-Peltomäki (2004). In one of the first articles dealing with the phenomenon Rennie (1993) mentions two reasons for why these firms should be given attention. Firstly, these firms tend to be very competitive in comparison to larger established firms. Secondly, they manage profitable, rapidly growing, global businesses in a highly effective way. That is, we have something important to learn from them regarding both competitiveness and management. Moen (2002) states a number of
reasons for why INVs can be seen as an important research area. To begin with, the number of firms that can be called INVs is large and more importantly is increasing all the time. In addition, the phenomenon is difficult to explain with traditional, existing theories, such as internationalisation process theories. These theories seem to have only a limited explanation power when it comes to INVs. Therefore, it is important to study these firms and to develop more suitable theories or to combine existing theories in a way that also explains this phenomenon. Moen (2002) also points out that from a business perspective the firms are interesting with regards the management aspect. It is quite a managerial challenge to start foreign activities at the same time as establishing a firm. Finally, new firms are always important for the development of competitive economies, but these firms have also tended to be very successful in generating innovations and in growing rapidly. Therefore, they are even more interesting to the economy. Moen (2002) summarises the importance of INVs in a striking way:

The increasing number of firms classified as Born Globals, the importance of such firms in terms of innovation, employment and economic growth, the challenges facing the managers in such firms – and finally the limitations of existing theory – make research focusing upon this phenomenon important. (Moen, 2002:157)

1.1. Addressing research gaps

Although research on INVs has developed considerably during the last decade, both in respect to amount and content, research on the entrepreneurs behind INVs is still limited. There are a few studies focusing on both INVs and the entrepreneur’s network relationships, but to my knowledge only the forthcoming study of Ellis (2011) is specifically about generating a deeper understanding on the combination of INVs, entrepreneurs’ relationships and opportunity exploration and exploitation. He focuses on social ties, but the firms studied vary extensively in size from small to very large (those employing more than 10,000 employees), which is quite different when compared to the micro firms being focused on in this dissertation. In addition, Dominguinhos (2002) superficially deals with the network aspect in relation to opportunities in his article on entrepreneurs as discoverers in Portuguese born globals. However, he mainly focuses on the importance of entrepreneurs and their prior knowledge in the process of discovering and exploiting opportunities, not on the entrepreneurs’ relationships.

Opportunities have, however, been extensively researched within the entrepreneurship research field (e.g. by Schumpeter, 1934; Kirzner, 1973, 1979, 1997; Krackhardt, 1995; Hills, Lumpkin & Singh, 1997; Ardichvili & Cardozo, 2000; Krueger, 2000; Shane, 2000; Gaglio & Katz, 2001 and Eckhardt & Shane, 2003). Different perspectives have been taken and opportunities have, for example, been studied from an economic development perspective, a psychological perspective, a knowledge perspective and a social network perspective. Studies on the social network aspect and entrepreneurial opportunities have been published e.g. by Hills et al. (1997), Singh (2000) as well as Ozgen and Baron (2007). However, in a recent state-of-the-art article on entrepreneurial opportunities Gaglio and Winter (2009:318) conclude that empirical studies increasing our understanding of the role of networks in opportunity identification have been limited and disappointing during the 2000s. They state that:

We have evidence that the entrepreneurs believe that their social networks are very important to the development of their opportunities [...] but we do not have any insights into what these networks actually do for the entrepreneurs, whether all networks and network members contribute equally, and whether or when entrepreneurs’ interaction with networks create problems. (Gaglio & Winter, 2009:318)
Furthermore, research has been conducted on the role of networks during the founding process of firms\(^1\), which can be seen to be closely linked to research on opportunity exploration and exploitation. Based on the results of earlier research within entrepreneurship, both business and personal relationships, strong as well as weak ties are assumed to be involved in opportunity exploration and exploitation. The issue researched further in this dissertation is whether different types of relationships can be identified to fill different purposes and be of various values in different situations. This is also called for by Andersson and Wictor (2003:266) as they request more research that distinguishes between different types of networks and how they influence INVs. Also Coviello (2006:727) calls for research based on data that “include perceptions of tie strength or importance, the level of trust associated with different ties or the frequency and intensity of contact”. In particular she mentions that such data could be beneficial for investigations on interdependency between actors as it comes to prioritising ties on the basis of their influence on e.g. network evolution, internationalisation decisions, resources acquisition, or new product development. In addition, Coviello (2006:714) states that a need exists to understand INV networks not only at internationalisation, but also at pre-internationalisation and pre-founding. This study is a response to these calls as it includes e.g. the following for opportunity exploration and exploitation in INVs: relationships and their strength, importance and trust in pre-founding and also pre-internationalisation through the focus on early internationalisation events. Many studies on the role of networks are quantitative and point out that it is the amount of relationships that determines the importance of networks for opportunities. However, in this dissertation also the content of relationships, that is, the benefits and drawbacks they contribute, is emphasised.

Finally, Autio, Sapienza and Almeida (2000:921) call for research on the dynamics of opportunity seeking and the roles of individuals in this process within the context of fast and early internationalisation. By taking a process perspective including exploration and exploitation of opportunities in INVs and studying the involvement of the entrepreneurs and their relationships in these, this study tries to address that call.

### 1.2. The purpose of the study

The purpose of this dissertation is to develop our understanding of the involvement of entrepreneurs’ relationships in exploration and exploitation of opportunities during an international new venture’s (INVs) early and critical entrepreneurial and internationalisation events. The critical events are studied during three phases: pre-founding, start-up and early internationalisation.

The research questions are:

1) **How are opportunities explored and exploited in INVs? What activities are involved in the opportunity exploration and exploitation?**

2) **What are the benefits and drawbacks of relationships for opportunity exploration and exploitation in INVs?**

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\(^1\) Research has been conducted on the importance of networks for the entrepreneurial process (Birley, 1985; Dubini & Aldrich, 1991; Elfring & Hulsink, 2003), for the establishment process (Greve, 1995), for start-ups (Jenssen & Koenig, 2002; Witt, 2004) and for emerging entrepreneurial firms (Hite & Hesterly, 2001; Hite 2003).
3) How do relationships of different 
a. origin (direct/indirect), 
b. type (business-personal), and 
c. strength (strong-weak) 
differ in their involvement in different critical events (entrepreneurial and 
internationalisation), phases (pre-founding, start-up and early 
internationalisation) and activities (exploration and exploitation) during the early 
development of INVs?

The purpose is fulfilled by the following:

1) The conducting of an extensive literature review within the relevant areas of 
international entrepreneurship, entrepreneurship and the network approach in 
order to critically examine what has been done regarding relationships within 
opportunity exploration, exploitation and early internationalisation.

2) The conducting of an empirical case study based on qualitative research methods. 
Entrepreneurs of 5 Finnish international new ventures have been interviewed in-
depth on several occasions.

Figure 1 Area of interest of the dissertation

Figure 1 describes the focus of the dissertation. In this dissertation an entrepreneur is 
regarded to be the founder of a new firm. Entrepreneurs are separated from self-
employed persons in general, as entrepreneurs are seen to be characterised by 
innovation. This follows the argumentation made e.g. by Schumpeter (1934), Carland, 
Hoy, Boulton and Carland (1984) as well as Bruyat and Julien (2001). Innovation is 
characterised by new value and more advanced products. That is, the entrepreneurs 
studied in this dissertation are not managing firms selling everyday products like 
retailers, hairdressers or building contractors, but they are people that have developed 
some new good, service or technology. Thus, the definition of an entrepreneur 
employed in this dissertation follows the definition by Bruyat and Julien (2001:169): 
“The entrepreneur is the individual responsible for the process of creating new value 
(innovations and a new organization)”. It is also acknowledged that there may be 
several entrepreneurs – an entrepreneurial team, that jointly establish a new firm.
However, it is the lead entrepreneur’s relationships that are studied. The lead entrepreneur is defined as the person being both founder and CEO of a firm.

In the dissertation, the impact of the entrepreneurs’ relationships on opportunity exploration and opportunity exploitation are the focus. Opportunities are in accordance with the definition by Christensen, Madsen and Peterson (1994) both the initial business idea that lead to the creation of a firm as well as opportunities grasped that improve the situation of a firm. Thus, opportunities are e.g. new products, new methods of production, new ways of organising or new geographical markets (inspired by Schumpeter, 1934; 1942). Bengtsson, Eriksson and Kock’s (2005) view to studying opportunities as activities relating to exploration and exploitation is followed. Exploration is related to identification of opportunities and includes activities like search, discovery, creation and running across problems. Exploitation refers to what is done in order to realise an opportunity and includes activities like refinement, evaluation, implementation and commercialisation. Thus, in the dissertation opportunity exploration involves identifying the primary business idea, the reason for why the firm is started. Exploitation of the business idea is considered to result in the founding of a firm. Exploration and exploitation of the initial business idea are studied during both pre-founding and start-up and form entrepreneurial events. The pre-founding phase includes activities occurring before the decision to start a firm is taken, whereas the start-up phase contains activities occurring after the decision to start a firm has been made. Opportunities will also be studied from an international perspective during the early internationalisation phase. Exploration and exploitation of international business opportunities constitute internationalisation events.

The division of events into entrepreneurial events and internationalisation events is similar to Jones and Coviello’s (2005) differentiation between entrepreneurial and internationalisation events in their reflections on time in international entrepreneurship. The term entrepreneurial event is also used within entrepreneurship research e.g. by Bygrave (1993) and Bruyat and Julien (2001). According to Bruyat and Julien (2001) we have to understand the entrepreneur and the new value creation and the links between these throughout the start-up, survival and/or development process in order to understand an entrepreneurial event. This dissertation supports this standpoint, however, focus is only laid on the early firm development process, the start-up. In addition, this dissertation even goes a step further back to the pre-founding. As the entrepreneurs studied create INVs, the creation of new value is studied also in particular from an international perspective; also here the focus is on the early phase.

The dissertation takes a network approach to opportunity exploration and exploitation. Networks are defined as systems of direct and indirect relationships in accordance with Håkansson and Snehota (1995). In the dissertation networks are studied on the level of relationships. Relationships are primarily considered from the perspective of the lead entrepreneur and constitute a micro, individual level phenomenon. The outcome of the entrepreneur’s relationships is found at a firm level, that is, opportunities related to start-up and early internationalisation of the firm. However, it is acknowledged that in small firms the individual level and the firm level overlap, which is noted for example by Johannisson (1998:300) in the following way: “since the entrepreneur epitomizes the small firm and its physical and human resources the individual and the
organization as units of analysis coincide”. Also, Hite and Hesterly (2001) emphasise that during firm emergence the entrepreneur’s network is virtually synonymous with the firm’s network.

All relationships belonging to an entrepreneur (direct and indirect relationships) are considered to make up the entrepreneur’s egocentric network in line with Johannisson (1998). In this study the lead entrepreneurs egocentric network is studied when it comes to the relationships that have been involved in the critical events of early firm development.

![Diagram of an entrepreneur's egocentric network]

**Figure 2 Illustration of an entrepreneur’s egocentric network**

As shown in figure 2 the egocentric network of a lead entrepreneur consists of relationships of different types – personal and business, as well as relationships of different strength – strong and weak. Business relationships, on one hand, are relationships of a more formal, official and professional character and include persons the entrepreneur meets in a business setting such as relationships to e.g. customers, suppliers, other firms, organisations, professionals like bankers and consultants as well as other persons known from earlier or current experiences in working-life or education. This is in line with e.g. Birley (1985), Ostgaard and Birley (1996) and Johannisson (1998). Personal relationships, on the other hand, are relationships of a more informal and social character and include persons the entrepreneur meets in a personal setting such as relationships to e.g. friends, relatives and family. This is in line with Witt (2004) and also corresponds to the meaning applied by Ostgaard and Birley (1996) to the concept of social networks. Regarding the strength of relationships a strong relationship is defined as a close relationship based on trust, mutual respect,
commitment, deep knowledge and experience of each other. This is consistent with earlier literature in the following way: Closeness (Marsden & Campbell, 1984; Uzzi, 1997), trust (Singh, 2000; Hite, 2005; Jack, 2005), mutual respect (Jack, 2005), commitment (Krackhardt, 1992; Hite, 2003), deep knowledge and experience of each other (Elfring & Hulsink, 2003; Jack, 2005). In turn, a weak relationship is a superficial relationship not yet based on strong trust and where the parties do not know each other well and are not emotionally close to each other. This is in line with e.g. Dubini and Aldrich (1991). Weak relationships are considered to be arm’s length relationships.

As figure 2 shows the different types and strengths of relationships are in the dissertation not regarded to be complete dichotomies but rather continua. That is, relationships are not necessarily either personal or business or either strong or weak, but rather more personal or less personal as well as more strong or less strong. In figure 2 more personal relationships are marked with triangles and relationships that are more business related are marked with circles. Stronger relationships are in turn coloured grey, whereas weaker relationships are white. In addition, relationships may be the entrepreneur’s direct or indirect relationships. The direct relationships are marked with whole lines in figure 2, whereas the indirect relationships gained through a broker are marked with dotted lines. In this dissertation direct and indirect relationships are studied from the perspective of the lead entrepreneur. Thus, it is acknowledged that different actors may be linked to each other, but this is within the dissertation only studied though relationships brokered with the lead entrepreneur. For example, if a government institution acts as a broker between the lead entrepreneur and a financier, the relationships that would be studied are between the lead entrepreneur and the government institution as well as between the lead entrepreneur and the financier. However, the relationship between the government institution and the financier would not be focused on in this dissertation. It is only acknowledged that the relationship with the financier has been brokered by the government institution to the lead entrepreneur.

Thus, the entrepreneurs’ relationships are in the dissertation studied along three dimensions – origin, type and strength (see figure 1). Relationships are assumed to both constitute potential sources for ideas and information that can be developed into opportunities and to offer resources enabling realisation of these opportunities. There might, however, be a difference regarding the type (business-personal), strength (strong-weak) as well as the origin (indirect/direct) of the relationship and the way they inspire opportunity exploration and exploitation. Furthermore, it is assumed that it in contrast to a large part of the existing research is not necessarily the number of relationships that determine whether an entrepreneur’s network is of use or not. For some entrepreneurs very few relationships might be important for exploring and exploiting opportunities, whereas for other significantly more relationships may have been involved. Instead, it is the quality, the content, the benefits of the relationships that are of significance. The question is, thus, how are strong and weak ties within business relationships and personal relationships used by the entrepreneur in order to explore and exploit opportunities?

However, even though relationships are assumed to have a positive effect on opportunity exploration and exploitation it is not necessarily always the fact. The following question thus arises: what are the drawbacks of relationships? In addition, a relevant notion is that relationships are perhaps not in place from the very beginning, that is, entrepreneurs may not always have the appropriate relationships when starting
a firm or starting to internationalise. Thus, interesting issues are how entrepreneurs perceive this and what they have done about it.

1.3. The scope of the study

In this dissertation three different research areas are built upon in order to develop our understanding of the emergence and early internationalisation of new firms. These research areas are: International Entrepreneurship, Entrepreneurship and Networks. An understanding of all these areas is needed in order to answer the research questions of the dissertation. In the following sections these three areas are shortly described. Furthermore, it is stated as to how the dissertation aims to contribute. Also the delimitations of the dissertation, that is, what the dissertation is not about are pointed out. The main contribution of the dissertation is regarded to be within international entrepreneurship.

1) International Entrepreneurship

International entrepreneurship (IE) as a research field has come into existence during the last decades. In 1993, Giamartino, McDougall and Bird published an introductory article on the notion that management and entrepreneurship research is increasingly showing international influences. Their intention was then to create cognisance for the field of international entrepreneurship and to spur further interest in the field. This has certainly been a fact and a large range of contributions have been made into the field. Thus, a research stream named international entrepreneurship (IE) has emerged as an intersection of international business and entrepreneurship theories (Dana, Etemad & Wright, 1999; McDougall & Oviatt, 2000). Despite the fact that the field of IE is becoming increasingly established, debates are going on as to whether it is or should be a separate research field or whether the phenomenon of fast and early internationalising ventures is a natural development going on within international business (IB) and thus belongs to IB literature (Mathews & Zander, 2007). Coviello and Jones (2004) as well as Keupp and Gassman (2009) also provide evidence to show that so far contributions to the field of IE have failed to integrate the core theories, and often rely on only one of the theories. In this dissertation both perspectives are integrated.

As the research field of IE is relatively young, its boundaries are still developing. According to Oviatt and McDougall (2005:540) the field can now be considered to include two main types of phenomena:

a. Cross-national-border behaviour of entrepreneurial actors

b. Cross-national-border comparison of entrepreneurs, their behaviour, and the circumstances in which they are embedded

The first one, cross-national-border behaviour of entrepreneurial actors, refers to research focusing on international activities of entrepreneurs, such as research on international new ventures (INVs). Also international activities of intrapreneurs are nowadays regarded as belonging to this stream of research. Intrapreneurship, or corporate entrepreneurship, refers to entrepreneurial activities in established organisations.

The second one, cross-national-border comparison of entrepreneurs, their behaviour, and the circumstances in which they are embedded, deals with research that compares...
entrepreneurial behaviour in different countries with each other. The Global Entrepreneurship Monitor\(^2\) (GEM) is an illustrative example of this stream. GEM follows the tendency of people to become entrepreneurs and the attitudes towards entrepreneurship in different countries worldwide.

The contribution of this dissertation within the field of international entrepreneurship is within the first type of phenomenon, that is, cross-national-border behaviour of entrepreneurial actors. However, the dissertation only focuses on those entrepreneurs that establish their own new firms in order to exploit business opportunities. Thus, the phenomenon of intrapreneurs is outside the borders of this dissertation. Furthermore, the dissertation is also not about comparison of domestic entrepreneurial systems, cultures, and behaviour across national borders – that is, comparing entrepreneurial prerequisites and entrepreneurial activities in one country with those in another country. In short, this dissertation focuses on entrepreneurs that: 1) are founders of their own new firms, and 2) from the very beginning have international ambitions with their firms – to develop firms that soon after start-up engage in international business activities, that is international new ventures.

Within this specific stream of research of INVs, the contribution of this dissertation is to advance our understanding of how entrepreneurs' relationships influence exploration and exploitation of business opportunities.

2) Entrepreneurship

In this dissertation entrepreneurship literature is, in line with Di Gregorio, Musteen and Thomas (2008), drawn on to understand the early internationalisation phase of firms. Di Gregorio et al. (2008:187) claim that despite the natural link existing between INVs and entrepreneurship, entrepreneurship research has been applied to a negligible extent in INV research, instead researchers have tended to draw on resource-based theory, internationalisation process models, network theory, transaction cost theory, knowledge and learning or risk management.

Entrepreneurship as a research field is very broad. Depending on the perspective taken entrepreneurship research has been influenced by psychology, sociology, economics, organisational behaviour – almost every discipline that somehow could be seen to be relevant for small or new firms. However, Shane and Venkataraman (2000) maintain that in order for a field of social science to have usefulness, it must be focused and be based on a conceptual framework that explains and predicts a unique set of empirical phenomena. This conceptual framework, they maintain, should be focused around opportunities – opportunities and the way they are developed is what is unique for entrepreneurship.

Also Busenitz, West, Shepherd, Nelson, Chandler and Zacharakis (2003) emphasise the need to focus and to set more clear boundaries for the field of entrepreneurship in order for the field to gain legitimacy. They suggest that the phenomena under focus within entrepreneurship research should be: opportunities, individuals and teams, mode of organising as well as the environment and the intersections between these. Based on an examination of ninety-seven entrepreneurship articles in leading management journals Busenitz et al. (2003) point out that the opportunity category is the only one of the mentioned categories that has not been extensively researched in

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2 The Global Entrepreneurship Monitor research programme is an annual assessment of the national level of entrepreneurial activity. It was initiated in 1999 with 10 countries and has expanded to 59 countries in 2010. For more information see www.gemconsortium.org
other areas of management or non-management disciplines. Thus, they conclude in line
with Shane and Venkataraman (2000) that opportunities are the domain unique to
entrepreneurship. That is, research on business opportunities can be considered to
belong to and be a vital part of the entrepreneurship research field. The same
discussion is also carried out by Bruyat and Julien (2001). However, instead of the
word opportunity they use new value creation and state that entrepreneurship research
should study the individual (entrepreneur), the new value created (an innovation
and/or new organisation) and the link between these. A focus on opportunities, new
value creation and the individuals behind these makes entrepreneurship research
distinct from research within economic theory, small business, strategic management
and psychology, which in different ways all study topics close to the field of
entrepreneurship.

In this dissertation it is the opportunity aspect that is important from the research field
of entrepreneurship. As it comes to the new internationalising firms, opportunities is in
this dissertation studied along two lines – opportunities related to the founding of the
venture and opportunities related to the internationalisation of the venture. These
opportunities are to some extent also the same. This dissertation aims to make a
contribution to the field of entrepreneurship by studying opportunities from the
viewpoint of the entrepreneur’s social setting, that is, the role of his/her relationships.
This will give us a finer-grained view of the involvement of networks within
entrepreneurial opportunity development.

3) Networks

Under the concept theories on networks, three strands of research on networks are
included in this dissertation: the business network approach, social networks and
entrepreneurial networks. It is considered as being important to include all these in
order to reach a holistic view on relationships, which is attempted in this dissertation.
Slotte-Kock (2009) and Slotte-Kock and Coviello (2010) also advocate using these three
perspectives when researching entrepreneurs’ networks. An illustrative comparison
between the three perspectives of network research can be found in Slotte-Kock and
Coviello (2010:46).

The business network approach studies industrial relationships and the researchers
conducting research within this approach are referred to as the IMP group (Industrial
Marketing and Purchasing group). Research of this group is e.g. presented in
Håkansson (1982), Håkansson and Snehota (1995), Håkansson, Havila and Pedersen
(1999) as well as in Axelsson and Easton (1992). The focus of research within business
networks lies on interaction in dyadic relationships and on the interplay between dyads
and the overall network. The main line of thought within the approach is that buyers
and sellers develop relationships with each other that are often close, complex and
long-term. Relationships are built up over time and are characterised by adaptation,
commitment, trust and conflict. Jarillo (1988) introduced the concept of strategic
networks by which he meant long-term arrangements among organisations created by
managers or entrepreneurs in order to gain competitive advantages. Möller, Rajala and
Svahn (2005) as well as Möller and Svahn (2006) focus on value creation and
management of such intentional interorganisational structures and use the terms
business nets and strategic business nets for these. From the business network
approach in particular the view on business relationships, their importance and content
is of significance for this dissertation. In addition, the focus on the analysis of the
results regarding the development of individual relationships as well as the analysis of
relationships on the basis of direct and indirect relationships can also be seen to be inspired by the business network approach.

The research area of social networks has its origins in sociology and researchers associated with this area include e.g. Granovetter (1973, 1982, 1985), Burt (1992, 2004), Krackhardt (1992), Grabher (1993) and Uzzi (1997). The body of research within this field emphasises the social embeddedness of economic activity and concentrates on e.g. the extent to which and the way in which social networking is applied to organisations or economic activity in general. In particular, the view on different strengths of ties as well as their consequences for businesses is put under focus in this dissertation.

The concept of entrepreneurial networks was brought forward by Johannisson and Mønsted (1997) and Johannisson (1998). Johannisson (1998) points out that when it comes to entrepreneurs, research has shown that social and business relationships are largely intertwined in the personal network of importance for the entrepreneur when running his business. According to Johannisson and Mønsted (1997) this implies that it is more useful to talk about personal networks than separate business and social networks and furthermore it is hard to study one without studying the other. As the focus of this dissertation is specifically on entrepreneurs starting and managing their own firms it is considered important to study both types of relationships. Thus, in this dissertation both social and business relationships are included.

The level of analysis within this dissertation is not networks, but rather relationships. Hence, networks on both the macro and firm level e.g. alliances and other networks between firms will not be concentrated on in the dissertation. The intention is not primarily to contribute to network theory, but instead to apply it to international entrepreneurship. However, it is possible to make a sub-contribution to theories on networks by developing the view of strong-weak as well as business-personal relationships respectively. It is suggested that these should be seen as a continuum from strong to weak and a continuum from business to personal relationships rather than as separate entities.

To summarise: The dissertation contributes to the fields of International Entrepreneurship and Entrepreneurship (see figure 3). The focus is on new firms striving for internationalisation and more specifically on the entrepreneurial opportunities of these firms. The main contribution is the use of a network approach to research entrepreneurial opportunities in an international new venture context. This is done by focusing the network approach on the micro level to study the following: (1) the entrepreneur (not other employees or the firm) and (2) relationships (not overall networks).
1.4. The research process

The development of the research process used in this dissertation is described in table 1. The first inspirations for a research topic (that can be seen as an unfocused original version of the research questions finally studied) came when I attended a doctoral course named “Theories and research in international business” at the end of 2003. I became fascinated about so called Born Global firms and wanted to know how it is possible to simultaneously start a business and go international – two activities that in themselves are challenging. I then continued by reviewing literature on Born Globals, International New Ventures and internationalisation processes. This literature review gave me the insight that the persons behind the firm need more investigation and the research question therefore became: Is it the past experience, expertise, ambitions and networks of the entrepreneur that can explain the simultaneous start-up and internationalisation? I continued reviewing literature and turned to network literature first in relation to internationalisation, then more generally to social networks and business networks. I came to the view that only focusing on the entrepreneurs’ networks would be more than enough as I particularly became interested in gaining a deeper insight of how a network is used and what it can bring about for fast and early internationalisation. At about the same time I realised that I also needed insights from the entrepreneurship research tradition in order to understand the process of starting a firm. Based on this the research focus changed during a supervisor’s meeting towards the role of entrepreneurs’ networks for opportunity exploration and exploitation in international new ventures. This was near the end of 2004.

After this followed a period when I searched for a specific research gap and focused on the research questions. This occurred in a combination of continued literature review (within international entrepreneurship, entrepreneurship and theories on networks) and presentation of my research project at doctoral courses and doctoral tutorials. I also started to write conceptual conference papers related to the topic, both on my own and together with my supervisor Professor Sören Kock. The research topic remained fairly unchanged, even though I had the opportunity to get feedback from many different scholars when presenting my research at different places. However, the
research questions were naturally focused and the perspective was to study the entrepreneurs’ network on a relationship level, rather than on a network level. In the middle of 2006 I started to plan the empirical study and this was also the point of time when my second supervisor Professor Sylvie Chetty became involved in the project. Towards the end of 2006 I approached the technology centre Merinova in my search for appropriate case firms and got the contact details of a number of entrepreneurs. Five cases fulfilled the criteria and agreed to participate in the study. In 2007 I collected the main data for the dissertation and conducted in-depth personal interviews on two different occasions with the entrepreneurs being also the CEOs for the firms. For the rest of 2007 it felt like I was only transcribing interviews and simultaneously made the first initial data-analyses. Then a pause followed as we had our first child.

After the maternity leave I stayed one month in August 2008 at Massey University in Auckland, New Zealand. There I started analysing the data and planning a joint paper together with Sylvie Chetty based on the data. The rest of the time has been a parallel process of data analysis, going back to theory and writing both the dissertation and conference and journal papers. I have had the advantage of getting feedback on the data analysis from different reviewers, which of course has advanced the process but has also taken it in different directions. However, the topic has remained, although it has been reframed, with opportunity exploration and exploitation being analysed by studying events and phases in firm development. During the summer of 2010 I worked intensely on finalising the data analysis and the whole dissertation. Even though I wrote conference papers during the whole process, I never seriously thought of writing an article-based dissertation. I consider a monograph dissertation to be better suited to the topic, to the comprehensive data and also to my personality.

Table 1  Development of my research process

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time</th>
<th>Topic/Research question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral course: Theories and research in international business</td>
<td>Nov. 2003</td>
<td><strong>Born Globals</strong>  How is it possible to simultaneously start a business and go international – two activities that in themselves are challenging?</td>
</tr>
<tr>
<td>Literature review on Born Globals, internationalisation processes, INVs etc.</td>
<td>2004</td>
<td><strong>The entrepreneur/s in INVs</strong>  Is it the nature of the entrepreneur that can explain the simultaneous start-up and internationalisation? (focus – past experience, expertise, ambition, networks)</td>
</tr>
<tr>
<td>Literature review continued, focus on networks.</td>
<td>2004</td>
<td><strong>The role of the entrepreneurs’ networks in managing and developing INVs</strong></td>
</tr>
<tr>
<td>Literature review continued on networks (social networks, business networks), networks in relation to internationalisation as well as entrepreneurship. Meeting with supervisor</td>
<td>Nov. 2004</td>
<td><strong>The role of the entrepreneurs’ networks for opportunity exploration and exploitation in international new ventures</strong>  Phenomenon: Entrepreneurial opportunities &amp; Business and personal networks  Context: INVs</td>
</tr>
<tr>
<td>Search for research gap by:  • Presenting the research project in doctoral courses and doctoral tutorials  • Writing and presenting papers related to the topic at conferences  • Continued literature review of entrepreneurship and opportunities</td>
<td>2004-2006</td>
<td><strong>The role of the entrepreneur’s relationships for opportunity exploration and exploitation in international new ventures</strong>  Focus changed from networks to relationships</td>
</tr>
</tbody>
</table>
1.5. The structure of the study

This dissertation is divided into six chapters. The first chapter is an introduction to the dissertation and here the focus is on positioning the study within earlier research in international entrepreneurship, entrepreneurship and networks. Gaps in previous research are identified and discussed and the purpose as well as research questions guiding the dissertation are presented. The key concepts used in the dissertation are discussed in order to give the reader the opportunity, from the very beginning, to understand my view on the concepts and phenomena. The chapter ends with an overview of the development of the research process.

The second chapter is a literature review on the three different research fields combined in this dissertation: international entrepreneurship, entrepreneurship and multiple perspectives on networks. As all of these fields are very extensive focus is laid on discussing them only from the perspective in focus in this dissertation. Thus, within international entrepreneurship, the phenomenon of INVs and the entrepreneur’s role in these firms are dealt with. For entrepreneurship literature the focus is on the opportunity concept and the entrepreneurial process including the exploration and exploitation of opportunities. Finally, earlier contributions within networks are first focused on summarising how concepts describing different relationships have been used and second the phenomena of opportunity exploration and exploitation, internationalisation and INVs are reviewed from a network approach.

The third chapter describes the research design and methodology of the study. The chapter is built up according to the methodological hierarchy starting with a discussion about the scientific philosophical orientation of the study, critical realism. Next, the methodological choices of abduction, qualitative research and case study method are discussed before the practical data collection process is described and reflected upon in detail. At the end of the chapter, the procedure of analysing the data is described.
The fourth chapter is the first of two chapters dealing with the empirical findings. In this chapter the focus is on opportunity exploration and exploitation. Here focus is laid on describing the five cases in detail from the perspective of the firm’s development. The critical events are not only described but also analysed when it comes to the type of event (entrepreneurial/internationalisation), the phase (pre-founding/start-up/early internationalisation) as well as activity (exploration/exploitation of opportunity). At the end of the chapter, cross-case comparisons, analysis of critical events and a summary of activities identified within opportunity exploration and exploitation can be found.

In the fifth chapter the focus of analysis is turned towards the entrepreneurs’ relationships. This chapter builds on the analysis of events, phases and activities conducted in chapter four by investigating how relationships have been involved in these. First, within-case analyses are presented regarding the benefits and drawbacks of relationships for opportunity exploration and exploitation. Next, the relationships involved in the critical events of the early development of the firms are analysed regarding the characteristics of origin, type and strength. These are then used to make further analyses of the involvement of different relationships in different types of events, phases and activities of opportunity exploration and exploitation.

The sixth and final chapter summarises the main findings of the study. Theoretical, methodological, managerial and policy contributions of the dissertation are put forward and the trustworthiness of the study is discussed. The dissertation ends with suggestions for further research.
2 THEORETICAL CONTEXT

The theoretical context of the dissertation is a combination of international entrepreneurship, entrepreneurship and different approaches to networks. In this chapter these fields are reviewed from the particular focus of the phenomenon being studied.

2.1. International entrepreneurship

International entrepreneurship is a relatively recent and fast growing research area found in the intersection between international business research and entrepreneurship research (McDougall & Oviatt, 2000). International business research has traditionally focused on large multinational companies, but recently attention has also been turned to small firms. Entrepreneurship researchers, on the other hand, have mostly concentrated on the domestic situation of firms, but they have also become increasingly interested in international activities. Definitions of international entrepreneurship have become more profound, as the research area has developed. An early definition of McDougall (1989) focused only on international activities of new ventures. Later on more clear links to entrepreneurship has been included. McDougall and Oviatt have revised and updated their definition of international entrepreneurship in 2000 as well as 2003/2005.

International entrepreneurship is [...] the developments of international new ventures or start-ups that, from inception, engage in international business. (McDougall, 1989:387)

International entrepreneurship is a combination of innovative, proactive, and risk-seeking behavior that crosses national borders and is intended to create value in organizations. (McDougall & Oviatt, 2000:903)

International entrepreneurship is the discovery, enactment, evaluation, and exploitation of opportunities – across national borders – to create future goods and services. (McDougall & Oviatt, 2003:7, Oviatt & McDougall, 2005:540)

The last two definitions are more directly consistent with the interests of entrepreneurship researchers as they emphasise innovation and opportunities. Entrepreneurship and opportunities are closely related. According to Shane and Venkataraman (2000:218) the field of entrepreneurship “involves the study of sources of opportunities; the process of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them”. The definition from 2003/2005 by McDougall and Oviatt shows great similarities with this definition of entrepreneurship.

The definition of international entrepreneurship adopted in this dissertation is, however, the one of Turcan and Makela (2004). According to them international entrepreneurship can be defined as “a process of discovering and exploiting international venture ideas that are intended to create new values in organizations and in the marketplace”. This definition is adopted as it also pays attention to the exploration and exploitation of international business opportunities and describes the output in more general terms as ‘new values’ compared to ‘future goods and services’ used by McDougall and Oviatt (2003) as well as Oviatt and McDougall (2005).
2.1.1. International new ventures

One central part of international entrepreneurship is international new ventures (INVs). These are firms that almost from inception are involved in international business activities. Increasing attention has been paid to the phenomenon of early and fast internationalising firms since the late 1980s and many different names have been used for these firms, such as international new ventures (McDougall, 1989; McDougall, Shane & Oviatt, 1994; Oviatt & McDougall, 1994), global start-ups (Oviatt & McDougall, 1995), born globals (Rennie, 1993; Knight & Cavusgil, 1996; Madsen & Servais, 1997), instant internationals (McAuley, 1999; Preece, Miles & Baetz, 1999; Dana, 2001), rapid internationalizers (Hurmerinta-Peltomäki, 2004) and early internationalizing firms (Rialp, Rialp & Knight, 2005). The two important distinguishing characteristics of these firms are the short time period from start to international business and the importance of sales in multiple foreign markets.

In this dissertation the term international new ventures (INVs) and the definition by Oviatt and McDougall (1994) are applied. Oviatt and McDougall (1994:49) define an INV as “a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries”. This definition is different from many definitions of INVs in two different ways. First, it includes not only sales, but also resourcing in international commitment. This means that weight is laid upon international markets as both the provider of important resources, including contacts, ideas, opportunities, knowledge and material, and as the buyer of the firm’s products or services. INVs are, thus, depending on international markets either for input or for output. Also Wakkee (2004) points to the fact that by only focusing on international sales gives an incomplete picture of the international development of these firms. This is so as they tend to be involved in a broad range of international activities from inception; and among them is networking. By focusing on other international resource combinations of INVs, rather than just simply concentrating on firms that sell internationally, is also in line with the suggestions for future research made by Di Gregorio et al. (2008).

Second, the definition does not specify a time limit for determining what a short time period from start to international business or from inception means. According to Oviatt and McDougall (1994:49) empirical studies on INVs have to include a definitional ambiguity as no exact point of time exists for a firm’s birth. Instead, they recommend that researchers identify resource commitments in order to determine a point of firm inception. They also acknowledge the fact that new firms may not have any sales at all because of the product still being under development. Therefore, a specific time limit for international sales is not a very good criterion for INVs. Instead, they argue that the decisive aspect should be that the entrepreneurs demonstrate a commitment to sell the products in multiple countries once the product is ready. There are, however, also definitions (especially the ones using the term born globals) that refer to a certain period of time and a certain amount of international sales. For example, Oviatt and McDougall (1997) advocated a time limit of six years. Madsen, Rasmussen and Servais (2000) and Madsen (2004) regard born globals to be firms that within three years after birth have a share of foreign sales of at least 25%. Others that have used a time limit of three years are e.g. Harveston et al. (2000), Saarenketo (2002), Andersson and Wictor (2003) and Evangelista (2005). In Rennie (1993) as well as Moen and Servais (2002) born globals are regarded to be firms that two years after start-up export 75% of total sales. A two-year time limit is also applied by Chetty and Campbell-Hunt (2004) as well as Rialp et al. (2005b). In Rasmussen, Servais and Madsen (2006) a more detailed classification of firms is developed according to the
firms' international sales and international sourcing within the first three years and in addition they distinguish between less or more sales/sourcing than 25% outside Europe. In this way they receive a 3x3 matrix for different classifications of firms, ranging from born local firms to born global firms (see table 2). International new ventures can be found in all different categories except for the born local firms.

### Table 2 Classification of firms

<table>
<thead>
<tr>
<th>Only direct sourcing within Denmark after 3 years</th>
<th>Sourcing abroad after 3 years, but less than 25% outside Europe</th>
<th>Sourcing abroad after 3 years, 25% or more outside Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Born Local Firm</td>
<td>Born International Sourcer</td>
<td>Born International Sourcer</td>
</tr>
<tr>
<td>Sales abroad after 3 years, but less than 25% outside Europe</td>
<td>Born International Seller</td>
<td>Born European Firm</td>
</tr>
<tr>
<td>Sales abroad after 3 years, 25% or more outside Europe</td>
<td>Born International Seller</td>
<td>Born Global Firm</td>
</tr>
</tbody>
</table>

Source: Rasmussen, Servais & Madsen, 2006

In this dissertation no specific time limit or share of foreign sales or sourcing is stipulated for a new firm to be considered as an INV. Instead the international ambition of the entrepreneurs at the inception of the firm is emphasised. The international ambition and the global mindset of entrepreneurs and managers has been emphasised and found to be a pre-requisite for an early internationalisation (e.g. Oviatt & McDougall, 1995; Knight & Cavusgil, 1996; Harveston et al., 2000; Andersson & Wictor, 2003; Nummela, Saarenketo & Puumalainen, 2004). A global mindset is according to Nummela et al. (2004:56) the management's proactiveness, commitment and international vision. Knight and Cavusgil (1996) even emphasise that the most distinguishing characteristic of firms like these is that they are lead by entrepreneurial visionaries meaning that the entrepreneurs or managers consider the world as a single, borderless market from the very beginning of the firm’s existence. These entrepreneurs or managers do not simply regard international markets as complementary to the domestic market, but as a reason for the firm's existence. Their attitudes towards internationalisation are very positive. (Harveston et al., 2000). Furthermore, Oviatt and McDougall (1994:47) mention that “the success of international new ventures seems to depend on having an international vision of the firm from the inception”.

Earlier studies on INVs have mainly dealt with the following large topics: Critics against or non-support for the gradual internationalisation models (e.g. McDougall, Shane & Oviatt, 1994; Bell, 1995; Knight & Cavusgil, 1996; Moen & Servais, 2002); characteristics of INVs (e.g. Preece et al., 1999; Moen & Servais, 2002; Luostarinen & Gabrielson, 2004); driving forces for INVs (e.g. Rennie, 1993; Knight & Cavusgil, 1996; Knight, 1997; Madsen & Servais, 1997; Preece et al., 1999; Saarenketo, 2002; Andersson & Wictor, 2003; Zucchella et al., 2007); strategies for INVs (e.g. Moen, 2002; Moen & Servais, 2002; Ruokonen & Saarenketo, 2009); as well as the
founder/entrepreneur of INVs (e.g. Harveston et al., 2000; Rasmussen et al., 2001; Andersson & Evangelista, 2006).

As a summary of driving forces for fast and early internationalisation of new ventures, Oviatt and McDougall (2005) propose a model on factors impacting a rapid internationalisation (see figure 4). The factors are: entrepreneurial opportunity, technology, competition, entrepreneurial actor perceptions, knowledge and network relationships. According to the model the process of entrepreneurial internationalisation starts with an entrepreneurial opportunity identified by an entrepreneur. Together with technological developments in e.g. transportation and communication as an enabling factor and competition as a motivating factor, the entrepreneur evaluates the potential and attractiveness of the opportunity and decides whether and how to realise it and whether to exploit it internationally. Moderated by knowledge and network relationships the internationalisation speed can be accelerated. Here Oviatt and McDougall (2005) emphasise the international network of the entrepreneur. In this model internationalisation speed focuses on international outputs – the time from discovery of opportunity to first foreign market entry, the pace with which entries into foreign markets accumulate and the speed with which psychically distant markets are entered and finally the international commitment, that is the speed with which the percentage of foreign revenue increases.

![Figure 4 A model of factors influencing a fast internationalisation of INVs](image)

The focus in this dissertation is only on factors that are within the influence of the entrepreneur, that is, the entrepreneurial opportunity and actor perceptions as well as the network relationships and through them indirectly on knowledge. The assumption is, however, that the opportunity might not be the start, but that network relationships are important also for the initial business opportunity identification, not only for the development of an INV. Thus, the focus of the dissertation is rather on achieving a better understanding on how the opportunities are identified, enacted, evaluated and exploited in INVs supported or constrained by network relationships, not on internationalisation speed per se.
2.1.2. The entrepreneur in INVs

As Andersson and Evangelista (2006) acknowledge most research on INVs has not been on entrepreneurs on an individual level, but rather on entrepreneurial orientation or entrepreneurial behaviour on a firm level. Some studies have been made on the entrepreneur per se, but mostly this topic is dealt with quite superficially, stating that the international business experience of the entrepreneur or top management is very important for the international commitment decision of the firm (Oviatt & McDougall, 1994; Bloodgood et al., 1996; Oviatt & McDougall, 1997; Preece et al., 1999; Moen & Servais, 2002; McDougall et al., 2003; Zucchella et al., 2007). Other important aspects regarding the entrepreneur are a global vision and a high risk tolerance (Oviatt & McDougall, 1995; Harveston et al., 2000, Saarenketo, 2002). Kundu and Katz (2003) have found that the entrepreneur's educational background is an important factor for INVs and especially a technical or professional education. Oviatt and McDougall (1995) also have concluded that the entrepreneurs of INVs have strong international networks.

Based on a case study on entrepreneurs in six INVs Andersson and Evangelista (2006) found that the number of entrepreneurs is irrelevant for INVs, that is, both single entrepreneurs and larger founding teams were found among the case firms. Instead, they argue that networking and cooperation abilities are relevant for all entrepreneurs in INVs in order for them to be able to make the firms grow. The entrepreneurs international and industry experience were found to be important for personal learning and for building a personal network, which in turn enabled international expansion. However, the entrepreneurs' cooperation abilities and strong international ambitions could also make up for inadequate professional experience. Andersson and Evangelista (2006) also found the entrepreneurs of INVs tend to be interested in marketing and technology, but are often stronger at one of these. They also found differences between the internationalisation strategy used in INVs and the type of entrepreneur, that is, marketing entrepreneur or technical entrepreneur\(^3\). Marketing entrepreneurs see the product in a wider context, focusing on customers’ needs and market channels, and tend to pursue a more active internationalisation strategy. In this way it is possible to internationalise fast and early also in a mature industry. On the contrary, the main interest of technical entrepreneurs is the technology and the product development. These entrepreneurs tend to follow more reactive international strategies e.g. responding to requests from abroad. For INVs Andersson and Evangelista (2006) claim that this strategy is mainly possible in fast growing industries.

In summary, earlier research has found that active entrepreneurs, who identify international opportunities, are vital for early and fast internationalisation and that the entrepreneurs’ networks are used as tools in this process (see Andersson & Wictor, 2003). However, there is a lack of more profound studies regarding the founder/entrepreneur. This has also been stated by Moen (2002), Luostarinen and Gabriellson (2004) as well as Andersson and Evangelista (2006). This dissertation focuses on developing a deeper understanding of the entrepreneurs’ relationships involvement in the opportunity exploration and exploitation that INVs build upon.

\(^3\) The concepts of marketing and technical entrepreneurs (and also structure entrepreneurs) were developed by Andersson (2000) when he compared the studied entrepreneurs’ interests based on Schumpeter’s (1934) classifications of new combinations/opportunities with the international strategies the entrepreneurs pursued.
2.2. Opportunities and entrepreneurship

This subchapter on opportunities is mainly focused on entrepreneurship literature. Opportunities have been brought forward as a unique core dimension of entrepreneurship (Shane & Venkataraman, 2000, Busenitz et al., 2003). Shane and Venkataraman (2000) even emphasise that entrepreneurship is the study of opportunities. According to them:

The field [entrepreneurship] involves the study of sources of opportunities; the process of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them. (Shane & Venkataraman, 2000:218)

Another definition of entrepreneurship showing the close link to opportunities is:

The entrepreneurship field centers on understanding how new ventures are conceived, funded, and executed to exploit created or recognized opportunities. (Short, Ketchen, Combs & Ireland, 2010:6)

Entrepreneurship is, thus, associated with the act of founding a new firm, risk-taking as well as identification and exploitation of opportunities (Bull & Williard, 1995). The founding of a new firm basically requires a motivated entrepreneur, an opportunity and access to resources. At the same time, this is another way to define entrepreneurship. That is, entrepreneurship is to identify an opportunity and to allocate resources in order to realise this opportunity. In this dissertation entrepreneurship is defined as:

The identification and evaluation of opportunities as well as the act of founding a venture in order to exploit opportunities.

The definition is inspired by Shane and Venkataraman (2000). However they emphasise that entrepreneurship does not have to result in the creation of a new organisation, as they acknowledge that identified business opportunities may also be sold to others. In the dissertation only entrepreneurship that has involved founding an own, new venture is studied.

2.2.1. Definitions of opportunities

Opportunities can be defined in a number of different ways depending on the discipline and perspective taken. According to Schumpeter (1934; 1942) opportunities are new combinations of resources. The new combinations of resources need not only be new products or services, but can also take the form of discovery of new raw materials, new methods of production, new ways of organising or new geographical markets. Schumpeter emphasises the entrepreneur as an innovator. Kirzner (1979) defines opportunities as market imperfections and Venkataraman and Sarasvathy (2001:652) regard an entrepreneurial opportunity as consisting of “the opportunity create future economic artefacts and as such, involves a demand side, a supply side, and the means to bring them together”. Stevenson and Jarillo (1986), in turn, see them as a desirable and feasible future state that is different from the current state. This indicates that opportunities are the positive and favourable circumstances leading to an action. Opportunities, thus, involve processes. In the case of entrepreneurship, opportunities are circumstances that lead to the creation of innovations and a new firm to exploit the innovations. Correspondingly, in the case of international entrepreneurship, opportunities are circumstances that lead to the venture becoming international. Opportunities can, thus, be defined as the initial business idea that leads to the creation
of a new firm or as opportunities grasped that lead to improvements of the situation of an existing firm (Christensen et al., 1994).

Andersson, Blankenburg Holm and Johanson (2005:29) divide opportunities into market opportunities and technological opportunities. They refer to market opportunities as the “exchange of resources between at least two actors”. Market opportunities are based on Kirzner’s (1997) notion of disequilibrium in the market which results in entrepreneurial opportunities. Regarding Schumpeter’s (1934; 1942) sources for change mentioned above, market opportunities foremost refer to new geographical markets. Technological opportunities, on the other hand, need not be a result of exchanges with other actors, but refer to new ways of combining resources. Technological opportunities correspond to the other new combinations mentioned by Schumpeter (1934; 1942), that is, new products or services, new raw materials, new methods of production and new ways of organising.

In the entrepreneurship literature several different ways of measuring opportunities in empirical research have been applied. One way has been to measure exploited opportunities, such as the ones that have lead to the creation of a firm or to exchange agreements (Chandra, Styles & Wilkinson, 2009; Ellis, 2011). This can be regarded as a fairly objective method. In addition, more imprecise methods have been applied leaving the decision of what opportunities are to the entrepreneur. Entrepreneurs have for example been asked to speculate about the likelihood of recognising new venture opportunities in the near future (Arenius & De Clerq, 2005), to count the number of new venture opportunities they have perceived recently (Singh, 2000) or to evaluate their alertness to opportunities generally (Ozgen & Baron, 2007).

In this study the definition by Christensen et al. (1994) is followed and opportunities are, thus, both the initial business idea that lead to the creation of a firm as well as opportunities grasped that improve the situation of an existing firm. In the case of INVs this could e.g. be commitments in a new international market.

2.2.2. The process of exploring and exploiting opportunities

Entrepreneurship is to explore an opportunity and to allocate resources in order to exploit this opportunity. Zahra, Korri and Yu (2005) emphasise that only during the process of exploiting an opportunity, is the opportunity actually created. Thus, both opportunity exploration and exploitation are needed for starting a new firm. Opportunity exploration, on one hand, is related to identification of opportunities and includes activities like search, discovery, creation and running across problems. Opportunity exploitation, on the other hand, refers to what is done in order to realise an opportunity. Exploitation, correspondingly, includes activities like refinement, evaluation, implementation and commercialisation. (Bengtsson et al., 2005). Bengtsson et al. (2005) base their division of opportunity exploration and exploitation on March (1991) that uses these concepts in the context of organizational learning processes. According to March (1991) exploration deals with experimentation of new possibilities, whereas exploitation refers to refinement and extension of old/existing certainties. March (1991) emphasizes that both exploration and exploitation are needed, however as they compete for scarce resources, maintaining an appropriate balance between them is primary for the survival and prosperity of an organisation. Returns of exploration are uncertain, distant and also often negative, whereas the returns of exploitation are faster, more predictable and positive. This division of
exploration and exploitation into totally new ideas or alternatives and already existing ones is not done in this dissertation.

Although research in the entrepreneurship field extensively focuses on what happens after opportunities have been discovered, prior activities (such as exploring business ideas and recognising opportunities) have received less attention (Christensen et al., 1994; Hills et al., 1997; Shane, 2000). Although Katz and Gartner (1988) requested that more research is needed to examine the processes creating the move from pre-founding to a new organisation, the gap remains. Much of the previous research on the early phases of new firm creation tend to focus on start-up activities, only acknowledging that a business opportunity has been identified (e.g. Gartner, 1985; Katz & Gartner, 1988; Reynolds & Miller, 1992; Carter, Gartner & Reynolds, 1996; Reynolds, 1997).

Exploration and exploitation of opportunities take place in the entrepreneurial process. This process is by Butler and Hansen (1991) divided into three phases: Entrepreneurial phase, Business startup phase and Ongoing business phase. The entrepreneurial phase is a pre-startup phase where the main process is opportunity identification, whereas in the business startup phase the process of business formation takes place and the main activities are selecting suppliers, raising capital, and selecting an organisational structure. In the ongoing business phase, the firm has been started and focus is instead laid on growth, profit and strategy.

Based on case studies Kazanjian (1988) has built up a stage-model for development and growth of firms. Whereas Butler and Hansen’s (1991) division was based on phases, this model is grounded in activities. Kazanjian (1988) emphasises that it is applicable to technology-based firms and explains internally driven growth. The four different stages of the model are: Conception and development, commercialisation, growth and stability. The first stage, ‘conception and development’, occurs before the firm is formally created and is mainly characterised by a focus on the invention and on product development. Also initial discussions with potential financiers can be part of the first stage. In the second stage, ‘commercialisation’, product development continues and is directed towards developing a functioning and commerciable product. Product launch is part of this stage and Kazanjian (1988) emphasises that for technology-based firms, the time range from conception to commercialisation can take several years due to time-consuming product development processes. This is also the time when the need for internal task systems are identified and hence built up, e.g. marketing functions are started and administrative as well as financial systems introduced. In the third stage, ‘growth’, the product is technically feasible and accepted on the market. Production, sales and distribution are central activities and the number of employees increases considerably. Formalisation and reporting procedures become current. In the fourth and final stage, ‘stability’, growth is slowed down, bureaucracy, routines and systems are apparent and focus is laid on maintaining market position and developing a new generation of products. In an INV context this model has been applied by Coviello (2006) as well as Coviello and Cox (2006). If comparing Kazanjian’s model with the one by Butler and Hansen (1991) stage 1 would correspond to the entrepreneurial phase, stage 2 would be the business start-up phase and stages 3-4 would belong to the ongoing business phase.

Witt (2004) has developed a model for measuring success of start-ups by identifying intermediate goals during the process of starting a firm (see figure 5). According to the model he includes main activities before the actual foundation of the firm (completion of idea and planning). These activities he regards to relate to the entrepreneur not directly to the start-up firm, as it says more about entrepreneurial intention and
commitment than the success of start-up. During actual foundation the firm is started (creation) and actual operations start (proving). Witt (2004) refers to the growth phase as a later development phase.

Figure 5 Firm development phases during start-up
Source: Adapted from Witt, 2004

2.2.2.1. Opportunity exploration

The entrepreneurial process starts with opportunity identification, a stage not very much dealt with within entrepreneurship research. Research about opportunities in early stages either focuses on environmental scanning techniques and creativity-enhancing methods or on what opportunities are. (Christensen et al., 1994). Little is actually known about how entrepreneurs identify opportunities (Stasch, 1990).

A lot of different terms have been used for opportunity exploration such as opportunity identification, recognition, discovery, seeking, enactment, development and construction. Terms like these are by some used interchangeably, whereas others make a distinction between them. A dilemma widely discussed within research on exploration of opportunities is the question whether it is a conscious or an unconscious process, that is, whether opportunities are searched for or discovered, created or recognised. Sigrist (1999) has reviewed literature on business opportunities and divided it into three streams reflecting this issue: 1) opportunity recognition as organising information rationally (e.g. Christensen et al., 1994), 2) opportunity recognition as an intuitive creation incident (e.g. Gaglio & Taub, 1992), and 3) opportunity recognition as including both organising information rationally and intuitive creation (e.g. Hills et al., 1997). The first stream of literature advocates purposeful searching. A recent contribution to this stream of research is Patel and Fiet’s (2009) study which identified a positive relationship between systematic search for opportunities and success of firm founding. The second stream emphasises that opportunity identification is not at all rational or planned and the third stream is a combination, that is, opportunity recognition happens both through purposeful searching for opportunities and through accidentally falling upon opportunities. The third approach is in line with the findings of a recent case study by Vagheley and Julien (2010). They examined whether opportunities are recognised or constructed and conclude that entrepreneurs use both approaches for opportunity identification. Also Bengtsson et al. (2005) point out that searching for opportunities can be combined with discovery in the sense that deliberate searching can stimulate discovery. Ardichvili, Cardozo and Ray (2003:106), however,
can be seen to express opportunity creation as they state that "opportunities are made, not found". The same applies for Krueger (2000:6) who says that "we do not find opportunities; we construct them" as well as "opportunities are thus very much in the eye of the beholder". Consequently, entrepreneurial opportunities can be accidentally recognised, consciously constructed or a combination of these – in fact opportunities are seldom the outcome of solely unexpected chance, but at the same time they are not solely due to conscious search.

The roots of the discussion regarding search versus discovery of opportunities can be found in economic theory and views on market equilibrium and disequilibrium. Schumpeter (1934; 1942), on the one hand, emphasised the entrepreneur as a creator of opportunities by creating new combinations. These innovations in turn have a disequilibrating effect on the market, as they disrupt established means-end relations (DiGregorio et al., 2008). Economists belonging to the Austrian School⁴, on the other hand, emphasise that the economy is dynamic and disequilibrated and that opportunities arise as a consequence of the imbalance between supply and demand. According to the Austrian economists it is the entrepreneur who sees opportunities resulting from the disequilibrium and takes action to realise them and thereby moves markets back towards equilibrium. (Kirzner, 1997; Holcombe, 2003; Buenstorf, 2007; Di Gregorio et al., 2008). Kirzner (1973; 1979; 1997) is a contemporary Austrian economist who stresses entrepreneurial alertness. By being alert to existing opportunities reflected in price differences the entrepreneur recognises opportunities or in other words “notice without searching” (Kirzner, 1979:48). Kirzner (1997) emphasises that it is impossible to search systematically for opportunities as we do not know what we are searching for. However, through entrepreneurial alertness an entrepreneur is sensitive towards exogenously given opportunities. Opportunities have been stated to exist primarily as a consequence of exogenous shifts, information asymmetry and subjective world views (Mathews & Zander, 2007). Exogenous shifts are considerable changes in the market because of government actions, demographic changes or creation of new knowledge. (Eckhardt & Shane, 2003). Information asymmetry relates to the assumption that everybody cannot have access to the same information at the same time. In addition, as individuals view the world differently, an entrepreneurial opportunity is not obvious to all potential entrepreneurs. (Ardichvili et al., 2003).

What is then needed in order for entrepreneurs to discover opportunities? Shane and Venkataraman (2000) mention two important factors: knowledge and cognitive properties. Moreover, Ardichivili et al. (2003) point out that other factors influencing opportunity recognition are: entrepreneurial alertness, personality traits and social networks. Next, these five factors identified as impacting on opportunity exploration are shortly described.

As not all people discover particular opportunities, there must be some way that these people differ from others. Except for chance, research has shown that prior knowledge plays an important role. Information that relates to aspects already known is easier to identify (Ardicivili et al., 2003), as it fits into a person’s mental schemas, that is, a frame of reference. Shepherd and DeTienne (2005) emphasise that prior knowledge

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⁴ The Austrian School is a school of economic thought which rejects mainstream economists’ reliance on methods used in natural science for the study of human action and relationships through logic. Major Austrian Economists are e.g. Menger, von Böhm-Bawerk, von Wieser, von Mises, Hayek and Lachmann. Contemporary Austrian Economists are e.g. Rothbard, Kirzner, Hoppe, Rockwell and Block. Schumpeter can be regarded as an economist partly related to the Austrian School. (Reference Library Encyclopedia Wikipedia available on www.campusprogram.com)
relating to customers’ needs and problems results in the identification of more opportunities as well as more innovative opportunities. Johanson and Vahlne (2006) acknowledge the role of knowledge created in interaction with relationship partners for opportunity development. In addition to relatable knowledge, cognitive properties are needed to discover opportunities. This implies an ability to combine existing information into new ideas. Cognitive research shows that people differ in this aspect. Some are good at visualising means-end relationships, whereas others find it difficult to observe relationships. (Shane & Venkataraman, 2000).

**Entrepreneurial alertness** was as mentioned above a term first used by Kirzner in 1973. This refers to a capability of foreseeing opportunities when one comes across them (Kirzner, 1973; 1997; Kaish & Gilad, 1991). An entrepreneur successful in discovering opportunities is at all times “spontaneously on the lookout for hitherto unnoticed features of the environment (present or future), which might inspire new activity on his part” (Kirzner, 1997:72). **Personality traits** that are positively related to opportunity recognition are optimism and creativity. Optimism tends to improve self-confidence and strengthens the belief in being able to achieve difficult goals. This also encourages a type of behaviour for seeing opportunities instead of risks and threats. (Ardichvili et al., 2003). Finally, the **entrepreneur’s networks** have been indicated to be relevant for the recognition of opportunities (Aldrich, Rosen & Woodward, 1987; Johannisson, 1988). Studies on this aspect have been published by e.g. Hills et al. in 1997, De Koning in 1999 (in Ardichvili et al., 2003) and Singh in 2000. The importance of all these factors is acknowledged. However, the **focus** of the dissertation is only on the last one, networks, including the entrepreneur’s personal and business network relationships.

### 2.2.2.2. Opportunity exploitation

Opportunity exploitation as a part of the entrepreneurial process is in earlier literature primarily described to involve opportunity evaluation, resource mobilisation and obtaining legitimacy. What impacts then on the decision to exploit opportunities? According to Shane and Venkataraman (2000) the exploitation decision when evaluating an opportunity is influenced by both the nature of the opportunity and by individual differences. The first one is about aspects such as the opportunity’s expected return, costs, length of life as well as demand. The latter implies that there are also differences between people regarding how much risk they are willing to take. Low risk-aversion can depend upon large financial reserves, strong social relationships with resource providers, greater self-efficacy as well as prior entrepreneurial experiences. Opportunities can either be exploited by creating new firms, exploiting them within the firm or by selling them to other firms.

The start-up phase of firms has been extensively researched, but called different things such as gestation and emergence. Activities related to start-up are in a conceptual work by Gartner (1985) suggested to be: location of business opportunity, accumulation of resources, marketing of products and services, producing the product, building an organisation and responding to government and society. In table 3 examples of start-up activities found in empirical entrepreneurship studies relating to firm start-up are summarised. Reynolds and Miller (1992) found that the length of the gestation period varies extensively from one month to ten years. In addition, the pattern of start-up activities also vary greatly between firms; not all four key activities were found in all start-ups. In line with this, Liao, Welsch and Tan (2005) have investigated whether firm start-up is actually a linear process as it is often described to be. They found that it is a complex, nonlinear process, with hardly identifiable development stages.
Carter et al. (1996) mention a lot of start-up activities and have studied whether the activities undertaken differed between successful start-ups, entrepreneurs who gave up and entrepreneurs that are still trying. They found that what was characteristic for the first category was undertaking a large amount of activities and particularly activities making the firm tangible to others. Also Delmar and Shane (2004) have focused on organising activities and success of start-up. They concluded that activities legitimising the firm (i.e. completing a business plan and establishing a legal entity) enhance the ability of founders to both create social relationships with customers and financiers and to initiate routines to transfer resources (inputs, product development and marketing). These in turn are important for the initial survival of new ventures.

Table 3  Examples of start-up activities identified in previous entrepreneurship literature

<table>
<thead>
<tr>
<th>Author(s) (year)</th>
<th>Start-up activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reynolds &amp; Miller (1992)</td>
<td>Personal commitment; Financial support; Sales; Hiring.</td>
</tr>
<tr>
<td>Bhave (1994)</td>
<td>Opportunity recognition; Business Concept; Business concept development; Production technology; Production technology development; Organisation Creation; Resource need; Product; Product development.</td>
</tr>
<tr>
<td></td>
<td>Divided into four stages: opportunity stage, technology set-up, organisation-creation stage and exchange stage.</td>
</tr>
<tr>
<td>Gatewood, Shaver &amp; Gartner (1995)</td>
<td>Applied for copyright, patent, trademark; Asked for funding; Developed prototype; Defined market opportunity; Established credit with suppliers; Hired employees or managers; Organised team; Prepared business plan; Purchased raw materials, supplies; Purchased, rented or leased equipment; Received money, income or fees; Saved money to invest; Started marketing, promotion; Took a class on starting business.</td>
</tr>
<tr>
<td>Carter et al. (1996)</td>
<td>Applied license/patent; Asked for financing; Bought facilities, equipment; Developed models; Devoted full-time; Formal legal entity; Got financial support; Hired employees; Invested own money; Looked for facilities; Organised start-up team; Prepared plan; Rented facilities, equipment; Saved money to invest; Sales.</td>
</tr>
<tr>
<td>Liao et al. (2005)</td>
<td>Business idea; Business plan; First sales; Invest money; Marketing efforts; Market opportunity; Models/procedures; Lease facilities; Open account; Raw materials; Save money; Start-up team; Taken courses.</td>
</tr>
</tbody>
</table>

In a recent study on timing of start-up activities by nascent entrepreneurs, Lichtenstein, Carter, Dooley and Gartner (2007) found that successful emergence of new firms was characterised by a high rate of start-up activities conducted later rather than earlier in the start-up process. They also discuss when the start-up phase could be considered to end and when the firm becomes “operational” and propose two different measures for this. The first one is based on a cognitive approach and pays attention to the entrepreneur’s perceptions, that is, the entrepreneur evaluates when he or she finds that the start-up efforts have resulted in an “operational” firm. The other alternative is to use the distinct variable of “positive cash flow” as it shows that the firm has got a “life of its own”. (Lichtenstein et al., 2007:245).
Normally, more knowledge and more economic resources than the entrepreneur holds are needed when starting a firm. Here the founder’s network can make a contribution depending on how it is used, that is, if the founder succeeds in identifying the complementary assets existing within his relationships. (Teece, 1987; Greve, 1995). Entrepreneurial network researchers focus on the role of the entrepreneur’s network as a resource within the business (Greve, 1995; Hansen, 1995). Entrepreneurship does not occur in a vacuum, but involves economic actions between actors and builds upon ongoing interaction in social relationships (Birley, 1985). According to Andersson et al. (2005), the ability to exploit opportunities is linked to a firm’s position in the network as well as on the nature of relationships. Being part of a closed network with a high degree of embeddedness is proposed to be advantageous as the possibilities to take in the knowledge needed are better in such a network.

In summary, start-up activities undertaken by entrepreneurs vary both in amount and pattern. However, networks have been found to play a role for opportunity evaluation, resource mobilisation as well as gaining legitimacy. This is further discussed in chapter 2.3.3.

2.2.3. Exploration and exploitation of international opportunities

While entrepreneurship research is directed at studying entrepreneurs and the way they recognise and exploit business opportunities primarily in the domestic market, international entrepreneurship research focuses on exploration and exploitation of opportunities in international markets. In the identification of international opportunities innovativeness is required as in allocation of resources and selection of areas to internationalise (Zahra & George, 2002). Exploitation of opportunities always involves uncertainty and risks and the risk is further increased when pursuing opportunities in international markets (Zahra et al., 2005). As can be noted, opportunities in both domestic and international contexts involve the same aspects of uncertainty, risk-taking and innovation.

Exploring and exploiting international business opportunities involves taking advantage of opportunities found in foreign markets. Ellis (2011) defines international opportunities as “the chance to conduct exchange with new partners in foreign markets” and thus he only acknowledges the outward internationalisation activity of international sales in his definition. According to Geursen and Dana (2001) international business opportunities have benefited from advances in production, technology and telecommunications. It is nowadays easier to follow what is going on in foreign markets and to develop and maintain international relationships. This is favourable for recognising and exploiting international opportunities. Furthermore, the increased foreign travelling promotes entrepreneurial-minded people to observe ideas to be developed into opportunities. Thus, enablers for international business opportunities have evolved during the last decades.

Chandra et al. (2009) as well as Ellis (2011) have conducted two of the few existing studies explicitly focusing on the international entrepreneurial opportunity recognition process. In a case study Chandra et al. (2009) found that firms with limited prior international experience tended to discover opportunities in a serendipitous or ad hoc way, rather than searched for them deliberately. On the other hand, firms with extensive prior international experience and knowledge applied a conscious and systematic search for their first international opportunity. In these firms international opportunity recognition involved matching pre-existing means, such as resources, skills
and new technologies, with new ends, that is, new markets in a process characterised by problem solving. Ellis (2011) found no space for serendipity or blind luck at all in his study based on interviews with 41 managers in China. The majority of the international exchange-opportunities studied were indeed discovered, rather than sought. However, the discoveries were not accidental, but intentional. Furthermore, Ellis (2011) proposes that it is mainly the entrepreneurs’ existing relationships that shape the recognition process of international exchange-opportunities. Thus, this process is a very subjective process and he also pays attention to the fact that the relationships may both be an advantage and disadvantage for this process. The benefits are mainly of an informational character and opportunities recognised through relationships tend to be of higher quality due to the trust inherent in the relationship, whereas drawbacks are different cognitive and situational constraints such as recognition of opportunities limited in terms of geographic, psychic and linguistic distance. This in turn, may result in sub-optimal internationalisation patterns.

Dominguinhos (2002) has studied the role of entrepreneurs for international opportunity exploration and exploitation in Portuguese born global firms. Results imply that entrepreneurs are the fundamental driver for internationalisation and that their relational capital is decisive for getting complementary resources and potential customers. Thus, the background and history of the entrepreneur are important for exploration and exploitation of international opportunities. Also Mathews and Zander (2007) mention that aspects preceding the actual development of opportunities are fundamental in order to understand the origin of opportunities and the process of developing them. The milestones of exploration and exploitation of international opportunities are according to Mathews and Zander (2007:393): the discovery of opportunities, the deployment of resources to exploit the resources and the engagement with international competitors. Zahra et al. (2005) state that entrepreneurs are inclined to use their networks in order to collect information about foreign markets as they perceive the information received as credible. Previous experience, contacts and relationships established at various points of time on various occasions might be the seed for international opportunities or the motor driving the development of opportunities forward.

In summary, research focusing explicitly on exploration and exploitation of international opportunities is still in its infancy, and avenues for further research in this area are varied and extensive. Also Chandra et al. (2009) as well as Ellis (2011) refer to the process of international opportunity recognition as an important, but neglected research area. In particular, they claim that this area is important as a consequence of firms internationalising earlier and faster, that is, due to the phenomenon of INVs. Chandra et al. (2009) state:

International opportunity recognition is the beginning of the internationalization process and deserves more systematic research attention than it has so far received because it is the trigger that starts off everything. (Chandra et al., 2009:31)

2.2.4. Summary

This dissertation distinguishes between opportunity exploration and opportunity exploitation, although it is acknowledged that these often are intertwined. The reason for dividing them is that the assumption is that there are also opportunities that are explored but not exploited, that is, opportunities are identified, but not acted upon. Bengtsson et al.’s (2005) lead to study opportunities as activities relating to exploration and exploitation is furthermore followed. Exploration is related to identification of
opportunities and includes activities like search, discovery, creation and running across problems. Opportunity exploitation refers to what is done in order to realise an opportunity. Exploitation, correspondingly, includes activities like refinement, evaluation, implementation and commercialisation.

The underlying assumption of the dissertation is that opportunities are socially and cognitively created. Socially, as the entrepreneur is influenced by other people in different ways and cognitively, as prior knowledge influences what opportunities are identified. This assumption implies that two people identifying the same idea will not develop the same opportunity. This is due to the different perceptions, intentions, mental models and prior knowledge of the two people (Krueger, 2000), but also the different social context of the persons, that is, relationships to different persons and businesses.

The term entrepreneurial event is used when referring to the exploration and exploitation of the initial business idea that is used to start the firm. The term internationalisation event, however, is used for the exploration and exploitation of international business opportunities. This is similar to Jones and Coviello (2005) who also differentiate between entrepreneurial and internationalisation events in their reflections on time in international entrepreneurship. In this study entrepreneurial events are sub-divided into a pre-founding phase and a start-up phase depending on whether a decision to start a firm is taken or not. The pre-founding phase contains activities related to the exploration and exploitation of the initial business idea that occurs before the decision to start a firm is made. Whereas, the start-up phase includes activities which occur after the decision to start a firm is made and hence results in the establishment of a specific firm. Internationalisation events, however, consist of activities related to the exploration and exploitation of international opportunities in the early internationalisation phase, such as sales, sourcing and cooperation opportunities as well as launching the product internationally. An assumption guiding the dissertation is that the early internationalisation phase may be parallel to both the pre-founding and the start-up phase.

Thus, the definition of an opportunity by Christensen et al. (1994) is applied in the dissertation and according to that an opportunity is both the initial business idea that leads to the creation of a firm as well as opportunities grasped that improve the situation of an existing firm. This definition suits the purpose of the study well because the initial business idea that leads to the creation of a firm covers the pre-founding and start-up phase (entrepreneurial event). While opportunities grasped that improve the situation of an existing firm cover the early internationalisation phase (internationalisation event).

2.3. Multiple perspectives on networks

In accordance with Elfring and Hulsink (2003), the dissertation is based on the assumption that entrepreneurs and their firms are embedded in ongoing relationships of both a social and economic character including personal and business relationships. These relationships affect firm development.

Entrepreneurship research on networks mainly concentrates on three different topics: the content, governance as well as structure of the network (Hoang & Antonicic, 2003). In addition, Slotte-Kock and Coviello (2010) examine entrepreneurship research for a fourth topic, network processes. The content of network relationships attributes to
different forms of benefits gained through the entrepreneur’s network. Relationships are sources of getting access to both immaterial and material resources held by the other party. The main part of research done on network content focuses on immaterial advantages obtained (see e.g. Birley, 1985; Brüderl & Preisendorfer, 1998), such as emotional support, information, knowledge and reputation. However, material resources, and then primarily access to goods and financing (see e.g. Aldrich & Zimmer, 1986), have also been studied to a considerable extent. (Hoang & Antoncic, 2003). Often one contact offers multiple resources. This is called multiplexity in networks by Brown and Butler (1995). Johannisson (2000) has summarised the different functions of entrepreneurial networking. He has separated between the importance of the network for the entrepreneur and for the firm. According to Johannisson (2000) networks have three main functions. First, by amplifying commitment they can be said to fill a social function. For the entrepreneur, on the one hand, this means that his self-confidence is strengthened through the support and encouragement given by his contacts. On the other hand, for the firm this means that through the network the firm can build a solid reputation, credibility and legitimacy. Second, the network has a resource function by trimming the entrepreneur’s personal expertise and enlarging the firm’s resource base. Finally, the network serves a strategic function. The explanation behind this is that networking does not only foster the original vision of the firm, but it may also change and refine it by visualising new opportunities and encouraging learning and development. This indicates that networking fills a function as a means for recognising and developing opportunities. Furthermore, Johannisson and Monsted (1997) bring forward personal networks as a mechanism for social control. This can be seen as positive, if related to aspects of legitimacy and trustworthiness. However, it can also be seen as negative, if it results in a careful behaviour of not grasping opportunities out of consideration for the reactions from the environment. Johannisson and Monsted (1997) argue that the function of a network as a form of social control is true about Scandinavia in particular, where a culture of envy and moralising is perceptible. According to Ostgaard and Birley (1996) a network simply can provide the entrepreneur with support, information, advice, problem solving, contact and credibility. In this respect networks are important not only in the start-up phase, but during the firm’s entire existence. (Johannisson, Alexanderson, Nowicki & Senneseth, 1994).

If network content is related to what is transferred through the network, network governance deals with how networks are kept together. That is, what is it that coordinates networks and the exchange within them? The major reason behind this according to research is trust. Trust is the critical aspect that determines the amount and quality of exchange between actors (Larson, 1992). Johannisson (2002) means that the entrepreneurial, personal networking is based on genuine relationships, where there is a mixture between instrumentality and genuine care of the other. Thus, he implies that personal networks are characterised by purposeful and calculative exchanges as well as by trust in others, trust which is more or less taken for granted by the actors. Personal networks are, therefore, not primarily based on formal and legal contracts, but instead they rely on informal, unexpressed and open-ended “contracts” (Larson, 1992; Hoang & Antoncic, 2003). Social mechanisms influencing the tacit “contracts” are, for example, the threat of ostracism (exclusion from the network) and loss of reputation. These advocate a behaviour characterised by reciprocity and mutual adjustments or one may otherwise meet with collective sanctions such as negative rumours or sabotage. (Jones, Hesterly & Borgatti, 1997). Social mechanisms sustain favourable relationships within a network, as do trust, commitment, shared values and mutual sentiments (Johannisson, 1987a, 2002). Governance of networks is largely about structural embeddedness. Structural embeddedness is related to the fact that
your contacts often also relate to each other in some way. Thus, a negative incident with one actor can have an impact upon relationships with other actors as well. Because of this, social embeddedness is reflected in an interest of behaving in a way that preserves relationships to other actors and the reputation of the own person and the own firm. (Jones et al., 1997).

The third large topic within research on personal networks is the structure of networks. By this is meant what the network looks like. Interest has been given e.g. to the kind of ties existing between the actors and to different dimensions of how to “measure” a network. When studying networks, researchers have tried to find appropriate ways of dealing with them. Social networks can be described by several different dimensions such as size, activity, density, centrality and multiplexity (Aldrich & Zimmer, 1986; Greve, 1995). Network size is a measure that has been applied very often, and pretty much as a consequence of simplicity. By size is meant the number of links between a focal actor and other actors. The thought behind using size as a measure for a network is that the more links and more actors, the more resources will be obtained through the network. (Hoang & Antoncic, 2003). However, other measures have been developed, as size is not the only, or perhaps not the best variable to describe networks and their effectiveness. Greve (1995) has, for example, studied the use of networks in different phases of the business founding process. The use of the network he defined, not only by size, but also by variables such as the following: time used for networking, network density (how tightly connected persons in a network are to each other), availability of indirect contacts (knowledge about the networks of your own network) as well as the background of the contacts (measured as both the type of relationship and the personal characteristics of contacts).

Network processes are a fourth dimension of networks that in principle can be applied to any of the three previously mentioned topics on networks. Network processes deal with change, dynamics and network development processes. Hoang and Antoncic (2003) divide network contributions in entrepreneurship research into studies treating 1) the network as an independent variable, focusing on how the network affect the entrepreneurial processes and outcomes, and 2) networks as an dependent variable, interested in how entrepreneurial processes affect the development of the network. Slotte-Kock and Coviello (2010) use these two categorisations to evaluate entrepreneurship research on networks from a process perspective. They conclude that the majority of empirical studies focus on networks as an independent variable. They also found that two conceptual articles, Larson and Starr (1993) as well as Hite and Hesterly (2001), explicitly focused on describing network development and correspondingly treated networks as a dependent variable. However, these articles also had intentions of explaining the networks’ effect on organisational formation or on new venture success and thus treated networks as an independent variable. Thus, the selection of perspective is not mutually exclusive, but a study may also include both perspectives.

2.3.1. The use of the concepts of personal and business relationships

Many different concepts have been used for networks and relationships within entrepreneurship research and in a review article O’Donnell, Gilmore, Cummins and Carson (2001) divide them into two groups: inter-organisational networks (also called business networks or formal networks) and personal networks (also called social networks or informal networks). Characteristics of these two network concepts are illustrated in table 4.
Table 4  Characteristics of network constructs used in entrepreneurship research

<table>
<thead>
<tr>
<th>Type of network</th>
<th>Inter-organisational network</th>
<th>Personal network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research background</td>
<td>Transaction cost economics</td>
<td>Sociology</td>
</tr>
<tr>
<td></td>
<td>Industrial marketing</td>
<td>Social network theory</td>
</tr>
<tr>
<td>Network “actors”</td>
<td>organisations</td>
<td>Individuals</td>
</tr>
<tr>
<td>Type of link between actors</td>
<td>Dyad</td>
<td>Egocentric</td>
</tr>
<tr>
<td>Common categorisations</td>
<td>Vertical and horizontal networks</td>
<td>Social and communication networks</td>
</tr>
<tr>
<td>Frequently researched areas</td>
<td>Industrial districts</td>
<td>New venture creation</td>
</tr>
<tr>
<td></td>
<td>Joint ventures</td>
<td></td>
</tr>
</tbody>
</table>

Source: O’Donnell et al., 2001:750

Regarding networks of entrepreneurs, research has shown that social and business relationships are largely intertwined in the personal network of importance for the entrepreneur when running his business. This seems to be a common result of empirical studies on entrepreneurs in several different countries. (e.g. Aldrich, Reece & Dubini, 1989; Dubini & Aldrich, 1991; Cromie & Birley, 1992; Johannisson & Mønsted, 1997). Aldrich and Zimmer (1986) as well as Birley (1985) have also concluded that for the entrepreneur informal networking remains particularly essential throughout the venturing activities. Johannisson (2000) discusses social networks and personal networks within an entrepreneurial context and concludes that it is more appropriate to talk about the personal network than the social network of entrepreneurs. Arguments for this are that research has shown that the networks tend to be unique and individual, meaning that if a person leaves, the network will change. Thus, it is personal. Furthermore, Johannisson (2000) emphasises that basically all activities organised by humans are social, which supports the use of the term personal network instead.

All firms have important relationships with other firms – with customers, suppliers and with firms selling complementary or competing products. Thus, a firm is a part of a business network. (Hammarkvist, Håkansson & Mattsson, 1982). Business networks are in the literature described as consisting of three parts: actors, activities and resources, which are related to each other. Business relationships also include contacts to professionals like bankers and consultants, potential networks established among firms in the region or the industry, as well as other persons known from earlier or current experiences in working-life or education. Business network relationships are proposed to play a central role as sources for ideas to be developed into opportunities. This is seen to be a consequence of the relationship and the activities they share with the firm, for example, as they know each other and each others’ competencies as well as share information. Furthermore, the business network also is seen to be of relevance for the firm when exploiting opportunities. This argument is connected to the commitment, help and resources the relationships can contribute.

Table 36 in appendix 1 summarises the view of different contributions within entrepreneurship on the concepts of personal, social and business networks/relationships. From this table it is evident that when studying networks of entrepreneurs, it is meaningful to study both personal and business relationships as they overlap each other. Therefore, I will focus on both the entrepreneur’s personal and
business relationships. The assumption guiding this dissertation is that it is not entirely straightforward to draw a line between personal and business networks, that they partly overlap each other. That is, one relationship is not necessarily either personal or business related, but can have features of both. Therefore, personal and business relationships are treated as a continuum in this dissertation. This is also in line with the view brought forward by e.g. Johannisson and Mønsted (1997) and Johannisson (1998). Personal relationships are in the dissertation relationships of a more informal and social character such as relationships to e.g. friends, relatives and family. This is in line with Witt (2004) and also corresponds to the meaning applied by Ostgaard and Birley (1996) to the concept of social networks. Business relationships, on the other hand, are relationships to persons, where the contact is more of a formal, official and professional character. This is in line with e.g. Birley (1985), Ostgaard and Birley (1996) and Johannisson (1998).

2.3.2. The use of the concepts of strong and weak relationships

The strength of ties (strong and weak ties) is a feature from social network research and was originally studied within sociology for the purpose of e.g. innovation adoption, information transfer and job search (e.g. Granovetter, 1973, 1982; Lin, Ensel & Vaughn, 1981). Subsequently, this division of strong and weak ties has been adopted by other research disciplines. In economics and business management, it has been used for different purposes such as entrepreneurial processes in venture creation (e.g. Aldrich & Zimmer, 1986; Brüderl & Preisendörfer, 1998; Singh, 2000; Hite & Hesterly, 2001; Jenssen & Koenig, 2002; Elfring & Hulsink, 2003; Jack, 2005). Table 37 in appendix 1 provides a summary of how earlier studies have defined and measured strong and weak ties.

Most of the existing literature considers that strong and weak ties are separate entities. Aldrich and Zimmer (1986) as well as Perry-Smith and Shalley (2003) constitute exceptions as they explicitly talk about relationships varying from strong to weak. Hite (2003; 2005) also infers to some kind of continuum for the strength of ties. In Hite (2003) the concept of embedded ties (i.e. strong ties) is studied in detail and she questions whether there is a clear cut distinction between strong ties and weak ties. She also raises issues about whether there are different types of embedded ties and how they differ from each other. Hite’s exploration of embedded ties results in eight types of ties: weak ties as well as seven different types of relationally-embedded ties, that is, strong ties. In Hite (2005) the evolution of strong ties is addressed. She suggests that a relationship may evolve towards full embeddedness. Thus, an assumption of a continuum is implicitly made, that the strength of stronger ties may be stronger or weaker. In addition, Hite (2005) mentions a continuum ranging from market-based non-embedded (weak) to embedded relational (strong) ties. Jack et al. (2004) also developed a continuum for strong ties ranging from intense family relationships, through business contacts, to less intense suppliers, competitors and customers relationships. Finally, Mønsted (1995) suggests using dichotomies perceived as a continuum for evaluating network ties and specifically mentions strength as one example.

There are various ways of defining a strong tie and a weak tie. According to Granovetter (1973) the strength of ties can be determined by the amount of time, emotional intensity, intimacy and reciprocal services characterising the tie. Krackhardt (1992) states that this means that strong ties are determined by a linear function of four quasi-independent indicators. If so, the following question arises: Are all indicators equally
important in determining strength? Marsden and Campbell (1984) have developed
Granovetter's intuitive measures for tie strength further and tested them empirically.
They conclude that the best indicator for strength of tie is closeness, which is a measure
for the emotional intensity of the relationship. Above all, frequency and duration
turned out to be problematic measures, as they sometimes tended to overestimate the
strength of ties.

Krackhardt (1992) would like to draw more attention towards the affective character of
strong ties and develops a special type of strong tie that he calls a philos relationship
(philos is the Greek word for friend). Philos relationships are relationships where
people interact with each other, feel affection for and like each other as well as having a
history of interactions that have lasted over an extended period of time. Krackhardt
(1992) emphasises that philos relationships can qualify as strong relationships as
Granovetter perceived them. Also Dubini and Aldrich (1991) focus on the affective
careracter, trust and emotions when separating between strong and weak relationships.
Uzzi (1997) introduces the concepts embedded ties and arm’s length ties. His definition
and use of these concepts implies that parallels can be drawn with strong and weak ties.
The message he wants to bring forward is that embedded or close ties are more
important for firm success and overall business volume, even though arm’s length ties
may be used with greater frequency. Thus, he argues that the quantity of ties is not
synonymous to the quality of ties.

Several of the definitions for strong and weak ties are based on type of tie (e.g. Lin et al.
with friends, relatives and neighbours. Weak ties are, however, associated with
acquaintances or friends of friends. Thus, strength and type are considered to be largely
intertwined. However, in this dissertation the perception is that strong and weak ties
may exist both among personal relationships and among business relationships. This
idea is partly supported by the research of Hite (2003), as she finds both strong ties
based on personal relationships and on dyadic economic interaction, which could be
seen as business relationships. However, Hite (2003) does not enter more deeply into
weak ties. I think that a corresponding division could be made also for weak ties. It is
very likely that weak ties also differ from each other and that there are weak ties based
on personal and on business relationships.

Time spent in the relationship and frequency of contact have also often been used as
measures for strength (e.g. Granovetter, 1973; Aldrich & Zimmer, 1986; Elfring &
Hulsink, 2007). Mønsted (1995) and Jack (2005) are critical towards using frequency
as a measure for strength, however, Mønsted (1995) acknowledges the use of age.
Marsden and Campbell (1984) and Uzzi (1997) criticise both duration and frequency as
measures for strength as these tend to overestimate the strength of ties. Instead, they
argue that strength has more to do with commitment, affection, trust, respect and
reciprocity. Jack et al. (2004) suggest a strong-tie continuum based on trust, integrity
and honesty as characteristics.

Consequently, the definition used for a strong relationship is in this dissertation: a
close relationship based on trust, mutual respect, commitment, deep knowledge and
experience of each other. This is consistent with the earlier literature in the following
way: closeness (Marsden & Campbell, 1984; Uzzi, 1997), trust (Singh, 2000; Hite,
2005; Jack, 2005), mutual respect (Jack, 2005), commitment (Krackhardt, 1992; Hite,
2003), deep knowledge and experience of each other (Elfring & Hulsink, 2003; Jack,
2005). The definition of a weak relationship is correspondingly: a superficial
relationship not yet based on strong trust and where the parties do not know each
other well and are not emotionally close to each other. This is in line with e.g. Dubini and Aldrich (1991). Weak relationships are thus considered to be arm’s length ties.

From the definitions applied in this dissertation strong and weak relationships are considered not as separate groups, but as ends on a continuum. That is, relationships are assumed to be somewhere on a continuum ranging from strong to weak. By not solely focusing on strong and weak or on business and personal relationships, but yet still treating them separately, this research will increase the knowledge about relationships’ meaning.

Current debate on the benefits of strong and weak relationships

Discrepancies exist in the literature as to whether strong ties or weak ties are more fruitful. For example, strong ties are reported to be beneficial as the contacts are more easily available, more motivated to assist and easier to establish trust (Aldrich & Zimmer, 1986). Strong ties are, however, criticised for being too strong, as they can result in lock-ins, constrained ways of thinking and acting as well as access to only similar resources (Grabher, 1993). Lock-ins also result in the inability to absorb information provided by other contacts (Johannisson, 2000). Granovetter (1973) emphasises the benefit of weak ties as they provide a variety of new ideas and new information compared to the redundant information obtained through strong ties. Julien, Andriambeloson and Ramangalahy (2004) found support for this in their study on technological innovations among SMEs. They conclude that the most innovative and dynamic firms use weak tie networks offering them complementary contributions, such as new information and new ideas. Information spread through weak ties is likely to reach a larger number of people (Granovetter, 1973). Also other researchers (see e.g. Hansen & Witkowski, 1995) have through empirical results found support for this argument. Weak ties have important consequences also from a diffusion perspective.

This debate shows that strong and weak ties are beneficial and/or costly in different contexts. In fact, in a follow-up article Granovetter (1982) states that although both strong and weak ties are beneficial this occurs in different ways. The situation determines which type of tie is more advantageous in a specific situation. Strong ties are not irrelevant regarding information transfer. In fact, the speed of information flow as well as the credibility and influence of the information, have all been shown to be greater within strong ties (Granovetter, 1982). An often used expression supports this – weak ties if you want information, but strong ties if you want something done.

This strong tie versus weak tie debate extends to its role of brokerage in networks (e.g. Granovetter, 1973; Burt, 1992; 2005; 2007; Davidsson & Honig, 2003). When there are missing relationships between networks they create gaps that hinder the flow of information which Burt (1992) refers to as structural holes. When a third person introduces two people who have never met before then this person is playing the role of brokerage (Burt, 1992; 2005; 2007). Granovetter (1973) in a study of job seekers reveals how weak ties are better at linking disconnected networks than strong ties. Also Burt (1992, 2005) focuses on strength of ties and their ability to bridge structural holes and states that the strength of weak ties is that they better function as brokers for new relationships and networks. Coleman (1988) demonstrates the benefits of network closure when two disconnected networks joined through brokerage gain from the flow of new information. He refers to these benefits (e.g. information and brokerage) that individuals get from their network as social capital. There are norms and sanctions about network behaviour and closure builds trust in a network structure and extends obligations and expectations. These factors strengthen the social capital an
entrepreneur acquires from the network which helps progress through the start-up process (Davidsson & Honig, 2003).

2.3.3. A network approach to opportunity exploration and exploitation

Research on entrepreneurial networks contributes to the entrepreneurship field by bringing forward the role of individual entrepreneurial action for opportunity development and resource mobilisation (Dubini & Aldrich, 1991; Shane & Venkataraman, 2000). During the 1980s and early 1990s research on networks and entrepreneurship began to emerge, e.g. through the work of Birley (1985), Aldrich and Zimmer (1986) and Johannisson (1987b). Networks are according to researchers like these regarded to be very important – perhaps even one of the most powerful assets one can have. They offer access to power, information, knowledge, capital and other networks. According to Johannisson (1987b) personal networks of entrepreneurs function as frames of reference, mental support systems, safety nets, resource banks and offer legitimisation and basic competency. Johannisson (1993) proposes that the benefits of entrepreneurs’ personal networks are social support, resource supply and strategic tension. However, the meaning of these differs depending on whether the benefits are considered from the perspective of the individual or the firm. For the individual these would imply enhanced self-confidence, refined competencies and increased capability to learn and unlearn, whereas for the firm the corresponding benefits would be increased legitimacy, enlarged resource base and improved capacity to self-organise. Table 38 in appendix 1 summarises the benefits of networks for the entrepreneurial process based on findings from empirical studies within entrepreneurship research.

The role of networks for the entrepreneurial process specifically during start-up and early growth has been studied by e.g. Jenssen and Koenig (2002), Elfring and Hulsink (2003, 2007) and Singh (2000). Jenssen and Koenig (2002) found that during start-up both strong and weak ties are important for getting information and for getting access to finance. However, for motivation purposes strong ties were clearly more important. Elfring and Hulsink (2003) distinguish between three entrepreneurial processes: discovery of opportunities, securing resources and obtaining legitimacy. With a qualitative, exploratory case study they examine in which way these three processes are influenced by strong and weak network ties. They also include whether the degree of innovation, that is incremental or radical innovation, impacts on the way network ties support entrepreneurial processes. Based on the case studies tendencies emerge that strong ties are central for resourcing, whereas for discovery of opportunities and for gaining legitimacy a mixture of strong and weak ties are crucial. According to Elfring and Hulsink (2003:412) “the network of an entrepreneur is a source of information helping the entrepreneur to locate and evaluate opportunities”. In a follow-up study on tie-formation in emerging organisations, Elfring and Hulsink (2007) found that whether strong or weak ties were used in the emergence phase depended on two things. First, the type of firm and second, if the innovation pursued was incremental or radical. They found that in independent firms weak ties were dominant. Spin-offs and incubatees, however, mainly relied on strong ties for incremental innovations, and a mixture of strong and weak ties for radical innovations. Studies relating networking to start-up success have, however, found contradicting results, e.g. Brüderl and Preisendörfer (1998) found positive correlations in their study based on interviews with 1710 new firms, whereas Littunen (2000) found no significant correlation between networking and start-up success.
In particular, social networks are deemed to be relevant as information channels (Coleman, 1988) and for discovering opportunities (Ardichvili & Cardozo, 2000; Anderson, Park & Jack, 2007). Hills et al. (1997) conducted a study exploring opportunity recognition of “solo entrepreneurs” (those who had developed the business idea on their own) and “network entrepreneurs” (those who had got ideas from their social network). They based their study on Granovetter’s (1973) distinction between strong and weak ties and found support for the argument regarding the strength of weak ties. Thus, they concluded that entrepreneurs who have larger networks consisting of weak ties (extended networks) tend to identify significantly more opportunities, whereas personal networks characterised by strong ties are perceived to be inefficient (Hills et al., 1997). De Koning states that within the process of exploring opportunities, entrepreneurs involve their networks to a large extent. In interaction with different kinds of contacts they gather information and test their ideas. By different types of contacts De Koning meant both strong and weak ties. The groups identified were the entrepreneur's inner circle, action set (people actively recruited to provide resources for exploiting opportunities), partners (start-up team members) and network of weak ties. (De Koning cited in Ardichvili et al., 2003).

Singh (2000) has studied how social network relationships are important for recognising entrepreneurial opportunities among information technology entrepreneurs. The results showed that social networks played an important role for the opportunity recognition. In particular, the amount of social network contacts had a positive impact upon the number of new venture opportunities recognised as well as upon the number of opportunities pursued. In addition, a larger social network lead to a wider range of new venture opportunities recognised. Singh also used Granovetter's (1973) concepts of strong and weak ties. In accordance with the results by Hills et al. (1997), weak ties were found to be positively related to the amount of ideas and opportunities identified. Furthermore, Singh (2000) found that entrepreneurs who use a mix of strong and weak ties recognised more successful new venture opportunities than those who used only strong, only weak or no contacts at all. Similarly, Ozgen and Baron (2007) conclude that mentors, informal business networks and professional forums are important for opportunity recognition. Anderson et al. (2007) stress opportunities as an outcome of social interaction and found examples of two different ways this could occur: in situations where opportunities were created by and in interaction with the entrepreneur's social network and situations where opportunities were recognised because of it.

Networks are reported to enable start-up because they supplement the entrepreneurs’ own resources and constitute an important source of a variety of resources needed to start and build a business (e.g. Greve, 1995; Jack & Anderson, 2002; Jenssen & Koenig, 2002; Greve & Salaff, 2003; Hite, 2003). These include money, social support, product ideas, markets and information. In Witt (2004) several examples of resources that otherwise would not be available to start-up firms, but that they can get access to through their networks are mentioned. These include reputation (e.g. from an experienced manager being a mentor, friends brokering orders from large firms that would not normally order from small and new firms or professors at their former universities contributing with new information on technologies difficult to purchase). Milanov and Fernhaber (2009) emphasise that new firms in an early stage of development should find partners with a central position in large networks. This allows them to access network resources in the long-term. A good partner leads to other valuable relationships and improves the firm’s attractiveness and legitimacy. The selection of the initial partner is therefore critical for the further development of the new firm’s network. Hite (2005:113) also emphasises the brokerage function of
networks in the start-up phase by stating: “the network ties of an emerging firm can provide the conduits, bridges and pathways through which the firm can find and access external opportunities and resources”.

Research on the effect of the entrepreneurial process on network development shows that the network changes as the firm evolves (Butler & Hansen, 1991; Larson & Starr, 1993; Hite & Hesterly, 2001; Davidsson & Honig, 2003; Elfring & Hulsink, 2003; Greve & Salaff, 2003; Schutjens & Stam, 2003). Hite and Hesterly (2001) propose that networks of emerging firms change from consisting mainly of socially embedded dense ties during emergence towards more calculative networks during the early growth stage. Consequently, there is a development from mostly strong ties towards more weak ties because in the early stages a firm lacks resources. Their network, especially strong ties tend to be more willing to assist without any expectations, whereas weak market-based ties expect money in return. A similar development from strong to weak relationships during the early development of the firm is found by Davidsson and Honig (2003) as well as Lechner and Dowling (2003). Regarding the type of relationships Butler and Hansen (1991) propose a development from the use of mainly social networks in the pre-start-up phase to business networks in the startup phase. In a qualitative study on 29 entrepreneurs they found that social networks were very important for opportunity identification in the early phase. However, in the start-up phase the entrepreneurs emphasised their own previous experience and networks were not regarded as being important. However, when business had been started networks became important for strategically exploiting the opportunity. Networks then played an important role in linking the firm with other organisations such as competitors and for developing marketing activities. In a longitudinal study of new ventures, Schutjens and Stam (2003) found a development from social to business contacts over firm’s first three years regarding its outsourcing, supplier and cooperative relationships. However, sales relationships developed in a contradictory direction from business towards social.

In summary, even though research on networks in relation to the entrepreneurial process is extensive, the knowledge they provide about the nature of relationships and relationships’ contribution to business activity is mostly fairly broad and superficial, stating that relationships are important for opportunity identification, resourcing and gaining legitimacy or that larger networks have a positive effect on start-up success. This is partly an outcome of the large amount of quantitative large-scale survey studies found among the contributions. Exceptions are found among e.g. research of Jack et al. (2004), Jack (2005), Neergaard (2005) and Shaw (2006). Still, a deeper understanding of how relationships support different activities within opportunity exploration and exploitation is desirable. Also O’Donnell et al., (2001) and Jack (2005) call for research considering the actual function and utility of network relationships as well as for studying the dynamic nature of relationships through longitudinal studies.

2.3.4. A network approach to internationalisation

The involvement of networks in successful SME internationalisation has been studied extensively in the extant literature for example by Johanson and Mattsson (1988), Forsgren and Johanson (1992) and Chetty and Blankenburg Holm (2000). Researchers taking a network perspective on internationalisation focus on the role of inter-organisational and inter-personal relationships of the firm for international activities. Theories of social exchange and resource dependency often function as the basis for the network perspective. Relationships in focus are diversified and include relationships with customers, suppliers, competitors, private and public support agencies, family as
well as friends. (Coviello & McAuley, 1999). Thus, it comprises both business/formal relationships and social/informal relationships.

The main idea within the network approach to internationalisation is that a firm’s internationalisation depends more upon the organisation’s relationships than on firm-specific advantages (Coviello & McAuley, 1999). Johanson and Vahlne (2009) propose that it is the ‘liability of outsidership’ (being outside the relevant network) rather than the ‘liability of foreignness’ (great psychic distance) that creates uncertainty in international markets. Johanson and Mattsson (1988) also suggest that a firm’s success in entering new international markets is more dependent on its relationships within both domestic and international markets, than on the characteristics and culture of the market chosen. Other researchers have emphasised the impact of social relationships on internationalisation (Holmlund & Kock, 1998; Ellis, 2000; Hinttu, Forsman & Kock, 2004). In particular, network relationships influence foreign market selection, entry mode and product development. Thus, decisions and activities regarding internationalisation cannot according to the network perspective be fully explained by rational decision-making like in the FDI theory, but instead relationships considerably affect the decisions as well (Coviello & McAuley, 1999). Also Chetty and Blankenburg Holm (2000) conclude that business networks are relevant for internationalisation as firms interact with network partners in order to extend, penetrate and integrate their international markets. The advantages gained through the network are, according to Chetty and Blankenburg Holm (2000), access to new opportunities, knowledge, experience as well as synergies from shared resources. Opportunities developed through networks have also been studied by e.g. Agndal and Chetty (2007), Chandraet al. (2009) and Johanson and Vahlne (2006; 2009). Blomstermo, Eriksson, Lindstrand and Sharma (2004) found that especially in the early stages of international business development the perceived usefulness of experimental knowledge gained through the network is high.

For small firms with limited resources networks offer an alternative way of getting the resources needed in order to internationalise and the network can, thus, be seen as a support strategy (Johannisson & Mønsted, 1997). Networks have been concluded to generate an energy exceeding the sum of the parts, that is, $2+2=5$ (Holmlund & Kock, 1997). Harris and Wheeler (2005) advocate that functions of networks exceed the usually mentioned ones like provision of information and access to networks. The entrepreneurs’ networks are of importance also for strategic development of the firm, as they can be involved in driving, directing and managing internationalisation and in revisioning the firm into an international or global firm. They identified that the important relationships for internationalisation contributed to marketing functions, contacts and specific market knowledge. They make a distinction between, on the one hand, networks that are planned and developed specifically for the purpose of benefiting the firm during a systematically planned internationalisation process (Yip, Biscarri & Monti, 2000) and on the other hand, networks that exist from before and that entrepreneurs make use of during internationalisation (Coviello & McAuley, 1999). Results show that the second type is more current for young international entrepreneurs and that every relationship may be a resource – business as well as personal relationships (Harris & Wheeler, 2005). Agndal and Axelsson (2002) emphasise that networks and relationships are important factors when internationalising, but that they of course are not the only factors explaining internationalisation. In the internationalisation process they “play the roles of triggers, enablers and directors” (Agndal & Axelsson, 2002:453).
Johanson and Vahlne (2003) develop a network model for the internationalisation process of a firm. They conclude that business networks foster learning important for internationalisation. Networking results in learning about how to build and coordinate networks – also internationally. Internationalisation, in turn, results from existing relationships with customers and suppliers, coming relationships as well as relationships with the partners’ relationships. They point out that the network model in itself does not say anything about which countries firms enter and expand into, only that business actions undertaken by firms are aimed at developing, supporting and coordinating relationships. They also conclude that networks may be one explanation for the rapid internationalisation deviating from the traditional incremental internationalisation process.

Thus, networks have been observed to be important for internationalisation. However, the question of how different networks according to type and strength in particular, impact on opportunity development in an international context still remains to be studied further. Hinttu et al. (2004) e.g. propose that further research should be directed at networking and internationalisation e.g. by developing a deeper understanding of how strong and weak ties differ in the internationalisation process. Based on the assumption that networks constantly are evolving and changing and that it is possible to influence these changes, Hinttu et al. (2004) raise the question of whether you should aim for strong or weak social ties in order to make social relationships useful for business performance. Furthermore, Agndal and Axelsson (2002) emphasise that an interesting issue to study further is the ways individuals and the individuals’ relationships impact on internationalisation. It is individuals who interpret the environment, identify opportunities and enact upon them and while doing so they make use of their former experiences and personal contacts largely established in the past, that is, relationship sediments. In real life this is a well-known phenomenon, but Agndal and Axelsson (2002) point out that among scholars it has received fairly limited attention.

### 2.3.5. A network approach to INVs

The network approach has been found to better, although not fully, explain the internationalisation process of INVs, than the traditional stage models on internationalisation (Bell, 1995). However, the relationship between networks and INVs is maybe not simple and straightforward, and Loane and Bell (2006) raise a question regarding the ambiguous cause and effect relationship between networks and INVs. That is, are networks the actual driver of rapid internationalisation or are they ways of overcoming resource deficiencies? Support for both alternatives exists. Table 39 in appendix 1 summarises the benefits of networks for INVs identified in previous empirical studies within international entrepreneurship research. From the table it is also apparent that the case study research method is commonly applied within this area. This is probably a consequence of the fact that research in and knowledge about the area is new and still limited.

Crick and Jones (2000) found that previous international experience, contacts and relationships were more important when deciding on which foreign markets to enter than e.g. psychic distance of markets. This is so as they offer information on possible customers abroad, possible cooperation partners and possible new international business opportunities (Blomstermo & Sharma, 2002). Sharma and Blomstermo (2003) claim that it is the weak ties that are important as the knowledge supplied by them determines which international markets they enter and the mode of entry they
use. In this way they also emphasise that the internationalisation process of INVs is characterised by improvisation. Also Chandra et al. (2009) emphasise the importance of weak ties for international market entry, particularly if they are rich in structural holes and thereby have the potential to link different international networks.

Both personal and business networks have been found to be of importance for INVs (Coviello & Munro, 1995; 1997; Knight & Cavusgil, 1996) and both types drive, facilitate and speed up the internationalisation process (Coviello & Munro, 1995; 1997). Founders of INVs have been identified to rely on strong international business networks as they offer important resources for the otherwise resource-poor start-ups. Especially new ventures depend on business relationships such as financiers, suppliers and customers. (Oviatt & McDougall, 1994; Oviatt & McDougall, 1995). However, also personal relationships have been observed to offer advice, legitimacy and identify opportunities (Oviatt & McDougall, 1995). Andersson and Wictor (2003) even found that personal networks are the main networks in INVs, as the firms are new and processes, routines and systems not very stable. The area of personal networks within international new ventures has also been dealt with by e.g. Riddle and Gillespie (2003), Yli-Renko, Autio and Tontti (2002) as well as Andersson and Evangelista (2006). The purpose of the study by Riddle and Gillespie (2003) was to examine the role that informal and formal social networks played in order to obtain information regarding internationalisation. Yli-Renko et al. (2002) take a knowledge perspective on social capital and found support for the proposition that the larger the firm’s internal and external social capital, the greater the knowledge, and therefore, the faster the international growth. In a case study on six INVs Andersson and Evangelista (2006) found that the entrepreneurs’ networks are important for international expansion, production and finance. Rasmussen et al. (2001), however, concludes that networking is not as important as expected for the founding of international ventures. This is so, as in five case studies they identified both firms where the founders’ network was involved, and also firms where no previous relationships were involved in the founding. Thus, they concluded, “it is possible to found a new, and highly international firm from the ground with just a good idea and some experience” (Rasmussen et al., 2001:100).

The dynamics involved in INVs' networks is studied by Coviello (2006) as well as Coviello and Cox (2006). In these two studies networks are studied from the perspective of how they evolve and differ during different stages of the INVs' development process which is divided into conception, commercialisation and growth. Coviello (2006) found that the size of INV networks increase, whereas the density decreases over time implying that the networks are not characterised by increased closure. She found that INV networks include a diversity of relationships – social and economic, strong and weak, short-term and long-term depending on the need experienced by the INV. Still, economic relationships dominated in all three stages. At conception a small dense network was beneficial for gaining resources from trusted sources. However, as the INV developed towards growth (including internationalisation), the network developed and became larger with more structural holes and as a consequence increased the INV's social capital. In addition, she found evidence for networks being both intentionally managed and developed by referrals through third parties, that is path-dependent. In Coviello and Cox (2006) networks are studied with regard to resource dynamics. Networks are both considered to be a resource in themselves and offer resources and access to resources. Different resources gained through networks tended to be more prevalent in some stages of the INV development than others. In the conception stage networks were important as they offered organisational resources such as input for technology development. Next human resources became most important and in the growth stage again organisational
resources including knowledge of and access to markets. Networks offered financial resources in the first stage in all cases, however, at later stages they were identified as network outcomes in some cases but not in others. In general, networks were not equally important for financial and physical resources as for organisational and human resources.

In cases where INVs lack existing networks Loane and Bell (2006) found that they consciously build up new ones for the purpose of internationalisation. In order to be able to expand their international networks, entrepreneurs seemed to increase the firm’s network by consciously taking in additional members to the management team – members with international experience and international contacts. (Loane, Bell & McNaughton, 2007).

In summary, earlier research is mainly of the opinion that networks are important for INVs. However, there is a lack of more profound studies regarding the way different types of relationships influence INVs (called for by Andersson & Wictor, 2003:266 as well as Coviello, 2006:727). Few studies are concerned with exploration and exploitation of opportunities (Zahra & George, 2002) and Ellis (2011) calls for more research on the benefits and content of entrepreneurs’ relationships for the international opportunity recognition process; this is so as entrepreneurial networks are subjective and idiosyncratic and involve heterogeneous latent benefits. This dissertation focuses on developing a deeper understanding of the entrepreneurs’ relationships involvement in the opportunity exploration and exploitation that INVs build upon. Separation is done between relationship type, strength and origin, and benefits and drawbacks of the relationships are studied with regard to the opportunity development process.

2.3.6. Summary

This dissertation studies the entrepreneurs’ networks on the level of relationships. In line with existing entrepreneurship research both personal (informal, social) and business (formal) relationships are acknowledged to be involved in the entrepreneurial process. Furthermore, entrepreneurship research has shown that social and business relationships are largely intertwined. Therefore, this dissertation is guided by the assumption that it is not possible to treat personal and business relationships as totally distinct and separate. Instead, in this dissertation the type of relationships are treated as a continuum ranging from entirely business to entirely personal. The same applies to the strength of relationships which is treated as a continuum ranging from entirely strong to entirely weak. This is contradictory to most of the existing literature that considers strong and weak relationships as separate entities. In addition, in this dissertation type and strength are treated separately, that is, the perception is that strong and weak relationships may exist both among personal relationships and among business relationships. This is also contradictory to a large amount of existing definitions related to strength of relationships where strength is defined by type such as that strong is equated with friends, relatives and neighbours and weak with acquaintances.

In the dissertation subjective rather than objective measures for the strength of relationships are applied. This is in line with e.g. Marsden and Campbell (1984) and Uzzi (1997) who criticise both duration and frequency as measures by claiming them to overestimate strength. Instead, they argue that strength has more to do with commitment, affection, trust, respect and reciprocity. This is reflected in the definitions
of strong and weak relationships used in the dissertation where a strong relationship is described as a close relationship based on trust, mutual respect, commitment, deep knowledge and experience of each other and a weak relationship as a superficial relationship not yet based on strong trust and where the parties do not know each other well and are not emotionally close to each other. In summary, by not solely focusing on strength (strong and weak relationships) or on type (business and personal relationships), but yet still treating them separately, this research increases the understanding and knowledge of relationships.

A broad theoretical perspective is taken by combining research from international entrepreneurship, entrepreneurship and networks to provide a framework for the study. Existing research states that networks and relationships are important both for the entrepreneurial process (e.g. Birley, 1985; Elfring & Hulsink, 2007; Jack & Anderson, 2002; Hite, 2005; Singh, 2000) and for internationalisation as they represent a central source for identification of business opportunities (e.g. Blomstermo & Sharma, 2002; Chetty and Blankenburg Holm, 2000; Coviello & Munro, 1997; Oviatt & McDougall, 1995). Mostly, this is put forward as a powerful and short statement, but further discussion on the type of opportunities, the type of relationships and the way they impact on opportunity recognition is not very common. Thus, more detailed research on how relationships specifically impact on international opportunity recognition and development still remains to be conducted. The question of how different networks/relationships according to type and strength in particular impact on opportunity development in an INV context remains to be studied further.
3 METHODOLOGY

Methodology refers to how research is carried out. This process is important to be aware of so that assumptions and values are consciously made decisions rather than mere coincidences unknown even to the researcher. (Easton, 1995). Methodology influences the output of the research process and different methodological orientations result in different ways both to formulate research questions and to conduct research in order to answer the research questions. Although methodology is recognised to be important, it is still only a medium offering guidance. Sayer (1992:3-4) states this clearly in the following: “philosophy and methodology do not stand above the substantive sciences but serve, as the realist philosopher Roy Bhaskar puts it, as ‘underlabourer and occasional midwife’ to them”.5

In this chapter the methodological considerations ranging from philosophical issues to the practical collection of data are dealt with. First, the different concepts included in the methodological hierarchy are defined. The methodological hierarchy is made up of abstract philosophical considerations at the bottom to concrete methods for collecting data at the top. The philosophical orientation refers to the ontological and epistemological considerations guiding the research. Ontology is our conception of the world, that is, the assumptions about the nature of being and the beliefs about the world. Thus, it is the fundamental, taken-for-granted and often invisible views. (Easton, 1995). The ontological standpoint impacts how the nature of reality is seen in the research (Guba & Lincoln, 1998; Denzin & Lincoln, 2000).

Epistemology refers to the exploration of the nature of knowledge. It is about the relation between the inquirer and the known (Guba and Lincoln, 1998:201; Denzin & Lincoln, 2000:19) and answers the question, “How do we know what we know?” Thus, epistemological considerations are related to aspects such as the possibility and desirability of objectivity, subjectivity, causality, validity and generalisability of the research (Patton, 2002:134).

Methodology is found in the middle of the hierarchy and refers to how knowledge is achieved and how we know the world or gain knowledge of it (Guba & Lincoln, 1998; Denzin & Lincoln, 2000). Methodology indicates how we should study the world (Patton, 2002) and includes the strategic-level options available when doing research. Methodological choices to be made when conducting research are e.g. qualitative/quantitative; abduction/induction/deduction; case research.

Finally, research methods are the practical tools used for collecting data, such as interviews, surveys and observations. These three different levels are all connected. The ontological and epistemological issues influence methodological decisions, even implicitly or unconsciously, and the methodological decisions, in turn, influence the research methods chosen. (Easton, 1995).

Figure 6 illustrates the methodological choices made in this dissertation. The philosophical background lies within critical realism. The research strategy is based on abductive reasoning, is of a qualitative nature, and more specifically, case study research. The methods used are interviews and document analysis.

3.1. Scientific philosophical orientation of the study

“How research is, and should be, done is a function not only of the research topic but also of the values and beliefs of the people doing the research” (Easton, 1995:411-412). This means that research is concerned, not only with practical but also philosophical issues. All researchers do not have, and should not have, identical goals and values, but in order to understand each other’s research, it is important that the underlying assumptions, values and views of reality guiding a specific research project are made explicit. The concept philosophical orientation refers to the observation that some values, beliefs, behaviours and factors influencing the research process are more similar than others (Easton, 1995). Thus, the concept includes the understanding of ontology as well as epistemology. Denzin and Lincoln (2000:19) use the term paradigm for the combination of the researcher’s ontological, epistemological, and methodological premises. Paradigm can be defined as the view of the world, that is, the way of thinking about and making sense of the complexities of the real world. Paradigms differ regarding what is considered to be important, legitimate and reasonable. (Patton, 2002). Easton (1995), however, makes a distinction between orientation and paradigm, where the first is a broader and more philosophical concept (e.g. positivism, realism), whereas the latter is context specific and based in phenomena (e.g. market-response paradigm in marketing).

A lot of different orientations exist and distinct lines between them are not easy to draw. Philosophical issues are not trivial and one single, simple explanation of what a specific orientation means is difficult to give. In this chapter four main orientations are introduced: positivism, conventionalism, constructivism and realism. According to Easton (1995) these main orientations can be used in research on business networks. Each of these orientations has a position in a multidimensional space. On some dimensions an orientation can differ largely from another, whereas on some dimensions two orientations may be quite close to each other. None of the orientations is superior to the others. However, when doing research “one has to choose between
variants of these four and it is better to do so knowing what the alternatives are, what characteristics they have, what benefits they provide, and what problems they engender” (Easton, 1995:448). Thus, next these four main orientations are discussed. Most emphasis is laid upon realism and particularly critical realism, which is the orientation guiding this dissertation.

**Positivism** is about offering objective, descriptive, definite and absolute findings of the external world (Easton, 1995) in order to reach predictive and explanatory knowledge (Keat & Urry, 1976). Only rational knowledge verified directly by experience, i.e. empirical observations, is considered important, useful and/or scientifically meaningful (Wallén, 1993:24). Furthermore, the aim of positivist research is to search for regularities and causal relationships between elements (Burrell & Morgan, 1979). Such regularities are summarised into general universal statements which constitute theories. The truth or falsity of theories is to be tested through systematic observation and experiments. (Keat & Urry, 1976). The main critics against positivism refer to its reliance on rationality, resulting, for example, in the view that the human is an object and that research about the meaning of feelings, perceptions, values and cultural phenomena is excluded since they are not objectively measurable (Wallén, 1993). Thus, it is not according to the positivist, the purpose of science to get behind or beyond the phenomena or to produce knowledge about unobservable natures or mechanisms driving the phenomena, only the observable is attempted to be explained, or rather described, and predicted (Keat &Urry, 1972).

Positivism is not regarded to be well suited to network research (e.g. Easton, 1995). Especially, the connectedness and complexity dimensions inherent in networks make it difficult to study casual relationships and to claim that findings are definite and absolute. With traditional logical empirical studies and analytical techniques, it is difficult to obtain such data in which the underlying relationships can be teased out. (Easton, 1995:449). Based on these arguments as well as on the fact that the purpose of the dissertation is to give a deeper insight into if, how and why relationships play a role in the entrepreneurial and the internationalisation event, the positivistic approach is not considered appropriate for this study. A positivistic approach would give rather superficial insights into the phenomena, which is not the aim of the study.

**Conventionalism** generally is described as an alternative to positivism and includes a range of different directions such as relativism (Easton, 1995). In common to conventionalists is that they deprecate the positivistic view that science provides testable theories composed of true and objective descriptions and explanations of an external reality (Keat & Urry, 1976). Instead they argue that the “truth” is relative depending on the individual, the group of individuals or the situation in which the statement about the “truth” is made. Conventionalism has been criticised for being an orientation that follows the loose principle of “anything goes” and everything is relative. Driven to the extreme, this means that it cannot claim to be the only, the right or the best way to address science. (Easton, 1995:433, 437).

Conventionalist approaches are not considered appropriate for this study as they are seen as too vague. It is acknowledged that the responses of the informants are guided by their way of perceiving things, but it is not the objective of the study to put forward each informant’s view as his “truth”. Instead the study aims at reaching a more general “truth” by exploring and combining the insights received by including several informants.
Constructivism can be considered to be related to relativism (Easton, 1995). However, according to constructivism what we call “reality” is constructed and cannot exist independently of our perceptions of it. Citing Nelson (1994:541) “the ‘facts’ are determined by scientists’ choices, not by ‘objective reality’”. Thus, disagreement about the nature of “reality” is unavoidable. We construct knowledge, that is, we do not find or discover it. Social constructivism maintains that we learn from our experiences and the social milieu we are a part of. For researchers taking a constructivist approach language has a central meaning – we learn through language and we can only understand the world through language. (Easton, 1995; Kukla, 2000; Schwandt, 2000).

Critics against constructivism question the assumption of inseparability between our perceptions and reality, and argue that most individuals, even the committed constructivists, act as if there is a reality distinct from our perceptions of it. This is actually contradictory to the basic underlying lines of reasoning characterising constructivism. Furthermore, the relation between perceptions and behaviour is called into question: “If we can socially construct our world, does this mean that when we behave in accordance with that view we will always receive confirmation of that view? If we do not, then this surely implies that there is an alternative reality ‘out there’ that we have not modelled very well.” (Easton, 1995:443). Thus, for the purpose of research the research question becomes central; if it is to study the perceptions of humans, a constructivist approach is suitable. However, if we believe that there exists a more objective truth besides the perceived truth, the fundamental assumption of constructivism is violated.

Constructivism would have been a possible orientation for the study. However, the research has been guided by an explicit attempt to follow a relatively structured research process and to include several different data sources in order to make comparisons between them. The reasons for why this has been done, I see as reflecting more the underlying assumptions of critical realism, than constructivism. That is, that I as a researcher believe that an external reality exists, but that I also acknowledge that the knowledge of it may be influenced by perceptions. However, I still believe that it is worth striving for objectivity.

In research the belief that humans construct reality calls for attention. This might turn into a problem – if we, for example, think of the informants, they may interpret the researcher's goal and act accordingly, or if we consider the results of a study, they may be regarded to reflect only the researcher’s own constructed reality. A philosophical orientation taking such aspects into account is critical realism.

Realism presumes that there is a reality, which can be discovered and understood. However, it can be difficult to know what the truth is, and disagreements about the nature of reality are not believed to be due to the non-existence of a reality, but rather due to problems in discovering it. (Easton, 1995). Thus, reality is “imperfectly and probabilistically apprehensible” (Healy & Perry, 2000:123). In line with the positivists, realists regard science as giving us empirically-based, explanatory and predictive knowledge. However, the emphasis is on going beyond the phenomena, that is, to also study underlying structures and mechanisms and in this way discover connections between phenomena. Only by going behind the surface appearance and looking for the “deep structure”, that is, to enter into the non-observable, will we be able to get beyond the mere observable appearances of phenomena, which are in focus within positivism. (Keat & Urry, 1972; Easton, 1995). Thus, realism attempts not only to describe regularities or relations, but also to answer why those regularities occur. In this way, realism is linked to causality. However, the meaning of causality goes beyond the ideas
of temporal sequence, i.e., one event preceding the other on a constant basis and it specifies the mechanisms by which events are connected. The causality aim of realist research is described by Keat and Urry (1976:30) in the following way:

For the realist, adequate causal explanations require the discovery of both regular relations between phenomena, and of some kind of mechanism that links them. So, in explaining any particular phenomenon, we must not only make reference to those events which initiate the process of change: we must also give a description of that process itself. To do this, we need knowledge of the underlying mechanisms and structures that are present, and the manner in which they generate or produce the phenomenon we are trying to explain. In describing these mechanisms and structures we will often, in effect, be characterizing the ‘nature’, ‘essence’, or ‘inner constitution’ of various types of entity. (Keat & Urry, 1976:30)

The comprehensive concept of realism includes several different directions such as naïve realism, sophisticated realism, scientific realism, classical realism, fallibilistic realism, critical realism and inductive realism. (Easton, 1995:438-439). Here, the direction of critical realism is entered more deeply into, as it is the orientation guiding the dissertation.

Critical realism has been said to provide a powerful alternative to positivism and relativism (e.g. Archer, Bhaskar, Collier, Lawson & Norrie, 1998; Groff, 2004; Carlsson, 2005). A shortcoming of positivism is its belief that only the directly observable is real and important. Relativism, on the other hand, is problematic in the sense that it assumes that all beliefs about the world are equally valid, and simply depend on the individual or group of individuals. This implies that no claims can be challenged at least not on a cognitive or epistemic ground. (Groff, 2004). Critical realism offers a middle way to these, as it acknowledges that there are both values and facts and that these are intertwined and thereby hard to disentangle (Carlsson, 2005).

Critical realism is a relatively young philosophical orientation closely based on the thoughts of Roy Bhaskar. The orientation is now considered to be established and it has a strong influence on a wide range of subjects internationally. (e.g. Archer et al., 1998; Groff, 2004). Critical realism is based on three theses (Archer et al. 1998:xi; Groff, 2004:10):

1) **Ontological realism**

Critical realism builds on realism about entities, processes, events, powers and causality, implying that the external world has a structure of its own, ontologically independent of our perception of it. Only by identifying the structures that generate those processes or events, can we understand the social world. However, these structures are not necessarily apparent in the observable pattern of events, and it is the task of social sciences to reveal them through both practical and theoretical work. (Bhaskar, 1998). This is based on Bhaskar’s argumentation that casual powers exist whether they are perceived or not, that is, perception is not a criterion for existence. (Groff, 2004). Bhaskar (1997:13) has summarised the ontological bases of critical realism in a matrix (see table 5). He makes a distinction between the domain of real (what could be done), the domain of actual (what is done), and the domain of empirical (what someone perceives is done). In other worlds, “mechanisms do not always produce the events that they have the power to bring about, and that, of those events

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6 Causality as temporal sequence is discussed by Hume and provides the basis of the positivist analysis of scientific explanation (cf. Keat & Urry, 1976:28; Easton, 1995:438).

7 The matrix is originally published in the first edition (1975) of Bhaskar’s book “A Realist Theory of Science”
that do occur, not all are experienced by a subject” (Groff, 2004:17). In symbols, Bhaskar (1997:56), explains this as $dr\geq da\geq de$.

Table 5  Ontological assumptions of critical realism

<table>
<thead>
<tr>
<th></th>
<th>Domain of real (dr)</th>
<th>Domain of actual (da)</th>
<th>Domain of empirical (de)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanisms</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Events</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Experiences</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

Source: Bhaskar, 1997:13

2) Epistemological relativism

Causal mechanisms are not relative to human subjectivity, but theories, on the other hand, are. The first Bhaskar (1997:22) calls intransitive objects of knowledge and by that he refers to “the real things and structures, mechanisms and processes, events and possibilities of the world”. These are generally independent of our knowledge of them – they exist even if we don’t know of them. However, theories and knowledge claims are transitive processes or objects. This means that knowledge claims are relative to human subjectivity and they are more likely to be produced, rather than discovered and they also change over time. Thus, Bhaskar’s view on the nature of knowledge could be described as knowledge production, which is a process where existing ideas are transformed into new ideas and this process is influenced also by socio-historical artefacts. Knowledge is within this approach seen as justified, true beliefs, implying that knowledge is equal to well supported beliefs that, however, might be false. (Groff, 2004). Science is, according to Bhaskar (1997:24), “a social activity whose aim is the production of the knowledge of the kinds and ways of acting of independently existing and active things”. That is, it involves both transitive and intransitive processes and objects. The scientific process involves descriptions of identified behaviour, construction of explanations and discovery of mechanisms responsible for them (Bhaskar, 1997). In other worlds, science is seen as an attempt to produce knowledge of reality; however, this knowledge will also be influenced by aspects such as the perceptions of the researcher and informants, which may be more or less accurate, in other words, closer to or further from the truth. The focus is on explaining a phenomenon within a context or within contexts (Saunders, Lewis & Thornhill, 2009:119).

3) Judgemental rationality

Even though the notion is that scientific knowledge may be fallible, and is a result of social activity, the judgement of that knowledge is within critical realism regarded to be rational. The rationality is guided by the principle of explanatory power and references to existing knowledge and existing theories. (Groff, 2004). Science is a dynamic process
where theories, concepts and tools continuously are constructed or refined (Bhaskar, 1997). Rationality in this process builds on the scientists’ critical exploration.

To summarise, according to critical realism there is a reality which can be discovered. However, the knowledge of that reality is uncertain and must be critically evaluated. Based on that, theory can be developed (Easton, 1995). According to Keat and Urry (1976:37) “The question of what exists, or can intelligibly be said to exist, must be kept distinct from that of what we can observe, or know with a high degree of certainty”. Thus, the specific constructions and interpretations individuals make are critical and need to be considered (Mark, Henry & Julnes, 2000). What we see is only part of a bigger picture and through practical and theoretical processes of social sciences we can identify that what we do not see. Thus, our knowledge of reality cannot be understood independently of the social actors involved in the knowledge production process (Saunders et al., 2009).

This study follows a critical realist approach. I see that a reality exists, but the knowledge of it is mixed or coloured by individuals’ perceptions, which in a research context means both the researcher’s and the informant’s perceptions. Within critical realism there can exist more than what we observe. Thus, to reach “the one and certain truth” is difficult and instead we can talk about what we know to a higher or lesser degree. The aim of this dissertation is not to establish single “truths” about the relations between phenomena, but instead I attempt to describe and explain the relations in the context they are studied. I acknowledge that this truth is impacted on by both mine and the informants’ perceptions and pre-understanding. However, the study is guided by an explicit attempt to try to also get beyond the individuals perceptions. In practice this attempt is, for example, reflected in triangulation of sources for data collection as well as critical analysis and comparison of data within and between the different data sources.

The aim is to explain a reality regarding the studied phenomenon (involvement of entrepreneurs’ relationships in business opportunities) through describing events (critical events in the entrepreneurial and internationalisation process) involved in the phenomenon and furthermore, to give casual explanations of how and why relationships are involved in the events. This is in line with the critical realism orientation, as Keat and Urry (1976:31) state that “answers to why-questions (that is, to requests for casual explanations) require answers to how- and what-questions”. This is also in line with Coviello and Jones (2004:499) who call for international entrepreneurship researchers to through a reconciliation of positivist and interpretivist approaches (such as a realist approach) develop a better understanding of behavioural processes in IE, accounting for events rather than only documenting their sequence.

3.2. Methodological choices

In this section the methodological choices on the strategic level are discussed. The dissertation is in this respect characterised by abductive reasoning, qualitative research methods as well as a case study approach. These are all supported by the critical realism approach guiding the research process. According to Guba and Lincoln (1998:205) the methodological concerns based on a critical realism ontology, are characterised by “doing research into more natural settings, collecting more situational information, and [...] soliciting emic viewpoints to assist in determining the meanings and purposes that people ascribe to their actions”. Qualitative research methods and case studies are useful in addressing these concerns.
3.2.1. Abduction

When conducting research there are two basic scientific approaches to take – deduction and induction. These scientific approaches describe how theory and empirical phenomena are linked to each other. A researcher following a deductive approach begins by studying existing theories and then conducts the empirical study based on those theories. This approach aims at studying, in an objective way, whether the reality is the way the theories state. Thus, testing of hypotheses is a central part of deduction, as the researcher wants to empirically test statements derived from existing theories and general principles. (Wallén, 1993; Saunders et al., 2009). An inductive approach means that the researcher starts with collecting empirical data. Based on this empirical material, general theoretical assumptions are created. This approach can be seen as appropriate when studying new phenomena for which theories have not yet been developed. (Wallén, 1993). A study based on the inductive approach will include the researcher’s own interpretations and perceptions as a natural part of the research process. Thus, the theories developed will also be coloured by the researcher. (May, 1993). In table 6 the main differences between the deductive and the inductive research approach are summarised.

Table 6  Major differences between deduction and induction

<table>
<thead>
<tr>
<th>Deduction emphasizes</th>
<th>Induction emphasizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Scientific principles</td>
<td>• Gaining an understanding of the meanings human attach to events</td>
</tr>
<tr>
<td>• Moving from theory to data</td>
<td>• A close understanding of the research context</td>
</tr>
<tr>
<td>• The need to explain causal relationships between variables</td>
<td>• The collection of qualitative data</td>
</tr>
<tr>
<td>• The collection of quantitative data</td>
<td>• A more flexible structure to permit changes of research emphasis as the research progresses</td>
</tr>
<tr>
<td>• The application of controls to ensure validity of data</td>
<td>• A realisation that the researcher is part of the research process</td>
</tr>
<tr>
<td>• The operationalisation of concepts to ensure clarity of definition</td>
<td>• Less concern with the need to generalize</td>
</tr>
<tr>
<td>• A highly structured approach</td>
<td></td>
</tr>
<tr>
<td>• Researcher independent of what is being researched</td>
<td></td>
</tr>
<tr>
<td>• The necessity to select samples of sufficient size in order to generalise conclusions</td>
<td></td>
</tr>
</tbody>
</table>

Source: Saunders et al., 2009:127

The deductive approach has traditionally been seen as the most appropriate way of conducting reliable research, a statement which can be traced back to positivistic values. However, the approach has also been criticised for only testing theories, not generating or developing new theories. Induction, on the other hand, fulfils the latter. Inductive approaches are usually linked to anti-positivistic philosophical orientations.

In practice, it seems to be difficult for researchers to follow either a strictly deductive or a strictly inductive approach. Saunders et al. (2009) also emphasise that the division
between deduction and induction should not be interpreted as totally rigid and that it is possible to combine the deductive and inductive approach in the same research. In fact, they point out the advantages of integrating theory at several different points of time also within qualitative research resting on an inductive approach. By starting the study from a theoretical perspective, it is easier to link the study to existing research, it will help the researcher get started and offer some kind of initial analytical framework. (Saunders et al., 2009).

More recently the concept of abduction has been introduced. Abduction implies that the researcher goes back and forth between theory and empirical phenomena. In other words, the abductive approach is a middle course between deduction and induction, but that according to Dubois and Gadde (2002:555) is positioned closer to induction than deduction. In this approach, theory often functions more as a source for inspiration than as a base for building hypotheses (Alvesson & Sköldberg, 1994). However, the approach relies more strongly on theory than induction. The development of knowledge, thus, becomes a continuing process, where the researcher e.g. starts with data collection, continues with looking for theories, complements with more data collection and if needed changes the theory (Lantz, 1993). Within industrial network research Dubois and Gadde (2002) uses the concept ‘systematic combining’ for such a research approach. Systematic combining they explain as “a process where theoretical framework, empirical fieldwork and case analysis evolve simultaneously” (Dubois & Gadde, 2002:554). In this process researchers are able to expand their understanding of both the theory and the empirical phenomena.

This dissertation follows the scientific approach of abduction. The abductive approach has been considered to be particularly appropriate for theory development (Dubois & Gadde, 2002), whereas it is theory verification or theory falsification for deduction and theory generation for induction. A deductive approach was not considered appropriate, since the aim was not to test theories and, thus, statements of specific research hypotheses were not formulated before data collection. However, the approach is also not inductive. Theories do exist from before, not so much on the particular phenomenon in focus in this dissertation, but on the different related aspects separately. Therefore, in this dissertation theory development in the sense of developing existing theory is aimed for by combining existing theories, studying the phenomenon empirically through case studies, going back to theories and so on. Thus, theoretical reading and empirical research have been parallel processes.

In relation to critical realism, Reed (2005:1630-1631) argues that it is neither linked to deduction, induction nor abduction, but introduces a fourth term ‘retroduction’. By this he refers to critical realism being about explaining assumed causal relations by reasoning backwards from the investigated phenomenon by asking “what, if it existed, would account for this phenomenon?” (Reed, 2005:1631). Retroduction is according to him not about traditional logical demonstration like deduction and not like induction in the sense that it would exemplify what is highly probable in certain circumstances. Instead, what retroduction offers are reasonable, plausible descriptions and analyses about the world. (Contu & Willmott, 2005; Reed, 2005). However, in a critical review article on the application of critical realism in organisation and management research, Contu and Willmott (2005) are sceptical towards Reed’s reasoning about critical realism being related to retrodiction and especially the notion that retrodiction would be something strictly distinct from abduction. They state that retrodiction and abduction are, in fact, closely related, and that Danemark, Ekstrom, Jakobsen and Carsson (2002) (in Contu and Willmott, 2005:1652) even point out that in practical research design they are almost indistinguishable. Furthermore, they point out that
Charles Peirce, who developed the notion of retroduction and abduction, did not consistently differentiate the terms. Thus, the conclusion can be drawn that an abductive approach is in line with the philosophical orientation guiding the dissertation. The abductive approach is also evident when following how the process of writing this dissertation has developed (see table 1 in chapter 1.4).

3.2.2. Qualitative research method

Research based on principles of critical realism, can employ both quantitative and qualitative research methods (Pawson & Tilley, 1997). Also Mark et al. (2000:15-16) state that they as realists regard both qualitative and quantitative research methods as sense making techniques each involving both benefits and drawbacks. In this study, a qualitative research method is applied. Sayer (1992:2-3) states that one of the main contributions made by the realist philosophy is the replacement of the regularity model with a model in which objects and social relations have casual powers which may or may not produce regularities. In this view, Sayer (1992:3) argues, “less weight is put on quantitative methods for discovering and assessing regularities and more on establishing the qualitative nature of social objects and relations on which casual mechanisms depend”. This supports my reasoning regarding the importance of relationships for exploration and exploitation of business opportunities as well as the adoption of a qualitative research method.

The qualitative research method is not a well-framed, distinct research tradition, but can be considered as a heterogeneous approach being a result of social constructions and which is historically changing (Allwood, 2004). Therefore, absolute lines are hard to draw regarding what the qualitative research method really is. However, in general the qualitative research method is described as a method allowing the researcher to study phenomena in depth and in detail (Patton, 2002). Qualitative research offers deep information about a few objects, whereas quantitative research supplies superficial information about many objects (Holme & Solvang, 1991).

A qualitative research approach is seen as appropriate for this study, since qualitative research has been considered to be useful for studying processes. By processes are meant how something happens. (Patton, 1990). In particular, Short et al. (2010:12) highlight the potential inherent in qualitative research to develop our insight into entrepreneurial processes. This study focuses on how relationships are involved in the exploration and exploitation of opportunities during pre-founding and start-up (entrepreneurial event) as well as early internationalisation (internationalisation event), which are entrepreneurial processes.

Furthermore, I find that the challenges involved in conducting research related to network relationships are better handled by applying a qualitative research method. Challenges when inquiring about network relationships have been discussed by Johannisson (2000). First, there can be problems because networking is taken for granted and thus, the entrepreneur has difficulties in describing it properly. Networking might be perceived as a part of daily routines and questions and details related to it might be not very much thought about or even unknown to the entrepreneur. Second, the entrepreneur might be unwilling to talk about his network relationships. Perhaps partly because he does not want to give them credit for things that he himself can take credit for, or partly because the network relationships are considered to be a secret strength. Thus, the entrepreneur does not want to reveal them, not even to a researcher. In qualitative research the researcher has the possibility
of creating an atmosphere characterised by trust, during the interaction with the informant and the researcher also has the possibility of inspiring informants to go more deeply into issues. These are very important aspects in order to at all be able to deal with the aforementioned problems. In a quantitative study, on the contrary, the risk is considerably larger that the answers given are influenced by the above mentioned problems. For example, a person perceiving that aspects related to his/her network are self-evident and who feels that there is almost nothing to tell about it, perhaps leaves a questionnaire or questions within it unanswered, whereas during interviews the researcher has the possibility to form new questions as well as to follow up and develop earlier answers. Qualitative research allows us to gain deep insight into complex social processes that quantitative research does not offer (Eisenhardt & Graebner, 2007). Zucchella et al. (2007) experienced difficulties in capturing networks by using traditional quantitative methodologies. Thus, they recommend that a detailed study about the importance of networks during early internationalisation requires using appropriate methodologies. Similarly, Mønsted (1995) emphasises that the dynamics and fluid processes inherent in networks make qualitative methodologies in the form of cases, metaphors and models more appropriate – in particular when studying change and development since quantitative methodology mainly captures structures and stable conditions. For example, in her study of friendship networks Bellotti (2008) used qualitative research to describe how relationships evolved and changed shape from the past to what they mean in the present. She could not have acquired this thick description of network evolution by using quantitative methodology.

Both studies within IE (for a review see Coviello & Jones, 2004) and within entrepreneurship and networks (for a review see Jack, 2010) are largely based on quantitative methods. Therefore, qualitative studies are asked for. In particular, Jack (2010:120) calls for qualitative approaches so they can enhance our “understanding of what really goes on in networks; provide more knowledge about content of network relations; the process involved; 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”. By conducting a study based on qualitative methods, the aim in this dissertation is to generate a deep understanding about the involvement, content and importance of the entrepreneurs’ relationships for opportunity development. This study is therefore based on qualitative research methods and data have mainly been collected through personal interviews with entrepreneurs of INVs.

As noted before, the heterogeneity within qualitative research is extensive and Allwood (2004:13-16) concludes that the heterogeneity, for example, concerns the following:

- Research method: structured – loose
- Researcher’s influence: large – small
- Generalisations: possible – hesitant

Qualitative research methods differ regarding their structuredness. Tesch (1990) has identified methods ranging from structured to loose. The structured methods are more analytical and research is conducted systematically and rigorously. These methods tend to focus on more limited parts of a studied phenomenon. Mason (1996) even states that this is the way qualitative research should be conducted. The analysis of results is systematic and the search for regularities and patterns in the data are central. The more loose qualitative research methods, on the other hand, are more unstructured and
within these it is more difficult to explain how results have been reached as the researcher’s reflection and inspiration of the phenomenon is emphasised. The data analysis is primarily focused on the researcher’s interpretation of meaning and of actions. Loose qualitative research methods also tend to be more holistically oriented. (Tesch, 1990).

Secondly, qualitative methods differ when it comes to the attitude towards knowledge, theoretical rationalism or empiricism (Allwood, 2004). This refers to the researcher’s influence on the research results. Rationalism implies that the influence of the researcher is (and possibly should be) extensive, whereas empiricism advocates a limited influence. (Tesch, 1990). Within rationalism the researcher’s preunderstanding of a phenomenon is emphasised. According to Allwood (2004) a relationship can be found between structuredness and attitude towards researcher’s influence: more structured methods seem to advocate a low degree of influence. Grounded theory is an example of a method characterised by empiricism, whereas hermeneutically inspired methods are characterised by knowledge of theoretical rationalism.

Qualitative research methods also vary regarding their attitude towards generalisation, that is, the extent to which research results are expected to be valid for other research settings, persons or places, at other times than those represented in the study. Some qualitative research methods regard generalisation to be possible and to be an inherent ambition of the research, whereas others emphasise caution to be taken in this respect. (Allwood, 2004). Mason (1996:6) represents a middle way regarding generalisability of qualitative methods as she writes: “Qualitative research should produce social explanations which are generalisable in some way, or which have a wider resonance. I do not think qualitative researchers should be satisfied with producing explanations which are idiosyncratic or particular to the limited empirical parameters of their study. This is not to underestimate the challenges posed by generalising from qualitative – or indeed any – research”.

The qualitative research approach in this dissertation can be characterised as a relatively structured research method, aiming for as smaller influence of the researcher as possible on the results and attempting to at least to some extent to generalise results through analytical (or theoretical) generalisations. These aspects are dealt with in more detail when the process of collecting and analysing data is described as well as the evaluation of the research process and results is made.

3.2.3. Case study method

Yin (1989) defines a case study as an empirical inquiry which:

- investigates a contemporary phenomenon within its real life context: when
- the boundaries between phenomenon and context are not clearly evident: and in which
- multiple sources of evidence can be studied.

A case study is usually seen as a research strategy (Eisenhardt, 1989; Yin, 1989). However, some authors argue that it is not a methodological choice, but simply a choice of object to be studied (Stake, 1998; Ghauri, 2004). Case studies as a research strategy “focuses on understanding the dynamics present within single settings” (Eisenhardt,
Thus, in case studies understanding the context is seen as important. Data must be related to the context it comes from in order to be understood properly. Case studies have been criticised for being too context specific and thus the results are not generalisable. However, this context specificity is also a strength of the method (Dubois & Gadde, 2002) considering that quantitative studies similarly have been criticised for being context stripping (Guba & Lincoln, 1998). Yin (1989) responds to the criticism regarding generalisation by stating that case studies are generalisable to theoretical propositions and that the aim of the researcher conducting case studies should be to make analytical rather than statistical generalisations. Analytic generalisation implies that theories are expanded and generalised, whereas statistical generalisation concentrates on enumerating frequencies.

Stake (1995) makes a distinction between intrinsic and instrumental case studies. In the first one, the case in itself is in focus and the participants’ perceptions are studied for their own sake. Intrinsic case studies are in line with constructivism. In instrumental case studies on the other hand, cases are used in order to understand something else, a phenomenon. These case studies are in line with the realism paradigm and here the participants’ perceptions are studied as they provide a window to a phenomenon going beyond the perceptions as such. (Healy & Perry, 2000). In this study the purpose of the cases follows the reasoning of instrumental case studies.

Case studies have been stated to be appropriate for a large variety of studies including exploratory, descriptive and explanatory studies (Yin, 1989), as well as for theory testing and theory building (Eisenhardt, 1989). The strength of case studies is emphasised by Easton (1995) as well as Halinen and Törnroos (2006) in research on business networks and by Chetty (1996) in research on decision-making processes in small- and medium-sized firms. In the context of INVs, Rialp et al. (2005a) call for more focused research based on case studies in order to develop a better understanding of the nature and processes of early internationalising firms.

Case studies are chosen in this study since the overall aim is theory development. We need more knowledge of how network relationships emerge during the early phases of the entrepreneurial process and how they influence opportunity exploration and exploitation. In line with advice from e.g. Eisenhardt and Graebner (2007) and Pratt (2009) case studies can expose fine details of network relationships as lived experience and help us to answer “how” questions as opposed to questions about “how many”. Therefore, this research strategy is appropriate as ‘how’ and ‘why’ questions are in focus in the dissertation. Furthermore, case studies are appropriate for studying and articulating processes, as they explain events and allow the researcher to capture development over a period of time (Chetty, 1996; Pratt, 2009), which is important for this study on relationship involvement in pre-founding, start-up and early-internationalisation. Consequently, case studies offer the depth, comprehensiveness and closeness needed to understand if, how and why relationships have been involved in the critical entrepreneurial and internationalisation events of new internationalising firms.

Case studies can be conducted on single or multiple cases (Eisenhardt, 1989). A discussion as to whether single case studies or multiple case studies are better or more fruitful is rather meaningless. As Eisenhardt (1991:622) concludes “the appropriate number of cases depends upon how much is known and how much new information is likely to be learned from incremental cases”. In particular for theory building purposes Eisenhardt (1991) stresses the advantages inherent in comparative multiple-case research built on rigorous methodology. Kerssens-van Drongelen (2001) separates
between different types of case study research strategies and in this dissertation what she calls multiple longitudinal case studies are employed. The main characteristic of this type is according to Kerssens-van Drongelen (2001:509) that in-depth data is collected “from multiple sources about several purposely selected cases at several points in time”. This case study research strategy allows the researcher to explore complex phenomena in their real life context and to develop and test compelling explanations even about causalities. The aim of including multiple cases in this dissertation is above all to ensure a richer view of the studied phenomenon. Multiple cases allow me to study patterns across cases, to contrast and to supplement the findings from individual cases. This replication logic implies that similarities and differences are looked for both within and between cases. Carlsson (2005:100) also supports the use of multiple case studies in research following a critical realist perspective and states: “Through multiple case-studies one can accumulate supporting evidence which can continue until ‘theoretical saturation’ has been obtained”.

What is then a case? A case can be anything – a network, a firm, a unit within a firm or a business opportunity. It is up to the researcher to define what is seen as a case within a specific project. In this project five newly founded firms constitute cases. In addition, case studies can be analysed on numerous levels (Yin, 1994). In this project results are analysed on three different levels – case, event and relationship. The selection of cases is described in detail in chapters 3.3.1.1 and 3.3.1.2 dealing with the practical research process.

3.3. The process of collecting data

The research methodology influences the way data is collected. The objective of qualitative studies is to gain an in-depth understanding of the phenomena being researched. Thus, we need data collecting methods that allow us to gain information which is rich, nuanced and deep. Therefore, qualitative data is, in principal, collected through interviews, observations and documents (Patton, 2002). In case studies a combination of multiple data collection methods are usually employed such as archival data, interviews, questionnaires and observation (Eisenhardt, 1989). In this study data is collected through documents and through personal in-depth interviews with the lead entrepreneur being the founder and CEO of five small new firms. For the main data collection each firm has been interviewed at two points of time following a consciously planned data collecting process, where results from one round of interviews together with additional documents provided the basis for the next round of interviews. In addition, a follow-up interview has been conducted with the firms to enquire about any unclear issues as well as about the further development of the firm.

The data collecting process contains four phases and is illustrated in figure 7. In the next chapters I describe each phase in detail, link it to theory and evaluate it.
3.3.1. Phase 1 – Pre data collection

3.3.1.1. Criteria for selecting cases

The validity, meaningfulness, and insights generated from qualitative inquiry have more to do with the information-richness of the cases selected and the observational/analytical capabilities of the researcher than with sample size. (Patton, 2002:245)
In qualitative research the logic guiding the sampling approach distinctively differs from sampling logic within quantitative research. Qualitative research rests upon purposeful sampling, where the purpose is to secure richness of information and a deep insight into and understanding of a phenomenon. Empirical generalisation from a sample to a population is not in focus as in quantitative research. Instead, in depth studies on relatively small samples dominate. (Patton, 2002). An extensive number of selection strategies exist within qualitative research and, for example, Patton (2002:243-244) mentions fifteen different strategies belonging to purposeful sampling, varying from extreme or deviant case sampling to convenience sampling. The sampling strategy applied in this dissertation is theory-based sampling (Patton, 1990; Warren 2002). According to this sampling strategy, the researcher samples cases “on the basis of their potential manifestation or representation of important theoretical constructs” (Patton, 2002:238). The result of theory-based sampling is the same as for intensity sampling, that is, a sample which is representative of the phenomenon of interest. In this study the phenomenon of interest is the entrepreneurs’ relationships in regard to opportunity exploration and exploitation during pre-founding, start-up and early internationalisation within international new ventures. However, for the purpose of sampling the phenomenon was turned into new firms based on innovation and with an international ambition from inception. This was due to a number of reasons. Firstly, opportunity exploration and exploitation were translated into firms based on innovation. Opportunities are according to the definition employed in the dissertation linked to innovation as opportunities e.g. are new products or services, new methods of production, new ways of organising or new geographical markets (inspired by Schumpeter, 1934; 1942). The link between opportunity and innovation is according to Schumpeter (1934) that an innovation is the exploitation of a profitable opportunity. In addition, the focus on the entrepreneur supports the use of innovation (e.g. Miller, 1983; Covin & Slevin, 1991). Furthermore, unique business ideas and innovative products, services or technologies are commonly emphasised as being characteristic of INVs (Oviatt & McDougall, 1994; Knight & Cavusgil, 1996). Secondly, international new ventures are by definition characterised by an international ambition from inception (e.g. Oviatt & McDougall, 1994). In addition to the above mentioned theoretically based definitions of opportunities and international new ventures, a separate operational definition of a new venture is also relevant. A new venture has been defined to be eight years old or less (e.g. McDougall, 1989; McDougall, Covin, Robinson & Herron, 1994), seven years old or less (e.g. Jolly, Alahuhta & Jeannet, 1992; Evangelista, 2005) and six years older or less (e.g. Oviatt & McDougall, 1997). In this dissertation, the operational definition used for a new venture is seven years or younger, in line with Jolly et al. (1992) and Evangelista (2005) who have applied this age limit within the context of INVs.

In summary, cases selected for the empirical part of this dissertation should be firms that meet the following characteristics:

- based on innovation
- international ambition from inception
- seven years old or younger

Use of relationships was not included as a selection criterion, as it is considered to enhance the trustworthiness of the study not to select cases that beforehand are known to either involve relationships to a very large or a very small extent in the business activities. In addition, it is difficult, if not impossible, to assess the relationships of an
entrepreneur from the outside. In order to do that it either requires that you know the entrepreneur very well or that you have asked him/her about it. As I regard it to be important not to influence the potential informants, I did not want them to initially know that relationships were in focus. Thus, it would not have been possible to first ask them about their relationships in order to evaluate whether or not they are interesting cases.

3.3.1.2. Selecting cases

In order to identify appropriate case firms a technology centre called Merinova in Vaasa, Finland was contacted. Merinova’s main objective is to promote and develop both business activities that utilise new knowledge and the regional innovative environment. Furthermore, they support and facilitate the founding of new innovative firms through their Business and Innovation Centre (BIC). The aim of BIC is to search for, identify and assist in the development of innovative business ideas. At Merinova I contacted Ulla Kalliokoski – a person known to me from before as we both had been part of a working group for cooperation and development of entrepreneurship education within higher education in Vaasa. In October 2006 I approached Ulla Kalliokoski, told her about my dissertation and asked if she knew firms filling the criteria of cases to be included in the study, e.g. innovation, international ambition and new firm. She then e-mailed eight firms that either were or had been involved in Merinova’s business creation programmes. She told them that I am writing a doctoral dissertation and asked them if it would be alright if she would give their contact information to me, so that I could contact them directly and ask them whether they are interested in participating in the study or not. Six firms gave their approval and two firms informed that they did not have international ambitions. Thus, in the end of November 2006 I received contact information on six firms. I contacted all of them and five responded positively. I decided to contact one entrepreneur from each firm – the entrepreneur that was both founder and CEO. Interview dates were set for February/March 2007.

All five firms were included in the study because each case represents a different way of how the initial business opportunity was identified. The five cases are also in line with Eisenhardt’s (1989) advice for the relevant number when using the case study method. She suggests between four and ten case studies because with less than four it would be difficult to develop compelling theory and with more than ten the volume of data would get out of control. After the interviews with these five cases I also experienced that theoretical saturation was reached as answers and patterns were reoccurring (cf. Eisenhardt, 1989). Additional case studies would not add significantly new information to the data.

3.3.1.3. Reflections on phase 1

Getting initial physical access to the five case firms went very smoothly. I think that the fact that I first approached the firms through Ulla Kalliokoski, who works at Merinova had a positive impact. Using existing contacts as gateways is also a strategy recommended in methodological literature (e.g. Saunders et al., 2009). Merinova and

8 Merinova is a member of the Finnish Science Park Association TEKEL which is a nationwide cooperation network of science parks and technology centres. For additional information about Merinova see www.merinova.fi
Ulla Kalliokoski were known to these firms and, thus, they could relate to her. In addition, in this way they had more time to decide whether to participate or not. As they first were contacted by Ulla by e-mail who simply asked whether she could share their contact information with me, and not until later on were contacted directly by me, I could avoid a situation where they would be taken by surprise and would instinctively answer negatively. Finally, I also believe that the fact that all firms were young and, thus, had not participated in many research studies impacted positively on the easiness of gaining access.

3.3.2. Phase 2 – Interview I and gathering of documents

3.3.2.1. Selection of persons to interview

The number of entrepreneurs differs between the cases from one to nine. Thus, I came up against the question of whom to interview – all entrepreneurs or one per case? I decided to begin with interviewing the entrepreneur that is both founder and CEO as this entrepreneur is responsible for the general management of the firm and had direct and hands-on experience of the firm’s development process. Interviewing the lead entrepreneur as a primary informant is a commonly used procedure employed e.g. by Coviello (2006) in her case study on network dynamics of INVs.

As all case firms studied were very small most things actually happened around this lead entrepreneur. In fact, previous research (e.g. Johannisson, 1998; Johannisson and Mønstead, 1997) has shown that in very small (and new) firms such as my five case firms, there is no distinct division between the lead entrepreneur and the firm. In other words, the entrepreneur is the firm. I concur with this and after the first two rounds of interviews with this person in each firm I perceived that I had got a comprehensive picture of both the firm development process and the relationships involved in it. Thus, the decision was taken not to continue data collection by interviewing the other entrepreneurs. Involving the other 11 entrepreneurs would most likely not have meant much new information, but it would have required an immense amount of time to collect, transcribe and analyse the additional raw data gained through those interviews. Thus, the decision was taken to interview only the lead entrepreneur. Instead, I completed the data collection with secondary data such as the business plans of the firms.

In cases A, B, D and E the founder/CEO is the only informant interviewed for this study. However in case C also the other founder participated in part (20%) in the first interview as he happened to enter the place where the interview was conducted and the informant presented me to him and invited him to stay for the end of the interview. This was not planned, but happened accidentally. I do not perceive it disturbing in anyway, but also not extraordinarily informative. The information from the other entrepreneur supported the answers given by the main informant.

3.3.2.2. Language of interviews

Initially I contacted the entrepreneurs with Finnish names in Finnish (cases A, B, C and D) and the one with a Swedish name in Swedish (case E). The language during the interviews was chosen according to what the informant felt most comfortable with. In case A the entrepreneur was indifferent to the language used as he is entirely bilingual,
and so we spoke Swedish. Thus, the interviews with cases A and E were carried out in Swedish, and with cases B, C and D in Finnish. I felt that these language decisions were the right ones and secured information rich interviews.

3.3.2.3. Conducting interview I

The aim of interview I was to get the informant to talk about business opportunities and relationships without him knowing that that is what interests me and without directly asking about opportunities and relationships. Instead I tried to get insight into these aspects through the informants’ stories about the process of founding and internationalising the firms.

In accordance with the critical realist approach I believe that a phenomenon exists regardless of the researcher and his/her interpretation. However, there is always the risk that informants consciously or unconsciously say things they expect that the researcher wants to hear or is interested in. Therefore, I did not in the beginning tell the informants what the topic of the doctoral dissertation was. They only knew that it was about International New Ventures. The thought behind this was that I wanted to see whether the phenomenon of this study – relationships linked to business opportunities – at all would be mentioned when the informants were asked to tell about the firm, its start-up and its internationalisation. In that way I would be able to get a comprehension of whether relationships are at all important or not in these respects and to what extent.

The first interview with each firm was carried out in February and March 2007 (see appendix 3 on data collection for further information about the interviews). At the start of the interviews I told the informants about my desire to follow a stepwise interview process, which would mean that I would return for another in-depth interview in a couple of months and that I also later on would like to follow them up. All informants agreed and welcomed me to follow the development of the firms. In addition, we talked about anonymity and confidentiality and made an agreement that persons and firms will not be revealed by their correct names in the dissertation.

Interview I focused on the informant giving his view of the business idea behind the firm, the process of starting it and the view on internationalisation. The interview was open and based on only three main questions (see appendix 2). Additional questions were asked based on the informants’ answers. The interviews are considered to have reached depth and the answers were more like stories than mere answers. That is, they were extensive and rich in details. The interviews ranged from 1 hour 25 minutes to 3 hours 20 minutes. All interviews were recorded and afterwards transcribed by the researcher resulting in transcripts ranging from 17 to 32 single-spaced pages per interview.

3.3.2.4. Gathering of documents

At the end of the first interview the informant was given a timeline map and the task to, on a timeline drawn on an A3 piece of paper, fill out those events (activities) that he considered had been critical for the start-up and development of the firm. The paper was blank except for an arrow going in both directions and with the point "Start-up of the firm" in the middle (see figure 8). Furthermore, the informant was given the information that the events (activities) could be related to products, product
development, technology, customers in Finland or abroad, financiers etc. Events that somehow were seen to be critical for starting the firm and for helping it develop. The informants were given the alternative to either complete the task directly, that is, during the interview or later on and to send it by mail before the second interview. For Case A and Case C the timeline was filled out during the first interview, whereas the others chose to fill it out in peace and quiet and then mail it back.

![Timeline map](image)

**Figure 8 Timeline map**

The early business plan of each firm was also asked for and received. All firms had written business plans partly as a consequence of them being involved in the incubator programme of Merinova. In addition, other documents were received from the firms. For case A an article about the firm published in an industry magazine was received, in case B a business process handbook and in case C product brochures. In addition, for all cases I collected on the one hand information published about the firms by Merinova in the newsletters Merinova News and Merinova Business Runway, and on the other hand information available on the potential homepages of the firms. All documents were primarily used in order to search for possible important relationships and possible discrepancies from the stories told during the first interview. These issues I then asked about during the second interview.

### 3.3.2.5. Reflections on phase 2

Access is not only to gain the initial physical access, but it is a continuing process (Saunders et al., 2009:170). I saw the access for visiting the firms for the first interview as a chance to gain continued access to them. Therefore, I already at the beginning of the first interview asked whether it would be possible for me to follow them during a longer process. I specifically mentioned my desire to use a step-wise approach for data collection including at least two interviews at two different points of time. All entrepreneurs were positive toward this procedure and generously encouraged me to contact them whenever I needed or wanted. Thus, my fears regarding the difficulty of gaining access to longitudinal studies, turned out to be unjustified.

Access is, however, not only about physical access, but also about cognitive access – that is access to persons who are able to give you reliable data and data that also will ensure that you meet your research objectives (Saunders et al., 2009:170). I consider the informants in this study (both founder and CEO) to be the most appropriate
persons to answer my research questions. In addition, I am surprised about the acceptance I got already during the first interview. The informants were very open in their answers and thus the data I got was very extensive and reliable and constituted a very good base upon which to build the second round of interviews.

The aim of interview I was to get the informant to talk about business opportunities and relationships without him knowing that that is what interests me and without directly asking about opportunities and relationships. Did it work? Yes, I definitely think the strategy worked. Opportunities clearly came up and specifically the critical events related to exploring and exploiting the initial business opportunity. In addition, a lot of relationships were mentioned and these relationships were seen as very important ingredients in exploring and exploiting the business opportunities and developing the firm. However, the perceptions of all the informants after interview I were that they were uncertain about if their answers had given me anything. Thus, by their comments you can notice that informants do think in terms of what are “right” answers. This is illustrated by the following quotations: "I have told my story, how this relates to INVs I don't know?" (Adam, Case A, Interview I) as well as "I don't know how this would be relevant for you, but that is your problem." (David, Case D, Interview I). Thus, I consider the risk of informants telling me the story they expect that I want to hear, to be minimised.

3.3.3. Phase 3 – Interview II and gathering of documents

3.3.3.1. Conducting interview II

The aim of interview II was to introduce the informants to the topic of the doctoral dissertation project and to enter more deeply into the critical events identified through the answers during the first interview, the timeline map made by the informant, the business plan of the firm as well as any additional documents about the firm. For each of the events related to exploration and exploitation of business opportunities, the relationships involved were asked about and discussed. Thus the interview guide (see appendix 2) for interview II was based on the results of the previous interview and material collected in relation to that.

At the beginning of the second interview clarifying questions were asked relating to things that I felt had been left open during the first interview. Then the informant was introduced to the topic, title and research questions of the doctoral dissertation. After that attention was directed towards the critical events in the development of the firm. The events relating to the identification and development of business opportunities were handled in turn regarding: 1) What happened? 2) Who was involved? Going through major events in order to identify relationships involved in the early firm development is a tactic also used by Elfring and Hulsink (2007). The first part takes a process perspective to the activity and the informant was encouraged to talk about what happened during the event and why it was critical for the firm. A second map, the event-relationship map (see figure 9), was introduced which we filled out together during the interview. While the informant talked about the events, I took notes and filled out the map. Mostly also the relationships involved were mentioned when the informants explained the process. However, the question was still asked of, “Who was/were involved in this event?” Next, each relationship was in turn discussed deeper regarding aspects like how the informant had come into contact with this person/firm/organisation, what the relationship had given the firm, importance, age
etc. Each relationship was also talked over along two continua, business – personal relationship as well as strong – weak relationship. Definitions for personal-business as well as strong-weak were given to the informants (see definitions in chapter 1.2). Already when going through the very first relationship with the first informant, I realised that it would be necessary to also take the time perspective into account when determining if a relationship is business-personal or strong-weak. Thus, for each relationship the two continua were discussed both regarding 1) what it was like in the beginning of the event and 2) how it developed. In the end of the second interview such relationships that came up during the first interview and that had not been dealt with in the event-relationship map were discussed.

The second round of interviews were carried out in May to August 2007, that is, about three months after the first interview (see appendix 3 on data collection for further information about the interviews). The interviews ranged from 2 hours to 4 hours 15 minutes. All interviews were recorded and afterwards transcribed by the researcher resulting in transcripts ranging from 30 to 48 single-spaced pages per interview.

![Event-relationship map](image)

**Figure 9  Event-relationship map**

3.3.3.2. Reflections on phase 3

I experience that the openness, access and quality of data I got from the entrepreneurs during interview II exceeded all my expectations. The aim of the second round of interviews was hence fulfilled. The event-relationship map worked as a good tool in keeping the discussion on the right track. The two continua business-personal as well as strong-weak were understood and worked well. The additional information received about the relationships by having the informants both fill out and explain the strength and type of relationships on the two continua was insightful. It was also evidenced that strength and type need to be continua instead of distinct entities, as relationships on all different levels are found. Similarly, it is clear that strength and type need to be separated as relationships of all possible combinations of these occur. Finally, it was evidenced that it is important to take the dynamics into account and both ask how relationships were at the time of the event and how they are now at the time of the interview.
Already during the first round of interviews I could notice that the entrepreneurs in cases A, B, D and E, all had a very open and positive attitude towards research and researchers. During the second round of interviews also the entrepreneur in case C showed strong interest in research. They were humble and respectful towards the work involved in conducting research for a doctoral dissertation and did not experience that I took up their busy time. Even interviews that took up to 4 hours were not felt to be a problem, as can be seen from the following quotation: “Four hours of my time is not much compared to the time you have and will spend writing a doctoral dissertation. If I can get access to those results by spending in total a day or two for interviews it is really nothing.” (Ben, Case B, Interview II)

In relation to the interviews I have also reflected upon if it could have been a problem that I approached the cases by going through Merinova. Possibly it might have been so at the beginning. I namely noticed that during the first interview all the informants were stating that they were very positive towards Merinova and emphasised the use and good sides. This, even though I had stated that I had no link to Merinova other than that it was through them I received the contact information of possible case firms. However, during interview II another tone was used when they talked about Merinova – in several cases a realistic, natural voice pointing out passiveness from one or both sides was obvious. This, I interpret as a sign of that 1) more trust had been established between me and them, that is, they felt more comfortable in telling me the way things were, not the way they should be or sounded nice, as well as 2) the possible negative effects of using Merinova as a connecting part had faded away. They saw me as a researcher from Hanken, not as someone brokered through Merinova.

3.3.4. Phase 4 – Interview III

In addition to the main data collection carried out in phases 2 and 3, a third interview was carried out with the firms in the form of a follow-up interview in order to monitor how things had developed from the time of the second interview. These were conducted as face to face interviews with cases B and E in November 2008 and through e-mail with the other firms due to difficulties in finding suitable times for personal interviews. Any unclear points coming up during the data analysis have been sorted out in e-mail correspondence with the lead entrepreneurs. In the analysis the information gained from data collected in phase 4 functions primarily as clarification for earlier results and as a support in the analysis and interpretation of research results.

3.3.5. Reflections on the data collection process as a whole

According to recommendations for entrepreneurship research found in Short et al. (2010:10) “researchers should use tools and techniques that will really bring out a deeper understanding and appreciation about entrepreneurial work as it is enacted in practice and in thought”. By combining interview data and data from documents, I consider that I have been able to fulfil this.

The use of several different data sources in a study is called data triangulation (Patton, 1990). The aim of triangulation is to increase reliability of results (Patton, 1990) and to strengthen a study (Patton, 2002). Denzin (1978) argues that the logic behind triangulation is based on the assumption that no single method or data source can ever capture the whole empirical reality, but that different methods or data sources reveal different aspects of it. Thus, triangulation and critical realism goes hand in hand as it
involves getting closer to the truth (Guba & Lincoln, 1998). As reasons for triangulation, Saunders et al. (2009) emphasise except for complementarity also the help it offers with interpretations.

Thus, studies that only use one method are more vulnerable to the shortcomings of that particular method and capture a more narrow empirical reality. Multiple methods allow checking for validity across data. However, it is important not to believe that the aim is that different methods should show identical results, rather the aim is to understand possible inconsistencies found. Identifying inconsistencies should be regarded as offering opportunities to gain a deeper insight into a phenomenon than what would have been possible with only one method (Patton, 2002). Thus, inconsistencies strengthen, not weaken, the credibility of findings.

In this study methodological triangulation has been carried out as interviewing has been complemented with document analysis. I regard the documents to be valuable as they provide a behind-the-scenes look. They included information without which I would not have come to think of asking some important specific questions during interview II. They also filled an important role in overcoming the problem of recall errors and retrospective biases. Although, I entered the firms in a relatively early stage after their start-up, the time passed always involves a risk of retrospective bias and recall errors. In this way, the documents were important in order to check and validate details. For example, including the business plans of all firms in the data analysis offered the following possibilities: 1) to check up things not mentioned in the interview regarding a) what happened during start-up, b) early intentions about internationalisation, and c) relationships involved; and 2) to identify differences between the way things are done and the way they are planned. These aspects were then clarified with the informants during interview II.

3.3.5.1. Interviews as method for data collection

In interviews the researcher has an active role by being present in the process. The relationship between the researcher and the informant becomes closer and can be expressed as an I-you-relationship. (Holme & Solvang, 1991). The interviewer also impacts on the quality of the information obtained during an interview. Being attentive is very important and as an interviewer you have to have a genuine interest in carefully listening to what informants tell you. (Patton, 1990). A critical realist perspective also influences the practical way of collecting data. I consciously tried to minimise the potential impact of me in their answers. Thus, I aimed for having a passive role, that is, the interviews were not conversations with both parties mutually active. I asked the informants to tell about general themes and came with follow-up questions where appropriate, but I did not participate with my own thoughts, experiences etc. Mainly I quietly listened. In this study, for example, the choices of not to introduce the specific phenomenon in focus of the study to the informants as well as not to ask direct questions about the importance of relationships for pre-founding, start-up and internationalisation are regarded to be influenced by the critical realist approach taken. I reason that if the phenomenon of interest, nevertheless is observable from the answers given, it can be interpreted as a sign that the phenomenon does play a role in reality. Especially in interview I found it important not to direct the discussion, but to let the informants speak freely about the founding and internationalisation of the firm. This made the interviews quite long, but also gave me information rich answers. During the second round of interviews the event-relationship map kept the interview and the informants on the right track.
I found conducting interviews in several steps to be a very good strategy. Even though I experienced the entrepreneurs as open already during the first round of interviews, even more sensitive data came up during the second round. Also some data changed from what they had told me during the first interview. In particular, they now revealed also problematic aspects of relationships. This shows that the access had been further improved, and that returning several times to interview the same informant improves the quality and trustworthiness of the data gained. In order words, the stepwise interview technique has given data that is even more accurate. Thus, a stepwise interview technique is also in line with the critical realism approach.

Through the stepwise interview process the informants got to know me and we created a relationship. I felt that mutual trust developed and sometimes the interviews felt like “therapy sessions”, where the entrepreneurs openly shared their experiences and problems with me. I also think that one reason for the openness and richness of information received was the topic of the interviews – both during the first and the second round of interviews, the entrepreneurs got to talk about something that is very important to them and about what they are so inspired about – their business idea and their firm and how these have developed.

Interviews may vary regarding standardisation and structure. In this study all interviews were based on interview guides. However, the use, structure and standardisation of the interview guide differed between the main two rounds of interviews. The interview guide for Interview I can be described as very open in its structure. Not many questions, but rather a few topics, were stated in the interview guide. However, the topics stated were the same for all cases and this interview guide thus standardised between the cases. The interview guide for Interview II, on the other hand, was more structured and detailed (had quite a lot of questions stated), but was not as standardised (questions varied between the cases). For Interview II, questions were formulated separately for each case based on the answers from the first interview and the information in the documents. That is, I felt that I to a large extent could in advance specify what issues to go deeper into during the second interview. Some questions were also the same for all cases during Interview II (questions regarding relationships – development, type, strength etc.). This is in line with the open-ended interviews described by Denzin (2001) where general themes of interest are determined, whereas more specific questions are formulated in a way that they fit each informant being interviewed, meaning that the wording and order of questions are not the same from interview to interview. Open-ended questions allow the researcher to understand the world as seen by the informants. Answers are not systematic or standardised, which on the one hand makes analysis more difficult, but on the other permits the researcher to understand and seize the informants’ views. In qualitative research the role of the researcher is to give the broader framework, but not specific boundaries based on one’s own preconceptions. The primary task is to give the informants the chance to express their experiences. (Patton, 2002).

3.3.5.2. Documents as method for data collection

In addition to interviews, document analysis has been an additional, appropriate data collection method. The initial reason behind including business plans and other archival data in the data collection was the assumption that they may contain important data on the initial business opportunity and opportunities only explored but not acted upon. In addition, archival data might give information about weak relationships involved in the early stages. In particular, unexploited opportunities and
weak relationships might be forgotten by entrepreneurs, due to the problem of retrospective biases as the interviews are based on activities that have taken place earlier. Therefore, I assumed that this kind of document analysis would be advantageous in providing more data from the early phases and details to follow up in the second interview. This was to some extent also the case. In addition, some discrepancies between the informant’s answers during the first round of interviews and the business plan could be identified. During the second round of interviews these discrepancies could be sorted out, which lead to additional valuable data. However, I consider these documents and particularly the business plan to have been even more important during data analysis. First of all they were of use when describing the cases. Then they were also important when analysing the entrepreneurs’ initial international intentions, that is, the ambitions to become INVs.

The maps drawn during the first two rounds of interviews can also be seen as documents included in data collection. Two types of maps i.e. timeline maps and event-relationship maps have been used as a means of assistance in collecting the data. The initial intention behind these was to help the interviewer and interviewee in the communication and to bring the discussion forward. These maps fulfilled their function very well and were of invaluable support in the analysis of data, since they provided a good structure for the data and for the analysis of it.

3.3.5.3. Longitudinal aspect of the study

The main advantage of interviewing the entrepreneurs at several different points of time was the possibility to gain an insight into the development process and the temporal sequences of events in that process, something also emphasised by Van De Ven and Huber (1990) as well as Saunders et al. (2009). In this early stage of firm development things happen all the time and changes were apparent from one interview to the other. It was rewarding to follow how critical events progressed and how the entrepreneurs’ thoughts and visions developed. In addition, it was invaluable in establishing credibility, trust and a relationship between me and the informant. I perceive that even though the entrepreneurs were open to me already during the first interview, the openness and trust became even more evident during the following interview.

Decision making in small firms such as these are usually made by the entrepreneur and/or a few key individuals (Andersson & Evangelista, 2006; Chetty and Campbell-Hunt, 2004; Zucchella et al., 2007). The biases to be anticipated in the decision makers’ recollected accounts of firm history are discussed in Huber and Power (1985). As predicted by critical incident learning theory, these accounts frequently focused on relatively brief episodes of radical transition in the life of the firm, during which the informants’ understanding of the business changed. I concur with Cope and Watts (2000) that these critical incidents are recollected more clearly because they were dramatic, and because conscious learning took place during this phase. Since the studied firms are young I expected that they will be experiencing several critical events. This is the period when they start-up the business, develop a product and make their first sale and enter their first international market. Thus, I expect their recollection of these accounts to be fairly accurate. The fact that they had little internationalisation allowed me to capture the decision making process and important events that take place during the pre-internationalisation and early phase of internationalisation. I can also trust their relatively recently recollected experiences instead of doing this retrospectively 20 or 30 years later. As Eisenhardt and Graebner (2007) state
retrospective interviews are fairly accurate when they cover recent critical events. In addition, I find that getting access to the original business plans of all the firms allowed me to get an insight into the entrepreneurs’ thoughts and intentions during the very early start-up of the firm. This was rewarding as even though I entered the firm at a relatively early stage, at least 7 months had elapsed since the legal registration of the firm and the first interview. Consequently, I consider the longitudinal approach to be important for the quality and comprehensiveness of the data collected. Longitudinal research capturing recent entrepreneurial activities and not relying on 20 year old archival data is also asked for by Short et al. (2010:10). Within IE Coviello and Jones (2004) pay attention to the fact that longitudinal studies are rare, and call for more research capturing entrepreneurial behaviour and processes over time in INVs.

3.3.5.4. Recording and transcribing interviews

All interviews were recorded in order to secure correctness of data and to be able to capture the actual words of the persons being interviewed, which I considered to be important both when analysing the data and when rendering the results. The use of direct citations is vital for the transparency of analysis. In addition, the use of a recorder permitted me to pay full attention to the informant and his answers. Written notes were taken on particularly interesting information and also as a security arrangement. Fortunately, no problems occurred during the interviews such as malfunctions of the recorder, bad quality of the recorded material or the informants being reluctant towards the interview being recorded. During some interviews it happened that the informants answered mobile phone calls. During these occasions the recorder was switched off, so that the informant would not feel uncomfortable.

I transcribed every interview myself relating to the first and second round of interviews as soon as possible after they had taken place. The transcriptions are detailed and reproduce all spoken material word by word. Notions about the informants’ state of mind are included, e.g. when they laughed or joked. The transcriptions indicate pauses or hesitation, however, the length of pauses is not seen as important for the analysis and thus they were not counted. The transcripts are in Swedish or Finnish in accordance with the language preferred by the informant. Only the parts that have been quoted in this dissertation have been translated into English. Transcribing the interviews in detail was a weary and time-consuming task and amounts to in total 304 single spaced pages of text. However, I find that it has been very important to carefully transcribe these interviews for a number of reasons. It made me know my material in detail; it helped to identify issues that should be entered more deeply into; it allowed me to make an initial analysis already during the transcription and it was of irreplaceable help during the analysis. Thus, once ready, the detailed transcriptions were definitely worth the effort. The interviews in the third round of interviews have not been transcribed in detail as the main purpose of them was as a follow-up of firm development and clarifications to the previous interviews. Instead I have listened to them several times and made notes on the important aspects that arise in them.

3.3.5.5. Appropriateness of cases

Entering the case firms at an early stage meant that at the time of the interviews some cases were clearly still in the product development phase, which meant that they had not done business nationally or internationally. As a result international events are found in limited numbers, however such events are still found in all cases. This could
give rise to questions about the appropriateness of the cases. However, I consider it a major strength of the study to be able to be involved in the very early stages of firm development. It has allowed me to in real time capture the firm development process and the early internationalisation as well as the role of relationships in these, and thereby mitigate potential bias originating from retrospective sense-making (cf. Eisenhardt & Graebner, 2007). In addition, by following the firms from the very first internationalisation activities the cases allow us to gain a unique insight into the pre-internationalisation process, which is rare in earlier IE research and requested e.g. by Coviello (2006).

All five case firms were thus included in the study – also as a consequence of them representing different ways of how the initial business opportunity was explored. This makes them interesting cases for the study and allows making comparisons of the involvement of relationships in opportunity exploration in different situations. Five cases were seen as suitable also as I experienced that data saturation was reached by case E and thus I did not feel any need to include further cases. Saturation was e.g. experienced as: 1) Opportunity exploration of the initial business idea in case E resembles D (not in any new way) and 2) No new activities for opportunity exploration and exploitation came up.

3.4. The process of analysing data

The aim of research in general is to “move the analyst to a simultaneously more differentiated and abstract view of the phenomenon (which is the product and may be called ‘understanding’, ‘rich description’ or ‘theory’)” (May, 1994:14). How the researcher comes to this more differentiated and abstract view is the very content of research and called the data-analysis process. Morse (1994:24) claims that qualitative researchers often have neglected to describe how analysis has been made and only use simple statements such as “emerging from the data”. This is in turn one of the reasons for why qualitative research has been accused of being easy, vague and subjective. In order to overcome such shortcomings it is important to in an as detailed way as possible make explicit the whole research process from data-collection all the way to data-analysis. However, May (1994:14) points out that analysis techniques and rigour in explaining the process can never entirely explain what it was that got the researcher “from confusion to insight, from chaos to order, and from simple description to understanding”. Intellectual work, creativity and intuition are important ingredients in the analysis, but very difficult to explain in text. May (1994) emphasises that the recognition of the importance of such immeasurable and unobservable aspects still does not defend methodological negligence. Care and precision are central in qualitative research; and systematic data collection, as well as analysis, is essential in bringing evidence to possible tentative conclusions based on intuition. Thus, my intention is to describe and make the analysis conducted in this study transparent. However, I also acknowledged that within qualitative research an inherent characteristic in data-analysis is the inclusion of intellectual work, and thus, no matter how detailed descriptions are attempted to be made, cognitive processes have been involved as well. These cognitive processes are difficult, if not impossible, to capture in words, but nevertheless are found to be an important strength of the qualitative research process. Cognitive processes that may be difficult to capture and describe in words are according to Morse (1994:25) comprehending, synthesising (make generalised statements about the participants), theorising (development of concepts or models) and recontextualising.
Furthermore, it is in qualitative research important from a credibility view to strengthen arguments with quotes from the data. Morse (1994) recommends that examples (such as quotes or short texts describing observations) are included in the analysis, so that readers may see what data have looked like and how it has been analysed. In this way the reader can be assured that the researcher knows how to conduct data-analysis. Through quotes, it is possible to take the reader into the time and place of data collection, as they capture and illustrate the informants’ experiences of the world in their own words (Patton, 2002). Quotes from the interviews have been used in the findings sections of this dissertation in order to exemplify findings and offer transparency in the analysis process and give the reader an opportunity to see how I have arrived at my findings. I have often used not only short fragments, but longer quotes in order for the reader to be able to capture the context as well.

3.4.1. Data-analysis in practice

Next, I will try to explain and describe how I have proceeded in the analysis of data in this dissertation. The analysis of data is not regarded to be a separate procedure, but instead it is largely integrated in writing and also in data collection, which is a general characteristic for qualitative analysis (Patton, 2002).

1) Initial analysis

   a. Immediately after each interview I reflected upon the interview and what had been said. When I came back to my car I expressed my reflections aloud and recorded them. These recordings were also transcribed. I found these reflections of about 5-10 minutes after each interview to be very useful in the later data analysis. They functioned as intuitive reasoning where interesting aspects were highlighted and problems identified. I especially focused on the perception I had got regarding if and how the informants emphasised relationships and how they looked on internationalisation. I also reflected on how the interview had gone, if anything particular had happened and how the entrepreneurs were as informants.

   b. As I transcribed the interviews, I also implicitly analysed them. I took notes on interesting aspects coming up and made cross-case comparisons that I wrote down. These for example focused on background factors of the entrepreneurs and firms, business opportunities and the exploration of them, stages of firm development, use of relationships and view on internationalisation.

   c. Before interview II I read through all data I had on the firms – the business plans, any articles, the interview transcripts from interview I and the timeline maps. In these I marked out in three different colours everything that related to business opportunities, internationalisation and relationships. These I then used to build up the interview guide for interview II, which in its details were specific and custom made for each case.
2) Formal analysis

a. NVivo

During the analysis of interviews the software program NVivo2 and later on NVivo7 was used to organise the data. The transcripts from interviews I and II amounted to 304 single spaced pages and these were coded in NVivo.

For each case I first coded all critical events as well as all relationships mentioned for the events and numbered them. This coding for events was primarily based on the timeline map as well as the event-relationship maps. Then I continued coding the events as being exploration and/or exploitation activities, based on the division made by Bengtsson et al. (2005). From the data I recognised a need to separate between different phases and different types of events, and thus the phases of pre-founding, start-up and early internationalisation came into the analysis and also the separation into entrepreneurial and internationalisation events. The latter concepts were derived from literature as Jones and Coviello (2005) talk about these two types of events in relation to INVs. Thus, the critical events were coded to belong to the pre-founding/start-up and/or early internationalisation phase and hence also as being entrepreneurial and/or internationalisation events.

The relationships were then in turn coded for strength, informant’s motivation for strength, direction for change of strength, type (personal–business), direction for change of type, informant’s motivation for type, origin, benefit gained, problems involved and importance of the relationship for firm development.

The coding in NVivo can be described to have begun with specific observations in the interview transcripts and moved toward general patterns. Coding has both been done deductively and inductively. Deductive coding is about coding data based on a pre-determined framework, whereas in inductive coding themes, categories and patterns are discovered from the data (Patton, 2002). The deductive coding has followed the definitions of concepts used in this dissertation derived from literature, for example regarding the concepts of exploration and exploitation. However, the main part of the coding has been inductive and then categories have emerged from the raw data collected through open-ended interviews and documents. For naming the categories three different sources have been used – using the informants’ actual terms, using terms emerging from the data, and using terms from existing literature. As I went forward in the data and in the analysis process I came to understand patterns that exist in the phenomenon being studied and categories were then changed, refined, made more homogenous, integrated and grouped into more abstract categories during several rounds. Thus, I have gone through the data many times. In this way the data has been analysed by identifying core meanings, themes, and the data analysis process is theme analysis, an analysis process described by Patton (2002:453). Data analysis has followed the general aim of data analysis in qualitative studies, that is, to make sense of what informants have told, identify patterns and integrate what different informants have said (Patton, 2002). The final themes and categories used in the N-vivo coding are found in table 7.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-categories</th>
<th>Concepts derived from data/literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical event</td>
<td>Numbered chronologically per case e.g. AE1, AE2..., BE1, BE2...</td>
<td>Data</td>
</tr>
<tr>
<td>Event</td>
<td>Entrepreneurial, Internationalisation.</td>
<td>Literature</td>
</tr>
<tr>
<td>Phase</td>
<td>Pre-founding, Start-up, Early internationalization.</td>
<td>Data</td>
</tr>
<tr>
<td>Activity</td>
<td>Exploration, Exploitation.</td>
<td>Literature</td>
</tr>
<tr>
<td>Relationship</td>
<td>Numbered chronologically per case as mentioned in the event-relationship maps e.g. A1, A2... B1, B2...</td>
<td>Data</td>
</tr>
<tr>
<td>Strength of relationship</td>
<td>Entirely strong (S), More strong than weak (Sw), Equally strong as weak (sw), More weak than strong (sW), Entirely weak (W).</td>
<td>Data, definitions for S/W based on earlier research</td>
</tr>
<tr>
<td>Direction for change of strength</td>
<td>Stronger, Weaker, Unchanged.</td>
<td>Data</td>
</tr>
<tr>
<td>Motivation for strength</td>
<td>e.g. Confidence in the project, Loyalty, Open communication, Personal chemistry, Readiness to help, Satisfaction, Shared vision, Passiveness, Regularity of contact, Smoothness, Trust, Uncertainty.</td>
<td>Data</td>
</tr>
<tr>
<td>Type of relationship</td>
<td>Entirely personal (P), More personal than business (Pb), Equally personal as business (pb), More business than personal (pB), Entirely business (B).</td>
<td>Data, definitions for P/B based on earlier research</td>
</tr>
<tr>
<td>Direction for change of type</td>
<td>More personal, More business, Unchanged.</td>
<td>Data</td>
</tr>
<tr>
<td>Motivation for type</td>
<td>e.g. Business related, Family, Friendship, Personal atmosphere, Meet in private settings.</td>
<td>Data</td>
</tr>
<tr>
<td>Origin of relationship</td>
<td>Direct relationship (Created at former workplace, Friend, Family, Formal search), Indirect relationship (Other founder as broker, Former workplace as broker, Friend as broker, Institution as broker, Business Incubator or Mentor as broker).</td>
<td>Literature/Data</td>
</tr>
<tr>
<td>Age of relationship</td>
<td>Old, New.</td>
<td>Data</td>
</tr>
<tr>
<td>Benefit of relationships</td>
<td>e.g. Access to business opportunity, Access to network (international, domestic), Advice (business plan development, financial, technological), Cooperation opportunity, Emotional support, Financing, Insight of product demand/market gap, Market knowledge, Office, Product knowledge, Trustworthiness, Supplier, Visibility.</td>
<td>Data</td>
</tr>
<tr>
<td>Problem with relationships</td>
<td>e.g. Bureaucracy, Conflicting visions for firm, Consequences of dissolving relationship, Difficult personality, Expensive, Exploitative, Inefficiency, Passiveness, Unreliable.</td>
<td>Data</td>
</tr>
<tr>
<td>Importance of relationship for firm development</td>
<td>Decisive, Some importance, Replaceable.</td>
<td>Data</td>
</tr>
</tbody>
</table>
b. Tables

The codings of transcripts in NVivo were used together with the business plans (one for each firm), timeline maps (one for each firm) and event-relationship maps (in total 81 maps) to construct tables in the software program Word. Initially two very detailed tables were constructed – one table for events and one for relationships.

In the event table the following information for each critical event in each case was summarised: number of event, description of event, type of event (entrepreneurial, internationalisation), phase (pre-founding, start-up, early internationalisation), motivation for why the event was considered critical, if the event was based on relationships and if so how many relationships. The event table is found in appendix 5.

In the second table, the relationship table, the following information for all 117 relationships involved in the critical events of all cases was summarised: code for the relationship, description of relationship, critical events in which the relationship has been involved (also type, phases and activity of events marked), origin, if the relationship has acted as broker to other relationships, age, strength and type, motivations for and direction of change in strength and type, benefits gained, problems involved and importance of relationships for firm development. This table amounts to 30 pages and is not included in the dissertation.

These two detailed tables offered an excellent base when I continued with within- and cross-case analyses (see Eisenhardt, 1989). The purpose of the within-case analysis was to develop an understanding of the phenomenon in focus through the unique cases. In addition, I became deeply familiar with each case, which was of use when continuing with the cross-case analysis. The aim of the cross-case analysis was to deepen the understanding gained from the within-case analysis by comparing cases and thus ensured a richer view of the studied phenomenon.

The tables easily allowed me to look for patterns both within and between cases. A pattern suggested in one case was compared and contrasted with other cases. Additional tables were then constructed for the cross-case analyses. I still regularly moved backwards and forwards between the interview transcripts, the business plans, the two different types of maps and the two tables to confirm conclusions and interpretations as well as to pick out illustrative quotes.

3.4.2. Unit of analysis

When selecting and deciding about the appropriate unit of analysis, the key question to guide you should be “what it is you want to say something about at the end of the study” (Patton, 2002:229). It is possible to apply different units of analysis in the same study, but Patton (2002) emphasises that different units of analysis involve different kinds of data collection, different focuses for the analysis, and different levels at which statements about findings and conclusions are to be made. In the analysis of data in this dissertation I have applied several different units of analysis: Case (firm level – 5 small INVs), event (process level – in total 95 critical events involved in the firms’
development) and relationship (individual level – in total 117 unique relationships involved in critical events of the firms’ development). The findings from the analysis of data are presented in chapters 4 and 5. In chapter 4 the units of analysis are cases (firm) and events (process), whereas in chapter 5 the unit of analysis is mainly relationships. Multi-level studies and multi-level analysis are in line with the critical realist approach guiding this dissertation, as different levels offer the researcher different perspectives on the phenomenon being studied. Different levels (such as the individual and the firm) have the capacity to change the researcher’s understanding of the phenomenon in focus. (Saunders et al., 2009).

3.4.3. Quantitative analysis of qualitative data

Qualitative data can be used also for making quantitative analyses. This might be advantageous on some occasions for example by counting frequencies and reproducing them in tables or diagrams. However, when quantifying qualitative data, there is a risk of losing valuable, rich and deep qualitative data to produce simplified numbers. Thus, conducting only quantitative analysis of qualitative data is not recommended and shows a limited use of the rich data. Instead, quantitative analyses should be seen as a supplementary means for analyses. (Saunders et al., 2009).

Initially, I was totally against quantification of qualitative data and for example for counting relationships. The assumption leading me was that it is the quality of relationships that counts not the quantity. However, when I started analysing my data and realised that I had a large amount of relationships involved in a large amount of critical events, I recognised a need to also make quantitative analyses. The quantitative analysis of counting frequencies is a way to present and summarise the data. Also Pratt (2009) is critical towards quantifying qualitative data, but recognises that it may be useful if there is a large number of units to analyse. Coviello (2006) as well as Coviello and Cox (2006) provide examples of where qualitative and quantitative methods of analysis are combined when analysing qualitative data on networks and INVs within case study research.

However, I still would like to emphasise that the quantity of relationships should not be mistaken for quality. Thus, for example, a larger total amount of relationships involved in the critical events of firm development should not automatically be interpreted as that relationships have been more important for that entrepreneur than for another where the total amount of relationships is smaller. For example, the fact that in case A 19 unique relationships have been involved in critical events compared to 34 relationships in case E, does not say that relationships have been more important in case E. It is here also important to take a closer look at the importance of individual relationships for firm development. As an example this closer look shows that relationships have been vital in case A as the entrepreneur would never even have got the business idea or the knowledge needed to develop the product without his existing relationships. Similarly, a relationship involved in many different critical events should not automatically be interpreted as more important than a relationship that has only been involved in one or a few events. This has also been taken into account in the analysis, as for each individual relationship the importance for firm development has been asked about (decisive, of some importance or replaceable) and this is also included in the analysis.
4 FINDINGS FOR OPPORTUNITY EXPLORATION AND EXPLOITATION

In this chapter the five cases are described regarding the initial business idea they build upon, the entrepreneurs involved in the founding as well as their international ambitions and realised internationalisation activities. The development process of each firm is also described focusing on the critical events involved in the process. The cases are also compared focusing on similarities and differences in the development process. Analyses of critical events are conducted both within and between cases when it comes to type of event, phase as well as exploration or exploitation activity. In the end of the chapter critical events are also analysed regarding involvement of relationships.

4.1. Explanations for concepts and abbreviations used in the empirical part

Firms and entrepreneurs:

To maintain anonymity I use fictitious names when referring to the case firms and the entrepreneurs in these firms. The cases are named A, B, C, D and E and thus firm A, firm B etc. The fictitious names for the entrepreneurs follow the logic that the names start on the same letter as the case. Thus, Adam is the entrepreneur of case A, Ben and Bob for case B etc. The fictitious names of all entrepreneurs are found in table 8. In the table the names of the informants are in bold.

Relationships:

To maintain anonymity I also use fictitious names when referring to relationships that have been involved in the critical events during pre-founding, start-up and early internationalisation. The relationships are named with a letter and a number, for example, A1. A implies that the relationship belongs to case A and the number stands for that it is the first relationship mentioned. Thus, the number should not be interpreted as a sign of importance, it is simply the order the relationships have been involved in the entrepreneurial and internationalisation events.

Critical events:

No single definition of what constitutes an event is applied. Instead events are studied from the entrepreneur’s perspective, that is, the entrepreneur decides what an event is. The events studied are those that by the informant are considered to be important and critical for exploration and exploitation of business opportunities and thus for the development of the firm. The events are named critical events\(^9\) as they may have been either positive or negative events. The events are mainly based on the timeline maps drawn by the informants. The critical events involved in the development of each firm are named with two letters and a number, e.g. AE1. The first letter shows to which case the event belongs, the second letter is always an E as in event. Finally, the number

\(^9\) The concept critical events is used in this dissertation. This is inspired by Hoang and Antoncic (2003:173) that talk about critical milestones of the entrepreneurial process. Making chronological listings of critical events has also been used by Coviello and Munro (1997) when studying international market development and network relationships in a case study of four INVs.
states the order of the event listed chronologically. Thus, AE1 is the first critical event in case A.

The critical events are divided into entrepreneurial events and internationalisation events. Entrepreneurial events, in turn are found in the pre-founding phase or the start-up phase depending on if the decision to start a firm has been taken or not. Internationalisation events are studied in the early internationalisation phase. The early internationalisation phase may be parallel to both the pre-founding phase and the start-up phase, since internationalisation in these firms is present from the very beginning.

4.2. Case descriptions

The role of descriptions is to give the reader the opportunity to get into the setting (Patton, 2002:27). In this chapter the five cases included in the study are described in order to give a picture of the firms, the entrepreneurs as well as the events mentioned as critical for the exploration and exploitation of business opportunities. For the case study approach organising and reporting data according to critical incidents or major events is a common procedure (Patton, 2002:439). In this chapter, the cases are to a large extent described through the critical events involved in the development of the firms. The aim is to describe the cases in depth and detail and to place the cases in their contexts. Table 8 summarises the background characteristics of the five cases.

All five cases are industrial niche firms selling their products to other businesses. The cases represent different industries and the innovations they build upon belong either to traditional or high-technology. The case firms are founded (i.e. time of the legal registration) in 2005 or 2006, only case B is somewhat older being founded in 2000. At the point of time of the first interview the cases were hence between 7 months and 1.5 years old, except for case B which was 7 years old. Regarding the number of founders, case D remarkably diverges from the other as it was founded by a team of 9 people. Case A was founded by a single entrepreneur, whereas the others were founded by two entrepreneurs. All cases are micro firms and they also rely on networks to a high degree regarding business activities. Product development and sales are mostly handled in-house, whereas production is in all cases outsourced.

At the time of the main data collection two cases were clearly in the product development phase. This meant that they had not done business nationally or internationally. Nevertheless, international events are found in all cases, but in limited numbers.
Table 8  Description of the cases

<table>
<thead>
<tr>
<th>Industry</th>
<th>CASE A</th>
<th>CASE B</th>
<th>CASE C</th>
<th>CASE D</th>
<th>CASE E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business idea</td>
<td>Demolition</td>
<td>Insulation</td>
<td>Power grid</td>
<td>Bearing</td>
<td>Environmental</td>
</tr>
<tr>
<td></td>
<td>(traditional</td>
<td>(traditional</td>
<td>automation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>technology)</td>
<td>technology)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of founders</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Founders</td>
<td>Adam</td>
<td>Ben, Bob</td>
<td>Carl, Colin</td>
<td>David,</td>
<td>Eric, Elias</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Danny, Douglas,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dylan, Dennis,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Don, Dino, Derek,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Drew</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eric, Elias</td>
<td></td>
</tr>
<tr>
<td>Number of employees</td>
<td>1 full-time</td>
<td>5 full-time</td>
<td>1 full-time</td>
<td>1 full-time +</td>
<td>1 full-time</td>
</tr>
<tr>
<td></td>
<td>(founder) +</td>
<td>(of which two</td>
<td>(founder) + 2</td>
<td>2 part-time (founders)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 employed by</td>
<td>two are</td>
<td>part-time</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>the hour</td>
<td>founders)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-house</td>
<td>Purchasing,</td>
<td>Product</td>
<td>Product</td>
<td>Product</td>
<td>Product</td>
</tr>
<tr>
<td></td>
<td>marketing,</td>
<td>development,</td>
<td>development,</td>
<td>development,</td>
<td>development,</td>
</tr>
<tr>
<td></td>
<td>sales</td>
<td>sales</td>
<td>marketing,</td>
<td>marketing,</td>
<td>marketing,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>sales</td>
<td>sales</td>
<td>sales</td>
</tr>
<tr>
<td>Business done?</td>
<td>No (in process</td>
<td>Yes (Finland</td>
<td>Yes (pilot</td>
<td>No (pilots in</td>
<td>Yes (pilot</td>
</tr>
<tr>
<td></td>
<td>Sweden and USA)</td>
<td>within Finland)</td>
<td>within Finland)</td>
<td>within Finland)</td>
<td>within Finland)</td>
</tr>
</tbody>
</table>

4.2.1. Case A

Adam took the mental decision to start firm A in January 2006. The firm was officially founded in July 2006.

The business opportunity: The business opportunity of case A is a demolition robot. A market gap came into existence when a competing firm first bought up and then laid down the production of a demolition machine in the 1,600 kg class. The competitor manufactures and sells machines weighing 1,000 kg and 2,000 kg. However, potential customers request a model in between as such a machine is more flexible and manages 80 percent of the work of the smaller machine and 80 percent of the work of the bigger machine.

The demolition robot is a new, extensively further developed version of the 1,600 kg demolition machine. It differs from competing products as its balance is lower down. It consists of an upper part and a lower part. Existing machines have their center of gravity in the upper part, whereas the lower part merely consists of the bogie and caterpillar treads. In this robot, however, all machinery is found in the lower part and
the upper is in principle only the crane. This makes the machine more stable. In addition, the two parts can in this robot be driven separately, which is not possible in the competing machines.

The market gap is a product of middle size and good quality combined with a good and efficient service network. This is where firm A aims to be positioned, as Adam considers it necessary as a new player to have both product and service in place in order to get into the industry. The demolition robot is a niche product and the domestic market size is approximately 10 customers. It is an expensive product costing about 80,000 euro.

**The entrepreneur:** Adam was born in Kemi, Finland, but has lived and worked in Sweden since the 1980s. While starting the firm in Vaasa, Finland his family lives in Umeå, Sweden and Adam commutes between Vaasa and Umeå.

Adam has a business education, but no technical education. He has, however, experience from the demolition industry, both by practically working on demolition projects within a foundry in the 1980s and by selling demolition machines. For a short time in the late 1990s he sold demolition machines to Finland. However, his work came to a sudden end when the production of demolition machines was bought up by a competing firm. Previously, Adam worked with purchasing and after sales within the forest process industry. In addition, he has had a firm of his own within the car industry and he has also been a part owner and worked in a firm which sells spare parts for the process industry. Thus, he has considerable experience of both the industry and of being an entrepreneur.

**The international ambitions:** As the product is a clear niche product, the international dimension is inherent from the very beginning. Adam has not even reflected on the alternative not to internationalise. Internationalisation seems natural and Adam even puts it this way: “Finland can of course be a small plus, but it has never been in focus”. In fact, it is the requests from international customers and retailers that are the very reason for starting the firm.

Also throughout the business plan of firm A the international ambition is explicit – in the business idea, in the reasons for starting the firm, in the experts contributing with help and support, as well as in the market analysis including estimated market sizes and market shares, and also the names of retailers, customers, and competitors internationally.

The business idea of the firm stated in the business plan is as follows: “Development, manufacturing, marketing and sales of electricity driven demolition robots and their spare parts, primarily to professional demolition- and machine-leasing contractors within the building industry globally.”

**Realised internationalisation:** Thus far international activities have involved product development, analysis of market demand, marketing of the coming product as well as negotiations with potential international buyers, retailers and cooperation partners. As the product was not fully finished, no international sales had taken place at the time of the second interview.

4.2.1.1. **Critical events in the development of firm A**

The critical events in the development of firm A are found in figure 10. This figure is extensively based on the timeline map that Adam filled out during the first interview. It
differs in some respects as some events have been combined and the decision to start a firm is considered the central event, not the formal registration of the firm. This better corresponds to the actual situation, as in all cases the formal registration was not really considered an important event, but rather it was seen as a matter of formality. Instead the time when the entrepreneur mentally made the decision to start a firm appeared as an important milestone. The original timeline map, figure 23, is found in appendix 4. In appendix 5 is table 41, describing all critical events in case A, found. Next, 16 critical events are described in turn in order to give a picture of the founding process of firm A.

<table>
<thead>
<tr>
<th>Event</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE1</td>
<td>1980s</td>
<td>Demolishes melting furnaces by hand</td>
</tr>
<tr>
<td>AE2</td>
<td>1997</td>
<td>Sells demolition machines to Finland</td>
</tr>
<tr>
<td>AE3</td>
<td>1998</td>
<td>Demolition machines bought up by large Swedish firm</td>
</tr>
<tr>
<td>AE4</td>
<td>2003</td>
<td>Work in Finland, part owner of firm A3 selling spare parts to the process industry</td>
</tr>
<tr>
<td>AE5</td>
<td>2003</td>
<td>Contacted by A1, interested in starting with demolition robots?</td>
</tr>
<tr>
<td>AE6</td>
<td>2005</td>
<td>Meets retailers from the USA and Sweden</td>
</tr>
</tbody>
</table>

**Figure 10 Critical events in the development of firm A**

**AE1 – Demolishes melting furnaces by hand in the 1980s**

In the 1980s Adam worked with demolishing melting furnaces by hand. He found the working environment and the working safety to be very poor. It was hot, dusty and unpleasant and in addition the work was physically heavy and demanding. At one point of time the foundry had rented a demolition machine. Nobody thought it would be possible to use it, since the space was very limited, narrow and low, but it turned out to be no problem at all. This machine made a strong impression on Adam and functioned as a bolt of inspiration: “That is how it should be done!”, Adam thought. In difficult places you could easily replace work by hand with a machine, if it is both small and strong enough.
Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration

AE2 – Sells demolition machines to Finland in 1997  

While working as a purchaser for a firm within the forest process industry in Sweden, Adam came into contact with firm A1 as it supplied bogie systems. A1 also manufactured demolition machines and as they knew that Adam originally was Finnish they asked him for some small services such as proofreading of brochures. Later on he was asked if he wanted to try to sell demolition machines to Finland. Due to his predilection for the machines he agreed and he managed to sell a machine at his first customer visit.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration

AE3 – Demolition machines bought up by large Swedish firm in 1998

Adam only got to sell a few demolition machines to Finland, before a competing large firm bought up that part of A1. Later it turned out that they only wanted to eliminate a competitor, because they soon laid down the whole production of the demolition machine.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration

AE4 – Work in Finland, part owner of firm A3 selling spare parts to the process industry

In 2002 Adam still worked for the firm within the forest process industry, but for a longer time he had felt the desire to change jobs. In 2003 he joined a firm selling spare parts from Central Europe to the process industry in Finland and Sweden. He became a part owner of this firm with a share of 25 percent. Adam’s responsibility area was Sweden and the west-coast of Finland. During this time he gained experience of having a firm of his own and he refreshed his knowledge of the Finnish business culture which was to become a decisive experience in his decision to start firm A in Finland. In addition firm A3 will be used as a supplier of materials for the new firm.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploitation
**AE5 – Contacted by A1, interested in starting with demolition robots?**

In 2003 Adam visited A1 in the name of A3 in order to sell them spare parts. A1 then asked if Adam would be interested in starting to sell demolition robots. When they sold the manufacturing of demolition machines to the competitor, they had made a contract that they would not start any competing activities within three years. Now the time limit had elapsed. Adam just laughed about it at that point of time. During the coming years it came up every now and then and in 2005 he was again contacted by A1 with the same question. They pointed out that retailers and customers had been in contact with them inquiring about a middle-sized demolition robot. However, A1 did not have the time to do it themselves. On the other hand, they would be interested in participating using their experience and knowledge in the product development, contacts to customers, manufacturing of components etc. As A3’s investments in Sweden did not develop very well, Adam began to seriously consider taking up the opportunity to develop a new middle-sized demolition robot. He started to call people to collect information related both to the product such as demand, needs and product characteristics and to starting a firm including financing issues.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration

**AE6 – Meets retailers from the USA and Sweden**

In order to explore the demand for a demolition robot Adam meets the retailers (A4, A5, A6 and A7) that earlier had requested the product from A1. A4 is a small Swedish retailer that earlier sold the demolition machines of A1. A5, A6, A7 in turn are American retailers. During the meeting they discussed the potential market size, special requirements and desires regarding the machine, potential retailing arrangements etc. During the meetings Adam felt that enough demand exists for the product and that A5, A6 and A7 were committed and shared the same views as him. A5 had a lot of experience of the demolition industry, for example, as they previously had been a retailer for the competing Swedish large firm that previously had bought up the demolition machines. That firm had, however, decided to start its own sales operations in the USA and thus suddenly ended the contract with A5. This had made A5 upset. Consequently, A5 and Adam shared the same negative perception of this firm – they shared “an enemy”. Based on these meetings Adams took the decision to become an entrepreneur and to start a business that develops and sells demolition robots.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploitation  
Event: Internationalisation  
Phase: Early Internationalisation  
Activity: Exploration

**AE7 – Negative answer from financiers in Sweden**

Immediately after the decision to start a firm Adam contacted potential financiers in Sweden. Adam developed a first business plan and everything seemed positive in the beginning. Adam got approval from the bank and from the Norrland Fund (foundation investing in start-up and development of SMEs in northern Sweden). However, suddenly the County Administrative Board that earlier had promised to contribute with
a considerable amount of financing, withdrew. This started a chain reaction and the bank declared that if the County Administrative Board would not invest, then they could not grant a loan and the Norrland Fund said that they would not invest if the bank would not participate. Adam believes that the possible reason for the County Administrative Board’s withdrawal was the fact that the new firm would have created competition for an existing Swedish large firm in the region (the firm that previously had bought up the demolition machine manufacturing).

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

AE8 – Tekes, Finnvera and TE-Keskus in Finland – contact, applications and financing

After the financial setback Adam decided not to give up. Instead he contacted the corresponding organisations in Finland in order to explore their interest. Adam felt it natural to try with Finland as he originally is Finnish and as he recently had worked in Finland. These organisations thought it sounded interesting and recommended Adam to contact Merinova in order to get help with the financial applications and to develop a solid business plan. Everything went smoothly and firm A was granted financing in the form of a loan from Finnvera, a risk loan from Tekes as well as a subsidy from TE-Keskus.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

AE9 – Contact with Merinova

Adam contacted the technology centre Merinova and became an incubator firm. The organisation supplied him with information on financing opportunities and assisted with practical help in the application process. Adam perceived that he was receiving invaluable mentoring from Merinova particularly regarding development of the business idea, the business plan and strategies. The coach at Merinova also contributed with the analytical thinking that Adam perceived that he himself lacks and he helps Adam to split ideas or problems up into manageable pieces. Merinova functioned as a bridge to many new relationships and suggested that it might be a good idea to have partners joining as owners and contributing with equity and expertise in critical areas.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

AE10 – Partners join

Through Merinova Adam came into contact with A12 and A13. A12 is the owner and CEO of an engineering firm and A13 is the owner and CEO of a manufacturing firm
within the metal industry. Adam thought it reasonable to ask them to join as part owners. The engineering firm could contribute with technical knowledge on planning and construction, whereas the manufacturing firm could bring critical views on materials and practical feasibility. Thus, the areas of expertise of these two firms would nicely complement each other and Adam’s existing knowledge. In addition such an arrangement would increase the firm’s equity which was a requirement posed by the financiers. Both firms agreed and became partners and also members of the board. Adam is still the majority owner with 69 percent of the shares, A12 has 12 percent, and A13 has 19 percent. Firm A will buy product development services from A12. A13, in turn, will manufacture most metal parts for the demolition robot and also compile it.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**AE11 – Legal registration of the firm**

Firm A was legally registered in July 2006. Adam does not consider the event to be important in any other sense than that the firm was now existing officially.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**AE12 – Building the prototype**

Building the prototype was a long process with many people and firms involved. Adam emphasised that the product development process is all the time focused on the needs and desires of the customers and he spent time on discussing experiences and problems that end customers had with previous and existing demolition machines. Planning and building was outsourced and Adam functioned like a spider in the web searching for suitable cooperation partners and transferring his ideas and important product characteristics to them. The most important cooperation partners are: A12 – supplier of technical drawings and planning; A14 – designing the robot, A15 – developing of the operating system; A15 – planning and delivery of all electronics; A17 – developing the bogie; A1 – advisor and sparring partner; A13 – compiling the robot. In addition, numerous component suppliers were used in the process, however, these did not contribute in any other ways than by delivering components. A18 constitutes an exception as it is a component supplier that is interested in developing tailor made optimal solutions and in participating in improving the product.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation
**AE13 – Article in the industry magazine Professional Demolition**

Adam contacted the chief editor of the industry magazine Professional Demolition in order to tell him about the coming new demolition robot. The editor immediately became very enthusiastic and wanted to make a report on the machine. Thus, he flew to Finland, talked to Adam and had a look at the prototype which was under construction. He wrote an article in the magazine which was published both in Swedish and in English. This was the best publicity Adam even could think of, since the magazine is read globally within this business sector. For Adam the article in the magazine was like “coming out from the wardrobe”. It was the first time the new product was presented to the public and it awoke huge interest. Retailers, customers and other firms within the industry contacted Adam after having read the article and asked for more information about the demolition robot and time schedules for when it would be ready. Furthermore, the editor insisted that Adam should participate in a big trade fair in Germany. The magazine had an exhibition stand and offered Adam half of the stand. Adam thought that the time of the trade fair was too early – that the product would most likely not be ready. However, the editor talked him over as the trade fair would be the perfect event to launch the robot, and unfortunately it is only arranged once every third year.

Event: International  
Phase: Early internationalisation  
Activity: Exploration

**AE14 – Contacted by potential retailers, customers and cooperation partners**

As a consequence of the article in Professional Demolition about 20 potential foreign retailers, customers and cooperation partners contacted Adam by e-mail and telephone. Adam found these inquiries important as they showed that interest in the product existed. On the other hand, Adam was a bit worried if the interest would stay or not until the product was ready and tested. In addition, Adam stated that interested cooperation partners always are a difficult question. As a small actor there are risks involved in partnering arrangements with large firms: freedom and independency might be lost.

Event: International  
Phase: Early internationalisation  
Activity: Exploration

**AE15 – Product launch at BAUMA trade fair**

BAUMA is a large international trade fair attracting some 500,000 visitors from all over the world. It is the number one building fair and all important actors in the building industry participate in the exhibition. Although Adam thought that the fair came a bit too early since the product was not entirely ready, he saw it as a good strategy for building awareness of the product step by step. The first important step was the PD-article and then a few months later the next step was BAUMA where the actors in the industry had the possibility to see the demolition robot in real life. Adam thought it was important to give the potential customers the possibility to reflect on the product in order for them to accept a new manufacturer and a new product. Thanks to the PD-
article the robot would not be totally new to them at the fair. The main intention with the fair was, thus, to build awareness. Adam also considered the fair to be a way of getting contact details of potential customers and retailers, but he did not believe he would sell any products during the fair. The result of the participation in the fair was contacts for about 240 potential customers and about 50 potential retailers – some of who were truly interested. This offered a good base for building up service and retail networks for the firm. Adam considered going through and evaluating the contacts, for example, checking who were reliable and serious was a huge, challenging, yet important task. Another important question was what strategy to use regarding retailers – one or many per market? Finally, the fair offered Adam more insight into the industry, the players and the market potential, making him feel that he was on the right track.

Event: International
Phase: Early internationalisation
Activity: Exploration

**AE16 – Building up a retailer- and service network**

Building up a retailer- and service network was mainly done by checking and evaluating the contacts received from the PD-article and during BAUMA. In addition Adam intended to involve Finpro in the evaluation in order to at least get information on the financial situation of the firms.

Event: Entrepreneurial Event: International
Phase: Start-up Phase: Early internationalisation
Activity: Exploitation Activity: Exploration

### 4.2.1.2. Opportunity exploration and exploitation in case A

The critical events described in chapter 4.2.1.1 are depicted in figure 11. The figure illustrates the development process of the firm by collecting critical events according to their overall content. In addition, the figure brings out the process of exploring and exploiting opportunities in case A as activities relating to exploration of opportunities as well as those relating to exploitation of the opportunities are separated in the figure. The critical events (AE1, AE2 etc.) are chronological meaning that event AE1 happened before AE2 and AE2 before AE3 and so on. However, as can be seen from the figure exploration and exploitation activities are not necessarily sequential. In other words, exploitation activities can also result in exploration of opportunities.

Opportunity exploration in case A involves two different main activities: entrepreneurial preparations and identification of opportunities. The entrepreneur's preparations were perceived by the entrepreneur to be important for opportunity identification as only by having product and market knowledge as well as the right relationships, could he come into contact with the original business opportunity (the request for middle-sized demolition robots) and identify it as an opportunity. The second round of opportunity exploration, starting with critical event AE13, refers to exploration of international opportunities. The international opportunities in case A consisted mainly of coming into contact with potential international customers and retailers. These opportunities had been identified through the entrepreneur's existing relationships, but also the international visibility of the firm through the article in the
industry magazine as well as participation in the international industry trade fair were regarded to have been critical sources for exploring the international opportunities.

Opportunity exploitation in case A, on the other hand, was a process consisting of seven main activities. It started with evaluation of the business opportunity and discussions with potential cooperation partners. Contact with cooperation partners was a recurring activity when exploiting the original business opportunity in this case. Furthermore, fund-raising, deciding about the localisation of the firm, joining the incubator programme and product development were critical main activities for the exploitation of the opportunity. Deciding about localisation, as a critical activity, was unique for case A. For the other cases the localisation in the home region of the lead entrepreneurs was not a matter of discussion at all during the interviews. However, for case A, localisation became critical since the entrepreneur first intended to start the firm in Sweden, where he and his family lived. But, after having received negative financial decisions from main financiers there, he had to think of possible alternatives. He then came to the conclusion that it perhaps would be possible to change the country of localisation of the firm. As Finland was known to him from his childhood as well as from previous working assignments, he decided to try this option. The change in the country of localisation shows the entrepreneur’s strong determination to exploit the opportunity. Starting a firm in another country than where the family lives has major consequences on the personal life of the entrepreneur. Legal registration is an exploitation activity in all five cases. However, as discussed before, this activity is regarded as a necessity rather than as a critical or important event in the development process of the firm.
4.2.2. Case B

Ben and Bob took the mental decision to start a firm in 1998. The firm was formally registered in January 2000.

**The opportunity:** The business opportunity of firm B is insulation module systems. In their previous works in nuclear power plants Ben and Bob had identified a problem with the existing insulations. As project managers in charge of the annual service revisions they realised that the personnel involved in the service of insulations in the nuclear power plants were exposed to considerably more radiation than other
personnel, as the insulations were difficult and time-consuming both to dismantle and to install. Ben and Bob came to the conclusion that there must be better ways to construct insulations that have clever, fast, secure and easy solutions for both dismantling and installation. As also new insulations coming to the market were as bad as the existing ones in this respect, they realised that a market gap exists for well developed insulation module systems.

Although the original intention was to develop insulations for the nuclear power industry, the first buyer was within the ship power industry who requested high quality insulations easy to mantle and dismantle for ship machinery. In fact, this industry came to be the main industry for which firm B developed and sold products during several years and the nuclear power industry was not entered until 2008.

The insulation module systems that firm B develops are of high quality, easy to use and durable. The firm also stresses long-term relationships and responsibility for customers and guarantees fast availability of service and spare parts if needed. In order to ensure safety the firm has developed and patented a built-in locking system for the insulations preventing the locking to open accidentally. The firm’s products also meet requirements of different external instructions such as the SOLAS Convention (Safety of Life at Sea developed by IMO – International Maritime Organisation) and the ATEX directives (EU directives for controlling explosion risks in areas with explosive atmosphere). In all their products and actions, firm B emphasises environmental, quality and safety issues.

The entrepreneurs: Firm B was founded by two friends, Ben and Bob, who had known each other for decades. Ben and Bob met in vocational school in the 1980s when they both studied electronics. After the army Ben went to work in Norway and Bob joined him after a while. In the 1980s and 1990s both of them worked in Norway and Sweden on different projects mainly in nuclear power plants, for example with insulation installations and as project managers. Thus, the two founders have very similar backgrounds with regard to education and work experience as well as international experience.

In firm B the founders have divided the responsibility areas so that Ben is the CEO and also takes care of marketing issues, whereas Bob is responsible for product development and testing.

The international ambitions: Firm B had international ambitions from inception and their products have been sold to markets all over the world from the very beginning. They got their first buyer, a large MNE (B7), a month after the formal registration of the firm and this firm has since functioned as an agent for international sales.

The international ambition is explicit in the business plan of the firm. According to the business plan, the core business idea of the firm is namely: “The development of an innovative product meant for industrial insulation – the insulation module systems – as well as the assembly, marketing and global sales of it through strategic partnerships.”

Realised internationalisation: From the very beginning about 90 percent of firm B’s products have been sold internationally, mainly through the MNE (B7). The main markets are Scandinavia, Northern-Europe and the USA. In 2007, the division between the main markets was about 50 percent to Scandinavia and Northern-Europe and 50 percent to the USA. Some international sales go to Southern-Europe and Asia, but it
has been found difficult to attract these markets with the firm’s products, as the safety argument does not seem to be important there.

4.2.2.1. Critical events in the development of firm B

The critical events in the development of firm B can be found in figure 12. Also this figure is extensively based on the timeline map filled out by Ben and Bob. It differs in some respects as some events have been combined. The original timeline map, figure 24, is found in appendix 4. A summary table, table 42, describing all critical events for case B is found in appendix 5. Next, 21 critical events are described in turn in order to give a picture of the founding process of firm B.

**Figure 12 Critical events in the development of firm B**

**BE1 – Working in Norway and Sweden 1985–**

As Ben and Bob worked in Norway and Sweden in the 1980s and 1990s, they were involved in different projects mainly relating to insulation activities in nuclear power
plants. As project managers in charge of the annual service revisions they realised there were some problems relating to the existing insulations. Firstly, the personnel involved in the service of insulations in the nuclear power plants were exposed to four times more radiation than other personnel, as the insulations were difficult and time-consuming both to dismantle and to install. Every time insulation had to be changed the person doing it was exposed to almost the maximum level of radiation permitted. In addition, it all the time became more and more difficult to find skilled personnel to perform the annual services – the number of plants grew and the age classes became smaller. Ben and Bob realised that one of the most time-consuming elements in the service was the dismantling and reinstallation of the insulations. If this phase could be shortened, fewer servicemen would be needed. In addition, a faster annual service revision would mean economical advantages since the time when the plant has to be closed for service becomes shorter, which in turn means more time for business.

In the beginning, Ben and Bob made some improvements to the existing insulations, and the radiation exposure diminished significantly. In the nuclear power plant managers got excited and asked them to do the same in other plants. Thus, they travelled around Sweden and improved the insulations. However, as new insulations coming onto the market were as bad as the existing ones in this respect, the two entrepreneurs came to the conclusion that there must be better ways to construct insulations – insulations that from the beginning have clever, fast, secure and easy solutions for both dismantling and installation. In other words they realised that a market gap existed for well developed insulation module systems that preserve the personnel’s health, saves service costs, and optimises the time for doing productive business. During the years in Norway and Sweden, Ben and Bob gained invaluable experience and knowledge of insulation products, the nuclear power plant industry, expertise in teambuilding and judgment of people’s character as well as network relationships. In addition, the structured way of working and organising in nuclear power plants made a strong impression particularly on Ben, and in this sense he truly considers this industry to be a good role model for business activities in general.

Event: Entrepreneurial
Phase: Pre-founding
Activity: Exploration and Exploitation

**BE2 – Recessionary period in the Nordic countries**

Ben found that the recessionary period in the Nordic countries in the 1990s brought with it a fundamental change in the philosophy of work life. A considerable part of the work force disappeared from the industry through retirements and lay-offs and this lead to knowledge losses and to an atmosphere of passiveness and indifference. The mentor-apprenticeship philosophy, that the knowledge and experience of older workers be passed on to young and new workers, was lost and the development interest in the industry stagnated or even regressed. In this situation, Ben realised that if you want development to proceed, there is no other way to do it than to do it yourself. In this way the recessionary period functioned like a crossroads for Ben and he realised that improved insulations would not be developed if he did not develop them himself.

Event: Entrepreneurial
Phase: Pre-founding
Activity: Exploration
After having worked for ten years travelling around Norway and Sweden, Ben started to feel tired of it and intended to move back to Finland. At that time Bob was mostly working on projects relating to insulation for cold-storage in Norway. He had then been asked to join a project financed by the World Bank to start a tuna fish freezing plant on the Maldives. They needed people with experience within insulation. Bob asked if Ben wanted to come as well and finally he agreed. It was a good offer and during this time the friends realised that they were valued experts within their area, which gave them confidence. During their stay on the Maldives they also had time to start to develop ideas for the improved insulation product. They made some handmade prototypes which they used in the freezing plant and these worked surprisingly well. However, they also realised that they needed to find out more about details such as how different materials behave in different environments. Here they realised that the explored opportunity has a future and is needed in different industries.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration and Exploitation

When returning from the Maldives, Ben and Bob again went to work at nuclear power plants in Sweden. While doing this they continued to develop their thoughts for the new insulation products.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploitation

In 1998 Ben and Bob took the decision to start a firm of their own, developing and selling the insulation module systems. However, they felt that they needed to gather some money before actually starting the firm. Being reminded of the severe recessionary period, neither of them wanted to take bank loans in order to finance the start-up of the firm. Instead they decided that they would first work for some time in order to be able to save money for financing the start-up as well as their own private lives during the first year as entrepreneurs.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

In 1999 Ben and Bob reasoned that it would probably be beneficial to start a firm around the insulations also due to the reason that it was difficult and expensive to buy
necessary materials and equipment as private persons. They contacted Startia (the enterprise agency in the Vaasa region) in order to get information and insights into possible support programmes for starting a business. Startia was also the first external body that evaluated the business idea. As the business idea was about technical innovation Startia introduced Ben and Bob to the technology centre Merinova and they joined Merinova’s Business and Innovation Centre (BIC). Merinova is primarily seen as an intermediary of information on current activities, networks, and financing opportunities. In the early stage Merinova played an important role in the application for financing for product development from TE-Keskus.

Thus, in practice the time from 1998 to 2000 functioned as a preparation period for the two entrepreneurs for the start-up of the firm including fund-raising and information gathering.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

**BE7 – Legal registration of the firm**

Firm B was legally registered in January 2000. The entrepreneurs only consider the event to be important because the firm now existed officially and they could concentrate full-time on the firm.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

**BE8 – First order (from MNE, B7)**

Only a month after legal registration of the firm, the entrepreneurs were contacted by some friends and previous schoolmates that were working at a large MNE (B7) within the ship power industry. The friends had heard that Ben and Bob were developing insulations and they asked whether these also could be developed to fit their needs. They had experienced problems with insulations for exhaust pipes as they continuously broke down due to heavy vibrations. In addition, the existing insulations were difficult and time-consuming to change. In this way they got their first repair-project for B7. The solution worked well and firm B got additional similar projects through B7. In this way they accidentally entered a totally different industry than intended. Ben regards the business done with B7 as a great learning experience as they also met with problems and challenges making them wiser and more attentive; for example, regarding how and on what terms to stipulate in contracts as well as being prepared to present products anytime anywhere. Firm B got more and more commissions from B7 and in fact, these orders occupied most of firm B’s time and capacity for several years.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation  
Event: Internationalisation  
Phase: Early Internationalisation  
Activity: Exploration and exploitation
**BE9 – Patent**

The entrepreneurs decided to patent their insulation module systems in countries which they evaluated to be potentially important markets or where potentially strong competitors were found. Thus, they applied for patents within EU, Norway, China, Korea, the USA and Canada. The patents are, however, regarded to be more important as marketing tools, than for preventing competitors from developing copies. The entrepreneurs reason that in the Nordic countries a patent may have some technical and ethical effect, whereas in other countries, such as China, firms will copy products no matter how one tries to protect them. However, the main advantage is that it is a way of showing that they have been the first to develop insulations like these and in that sense sending a message to buyers that the firm is able to think in new ways and come up with new functioning solutions for problems.

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**BE10 – Start-up of a second jointly owned firm**

The development of high quality insulation module systems requires the use of advanced technological design and planning equipment. The equipment is expensive and requires specialised knowledge, and at this point of time the entrepreneurs’ savings had gradually been used up. Thus, while Bob continued with product development, Ben earned some extra money by recruiting short-term employees for a firm (B9) in the region, which also was a previous work place of Ben’s. Ben and Bob also told the founder of B9 about their product idea and he was extremely encouraging, helpful and supportive towards the entrepreneurs. He gave the entrepreneurs the keys to his factory and told them to come and go as they wanted, to use the tools that they needed, to order materials they wanted and to only pay if they could. They also agreed that B9 would be offered partnership in the firm if the question would arise at a later stage.

However, at this point of time the entrepreneurs decided to create a new firm jointly with B9 and another firm (B10) in the region. This new firm employed one person with expertise in the technological programme used. In the beginning the person worked with assignments from the different co-owners, but gradually it developed in the way that he was fully occupied with work for firm B. Since no one had time or energy to further develop the jointly owned firm, firm B later on bought out the other two owners, hired the person in firm B and made the second firm a dormant firm.

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**BE11 – LIKSA and INTRO success**

Through Merinova firm B took part in the LIKSA programme, which was a programme for developing business plans and also included financing and mentoring. This gave firm B the opportunity to work on the business plan and development of the firm with both carefulness and commitment. They hired an assistant and made a lot of
background research, mapped out and interviewed potential buyers in order to be able to define the focus of the business and to estimate financial needs. They also got two mentors to spar with, two older businessmen retired from prestigious positions in the Finnish business industry. The development of the business plan took several months. Participation in LIKSA also included a presentation of the business plan to representatives from the technology center in Oulu. These persons evaluated the business plan and provided comments. Firm B was chosen to participate in another programme called INTRO. In the INTRO programme six firms got the opportunity to present their business ideas to potential investors in Helsinki. The six firms were chosen based on qualitative, solid and well-grounded business plans, high potential business ideas as well as a need for external financing. In Helsinki 40 potential investors listened to the presentations and read the business plans of the six firms. Firm B got offers from eight investors interested in investing in the firm.

At the same time, the firm’s accountant had asked Ben whether he could show the business plan to one of his friends who was active in the industry in the Vaasa region. This local businessman was well-known within the industry in the region and was also one of the founders of a successful, fast-growing, large firm. Ben agreed and thought it would be interesting to see if they would get some response on whether this is a good business idea or not. This person (B16) believed in the potential of the innovative products and suggested that he was interested in investing in the firm. The accountant also gave the business plan to another firm from southern Ostrobothnia (B17). Also they announced at around the same time their willingness to invest in the firm. Thus, firm B now had offers from eight professional investors mainly from the capital region and two local investors. When analysing strengths, weaknesses, opportunities and threats with the different investors’ proposals, Ben and Bob finally came to the conclusion that they would accept the offers from the local investors. A decisive argument was that they wanted not only money, but also investors that would be actively involved by contributing experience, knowledge and connections. They reasoned that the local investors would be stronger in these respects and would hopefully also have more time, a stronger commitment to the firm and share the same vision for the future. One of the professional investors in the Helsinki region was clearly of the opinion that he recommended the entrepreneurs to more or less immediately sell the idea further and capitalise on the profit. However, even though Ben and Bob declined the offers resulting from INTRO, they still regard the programme to have been an important source of encouragement, giving them strength to believe in their idea.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

*B12 – Contract with B7*

After a lengthy and complicated process (8 months of weekly contact), firm B succeeded in entering into a contract with B7 in 2003. This contract was vital for the firm, in the sense that the two investors, mentioned in event BE11, had stipulated that their investment would be realised only if the firm would get the contract with B7. As the firm badly needed the additional investors, they felt it very frustrating that the negotiation process for the contract took as long as eight months. The balance between getting whatever contract and getting a contract good enough to live with was stressful. So, when the contract finally was made it just felt completely blank even though the
contract actually shaped up the way the entrepreneurs had wanted. Firm B feels that B7 does not realise the intense knowledge and superior technology possessed by its suppliers. It seems like B7 does not value its suppliers or realise the extent to which its own presence among leading actors with top technology actually is dependent on the innovative capacity of suppliers.

The contract finally entered into applies to service projects and according to it firm B will supply up-dated insulation boxes for exhaust pipes of old engines. According to the contract firm B would handle planning, product development and manufacturing, whereas B7 would manage marketing, distribution and installation. The contract constituted a great opportunity for firm B and meant that the firm from this point forward regularly got commissions either directly from B7 or from businesses mediated by the MNE both nationally and globally. The service and sales offices of B7 located all over the world could now offer and sell up-dated boxes to customers.

Firm B had wanted a similar contract with B7 when it comes to new engines – that the insulation boxes would be part of new engines from the very beginning and not only that the original insulations used would be changed. However, up until this point, they had not succeeded, despite numerous attempts and negotiations.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

Event: Internationalisation
Phase: Early Internationalisation
Activity: Exploration and Exploitation

**BE13 – Partners join**

When the contract with B7 was settled the two investors (B16 and B17) were ready to join. In addition, a third partner B9 also joined, as it earlier had been agreed that B9 would be the first to be offered partnership if it became available. B9 was also the place to which the manufacturing processes of insulation module systems has been outsourced and as a partner B9 offered insights from the production perspective. B16 turned out to be the best thing that could have happened to firm B. He is actively involved in strategic as well as operational activities and contributes an immense amount of knowledge, experience and contacts. However, the other investor B17 is practically a passive investor. B17 is a regional firm within the chemical and paper industry that has invested extensively in small technology firms.

Ben regarded this event, through the human and financial capital added, as an opportunity for getting the firm started for real as up until that point it had primarily felt like a two-man-show overly employed by the MNE.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**BE14 – Employees**

When needing additional capacity the firm B decided to recruit employees among persons doing their diploma work from the technology faculty of universities of applied sciences. Thus, students who have been doing their diploma work at the firm and who
have shown commitment and good skills have been offered work. In fact, this has been the main recruitment method used. It has been a good strategy giving the firm loyal and skilled employees. Only the position as financial manager was officially announced as being vacant and a woman was employed. In total the firm employed one financial manager and four designers of which two quit as they had their families in other cities or had moved to places too far away.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

**BE15 – SOLAS-regulations**

The SOLAS-regulations (Safety of Life at Sea) were considered an immense business opportunity for firm B. The SOLAS-regulations are regulations developed by the International Maritime Organisation (IMO) concerning fire safety on board. According to SOLAS ships are required to have no hot-spots in the engine rooms. A hot-spot is a spot where the surface is more than 220°C, which is the temperature when oil self-ignites. Two-thirds of all fires on board have tended to originate from engine rooms. When the regulations of fire safety were issued in the mid 1990s, the intention was that ships would have a transitional period until 1.7.2003, but from that date the regulations would come into force and apply to ships worldwide. Ships that did not adhere to the regulations at that point of time were to be left without fire safety classification, which means no insurance and hence no admission to operate.

Firm B treated these regulations as an opportunity and at an early stage they developed insulation module systems that met these fire safety requirements. Their insulations also have official certificates for fulfilling the requirements. They had already got orders based on the regulations, however, firm B looked forward to the time when they would apply to all ships worldwide, and they expected a high amount of sales during 2003 and 2004 due to the regulations. However, the transition period was prolonged by another two years and thus, the peak in orders they had expected did not come off. As they had invested considerable time and effort into developing these products, the prolonged time limit felt disappointing and it also had an effect on the problems experienced during 2004-2005 which are described in BE16. The entrepreneurs saw an additional disadvantage with the granted extra time – as new regulations emerge continuously the older ones may remain in the background and do not get attention until some considerable accident unfortunately happen where either people die or the environment is polluted. It might be that not until such a situation arises, would discussions on the issue be once again held. The entrepreneurs found this frustrating, since it was not an expensive thing to check-up or to attend to when compared with the consequences and costs an incorrect insulation in the engine rooms of ships could result in.

In general, Ben has consciously tried to build up a reputation of being an expert in the area of safety issues related to insulations and he has regularly taken part in meetings and seminars. This activity has given him the opportunity to be part of different working groups and projects within safety issues. He regards these commissions as being very important in order to be able to influence future development within the area.
BE16 – Problems experienced during the difficult years 2004-2005

For firm B everything (except for the extended time of the SOLAS-regulations) seemed bright and promising – the economic situation had improved, the contract with B7 settled and additional human capacity was provided by the recruited skilled and loyal employees. However, the near future did not develop in a smooth and positive way. Instead, firm B met with many different kinds of difficulties. Too much happened at the same time – the development of a number of totally new products were started, the recruited employees had to be trained and the firm still lacked functioning, organised internal systems. In addition, some mistakes occurred in the firm’s sales channel offered by B7. Due to misunderstandings B7 had sold products that still were closed for sale as they were not even developed. Firm B had asked B7 to evaluate the market potential for some new product ideas and to identify buyers’ needs for and opinions about these ideas. However, B7 had not only made precontracts with potential buyers, but sold such products and also provided the buyers with delivery dates. Thus, all of a sudden firm B had orders for non-existent products and got into a chaotic situation were several copies of prototypes of the same product were developed simultaneously and also delivered to the buyer. However, as Ben pointed out, several simultaneous prototypes are seldom a good idea and especially not if they are done in a hurry as was the case in this instance. It became very expensive and the risk for complications was extensive. Shortcomings were detected in the prototypes after delivery and all copies had to be changed. During this time firm B was heavily overworked and also needed to delay some delivery dates for the totally new products. The entrepreneurs found it both unfair and psychically very frustrating that B7 put them in this awkward situation, which gave firm B no possibility to negotiate the delivery dates, even though it was B7’s mistake. The only option firm B really had was to meet the orders. However, Ben states that in some way they still learned an important lesson from this chaos and the many wrong decisions taken. They learned the importance of having a tested, functioning prototype ready before starting serial production, to never agree on or promise delivery-times that from the beginning would be difficult or impossible to meet and to have well-working internal systems in place. In this chaotic situation, Ben also had some physical health problems and a long time elapsed before the right diagnosis for these was detected.

Sometimes the situation felt hopeless and the entrepreneurs doubted that the whole business would ever become something. However, they decided not to give up and did their utmost to work with the organisational, economic, time, and health problems. Finally in late 2005 these problems were overcome.
**BE17 – Employees join as shareholders**

The problems experienced during 2004-2005 welded the workforce together in firm B and created a strong fighting spirit and sense of belonging. Everybody did their utmost to solve the problems. The firm also had a shortage of equity capital and in addition to a directed share issue to the existing shareholders, the decision was taken to also offer the three employees the opportunity to become shareholders in the firm in 2006. All employees were immediately ready to invest in the firm. The entrepreneurs feel that this also was a way to ensure that the committed and skilled personnel would be kept in the firm as well as to officially acknowledge the entrepreneurial spirit that the employees had shown during the problematic period and hectic times. As the firm was not in very good shape at this point of time, the entrepreneurs considered the willingness of the employees to invest in the firm as a sign of commitment. In fact, 2006 was the first year when the firm yielded a profit, even though, however, it was a small one. The entrepreneurs saw a considerable advantage with share ownerships for the employees when it comes to rewards and the feeling of meaningfulness when working hard. The entrepreneurs believed that this system was more efficient and created less conflicts than e.g. result-based wages and, thus, the procedure would most probably also be used in the future with new employees. Ben mentions this event and the year 2006 in general as “a new start” for the firm.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

**BE18 – Relationship with B7 is working again**

The second event in 2006 that contributed to the “new start” of the firm was the fact that many of the problems with B7 were solved and a good dialogue was started regarding firm B’s involvement in several new product development projects for B7. Firm B saw it as problematic that people from different units of B7 were very seldom present simultaneously in negotiations. In addition, there seemed to be an extensive internal competition between different parts of the firm. It was also difficult to arrange meetings with upper management and all these aspects meant that decisions took a very long time in B7. Now it seemed though that firm B would also manage to get to discuss things with the upper management.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploration

**BE19 – Possible new large international buyer, B22**

In 2007 firm B decided to approach an MNE in Germany (B22) in order to hopefully get a new large buyer. B22 is operating in the same industry as B7 and should thus have the same need for good insulation systems. Firm B started off contacting another firm (B23) in the Vaasa region, a firm they knew does business with B22. From B23 they got contact details for the appropriate persons to approach in B22 and in return they offered cooperation possibilities if they succeeded in getting a new buyer. The entrepreneurs reasoned that it would be advantageous to use an already existing
relationship by being able to refer to having got the contact details through one of B22’s existing suppliers. B22 was immediately interested and a group consisting of seven upper managers came to firm B in order to get a good insight into the products and the firm. Firm B gave a presentation of their product and then discussions with questions and answers were held. At the end of the day the upper managers announced that firm B was an interesting supplier and that it was a “green light” from their side. Two weeks later a group of technicians from B22 came to Vaasa, and discussions about details ranging from product requirements to packing instructions were gone through. Firm B made an offer based on the requirements and B22 responded that it was quite close to what they were ready to invest, but a bit too high. Representatives then returned for negotiations and visits to firm B’s suppliers and cooperation partners in the Vaasa region. The result was positive and firm B got a contract for prototypes to be ready in the summer of 2007.

The entrepreneurs were astonished by the efficiency showed by B22. With B7 it had taken eight months to reach a basic contract for up-dated boxes, with B22 it took five intense days and during some of the days all the managers that had to be involved in taking a decision were actually present simultaneously.

Event: Internationalisation
Phase: Early-internationalisation
Activity: Exploration and exploitation

**BE20 – Entering the nuclear power plant market**

The entrepreneurs felt that the firm was ready for growth to take off. They intended to return to the original business idea to enter the nuclear power plant industry in 2008. During the follow-up interview in late 2008 it turned out that these intentions had been realised and for the moment the firm worked with the first orders from Swedish nuclear power plants.

Event: Internationalisation
Phase: Early-internationalisation
Activity: Exploration and exploitation

**BE21 – Accessories for insulation products**

Thus far, accessories had been sold as parts of the insulation module systems. However, the entrepreneurs also saw an additional business opportunity in selling them separately for other purposes. For example, the firm spent much time and money in developing high quality locking systems and registration systems that could be used for other purposes than insulation. During the follow-up interview no attempts had still been made to exploit these opportunities.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploration
4.2.2.2. Opportunity exploration and exploitation in case B

The critical events described in chapter 4.2.2.1 are depicted in figure 13. The figure follows the same logic as figure 11 for firm A and illustrates the development process of the firm and the opportunity exploration and exploitation by collecting critical events according to their overall content. In firm B it is even more evident that the critical events involve activities going back and forth between opportunity exploration and exploitation.

Opportunity exploration in case B involves not only entrepreneurial preparations and opportunity identification but also entrepreneurial insight. In a similar way as in case A, the two entrepreneurs in case B gained the product and market knowledge needed to identify the business opportunity during previous works. However, here the two friends and colleagues identified problems in their existing work – problems that they tried to find solutions for. For a long time, starting an own firm was not at all a part of the picture, as first solving existing safety and efficiency problems in the current work was more important. However, when working with the early product development the two friends and colleagues gradually developed the insight that products such as these were needed more extensively than in their current workplace and perhaps it would be a good idea to become entrepreneurs. They also realised that they are valued experts in the area of insulation and this gave them the self-confidence and inspiration to try to exploit the opportunity by starting a firm of their own.

For case B opportunity identification is an activity recurring regularly. International opportunities were explored at an early stage after the firm had been registered, as the first order came immediately and this buyer had great potential for global distribution of the innovative insulation module systems. Identification of potential international buyers was then a recurring international opportunity, being explored throughout the early development of firm B. In addition, complementing business opportunities were explored through joint cooperation arrangements or by using current products and accessories for other applications and other markets.

Opportunity exploitation in case B is a process consisting of more activities than for case A, that is 11 main activities. Here the process started with product development and fund-raising even before the business opportunity was discussed with and evaluated by any external parties. Other exploitation activities that were vital for the development process of firm B, but which were not found in case A, were patent application, development of a business plan and employees. These activities are, however, found in several of the other cases. Three exploitation activities are, however, unique to case B: orders, start-up of complementing firm and building up of internal systems. By getting orders early, case B differs from the other cases. The start-up of the complementing firm was a way to get the technical planning needed, despite the financial constraints experienced. A new firm was started together with two other firms and in this way workforce was shared. For firm B this was a temporarily critical step in being able to exploit the business opportunity. However, later on the need for a separate firm diminished as the person working in it more or less worked full-time with firm B’s project and came to work for firm B instead. The jointly owned firm was turned into a sleeping firm. Finally, the building up of internal systems was a consequence of the problems experienced during the difficult years 2004-2005. The lead entrepreneur then realised that internal systems are needed in order to be able to sort the chaos out. The fact that no other cases stressed internal systems, might be explained by the fact that firm B was older than the other cases, and thus had experienced growing pains and the need for structure in a way that the other had not yet come across.
**Opportunity exploration**

**Entrepreneurial preparation**
- Development of product knowledge (BE1)
- Development of market knowledge (BE1)
- Development of other knowledge of relevance when managing firm (BE1)
- Development of network (BE1)

**Opportunity identification**
- Identification of problem (BE1)
- Identification of market gap (BE1, BE3)
- Potential international buyers (BE8, BE12, BE19, BE20)
- Identification of opportunity through regulations (BE15)
- Identification of cooperation opportunity (BE18)
- Identification of additional opportunity (BE21)

**Entrepreneurial insight**
- Thought of being entrepreneur (BE2)
- Insight of own expertise (BE3)

**Opportunity exploitation**

**Product development**
- Early product development (BE1, BE3, BE4)

**Fund-raising**
- Saving money on their own (BE5)
- Partners join (BE13, BE17)

**Incubator and mentor programmes**
- Join incubator (BE6)
- Participation in mentoring programmes (BE11)

**Evaluation of business opportunity**
- First external evaluators (BE6)

**Legal registration** (BE7)

**Orders**
- First buyer (BE8, BE12)
- Contracts/orders from international buyers (BE19, BE20)

**Patent application** (BE9)

**Start-up of complementing firm** (BE10)

**Development of business plan** (BE11)

**Employees** (BE14)

**Building up internal systems** (BE16)

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**Figure 13 Development process of firm B**
4.2.3. Case C

Carl and Colin took the mental decision to start a firm in May 2006. The firm was formally registered in June 2006.

The opportunity: The business opportunity of firm C is high technology switch- and disconnector terminal units intended mainly for the power grid automation industry as well as remote-controlled control units for energy production. Firm C plans to develop several products belonging to the same product family. The development order of the different products is divided into four phases.

The business opportunity was actively searched for as Colin’s existing firm (C2) was experiencing difficulties due to all the competition. The first product, the disconnector terminal unit, is described by the entrepreneurs as a modern further developed high technology version of the disconnector terminal unit produced by C2. Thus, Colin had the business idea upon which firm C is founded, but he lacked the technological knowledge to realise it. Carl happened to find firm C2 on the Internet, thought it looked interesting and called Colin. It turned out that Carl had the kind of skills and knowledge needed for developing the products that Colin had been thinking about. After having made some initial analyses on the business idea, feasibility and buyers’ needs, Colin and Carl decided to start a new joint firm exploiting this business opportunity. The reasoning behind the decision to start a new firm was that firm C simply would become a firm working with product development, planning and marketing, whereas C2 is the firm where the rough work of manufacturing and serial production took place. In addition, it allowed involving Carl in a natural way and would possibly mean a better chance for getting external financing and subsidies.

The advantages of the new switch- and disconnector terminal units are that they are based on modern technology and are relatively cheap to produce.

The entrepreneurs: Firm C was founded by Carl and Colin. The entrepreneurs did not know each other from before, but considered it would be better to start a new joint firm around the business idea, than to make it a part of Colin’s existing firm.

Colin has much experience of being an entrepreneur within the industry in question and has, thus, built up a considerable contact network that can be used for the new firm.

Carl has previously worked with the design of electronics for different firms mainly in Finland but also in Great Britain. His greatest interest is electronics design. Carl has also some experience of being an entrepreneur, however, within totally different industries, the car industry (licensed car service) and transportation industry. His father had a firm selling special vehicles and thus, he has an interest in cars. He has also studied in Sweden.

The entrepreneurs have divided the responsibility areas in the following way: Carl is the CEO and takes care of the product development. Thus far, Colin mainly takes care of the administration, but when the products are ready Colin will handle the serial production of the products, however in the name of C2.

The international ambitions: Firm C has had international ambitions from inception. The market for power transmission is limited and in each country only a few actors are present. As these are the main end buyers of firm C’s products, Carl and
Colin found that it was vital to become international from the beginning with any middle way not really being an option. The intention was to first enter the European market, then the Far East and the USA. Since the firm has got access to persons with good relations to Asia and especially China and Taiwan it may actually be that these markets are entered relatively fast. Asia is also the largest market for power transmission.

The entrepreneurs have a very open attitude towards internationalisation also in other senses than just selling abroad. They state it is very important nowadays to carefully examine from where you should buy parts and where you should produce. They say that “in a way there are not any country frontiers anymore, but the main thing it that the price-quality ratio is right”.

The international ambition is explicit in the business plan of the firm. It is mentioned that the vision is to be global and one of the strategic choices made is formulated as “global business directly from the first product onwards”. The market size of different continents is estimated and actors, market leaders and distribution possibilities are described globally. A potential cooperation contract with an MNE is emphasised. Connections existed from before to this global actor and through this contract distribution of the firm’s products to different continents would be largely secured. Also for marketing activities the global dimension is emphasised.

**Realised internationalisation:** Thus far, internationalisation has mainly been realised on the sourcing side with suppliers from Asia and Europe. The expectations for global sales through the cooperation contract with a large MNE became stranded. New expectations were that internationalisation would take off by means of the two mentors, e.g. experienced businessmen with good networks to Asia in place.

### 4.2.3.1. Critical events in the development of firm C

The critical events in the development of firm C can be seen in figure 14. Also this figure is extensively based on the timeline map filled out by Carl. It differs in some respects as some events have been combined. The original timeline map, figure 25, can be found in appendix 4. A summary table, table 43, describing all critical events for case C is in appendix 5. Next, 19 critical events are described in turn in order to give a picture of the founding process of firm C.
**Figure 14 Critical events in the development of firm C**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE1</td>
<td>April 2006</td>
<td>Carl starts to work for Colin’s firm C2</td>
</tr>
<tr>
<td>CE2</td>
<td>May 2006</td>
<td>Business idea</td>
</tr>
<tr>
<td>CE3</td>
<td></td>
<td>Initial technical analyses and interviews with potential buyers</td>
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<tr>
<td>CE4</td>
<td></td>
<td>Cooperation negotiations with large MNE, C6</td>
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<tr>
<td>CE5</td>
<td></td>
<td>Negotiations with other firms</td>
</tr>
<tr>
<td>CE6</td>
<td></td>
<td>Analysis of competitors</td>
</tr>
<tr>
<td>CE7</td>
<td></td>
<td>Development of business plan</td>
</tr>
<tr>
<td>CE8</td>
<td></td>
<td>Arranging financing</td>
</tr>
<tr>
<td>CE9</td>
<td>June 2006</td>
<td>Legal registration of the firm</td>
</tr>
<tr>
<td>CE10</td>
<td></td>
<td>Product development</td>
</tr>
<tr>
<td>CE11</td>
<td></td>
<td>Selection of suppliers and other cooperation partners</td>
</tr>
<tr>
<td>CE12</td>
<td></td>
<td>Patent application</td>
</tr>
<tr>
<td>CE13</td>
<td></td>
<td>Recruitment of mentors</td>
</tr>
<tr>
<td>CE14</td>
<td></td>
<td>Testing of products</td>
</tr>
<tr>
<td>CE15</td>
<td></td>
<td>Searching for pilots – installation</td>
</tr>
<tr>
<td>CE16</td>
<td>February 2007</td>
<td>Product launch at trade fair in Tampere</td>
</tr>
<tr>
<td>CE17</td>
<td></td>
<td>Recruitment of experts</td>
</tr>
<tr>
<td>CE18</td>
<td></td>
<td>Expansion of product development</td>
</tr>
<tr>
<td>CE19</td>
<td></td>
<td>Internationalisation</td>
</tr>
</tbody>
</table>

**CE1 – Carl starts to work for Colin’s firm C2**

By coincidence Carl happened to find the homepage of firm C2 on the Internet. At this point of time Carl was working at his transportation firm. He had returned to Ostrobothnia after many years of electronics design jobs in Helsinki and Great Britain, as his father had become severely ill and Carl’s help was needed with the car trade. When he saw the webpage of firm C2, he immediately found the firm interesting and called Colin.

At the same time, Colin had experienced difficult times with his firm C2 as competition had been growing more intense all the time. In order to secure a steady cash flow some changes or innovations were needed. He had been thinking that the disconnector terminal units that C2 produced could benefit from being developed and improved by using more modern technology. However, he himself lacked the technical skills to realise the design of such a product and thus the thought had only been left as an idea. Luckily enough, it turned out that Carl had such technical skills, and he was employed by C2 in April 2006.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration
**CE2 – Business idea**

The background for the business idea of firm C was an active search for business opportunities that could preserve C2. Thus, at this stage it was a question of finding new product ideas rather than of finding business ideas, since no thoughts on starting a new firm yet existed. Carl immediately realised the potential for improving the existing disconnector terminal units by using modern technology and concluded that these products would be totally different in capacity and design. They also thought about additional products to be developed and made some initial descriptions of these. Carl and Colin found that they complemented each other in a good way, Colin with experience of similar products and with a solid contact network, and Carl with the technical knowledge needed to realise the product ideas.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration

**CE3 – Initial technical analyses and interviews with potential buyers**

Carl and Colin immediately started to evaluate the product ideas, their feasibility and the need for them and they collected information on technical solutions from different sources. They were in contact with power plants in Finland with which Colin had relationships from before and asked them about their opinions about the products, their need for and propensity to buy them, and listened to their suggestions and desires. Closer discussions were held with C5, a product development manager at a firm within the electronics industry. A non-disclosure agreement was made with this person and he evaluated the products and provided advice for example on improvements and adjustments regarding technical details as well as existing standards. All in all, this search for opinions and information strengthened Carl’s and Colin’s belief in the products. They got very positive feedback on the products from all the places they had contacted and based on this response Carl and Colin started to think that perhaps they should start a totally new and separate firm.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration and exploitation

**CE4 – Cooperation negotiations with large MNE, C6**

C6, a large MNE within automation and power technology, is one of firm C2’s largest buyers. Initially, this firm played a very central role on the plans for the products and the new firm. The expectations on the cooperation with C6 for worldwide distribution were high and the initial business plan was very much focused around C6. The initial discussions went very well and C6 showed great interest in the new advanced products.

However, the planned cooperation with C6 came to a sudden end when firm C got a contract with C7 (at C6) who they perceived as being very arrogant. According to the contract firm C would possibly get the opportunity to use C6’s sales channels, but C6 was willing to only pay 5 percent of the down payment asked for by firm C. In addition, no sales numbers or profit would be guaranteed and the contract would apply to all
current and upcoming products of firm C. Such a contract would immediately mean the end for firm C, as that payment would only cover a small part of the development costs that had been spent so far. The entrepreneurs were surprised about the contract since they had found that all discussions and negotiations had been positive and characterised by encouragement. The entrepreneurs interpreted the bad contract as arrogance towards small, new actors, and they perceived that the manager making the contract was trying to deceive them. The contract had given rise to disagreements among different parts of C6. With this bad contract the entrepreneurs had two options: either to let their products go to C6 or to go on with the plans alone and become global by their own efforts. They selected the latter alternative and decided to start an own new firm around the products. Instead of becoming a cooperation partner they became a competitor to C6. Anyway they still considered it possible to get orders from C6, but the opportunity to use their sales channels to end buyers was lost.

Event: Entrepreneurial
Phase: Pre-founding
Activity: Exploitation

**CE5 – Negotiations with other firms**

Negotiations were then conduced with other firms for different purposes. For example, there was additional equipment needed for the product, that firm C would not make itself. In some cases they had designed other products such as a temperature-compensating battery charger, and made cooperation agreements that another firm may manufacture and also sell the products to other buyers. Other negotiations had, for example, concerned making firm C’s products compatible with other firms’ products.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploration and exploitation

**CE6 – Analysis of competitors**

Information about competitors was actively searched for in many different ways – by searching on the Internet, participating in trade fairs, talking with other firms and especially talking with potential buyers. In particular, C5 (the product development manager with whom a non-disclosure agreement was made) and several of the power plants in Finland provided invaluable information on competitors’ strengths and weaknesses.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**CE7 – Development of business plan**

The development of a business plan started before the official registration of the firm and took several months in length. The business plan was considered an important
guiding document and was described as a “lighthouse that helps you keep to the right path”. The plan was also continuously up-dated. When making the original business plan financial support was granted from TE-Keskus in order to hire an external expert to go through and improve the layout of the business plan. Otherwise Carl and Colin have made the business plan themselves including all the analyses needed for the plan.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**CE8 – Arranging financing**

In the search for financing of product development and start-up, the entrepreneurs got help from the technology centre Merinova. Merinova informed them about TE-Keskus and Finnvera and recommended that the entrepreneurs approach these. As a result, Finnvera stood surety for the personal enterprise loans that Carl and Colin took in order to start the firm. In addition the entrepreneurs invested a considerable amount of their own money in the firm. Also TE-Keskus and Tekes granted some subsidies for product development. The process of getting financing was perceived as being unexpectedly smooth.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**CE9 – Legal registration of the firm**

In June 2006, that is only two months after Carl started to work for Colin, Firm C was legally registered. The entrepreneurs did not consider the event to be important in any other sense than that the firm was now officially existing.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**CE10 – Product development**

Product development is a time-consuming event which includes a lot of hard work, lonely thinking, research as well as trial, error and new trials. Firm C wanted to develop a product family consisting of several products. At the time of the second interview two control-units were almost ready and a third more complicated remote-controlled unit was under development. However, the product development process also involved a lot of other firms since manufacturing and assembly of components as well as part of the programming had been outsourced.
Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**CE11 – Selection of suppliers and other cooperation partners**

Search and selection of suppliers takes time and effort. Mainly formal search instruments such as the Internet, traditional telephone catalogues and the Blue Book (book with information and contact details for suppliers of electronics) were used in the search process. When possible, Carl found it more efficient to visit and negotiate with the potential suppliers in person. The entrepreneurs emphasised that they preferred to have as few suppliers as possible. Thus, they preferred suppliers with a larger product range and which made fast deliveries. They considered prices to be a jungle and recommended making thorough research on this for more expensive products/services as the prices could vary immensely from one supplier to the other. Firm C has local and national as well as international suppliers, e.g. from China and Estonia. Most suppliers are component deliverers and with these no actual relationship was formed – merely business transactions are in focus and firm C felt no loyalty towards them. However, some suppliers produced tailor made solutions for firm C, and to them it was considered important to keep up good relations. These were also important as they may have opened up avenues for additional business opportunities, for example, by doing joint product development in order to ensure compatibility to relevant existing parts or by marketing firm C’s products to their other buyers and cooperation partners.

**CE12 – Patent application**

The entrepreneurs decided to apply for patents for their switch and disconnector terminal units within Finland and the EU. The patent within Finland was ready. However, they had to wait during a qualifying period before the patent within the EU could be granted. If needed, they would later expand the patent application to other countries. The entrepreneurs were not very concerned about their products being copied, as they stressed the importance of not only making the switch and disconnector terminal units, but also of knowing how to use them. Without such knowledge it would be difficult to sell the products. In addition, the market for these units is limited as the main buyers are the firms within power transmission and in each country there are only a few such actors. This means that for large firms it is perhaps not attractive enough to develop and sell products like these.
CE13 – Recruitment of mentors

From Merinova firm C got information about available financing through the KEPARA-programme from Tekes (Finnish Funding Agency for Technology and Innovation) for hiring mentors. The entrepreneurs thought it would be a good idea to enhance the trustworthiness of the firm by being linked to some more prominent persons when starting to make business nationally and internationally. They also got access to one potential mentor through Merinova. This was an eminent business-man with extensive experience, knowledge and connections both nationally and internationally within the energy industry. Colin also knew a little about this person from before. This person in turn, knew another person suitable as a mentor and in this way firm C got their two mentors. The second person was a respected retired businessman with experience from the Asian market and the power and electronics industry. Both mentors were hired as part-time employees. The entrepreneurs’ expectations on the mentors were high. The intention was primarily that they would be involved in building the network by contributing with their current and upcoming network connections and in marketing the firm and the new products globally by spreading the word when travelling abroad or being in contact with foreign potential buyers or retailers. In addition, the entrepreneurs valued the mentors’ large degree of experience of conducting international activities. Both mentors were made members of the board and at a later stage the second mentor became a minority shareholder of the firm and also continued as a part-time employee after the external financing period ended.

Event: Entrepreneurial  Event: Internationalisation
Phase: Start-up       Phase: Early Internationalisation
Activity: Exploitation Activity: Exploration

CE14 – Testing of products

Firm C had a range of products in different phases of product development. At the time of the second interview two control-units were almost ready and a third more complicated remote-controlled unit was under development. Before the products could be sold, they had to go through both internal and external testing. The internal tests were performed regularly and the products became further developed based on the results. The first products started to be ready for external testing and the entrepreneurs arranged for the initial testing to be done in the university’s laboratories. Then firm C20, a firm that the entrepreneurs had found through formal search activities did the official testing needed to get official approval reports.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

C15 – Searching for pilots – installation

The use of pilot users was an additional important part of practical product testing. In addition it was important to get a reference customer and to be able to show potential buyers that the product works. The searching for pilots was seen to be a critical event in order to get sales going, something that the entrepreneurs considered to be dependent on gaining trustworthiness both for the technical characteristics of the product and for
the firm. The first pilot user came through Colin’s network and was a domestic electricity distributor, C4. The pilot user’s experience of the product were very positive – they found it easy to install and it worked well. The technical reliability was proven as the product was tested actively and worked correctly also after having been run twice as many times than normal during the average life time of such a device. C4 was also ready to be a pilot user for the remote-controlled control unit when it would be ready. Other potential pilot buyers were sought both domestically and internationally and some were in the negotiation process.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

C16 – Product launch at trade fair in Tampere

In February 2007 the first switch- and disconnector terminal unit was introduced to the market at a trade fair in Tampere, where firm C shared an exhibition stand with C16. The product was well received and awoke great interest. Interestingly also C6, the MNE with whom the cooperation contract stranded (see event CE4), showed curiosity and secretly took photographs of the device. The participation in the trade fair resulted in some potential international buyer contacts; however, these did not seem to progress in the desired way.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

CE17 – Recruitment of experts

Now that the product development of the first products was in the final stage, the entrepreneurs were experiencing an immediate need to strengthen the work force with a marketing person. However, they really did not know how or where to find such a person. This person would work with practical marketing and selling of the products full-time. For the following year, they estimated that they would also need a software expert to divide the product development workload with Carl. They already knew who they wanted to hire: one of two persons known to Carl from a long time back. None of these persons were available at the time, but would hopefully be available and interested the following year. If that did not work out the entrepreneurs saw the possibility in recruiting a student writing his/her diploma work. This would enable them to evaluate the personality, skills and development possibilities of the person before employing him/her full-time.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation
CE18 – Expansion of product development

Initial work with expanding the product family with two additional products had started. Discussions were held with potential buyers regarding needs and desired product functions. Also potential competitors were mapped out. That is, the same procedure started over again as the one that had been carried out for the first product in the product family.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploration and exploitation

CE19 – Internationalisation

The entrepreneurs had high expectations that internationalisation would take off through their two mentors, e.g. the experienced businessmen with good networks in Asia in place. The mentors talked about C’s products when travelling around internationally on other business, but thus far, nothing concrete had come from these relationships. In a way this was good, since the lead entrepreneur stressed that first the product had to be in place fully working and with complete documentation; only then could sales begin.

Event: Internationalisation
Phase: Early internationalisation
Activity: Exploration

4.2.3.2. Opportunity exploration and exploitation in case C

The critical events described in chapter 4.2.3.1 are depicted in figure 15, which illustrates the opportunity exploration and exploitation and the development process of the firm by collecting critical events according to their overall content. Also here the critical events frequently involve activities pendulating back and forth between opportunity exploration and exploitation.

Opportunity exploration in case C involved opportunity identification and entrepreneurial insight. In contrast to the other cases, initial opportunity identification was here a conscious and planned activity involving the search for a business opportunity. After having evaluated the identified opportunity, the two founders felt a strong belief in the business opportunity and the inspiration for starting a new firm in order to exploit it. In addition, opportunity identification involved the identification of joint product development projects with other firms as well as access to potential international buyers through mentors. Identification of additional business opportunities involving an expansion of the core product family happened later on in the development process.

Opportunity exploitation in case C consisted of 11 main activities like in case B. The evaluation of the business opportunity was an activity recurring throughout the firm development process. The same applies to contacts with potential cooperation partners. In order to exploit the original business opportunity the firm continued developing a business plan, arranging financing, registering the firm, developing the product,
applying for patent, participating in a mentoring programme, searching for a pilot buyer, launching the product and experiencing a need for strengthening the founding team with new employees. Patent application as well as experiencing a need for pilot buyers were activities that were not regarded as critical neither in case A nor in case B. However, these are not unique to case C, but are also present in cases D and E. The only exploitation activity that was unique to case C was stressing the domestic launch of the product by participating in a trade fair.
**Figure 15 Development process of firm C**

**Opportunity exploration**

**Opportunity identification**
- Search for opportunity (CE1, CE2)
- Identification of cooperation opportunity (CE5)
- Mentors’ networks to potential international buyers (CE13, CE19)
- Identification of additional opportunities (CE18)

**Entrepreneurial insight**
- Inspiration, belief in business opportunity (CE3)

**Opportunity exploitation**

**Evaluation of business opportunity**
- Evaluation of demand (CE3)
- Analysis of desired product characteristics (CE3)
- Analysis of competitors (CE6)
- Evaluation of additional opportunities (CE18)

**Cooperation partners**
- Negotiations with global distributor (CE4)
- Joint product development (CE5)
- Selection of suppliers (CE11)

**Development of business plan** (CE7)

**Fund-raising** (CE8)

**Legal registration** (CE9)

**Product development** (CE10, CE14)

**Patent application** (CE12)

**Incubator and mentor programmes**
- Participation in mentoring program (CE13)

**Pilot buyer** (CE15)

**Launch of product** (CE16)

**Employees** (CE17)
4.2.4. Case D

The mental decision to start a firm was taken in the beginning of 2006. The firm was formally registered in May 2006.

The opportunity: The business opportunity of case D is bearing drives (gears) based on friction (and without cogwheels) for industry purposes. In particular, the first target industry for the bearing drives is the wind power industry, but also the process industry is recognised as being a target of application (e.g. within reel lanes).

Drives based on friction rely on kinematical technology. No cogwheels are needed in the bearings as friction occurs when the wheels are pressed together. This is an old, traditional technology found already in locomotives between their wheels and the rails. The advantage with the technology is its high efficiency.

The advantage of the bearing drives of firm D is that they can resist hard stresses that cause vibrations and shaking, a characteristic which is valuable within the wind power industry as the wind causes such stresses on wind turbines and regular cogwheels get worn and break down. In addition, the bearing drives save space, are cost efficient and do not need to be greased. All of these are important product characteristics for the wind power industry.

The entrepreneurs: The founding team behind firm D is large and consists of 9 persons – David, his four sons, their friends and the inventor:

David CEO of firm D, experience of manufacturing and leadership assignments within the diesel engine industry, in retirement age.

Danny (D1) Inventor, father of the bearing drives, earlier experience of being an entrepreneur, in retirement age.

Douglas (D2) Spider in the web with large contact network, experience of the wind power industry and son of David. President and co-founder of venture capital firm. Co-founder and board member of firm within wind power industry.

Don (D5) Friend of Douglas. Experience of electric motors, generators and integrated power converters for different industries including the wind power industry. At the time of founding: CEO of firm (D4) that is subcontractor to manufacturers of electric motors and generators.


Dino (D7) Brother of Douglas, son of David. Experience of sourcing. Subcontracting manager at large firm.

Darek (D8) Brother of Douglas, son of David. Good at practical arrangements and handles transportation. Entrepreneur with catering firm.


Drew (D10) Previous workmate of Douglas. Experience of business start-up and management. Entrepreneur with firm within laser technology.
Thus, a wide range of human and social capital is represented in the founding team. The team building was guided by the cognisance of suitable persons with different backgrounds, different knowledge and experience. The objective was that all part owners would participate actively in the firm based on their strengths. In this way the source of knowledge, experience and contacts would be immense and also free. Of the founders only David was employed and got a salary, the others worked free of charge for firm D besides their actual work in other firms.

**The international ambitions:** Internationalisation has been an inherent part of the firm start-up. The firm was explicitly started in order to explore the potential to commercialise the technology on the global market. A future within only Finland was neither interesting nor possible for the firm as wind power was not extensively used in Finland. The goal was to create a high growth firm which after a period of time would be sold to an industrial partner. The global aspect is evident from the business plan. The business idea of the firm stated in the business plan is as follows: “Development, manufacturing, assembly, testing and sales of bearing drives as well as connection of these drives to the first or second generation power producing units or utility units according to OEM buyers’ needs globally.”

**Realised internationalisation:** Thus far, Douglas (D2) has been the main driver behind internationalisation as he has been talking about the coming product of firm D with potential buyers in Scandinavia, Germany and China as he has been travelling on other business within the wind power industry. Also Don (D5) has been involved in creating opportunities for the internationalisation to take-off. Discussions with a potential Chinese buyer were the fruit of networking by D2 and D5. So far these discussions have resulted in an invitation for tenders as well as a visit conducted by the Chinese firm.

4.2.4.1. Critical events in the development of firm D

The critical events in the development of firm D can be found in figure 16. Also this figure is extensively based on the timeline map filled out by David. It differs in some respects as some events have been combined. The original timeline map, figure 26, is found in appendix 4. A summary table, table 44, describing all critical events for case D is found in appendix 5. Next, 21 critical events are described in turn in order to give a picture of the founding process of firm D.
Figure 16 Critical events in the development of firm D

DE1 – Inventor D1 develops the first thoughts about the product/technology

Already during the 1980s Danny started to develop the bearing drives based on friction and in 1984 he received an award at an innovation trade fair in Atlanta where he attended as Finland’s representative. In addition, the bearing drives were appointed the “Innovation of the month” reference in an American magazine within manufacturing technology. He tried the invention for different purposes such as in printing presses and fans, but no real success took place. The main reasons for the fail in commercialisation are on the one hand that calibration techniques were not developed enough at that point in time which meant that Danny could not sufficiently prove the effectiveness of the technique. On the other hand, industries that had invested heavily in cogwheel driven machines were not eager to adopt the new technology, despite its advantages.

Event: Entrepreneurial
Phase: Pre-founding
Activity: Exploration
DE2 – Inventor D1 contacts D2 at venture capital firm D3

When searching for financing for the start-up of a firm exploiting the business idea of bearing drives based on friction, it was recommended to Danny (D1) to contact venture capital firm D3. In September 2005, he contacted Douglas (D2), the president of D3 and Douglas declared that it was outside the scope of the venture capital firm to invest in the start-up of new firms; rather the venture capital firm invests in new technologies to be exploited by existing firms. However, Douglas became very excited by the technology.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration

DE3 – Discussions between D1 and D2 about applicability of technology to wind power industry

Douglas (D2) saw great potential in applying the technology to the wind power industry. He recognised that this technology potentially could be a solution to a frequent problem with the wind mills. As the mills are heavily exposed to vibration and concussions from gusts of wind, the cogwheels in the rotors tend to break down. A further problem facing the wind power industry globally was the long delivery time of new gears with cogwheels. Due to insufficient capacity of manufacturers, the delivery times could be up to one year. Also the regular service required when using traditional gears was a problem, e.g. change of oil is complicated and expensive due to the fact that the geography surrounding the wind mills often is difficult to access. Bearing drives without cogwheels were able to offer a solution to all these problems. Thus, he asked Danny about his interest in jointly trying to adapt the bearing drive to this industry. Danny was interested and during the autumn of 2005 Douglas and Danny had intense telephone discussions and meetings.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration

DE4 – Initial analyses of technical dimensioning

The initial analyses of technological dimensioning and measurements needed for adapting the bearing drives were mainly conducted by Danny and his son who also was an engineer. However, technical analyses were not only conducted at the beginning, but were a continuous important process consisting of testing, changes, new rounds of testing etc, during the whole product development process.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploitation
DE5 – Planning of first reel lane at D4

Douglas’ friend Don (D5) who at this point of time was a CEO of a manufacturing firm within the process industry (D4) also recognised the potential of the bearing drives for the process industry. With the permission of Danny, the first application of the innovation actually turned out to be reel lanes meant for transportation of goods. Don was in charge of the planning of an integrated gear, whereas design services were bought from Danny. This event was seen to be advantageous in the sense that it simultaneously offered an opportunity to test the bearing drive technique.

Event: Entrepreneurial
Phase: Pre-founding
Activity: Exploitation

DE6 – D2 and D5 apply for patent for the integrated gear

The integrated gear used in the reel lane was a further developed version of the initial bearing drive. This integrated gear (rotor gear) exploited the bearing drive and integrates it to a permanent magnet machine. Douglas and Don decided to apply for a patent for the integrated gear developed for the reel lane. This integrated gear could also be applied to the wind power industry.

Event: Entrepreneurial
Phase: Pre-founding
Activity: Exploitation

DE7 – Business pauses due to lack of money

Until December 2005 only Danny, Douglas and Don had been involved in the bearing drive project. D4, the firm where Don was CEO, had mainly financed the development activities. However, they were not willing to invest more without some concrete plan for the future. Thus, in December 2005 business came to a halt due to lack of money, and a solution was sought for how to continue. Douglas was even more convinced about the potential of the bearing drives and he suggested to Danny that they collect together a group of people interested in starting a firm based on this business idea. Danny agreed. Douglas was allowed to invest in and start-up such a firm as a private person; however, an agreement was made with Douglas’ work place, the venture capital firm, which gave it the right to buy Douglas’ share if the firm would turn out to be profitable.

Event: Entrepreneurial
Phase: Pre-founding
Activity: Exploitation

DE8 – Building of founding team

Douglas decided to discuss the business idea with people he knew with the aim of building a founding team with different backgrounds, knowledge and experience. The objective was that all part owners should participate actively in the firm based on their
strengths. Douglas talked with his family, and his father and three brothers joined the founding team. One of the brothers had a good friend that was a bank manager, who was also interested in joining the founding team. Finally, Douglas discussed his idea with a previous workmate who owned his own firm within laser technology, and found that he was interested in joining. Together with Douglas, Danny and Don these six new persons founded the firm. Their collective knowledge base, experience and network relationships are very impressive.

As the founding team was large and all were expected to contribute actively to the new firm they decided to create different teams based on their expertise and with different areas of responsibility. David, the father of Douglas, became CEO as he had the possibility to fully focus on the firm. In the beginning he would be the only one employed and only on a half time basis in order to save money. The other founders were part of one or several of the following teams: administration/finance, manufacturing/testing as well as procurement. The other founders all had full-time work at other places, but were willing to invest both time and money in the new firm. The CEO was involved in all the teams.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

**DE9 – Development of business plan**

The development of the business plan started before the official registration of the firm and mainly Douglas, Danny, Don and David were involved. Douglas had extensive experience of business plans from his work as president of a venture capital firm. The business plan was considered an important guiding document and was described as “a programme that we try to follow and realise”. However, the estimations for the first year would not be realised due to delays in product development and David explained that “if we had had the courage then it would have been realised. But we are a bit delayed since we did not have the courage to sell before we got the official test results [...] To some extent you have to pull the break and stay in reality, you can’t just be driven away”. In addition, the business plan was seen as being critical in order to obtain financing.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

**DE10 – Incubator firm at Merinova**

Douglas knew about the services offered by Merinova to firms in the start-up phase. As this firm would be started off by a limited equity and would rely on the personal input of the founders, the support and office place offered by a business incubator was seen to be a good alternative. Overall, case D did not benefit extensively from being in an incubator firm. The other firms were seen to be within totally different areas, so no cooperation would be done with them and the relationships and connections needed were primarily found within the founders’ networks. However, the office place and the
information received through Merinova on e.g. financing opportunities were seen to be useful.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

**DE11 – Legal registration of the firm**

In May 2006, Firm D was legally registered. The entrepreneurs did not consider the event to be important in any other sense than that the firm had began to officially exist.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

**DE12 – Manufacturing of prototypes for reel lanes starts**

The entrepreneurs considered the main purpose with starting the manufacturing of prototypes of bearing drives based on friction for reel lanes to be the opportunity to test the function of the bearing drive. The intention was not to continue with this market segment for long, but to sell it off and concentrate on the wind power industry, when the technology had been proven to work.

The development and manufacturing process of these prototypes was conducted in-house by the founding team. Different types of problems were solved and considerable opportunities for simplifications were identified during the process. These simplifications meant that manufacturing became both easier and cheaper. This process was thus seen as a good learning experience for the forthcoming development of the wind power bearing drive.

Event: Entrepreneurial  
Phase: Start-up  
Activity: Exploitation

**DE13 – Employment of mechanics designer**

As all the founders except for the CEO were only able to spend their leisure time working in the firm, the need arose for a full-time employee to work on planning the bearing drive for the wind power industry. The first bearing drive was for a 550 kW wind mill. In August 2006 D14 was employed after a formal search; he answered the firm’s workplace announcement. D14 was regarded to be a very good, competent and skillful designer. He was not hesitant in giving his opinion and questioned solutions. With the input from D14 the 550 kW bearing drive was realised and considerably improved. Thus, the founders were very satisfied with the decision to employ D14. Unfortunately, he only stayed for one year. Due to family reasons (family living in Southern Finland) he decided to give his notice in.
DE14 – Employment of mentor

From Merinova firm D got information about available financing through the KEPARA-programme from Tekes (Finnish Funding Agency for Technology and Innovation) for hiring mentors. The founders thought it would be a good idea to further strengthen the knowledge, experience and contact base with a mentor, and in December 2006 mentor D15 was employed. D15 was described as a retired marketing expert with long-term working experience in the automation- and power technology industry. He had previously worked as a manager for a MNE factory in Taiwan and had, thus, a valuable network in the Asian market. He also had very good knowledge of five different languages. This person was a previous workmate of Douglas (D2) and was recruited through him. David states that they later realised that they had perhaps hired this person too early as the product was not ready. They would have had more use for this mentor at a later stage with a ready product to sell. Luckily, D15 became very interested in the business idea of the firm and after the financing from the official programme he decided to stay at the firm. He joined as part-owner and continued to be employed part-time. Thus, his expertise and networking potential stayed in the firm. The expectations on him for brokering buyer contacts and marketing the product were high. He was involved in everything going on in the firm, including practical operations such as testing and manufacturing the bearing drive.

DE15 – Tekes application for wind power application

Before starting the development of the bearing drive for the wind power industry, the founders decided to search for financing from Tekes for product development. The financing possibilities available were well known to several of the founders from their previous or current works. Based on the application two representatives from Tekes came to the firm in order get more details on the business idea and the product. They were very positive, interested and believed in the idea. As a result, firm D was granted financing from Tekes, in the form of both a loan and a grant.

DE16 – Venture capital firm investment

Additional financing was needed and Douglas who was himself working in a venture capital firm had good knowledge of other venture capital firms investing in early stage business ideas. At the turn of the year (2006/2007) a local venture capital firm invested
in the firm and also joined as a member of the board. The experience so far has been that the venture capital firm has on the whole played a controlling role on the board.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**DE17 – Planning and assembly of 550 kW bearing drive for wind power industry**

The 550 kW bearing drive had been planned and developed mainly by a team consisting of David, Danny, the full-time employee D14 and the mentor D15. Manufacturing was primarily outsourced to two local firms, both coming through personal relationships – the first one through Douglas and the other through Dino. In July 2007, the bearing drive was tested and reports written. Some changes were still required following which the prototype would be ready for pilot projects.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

**DE18 – Invitation for tenders from Chinese firm (for 3W bearing drive)**

Douglas and Don had through their workplaces established relationships with Chinese actors within the wind power industry. One of these was a large wind turbine manufacturer. This firm became very interested in the bearing drives based on friction and a group of five representatives from the Chinese firm visited firm D in May 2006. They were very positive and eager to buy 3 MW bearing drives. They were even ready to buy and pay in advance, although firm D did not have a fully tested and ready prototype of the 550 kW bearing drive which is considerably smaller than the one requested by the Chinese. They did not consider this a problem, but stated that they were ready to take a prototype for the 3 MW bearing drive, and were also ready to participate in product development costs. They placed an invitation for tenders for a 3 MW bearing drive and wanted it to be ready within eight months. Firm D saw this relationship as a great international opportunity. However, the product was not ready and they were hesitant towards promising that the product would be ready within eight months. Product development always tends to take longer than expected and comes up against unexpected problems. The entrepreneurs were worried about what would happen if they were unable to meet the delivery time and if the Chinese firm would then tell others and firm D would get a bad reputation. Thus, the decision was taken that no promises would be made before the testing results were ready and the prototype of the 550 kW would be fully functioning.

Event: Internationalisation
Phase: Early internationalisation
Activity: Exploration
DE19 – Representative in China

In July 2007 a person from another Chinese firm visited firm D. The contact with this firm was brokered by Don as this Chinese firm was the Chinese representative of Don’s work place. A preliminary contract was made with the Chinese firm for them to become the representative of firm D’s products in China when the products would be ready.

Event: Internationalisation
Phase: Early internationalisation
Activity: Exploration

DE20 – Pilot preferably in Finland (for 550kW bearing drive)

The entrepreneurs felt that it was becoming urgent to start testing the 550 kW bearing drive within the wind power industry for business to take-off. A pilot buyer preferably from Finland was desired, as it would be much easier to conduct pilots in a place close by. Pilots always require changes and improvements to products resulting from the testing. Negotiations were held with two Finnish firms, but no final agreements were made. The first firm only wanted to try a 250 kW bearing drive which meant that the drive would only work with half of its true capacity. This was not an optimal situation when testing the functioning and capacity of the product. This firm was not yet ready to start the pilot project. However, an initial letter of intent was written by the firm. The advantage was that the firm was situated very close by. The second firm was situated in the North of Finland, but the negotiations with this firm had not lead to any concrete outcomes. If it would take too long a time to reach an agreement with the Finnish firms, then the Chinese wind turbine manufacturer would be a possibility.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

DE21 – Creation of cooperation consortium

Firm D’s vision was a cooperation consortium selling an entire product package for the wind power industry. They intend to make an offer to the firm where Don is working about a joint cooperation consortium. It would be a real advantage to be able to offer buyers an entire packet solution consisting of firm D’s bearing drive and the other firm’s generators. If they still were able to find a turbine manufacturer willing to join the consortium, the consortium would become a strong and interesting actor. For the moment manufacturers of turbines were being mapped. The eager Chinese manufacturer might be an alternative. While the other firms’ established generators and turbines were well known and stable, firm D’s new products were unique and innovative but still had a question mark over them involving high risks. David was a bit worried that this would impact negatively on the other firms’ willingness to create a cooperation consortium. A joint cooperation consortium with the other firms, would offer a great opportunity for firm D’s internationalisation to take off.
4.2.4.2. Opportunity exploration and exploitation in case D

The critical events described in chapter 4.2.4.1 are summarised in figure 17, which illustrates the development process of the firm as well as opportunity exploration and exploitation by collecting critical events according to their overall content. In firm D the critical events were quite sequential starting with opportunity identification and then involving a large number of exploitation activities. However, also here exploitation activities led to identification of new opportunities at a later stage which, in turn, started another round of exploitation activities.

Opportunity exploration in case D only involved the activity of opportunity identification. However, a range of business opportunities were identified: first the original technology by the inventor, then several new applications of that technology in other industries. International opportunities were also identified, principally by gaining access to potential international buyers and representatives through the other founders' relationships as well as like in case C through a mentor. Joint cooperation opportunities with other firms had more lately been identified and also constituted the future vision for how to develop the firm.

Opportunity exploitation in case D started with evaluation of the business opportunity and development of the product. The latter activity recurred throughout the firm development process. Building a founding team was the only exploitation activity unique to case D. Also cases B, C and E consisted of more than one founder; however, in these firms building the founding team was not stressed as a conscious, separate critical event, but it in some way or the other came about by itself. However, in case D building the team was indeed an activity critical in order to at all be able to exploit the opportunity. The conscious building of a large founding team was decisive in order to be able to finance the further exploitation of the opportunity, mainly the product development, when the firm initially financing the early product development no longer was willing to do so.

Patent application, fund-raising, development of business plan, participation in incubator and mentor programmes, hiring an employee and searching for pilot buyers are other exploitation activities that were vital to the development process of firm D. These exploitation activities were also found in either all of or the majority of the other cases.
Figure 17 Development process of firm D
4.2.5. Case E

Eric and Elias took the mental decision to start firm E in February 2005. The firm was formally registered in July 2005.

The opportunity: The business opportunity of firm E is a new technology called direct granulation technology to be used in plants for drying and granulating biomass. The business idea is described in the business plan in the following way: “to solve the customer’s sludge problems by delivery of sludge treatment equipment or total services”. Elias was the father of the direct granulation technology. He started the development of the technology in the beginning of the 1990s and he also patented the technology. The technology produces granules from dried sludge (about 25% concentration of dry mass) by using a direct granulation technology based on drying the material at a hygienic temperature of over 70 degrees Celsius, after which the concentration of dry mass is 95%. The granules produced from the sludge can be used as recycled fuel, a breeding ground for vegetables and microbes, fertilizers or for production of biogas. Part of the granules are also brought back to the granulation process and mixed with new sludge. The advantage of the technology is that it is fast and energy-efficient and can be maintained by using waste heat.

Potential customers of the granulation plants are found within municipal wastewater treatment plants, pulp and paper industry, food industry, and agriculture. Thus, the industry within which firm E is present is special in the sense that a large part of the potential customers are publicly owned. This means that the way of selling is different, as the public purchasing process is both bureaucratic and often very slow.

The entrepreneurs: Firm E was founded by Eric and Elias. The entrepreneurs did not know each other well from before, but had met in the business context.

Eric is the CEO of firm E and its only employee. He has an academic master’s degree with a major in geology and minor in chemistry. He has extensive experience of almost all the different parts of relevance when it comes to managing a business, as he had worked in management, research, product development, production, quality management, customer service and sales assignments. He also has some previous experience of being an entrepreneur through a consultancy and import firm within the chemical industry. Most lately, before starting the firm, he worked as a manager within the environmental business with responsibility for the firm’s European organisation.

Elias (E2) is the founding father of the technology. He is a real inventor and has many different patents for different technologies and products. He has experience of being an entrepreneur, but technology development is his strength and passion, not business development. He is in retirement age and not in very good health. He is involved in firm E on a hobby basis.

The international ambitions: Firm E had international ambitions from inception, but in the beginning the Nordic market is the main target. The domestic market was seen as too small and not a viable option to focus on. The lead entrepreneur has a very open attitude towards internationalisation when it comes not only to selling abroad, but also, and above all, when it comes to developing international cooperation networks.

The international ambition is explicit in the business plan of the firm. It is mentioned that the vision was to start exporting during the second year of existence; the first year
was to be reserved for product development. It was estimated that by year 3 exports would exceed domestic sales.

**Realised internationalisation**: Eric has from the very beginning been very active in building international networks and thus far, internationalisation has mainly been about finding potential cooperation partners with complementing products in order to be able to deliver total service solutions for sludge treatment and water cleaning. Potential partners were found in e.g. Norway and the USA. These international cooperation agreements were, however, being opposed by the other founder. Since product development has taken longer than expected no actual business has been done domestically or internationally at the time of the second interview, but negotiations were under process with potential buyers both in Finland and Sweden.

### 4.2.5.1. Critical events in the development of firm E

The critical events in the development of firm E can be seen in figure 18. Also this figure is extensively based on the timeline map filled out by Eric. It differs in some respects as some events have been combined. The original timeline map, figure 27, is in appendix 4. A summary table, table 45, describing all critical events for case E is in appendix 5. Next, 18 critical events are described in turn in order to give a picture of the founding process of firm E.
In 1995 Eric started to think about becoming self-employed. He started a chemical consultancy and import business on a hobby basis besides working full-time in a job. Previously, being an entrepreneur had never been an option he had considered. Thus, for him this event was critical also for making the decision to ten years later start firm E. This event gave him the insight, inspiration and courage to start firm E.

Event: Entrepreneurial
Phase: Pre-founding
Activity: Exploration
**EE2 – Change of workplace, working with environmental technology at E1, contacted by inventor Elias**

In 2001 Eric changed workplaces going from the chemistry industry to environmental technology. During his time at E1 he developed a broad contact network with actors within environmental technology both nationally and internationally. He also gained a good insight into environmental issues and environmental politics – a knowledge base of use for the development of firm E. In 2002 Eric, as a manager of environmental products at E1, was contacted by Elias. Elias presented his granulation technology and asked if E1 would be interested in his technology. The technology was, however, not within the core business of E1, and thus not interesting to them.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration

**EE3 – Suggestion regarding cooperation with Elias**

Eric found the granulation technology very interesting and with the potential for commercialisation and making a profit. During several years he thought about it every now and then and in January 2005 he contacted Elias and asked him about the situation of the granulation technology. After careful considerations and backed up by the fact that EU directives favour this type of environmental friendly technology, he made an initial suggestion to Elias that they perhaps jointly could start a new firm commercialising the technology. Eric thought that he could talk with financiers and run the firm, if Elias contributed with the technology and needed product development competency. Due to earlier negative experiences of sharing inventions, Elias was a bit suspicious.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploration

**EE4 – Contact with E5 at venture capital firm, idea positively received**

Eric contacted E5 a local venture capital firm in order to hear his opinion regarding the potential of the business idea. The idea was very positively received and E5 thought it would be very possible to receive financing from the venture capital firm as well as from Finnvera for a business start-up. Eric contacted Finnvera and presented the business idea to the finance manager. His response was: “This is one of the most promising business ideas I have heard about during the last few years”. Based on these encouraging responses, Eric and Elias felt that they were ready to take the decision to start a firm.

Event: Entrepreneurial  
Phase: Pre-founding  
Activity: Exploitation
EE5 – Development of business plan

In order to apply for financing from the venture capital firm a business plan was needed and E5 offered to assist in the development of the plan. Eric appreciated the help offered and experienced it as being very instructive to work with E5 during the development of the plan. The plan was seen as an important tool in concretising an idea into tangible scenarios made up by analyses for market shares, costs and incomes as well as recognition of potential opportunities and threats. Except for financing purposes Eric was continuously using the business plan for his own purpose in managing the business and in drawing up budgets. The plan was regularly updated and was regarded as giving the business trustworthiness.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

EE6 – Financing: Positive decision regarding investment from venture capital firm, Tesi and Finnvera

A joint financing package consisting of equity investments of an equal amount from the local venture capital firm’s seed fund and from Tesi’s start fund (Tesi: Teollisuussijoitus Oy, state-owned venture capital firm) and a loan from Finnvera, was planned. Eric was invited to present the business plan for a group of people representing these three actors. The investors were impressed by the business idea and believed in Eric as an entrepreneur, but were skeptical towards Elias. This was partly due to his requests for a majority ownership in the firm as well as a lump sum compensation for transferring the patents of the technology to the firm, partly because of his previous personal bankruptcy and tricky personality. They were concerned about whether or not Eric would have the motivation to primarily be the one running the firm, when he would have a considerable lower share of ownership. The ownership structure planned was: Eric 24.5 percent, Elias (through own firm) and E13 (son of Elias) 51 percent and the two venture capital firms 12.25 percent each. However, Eric reasoned that it would be better to have 24.5 percent of something than 100 percent of nothing. The potential financiers then required that in order for them to make a positive financing decision, an agreement had to be made stating that if the equity becomes negative then the two venture capitalists would have the option to increase their shareholding by buying a fixed amount of shares at a fixed price meaning that Eric’s and Elias’ shares would be halved. Such an agreement was made and financing was granted. Eric believed that the fact that he personally knew the chairman of the investment council of the local venture capital firm had a positive impact on the outcome.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

EE7 – Legal registration of the firm

In July 2005 Firm E was legally registered. Eric did not consider the event to be important in any other sense than that the firm was now officially existing.
Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

EE8 – Incubator firm at Merinova

In October 2005 Firm E became an incubator firm at Merinova. Eric knew that an incubator service existed in the region and called the incubator coach. He was satisfied with the business incubator and thinks it fulfilled its purpose by providing information, facilities, contacts and a sparring partner with which to discuss things. From this time onwards Eric also started to work full-time in the firm and quit his previous work.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

EE9 – Purchase of a pilot plant, pilot attempts and insight that full-scale reference plant is needed

Elias had built a small-scale pilot plant together with another firm already before the start-up of firm E. In order to be able to demonstrate the function of the technology to potential buyers firm E bought this pilot plant and conducted pilot attempts with three different potential buyers, E22, E23 and E24. The outcome was, however, that even though the technology worked and the potential buyers were impressed and satisfied with the result, none was ready to buy a plant due to the large-scale investments needed. Instead at the beginning they wanted to rent a full-scale plant and pay only for the amount of sludge that was processed. Thus, the entrepreneurs realised that a full-scale reference plant was needed at first if they were to sell any plants at all.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

EE10 – Financing of reference plant – Tekes, Finnvera, bank loan, venture capital firm and Tesi

During the spring of 2006 Eric negotiated with Tekes, Finnvera, a bank, the local venture capital firm and Tesi for receiving financing for a full-scale reference plant. On 30 June a joint financing decision was made. The condition for this decision was that all other financing was dependent on whether or not Tekes granted financing. Tekes’ condition for granting money in turn was that a written business contract had to be made with a reference customer before 30 January 2007.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation
EE11 – Search for reference customer

Although three interested and eager potential reference customers for renting a full-scale plant existed, E22, E23 and E24, it turned out to be quite a problem to finally get a contract with any of them. A written contract was needed in order to receive financing for building the full-scale plant. The agreement with E22 came to nothing in the final stage, as the present CEO was suddenly given his notice from that firm. As he had been firm E’s main contact everything stopped when he left the firm. Next, Eric was very close to getting a decent agreement with E24, a firm within bioenergy. However, then Elias interfered and let Eric know that he had a much better contract in a final stage with E23, an environmental manager at a municipal water supply enterprise. The negotiations with E24 were stopped, and instead the focus was laid on E23. It turned out that the process was not really clear and settled even though an oral agreement had been made that firm E would process 20,000 tons of sludge annually. However, as it was quite a large business, the municipal water supply enterprise was not allowed to just buy the service from one provider, but it had to go through a public procurement process and open it up for competition. The procurement process started tailor-made for firm E, but this meant of course that the process was considerably delayed. Then the intention was that the municipal water supply enterprise would make a decision to buy sludge services from firm E during a meeting in November 2006. The entrepreneurs inquired about the outcome, but got the answer that the environmental manager had handed in the papers too late, and thus a decision could only be made at the next meeting in December. Again this business was not discussed during that meeting and when Eric contacted E23 and asked why not, he got the answer that, “No business will be made as the acting CEO does not dare to sign such a large business contract”. Thus, also this agreement came to nothing and now it was late December 2006. The time for getting the financing was running out.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

EE12 – Realisation of venture capital firm’s and TESI’s option to increase shareholding

At the same point of time as the problems with getting a contract with a reference customer occurred, the firm came into financial problems. The initial financing was used and the equity of the firm became negative. This meant that the local venture capital firm’s and TESI’s option to increase their shareholding in the firm by converting part of their capital loans to a certain amount of shares was realised at the turn of 2006-2007. Thus, Eric now only owned 12.25 percent, Elias’ family 25.5 percent of the shares and the venture capitalists the rest. Eric was not too worried about this, as the initial contract made with the venture capital firms also stated that when the venture capitalists wanted to exit the firm, Eric would be the first to have the option to buy their shares. However, Elias was very disappointed that the option was realised.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation
EE13 – Contract with E24 for full-scale reference plant

Firm E badly needed the financing for the full-scale reference plant and the time for getting it was coming to an end. Thus, a contract with a reference customer was needed badly and rapidly. Between Christmas and New Year, Eric reopened the negotiations with E24, the firm within bioenergy, with whom the negotiations had been stopped during summer 2006 because of the more lucrative contract with E23. Eric managed to get a contract with E24 on 26 January, only a few days before the time limit for the financing package for the reference plant would have run out. It was, however, not a good contract, and Eric could not really feel any joy or pride over it; but it was a contract. The disappointment of having been carried away by the potential of getting a better contract with E23 and leaving the negotiations with E24 in the summer was painful. If they then would have concentrated on E24 they would have ended up with a much better contract.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

EE14 – Building the reference plant

Before the reference plant was ready and has been proved to work, Eric saw no purpose in starting any larger scale marketing or sales campaigns. Therefore building the reference plant was a critical event determining the future of the firm. The suppliers chosen for planning and building the full-scale reference plant were known to Eric, contacts he had developed in his previous works and firms he had got to know through courses arranged by the incubator. However, when starting building the reference plant, the firm met with problems and delays. Environmental permits prolonged the process considerably, as neighbours had complained about odour problems from E24's plants. These problems had to be taken care of before new environmental permits could be applied for and granted. The environmental permits were in turn needed before the actual building of the reference plant could start.

Event: Entrepreneurial
Phase: Start-up
Activity: Exploitation

EE15 – Identification of side opportunity (heat switcher)

An employee at E24 had identified a problem with the heat switchers in the biogas plant. They were not reliable and it took a long time for the sludge to cool down to 37º C after having been pasteurised at a temperature of 70º C. He discussed this with Eric during a visit to the biogas plant. Eric started to think about how to improve the heat switcher and he also talked about this together with E29, a technical director at a firm in the metal industry known to Eric from a previous workplace. They brainstormed and came up with an idea for a new heat switcher and Eric decided to produce it. The heat switcher turned out to work and E23 bought it from firm E. Eric now hoped for additional orders for this side opportunity.
Event: Entrepreneurial
Phase: Start-up
Activity: Exploration

EE16 – Identification of side opportunity (joint biogas projects)

By accident Eric came across a Norwegian firm, E32, within the biogas industry when searching the Internet for more information on a new Swedish biogas plant that he had read about in a magazine. He entered the homepage of the Norwegian firm and found their biogas plant to be very interesting and thought it could be a good complement to the granulation plants of firm E. The Norwegian firm was also searching for agents internationally and Eric decided to immediately e-mail them. He got a fast response and they were interested in discussing cooperation.

When Eric conducted closer discussions with the Norwegian firm both parties were convinced about the advantages of using the two plants together. The Norwegian plant could be advantageous for processing the sludge before the drying plant of firm E. In this way one would be able to increase and make the production of biogas more efficient. However, Elias strongly opposed firm E becoming an agent for the Norwegian firm, as he did not believe in their system. Thus, in a stormy board meeting the decision was taken that firm E would only focus on the granulation technology. Instead, Eric would start another firm on his own and in this way continue cooperation with E32. The new firm would then be a kind of a coordinator offering joint biogas projects consisting of both the Norwegian firm’s plant and the granulation plant of firm E.

Event: International
Phase: Early internationalisation
Activity: Exploration

EE17 – Identification of side opportunity (license for water cleaning technology)

During a dinner in relation to a seminar arranged by the German-Finnish chamber of commerce, Eric happened to sit opposite a German living in the USA. They started to talk about environment issues and the person told that he was working with a technology for cleaning water. Eric became very interested about the technique as he needed an efficient filtration method for separating nitrogen from water to complement the granulation technology of firm E. It turned out that the technique belonged to an American firm, E33, and Eric made contact with this firm. Discussions were held and the intention was that firm E would get either a Finland- or a Europe-wide license for the water-cleaning technology. Again, Elias was against this and instead it was to be realised through Eric’s new firm.

Event: International
Phase: Early internationalisation
Activity: Exploration
EE18 Potential international customer

When surfing the Internet, Eric by accident came across the information that a sludge day was to be held in Sweden. He thought this was interesting and contacted the municipality arranging the day and asked whether he could get a few minutes during the day to present the granulation technology. He was welcomed and during the presentation the manager of the water supply in the municipality became very interested in the granulation plant. A good dialogue has gone on with this manager, a concept for the municipality was planned and the municipality was interested in buying a plant. The process could, however, still take a while and the outcome was uncertain as the municipality first had to start a public procurement process.

Event: International
Phase: Early internationalisation
Activity: Exploration

4.2.5.2. Opportunity exploration and exploitation in case E

The critical events described in chapter 4.2.5.1 are depicted in figure 19, which illustrates the development process of firm E by collecting the critical events according to their overall content. In firm E opportunity exploration and exploitation are like in firm D being quite sequential starting with opportunity identification and then involving a large number of exploitation activities. However, also here exploitation activities lead to identification of new opportunities at a later stage.

Opportunity exploration in case E involved all three activities of entrepreneurial insight, opportunity identification and entrepreneurial preparation and not until all of these had been gone through were exploitation activities initiated. In case E opportunity exploration started with entrepreneurial insight as the lead entrepreneur started to think about becoming an entrepreneur. At a previous workplace he then came into contact with the business opportunity (plants for drying and granulating biomass) and developed the industry knowledge and network of relevance for understanding the market potential of the business opportunity and gaining the inspiration and belief in it needed to start exploitation activities. Except for this original business opportunity, other opportunities were identified later on when developing the firm. These opportunities were about identification of problems and through solutions for these the development of new products and also about international opportunities such as potential customers and joint projects with other international cooperation partners.

Opportunity exploitation in case E started with evaluation of the business opportunity and development of the business plan. The business plan was needed for fund-raising. After registration the firm joined the business incubator and then product development became current. However, additional financing was needed for the product development and thus fund-raising again became necessary. The financing was at this stage dependent on the case getting a pilot buyer. Following some problems it managed to get the funding and financing was secured for further product development. In case E all exploration and exploitation activities that were seen to be important were such ones that also appeared in either all the other cases or in the majority of the cases. Thus, no new activities appeared that were unique to case E.
4.3. Cross-case comparisons on similarities and differences in firm development

In the following sections the cases are compared for similarities and differences in different aspects relating to firm development.

4.3.1. Opportunity exploration

The way the initial business opportunity was identified differs between the cases (see table 9). In case A the entrepreneur was given the business opportunity by a previous employer, due to them lacking the time to pursue it. Here the entrepreneur’s existing
relationship was directly decisive for opportunity exploration and for start-up of the firm. In a way cases D and E resemble case A in the sense that relationships created in workplaces have brought the business opportunity and entrepreneurs together. In both cases, inventors of an innovative technology approached other firms for the purpose of opportunity exploitation. In case D, the inventor was searching for financing in order to be able to commercialise the business opportunity, whereas in case E the inventor was looking for a firm interested in buying the business opportunity or possibly in cooperating with him for developing a joint product/service offering and in this way finding other potential buyers. However, in both cases, the firms that the inventors approached were not interested due to the business idea being outside the scope of their business. Instead the persons they were in contact with within those firms, saw a potential, interesting and promising business opportunity in the innovative technology and were interested in jointly starting new firms together with the inventor in order to exploit the opportunity. Cases A, D and E show that entrepreneurs in INVs are exposed to the same opportunities as others. However, differences exist in the way they perceive the opportunities and decide to exploit them. This has also been identified by McAuley (1999) and Andersson and Wictor (2003).

Case B in turn constitutes the perfect example of how the entrepreneurs’ identification of a problem in a previous workplace offers the base for a business opportunity. Here the entrepreneurs themselves invented a solution for solving the existing problem and later on they realised that the problem really is an opportunity as it offers a considerable market gap. Thus, the business opportunity was explored by the entrepreneurs themselves. Finally, case C differs from the other cases as a business opportunity was actively searched for in order to save the existing firm of one of the entrepreneurs. In all cases one or several entrepreneurs had an extensive experience of the industry within which the business opportunity was explored. This is in line with McDougall et al. (2003) who found that high levels of industry experience characterise entrepreneurial teams in INVs.

Table 9 Exploration of the cases’ business opportunities

<table>
<thead>
<tr>
<th>Case</th>
<th>Opportunity exploration</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Opportunity given by previous employer</td>
</tr>
<tr>
<td>B</td>
<td>Own problem identification in previous work</td>
</tr>
<tr>
<td>C</td>
<td>Active search</td>
</tr>
<tr>
<td>D</td>
<td>Inventor searching for financing</td>
</tr>
<tr>
<td>E</td>
<td>Inventor searching for cooperation partner or buyer</td>
</tr>
</tbody>
</table>

4.3.2. Entrepreneurs

The number of entrepreneurs differs between the cases from one to nine (see table 10). Thus, in line with Andersson and Evangelista (2006) the number of founders is not found to be a crucial factor for these INVs. Case A is the only case with a single entrepreneur, whereas case D has an entrepreneurial team consisting of nine people. All other cases are founded by two persons. In cases C and E the entrepreneurs were unknown to each other before the start-up of the firm, whereas in case B the
entrepreneurs were long-term friends. In case D most entrepreneurs are linked by long-term relationships being friends, family members or known to each other through work. However, the relationship to the inventor is new. In this way, cases D and E resemble each other. All entrepreneurs found in the cases are men.

Many of the entrepreneurs have previous experience of starting and managing their own firms, that is nine out of 16 entrepreneurs. In all cases except for B at least some of the entrepreneurs have previous entrepreneurship experience. In case B both entrepreneurs lack previous experience of being entrepreneurs. However, during the process of starting firm B they also start another firm together with another firm. Thus, they now have experience of portfolio entrepreneurship.

Table 10  Comparison of founders between the cases

<table>
<thead>
<tr>
<th>Case</th>
<th>No. of founders</th>
<th>Connection between founders</th>
<th>Previous entrepreneurship experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>Friendship</td>
<td>No</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>Unknown to each other, met through work</td>
<td>Yes (2/2 founders)</td>
</tr>
<tr>
<td>D</td>
<td>9</td>
<td>Family, friendship, professional Inventor unknown to others, met through work</td>
<td>Yes (4/9 founders)</td>
</tr>
<tr>
<td>E</td>
<td>2</td>
<td>Unknown to each other, met through work</td>
<td>Yes (2/2 founders)</td>
</tr>
</tbody>
</table>

4.3.3. Internationalisation

An explicit ambition to become international from the very beginning is found in all cases. Internationalisation is seen as a natural part and not as an alternative to domestic operations. Due to the niche focus the domestic market is not an interesting or viable option. This is in line with earlier research on INVs (e.g. Moen, 2002; Andersson & Wictor, 2003; Aspelund & Moen, 2005). Internationalisation has indeed been an inherent part of all cases from the beginning, however in different ways. In case A requests from international retailers and buyers are even the main reason for the start-up of the firm. However, due to delays in product development, sales neither domestic nor international can take place immediately. The same applies for cases C, D and E. Only case B got an order the first month after start-up and was also able to deliver products. However, case B differs from the others in the sense that a lot of product development had taken place before the actual start-up of the firm. Thus, the very first buyer made case B international as this large MNE turned out to become an important global marketing and distribution channel. Also case C had great expectations on a cooperation contract with an MNE that would have functioned as a distributor for global sales. This contract, however, came to nothing already before the start-up of the firm. Instead their expectations for international sales to take off are now laid on their mentors – two experienced businessmen with existing international networks in place. Also case D intends to use existing international relationships to start international sales. Here it is the founders’ international relationships that are
considered the most important source for international buyers. Relationships brokered by two of the founders with Chinese buyers are already in the process; however, due to the product not being ready the entrepreneurs have not dared to sign any final sales contract with the Chinese firms yet.

Critical international events are still found in all cases, sometimes already before founding, sometimes in parallel to start-up events. This is so as internationalisation includes much more than just sales, for example, sourcing, building of networks and cooperation agreements. International sourcing is found to some extent in most cases and is especially stressed by case C to be both important and natural. Case E is on the other hand an illustrative example of a firm where the lead entrepreneur is very active in creating new international cooperation networks. This entrepreneur takes every opportunity to investigate the potential for cooperation and proactively builds up cooperation arrangements both nationally and internationally. Unfortunately, the two founders’ visions for the firm’s future considerably diverge and the international opportunities explored by the lead entrepreneur will therefore mostly not be exploited by firm E, but by the lead entrepreneur himself through another firm.

4.3.4. Division of stages

The time of legal registration is not perceived as important in any of the cases. Instead there is a point of time where the entrepreneurs decide mentally that they will start a firm. This point of time is stressed to be important, rather than the time of the legal registration of the firm, since after this conscious activities are undertaken in order to evaluate and prepare for the start-up. Thus, the point of time when the mental decision is taken is considered to be the point of time separating the pre-founding phase from the start-up phase. It may, however, take a shorter or a longer time before the firm actually is registered after this mental decision.

In case A a long time elapsed from the first time Adam was presented the business opportunity in 2003 to the time in 2006 when he decided to evaluate it by meeting the potential retailers from the USA and Sweden. After this he was ready to take the decision to start a firm. However, then the process took off and everything happened very fast, even though Adam met with difficulties in getting financing in Sweden and hence decided to move the firm to Finland. Already in July 2006, the firm was legally registered in Finland.

Case B is characterised by a very long process from identification of a problem in the early 1990s and the first thoughts on products for solving the problem, to the mental decision in 1998 to exploit this business opportunity by starting a firm. Also after this initial decision there was a long time that followed when the entrepreneurs prepared themselves to become self-employed, mainly by working and thus collecting the starting capital for both the firm and for their private lives. In total the conscious preparation process from decision to legal registration, took about two years and the firm was legally registered in January 2000.

Case C is the total opposite from case B, in the sense that here everything happened very fast. The process from initial thoughts to legal registration all happened during 2006. Carl came to work for Colin in April and a conscious search for a business idea immediately took off and the mental decision was taken to start a firm where the two persons’ competency could complete each other and the firm was registered in June the same year.
Cases D and E, again, resemble each other in the sense that in both cases the process from invention of original technology in the 1980s to the actual start-up of these firms in 2006 and 2005 respectively was very long. However, the cases differ as in case D the process was very fast from the inventor’s presentation of the business idea in September 2005, to the new application of technology and mental decision to start a joint firm only a few months later. In case E, however, this corresponding process was much longer, as three years elapsed from the time the inventor first presented the technology to Eric in 2002, to the time when Eric and the inventor were ready to start a joint firm in 2005. In both cases, the process from mental decision to legal registration was about five months.

In general, these cases show that the pre-founding process from identification of business opportunity to decision to start a firm tends to be long taking years or even decades. However, once the mental decision to start a firm is taken the process evolves quite rapidly. Only in case B did the process take two years; in the other cases it was a maximum of six months. As the main part of earlier research on emerging firms mainly focuses on the start-up process, it misses out on the lengthy process preceding the decision to start a firm. This dissertation shows that an important and mostly lengthy pre-founding phase precedes the decision and that this phase often includes events happening a very long time ago that at that time had nothing to do with starting this firm, but later on have turned out to be critical for the start-up of the firm.

If the process from mental decision to legal registration mostly is rapid, the start-up phase as such tends to take considerably longer than expected. This is due to the fact that the development of innovative products is time-consuming and in all cases the long time before you have a well functioning product is stressed. Product development slows down the process and the entrepreneurs experience it as problematic that buyers and orders exist before the product is ready and there is something to sell. In other words, what prevents the entrepreneurs from fulfilling their ambition to start international sales from the very beginning is the fact that the product is not ready and thus, no sales at all can be conducted – not domestically nor internationally.

4.4. Analysis of critical events

In this chapter summarising analyses of the critical events are presented. An overview of all critical events in each case is found in appendix 5.

Figure 20 illustrates the division into entrepreneurial and internationalisation events and provides examples for activities from the empirical study for these events and for each of the three phases of pre-founding, start-up and early internationalisation. Examples of exploration activities are found above the dashed line and exploitation activities beneath the line. In chapter 5 further analyses are conducted on the relationships involved in these events and phases.
In total 95 unique critical events are found among the five cases (see table 11 for the number of critical events per case and phase). In each case about the same number of events has been regarded to be critical for firm development, ranging from 16 events for case A to 21 events for cases B and D. When taking a closer look at the division of events into entrepreneurial and internationalisation, considerably more events have been entrepreneurial (n=89) than internationalisation (n=26) events among these five new firms. As one event can be both an entrepreneurial and an internationalisation event the total amount exceeds 95 events. Consider for example event BE8 (first order from MNE, B7). This event has been analysed as both an entrepreneurial event in the start-up phase and as an internationalisation event in the early internationalisation phase.
The event includes exploitation of the initial business opportunity in the start-up phase as it involved implementation of the business idea and commercialisation of the business opportunity by getting a repair project for the insulation of exhaust pipes. However, the order was not only for the domestic purposes of B7, but also for its international business. In addition, this event was a gateway for firm B to additional international projects at B7, as it turned out that the insulation solutions worked well. As a consequence the event is also analysed as an internationalisation event including both exploration and exploitation of international business opportunities. Thereby it should also be noted that for INVs the early internationalisation phase is not sequential to either the pre-founding or the start-up phase, but may be parallel to either of these entrepreneurial phases.

The largest group of events include exploitation activities in the start-up phase (n=54). This is natural as a lot of different important activities have to take place in order to realise the business opportunity and start a firm. However, exploration activities in the start-up phase as well as exploitation activities in the early internationalisation phase have the smallest number of events (n=7 for each). The explanation for a small number of exploration activities in the start-up phase is that in this phase the entrepreneurs tend to concentrate on exploiting the initial business opportunity, whereas exploration of it has already taken place in the pre-founding phase. The entrepreneurs also do not, to any larger extent, focus on exploring additional business opportunities in this phase, but additional business opportunities identified during the start-up phase mainly happen more or less by coincidence. This is for example the case in CE5 and EE15 where some cooperation partner has some problem and the entrepreneurs start to think about solutions to it, even though it is not within the core business of the entrepreneur’s firm. The reason for few events involving exploitation of internationalisation business opportunities is that several of the cases were clearly still developing their product during the main data collection and thus had not conducted any sales yet, only pilot projects. Thus, they had this far not had the possibility to realise the international business opportunities identified. Case B is clearly an exception where already the first order coming the month after start-up involved international sales. In case C the international exploitation activities, for example, includes conduction of international sourcing. However, internationalisation events are still found in all cases as it comes to exploration of international business opportunities, ranging from two events in case C to 5 events in cases A and B.

The total number of critical events belonging to the pre-founding phase and the early internationalisation phase is about the same, being 28 and 26 respectively. All cases have about the same amount of critical events relating to the exploration of the business opportunity (n=3-4/case). These are events where the initial business opportunity has first been identified – the first flashes of inspiration, problems and market gaps. Exploitation activities in the pre-founding phase are almost equally common (n=1-4/case) and involve the early evaluation of the business idea done before any decision to start a firm has been taken or even thought of.
Next the 95 critical events are analysed with regard to whether they are based on relationships or not. If an event is based on relationships it means that relationships are the reason for the event occurring. For example, event AE5 where Adam got the business idea and knowledge about the existing product demand (Adam was contacted by A1, and asked if he was interested in starting with demolition robots) would never have occurred if Adam had not known A1. Table 12 shows the number of critical events that are based on relationships. From this table it is evident that an extensive part of the critical events for firm development happen because of the entrepreneurs’ relationships, as 53 out of 95 events are based on relationships. In other words, relationships are critical for the early entrepreneurial and internationalisation events. Correspondingly, 34 events are not based on relationships. Examples of such events are when the entrepreneurs directly contact different actors such as the business incubator, potential suppliers or financiers without knowing them from before or without having someone playing a brokerage role linking the entrepreneurs to these actors. In some cases (n=8) an event is partly based on relationships, which for example is the case when some actors involved in the event are known from before but others are new as in AE12 (building the prototype) or CE11 (selection of suppliers and other cooperation partners).

### Table 11 Critical events per case

<table>
<thead>
<tr>
<th>Case</th>
<th>Unique events</th>
<th>Entrepreneurial Events (n=89)</th>
<th>Internationalisation Events (n=26)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-founding phase (n=28)</td>
<td>Start-up phase (n=61)</td>
</tr>
<tr>
<td></td>
<td>Exploration</td>
<td>Exploitation</td>
<td>Exploration</td>
</tr>
<tr>
<td>A</td>
<td>16</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td>21</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>19</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>21</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>E</td>
<td>18</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td>16</td>
<td>12</td>
</tr>
</tbody>
</table>
Table 12  Number of critical events based on relationships

<table>
<thead>
<tr>
<th>Case</th>
<th>Yes</th>
<th>No</th>
<th>Both yes and no</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5</td>
<td>9</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>B</td>
<td>14</td>
<td>7</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>C</td>
<td>10</td>
<td>4</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>D</td>
<td>13</td>
<td>7</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>E</td>
<td>11</td>
<td>7</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>34</td>
<td>8</td>
<td>95</td>
</tr>
</tbody>
</table>

Even if an event is not happening because of a relationship, it may well involve relationships. Therefore, table 13 illustrates how many critical events include or do not include relationships. The table shows that most critical events involve relationships (81 out of 95 events). Thus, in total only 14 events do not include relationships and in case E as few as one event – event EE1 (thought of starting a business) where Eric first got the insight that being self-employed would be an option to consider. Other events that have not included any relationships are in most cases the legal registration of the firm.

Table 13  Number of critical events including relationships

<table>
<thead>
<tr>
<th>Case</th>
<th>No. of events including relationships</th>
<th>No. of events not including relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>C</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>14</td>
</tr>
</tbody>
</table>

The informants did not only mention which events included relationships, but for those that did, they also mentioned which ones these relationships where. In table 14 the amount of relationships involved in the events can be seen. The table shows that in critical events that include relationships, between one and 11 relationships are involved per event. Case C differs from the others in the sense that here a maximum of three relationships have been involved in the same event. On average 2.3-2.5 relationships are involved in each event in cases A, B and C, whereas cases D and E involve somewhat more relationships, between 3.3 and 3.4 per event. These are also the cases where most relationships are used in general, 63 and 58 relationships respectively. The number of
unique relationships (one relationship counted only once) is, however, quite similar
between the cases, being about 20 relationships per case. Only case E has used a
considerably larger number of relationships (n=34). In chapter 5 these relationships
and their involvement in the firm development are analysed closer.

Table 14  Number of relationships involved in critical events

<table>
<thead>
<tr>
<th>Case</th>
<th>Minimum amount of relationships involved in one event</th>
<th>Maximum amount of relationships involved in one event</th>
<th>Average amount of relationships involved in one event</th>
<th>Total amount of relationships involved in all events</th>
<th>Number of unique relationships involved in all events</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>7</td>
<td>2.5</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>8</td>
<td>2.5</td>
<td>43</td>
<td>23</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>3</td>
<td>2.3</td>
<td>39</td>
<td>20</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>11</td>
<td>3.3</td>
<td>63</td>
<td>21</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
<td>10</td>
<td>3.4</td>
<td>58</td>
<td>34</td>
</tr>
</tbody>
</table>

4.5. Summary of opportunity exploration and exploitation activities

Table 15 presents the main activities for opportunity exploration and exploitation
derived from the empirical data. The activities are to a large extent the same among
the five cases or for the majority of the cases. Some activities are unique and only appear in
one case. The order for conducting the different activities varies, however, between the
cases. For example, opportunity exploitation in case B starts with product development,
whereas this activity is the last opportunity exploitation activity in case A. Therefore,
the activities are presented simply in alphabetical order in table 15.

Table 15  Opportunity exploration and exploitation activities

<table>
<thead>
<tr>
<th>Opportunity exploration activities</th>
<th>In common to all cases</th>
<th>In common to majority (3-4 cases)</th>
<th>Unique to one case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of business opportunity</td>
<td>Opportunity identification</td>
<td>Entrepreneurial insight</td>
<td>Building team (D)</td>
</tr>
<tr>
<td>Fund-raising</td>
<td></td>
<td>Entrepreneurial preparation</td>
<td>Building up internal system (B)</td>
</tr>
<tr>
<td>Incubator and mentor programmes</td>
<td></td>
<td></td>
<td>Launch of product (C)</td>
</tr>
<tr>
<td>Legal registration</td>
<td></td>
<td></td>
<td>Localisation (A)</td>
</tr>
<tr>
<td>Product development</td>
<td></td>
<td></td>
<td>Orders (B)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Start-up of complementing firm (B)</td>
</tr>
<tr>
<td>Opportunity exploitation activities</td>
<td>Cooperation partners</td>
<td>Development of business plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Patent application</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pilot buyer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5 FINDINGS FOR RELATIONSHIPS’ INVOLVEMENT IN OPPORTUNITY EXPLORATION AND EXPLOITATION

This chapter covers analysis of the relationships involved in opportunity exploration and exploitation. First within-case analyses are presented, then cross-case analyses. The analyses in this chapter build on the analyses of firm development (events, phases and activities) conducted in chapter 4.

The within-case analysis of the relationships’ involvement in opportunity exploration and exploitation focus on the benefits and drawbacks of relationships, that is, what the relationships have contributed. The contribution of relationships involves the benefits and drawbacks of the relationships for opportunity exploration and exploitation. When comparing the figures that illustrate the development process of the case firms and hence the opportunity exploration and exploitation activities in chapter 4 with the tables in subchapters 5.1 to 5.5 where the benefits of relationships for these activities are summarised, great similarities can be identified. This means that relationships have been involved and contributed extensively to both exploration and exploitation activities in all five cases.

5.1. Case A: Relationships’ involvement in opportunity exploration and exploitation

In case A in total 19 relationships have been involved in the critical events involved in exploration and exploitation of the initial business idea and the early internationalisation opportunities. A unique relationship has been involved in 1-3 critical events, and on average in 1.4 events. Of the relationships, 6 have been decisive for the opportunity exploration and exploitation, 9 have been of some importance and 4 are replaceable. In addition, 7 of the relationships have had a brokerage function to other relationships involved in the critical events. In table 16 the benefits and drawbacks of relationships for different exploration and exploitation activities can be seen.

For opportunity exploration relationships have been beneficial both for entrepreneurial preparation and for opportunity identification. Through relationships Adam has been able to gain access to networks as well as market and product knowledge of importance to him when starting firm A. Regarding opportunity identification Adam got the initial business opportunity and the insight that buyers demanded a middle-sized demolition robot through his existing relationships. Relationships have also given Adam access to both domestic and international potential buyers and retailers. One relationship, A19, has been of particular importance as it has provided opportunities for firm A to gain international visibility. This is a relationship with the owner of an international industry magazine. This person immediately became interested and curious about the demolition robot and immediately came to Finland to interview Adam and have a look at the product that was in the development stage. The result was not only an article in the industry magazine, but as Adam explains:

... and it is in fact that article that has given us the most and the best publicity – it was thanks to it that so many people came to see us at the Bauma trade fair. They had seen and read the article.
(Adam, Case A, Interview II)
However, this relationship turned out to be important in other ways too. It was thanks to A19 that Adam participated in the Bauma industry trade fair in Germany. This person offered Adam to share a stand at Bauma, but Adam thought that it was too early and that they would not be able to have the product ready until the trade fair. Thus, he would not himself have decided to participate. In addition, the time for reserving stands had run out. Through his inspiration, engagement and convincing argumentation A19 succeeded in persuading Adam to participate and afterwards Adam declared that this was probably the best thing he had done in order to make the firm more visible. Adam also appreciated the emotional support received from A19, and some other persons during opportunity identification. Their inspiration and belief in the product was critical for Adam’s own belief in the business opportunity.

Relationships have been of importance in all opportunity exploitation activities except for the legal registration and the change in localisation of the firm. Of course the decision to start the firm in Finland depended on the willingness of the Finnish financiers to invest in the firm; however, Adam did not know these from beforehand and had no one brokering a relationship with them. He simply looked up governmental institutions in Finland on the Internet and then approached them. Many relationships have been beneficial by offering access to potential retailers, suppliers and other cooperation partners for example when the entrepreneur was choosing suppliers and when he was building up a retailer- and service network. However, here also a negative aspect of relationships was brought to the fore. Relationship A4, A1’s old retailer of demolition machines in Sweden, was important in the early stage by offering insights into a market gap, relevant market knowledge and advice during early product development. However, when it comes to building up a retailer- and service network, Adam becomes very hesitant towards A4 as a potential retailer. He does not regard it to be a good or professional representative and does not believe in its ability to sell. Rather, he sees it as a local service workshop. However, A4 is very inspired and anxious to start selling demolition robots and become a retailer for the Swedish market and for Adam experience it is difficult to know how to end or to change the cooperation relationship in such a way that A4 will not be offended and start spreading false rumours about firm A. Adam recounts:

But I’m terrified of making them [A4] so angry that they will start taking bullshit about the product just because they may not sell it – because they do want to sell it. I have to find some way out of this, perhaps they could be retailers only for their small region. But what if I find a good retailer saying ‘I’ll take the whole of Sweden’? Is there then any reason to have a separate small retailer for one city or does it only complicate things? Perhaps they could only be a service partner. (Adam, Case A, Interview II)

For evaluation of the business opportunity, relationships have contributed not only with emotional support, but also with relevant market- and product knowledge. During fund-raising activities relationships have for case A both involved benefits and drawbacks. The benefits are that relationships have offered the trustworthiness needed by a new firm when searching for financing, financial advice as well as guidance when writing applications to financiers. Especially applications to governmental financing institutions are according to case A complicated to make and thus the help has been appreciated. Dealing with such institutions is also perceived to involve drawbacks due to their heavy bureaucracy. Relationships have furthermore been beneficial by involving financing for the start-up and firm development. In addition, relationships have given Adam part owners contributing with both board members and equity capital. However, in this case having other part owners is also considered to be problematic. The two other partners do not share Adam’s visions for the firm’s future and would like to take decisions that are more in line with their own interests than in
the interest of firm A, for example with regard to starting to sell the product early on, even though it is not fully finished and tested. Also the fact that the partners have experience from other industries, but lack knowledge and understanding specifically for the demolition industry and for international activities, are considered to be drawbacks for the exploitation of the business opportunity.

Joining the incubator, has in case A been advantageous for the exploitation of the initial business opportunity, particularly as the relationship with the coach of the incubator has given Adam an important discussion partner and help with developing strategies for the firm. In addition, the opportunity to get a modern, professional office space in the hub of where most of the important business activities happen in the region is seen to be a huge advantage for a new and resource poor firm.

Finally, product development activities involve many relationships playing critical roles for taking the business opportunity from being an idea to being an innovative product. Without the advice on product development, the information about desired product characteristics brought forward by users and retailers of demolition machines and the technical as well as manufacturing knowledge that Adam has got through different relationships, there would not have been any demolition robot at all. Adam emphasises the value of cooperation and being humble and on relying on others’ expertise in areas where he is not very strong. This is obvious in the following quotation made by Adam as he talks about cooperation in product development and particularly about relationship A2 an end user of demolition machines and Adam’s first customer when he worked for A1 back in 1997:

I don’t believe that I’m alone and know everything myself, on the contrary. I try to learn and listen all the time. If you immediately confess that I can’t do this [develop a demolition robot], but I can manage a business assembling them, then you get help. [...] For example, the persons [A2] working eight hours a day with demolition machines have a lot of time to think about and know these machines. I don’t. And if you confess that, you will get help and often it doesn’t cost anything – it is free. Unbelievable, they don’t hide their ideas or apply for patents themselves, but on the contrary they openly tell about their experiences and ideas. They are incredibly grateful for all improvements and it is also a bit smart in the sense that when they have been involved in the development they feel a bit that it is their machine as well... their brainchild. The more people’s child it is, the better. So I’m perhaps not a traditional entrepreneur. I believe more in sharing responsibility, sharing assignments and cooperating – to be humble and to realise that you don’t have to know everything yourself as an entrepreneur. (Adam, Case A, Interview I)

Furthermore, relationships have been beneficial in the product development activities by planning, developing and/or supplying both major parts and systems needed for the demolition robot or more minor components. These relationships are, however, mostly traditional business relationships and get paid for their services and products. Several relationships have also contributed with financing particularly meant for product development.
Table 16  Benefits and drawbacks of relationships for opportunity exploration and exploitation in case A

<table>
<thead>
<tr>
<th>Opportunity exploration activities</th>
<th>Benefits</th>
<th>Drawbacks</th>
</tr>
</thead>
</table>
| Entrepreneurial preparation       | Access to network (A1, A3)  
Market knowledge (A1)  
Product knowledge (A1) | | |
| Opportunity identification        | Access to business opportunity (A1)  
Access to potential buyers and/or retailers, also international (A4, A5, A19)  
Emotional support (A1, A2, A19)  
Insight on product demand/market gap (A1, A2, A4, A5)  
Provision of international visibility (A19) | | |

<table>
<thead>
<tr>
<th>Opportunity exploitation activities</th>
<th>Benefits</th>
<th>Drawbacks</th>
</tr>
</thead>
</table>
| Cooperation partners                | Access to network (A1, A3, A5, A6, A7, A8, A9, A11, A19)  
Retailer (A4, A5, A6, A7) | Consequences of dissolving relationship: Inappropriate retailer, if ending the relationship risks offending them and they start spreading false rumours (A4) |
| Evaluation of business opportunity  | Emotional support (A2, A5)  
Market knowledge also international (A4, A5)  
Product knowledge (A5) | | |
| Fund-raising                        | Board member (A12, A13)  
Equity capital (A12, A13)  
Financial advice (A8)  
Financing (A9)  
Guidance for financial applications (A11)  
Trustworthiness, improving chances to get financing (A3) | Bureaucracy (A10)  
Conflicting visions for firm (A12, A13)  
Conflicting interests (A12, A13)  
Lack of insight into industry/firm specific relevancies (A12, A13) |
| Incubator and mentor programmes     | Development of strategies (A11)  
Discussion partner (A11)  
Office (A11) | | |
| Product development                | Advice (A1, A2, A4, A15, A16, A17, A18)  
Component supplier (A1, A3, A18)  
Desired product characteristics (A2, A5, A6)  
Development and supply of major parts/systems for product (A12, A14, A15, A16, A17)  
Financing (A8, A9, A10)  
Manufacturing knowledge (A1, A13)  
Technical knowledge (A1, A12, A18) | Expensive (A14) |
In short, Table 16 shows that relationships have contributed more benefits than drawbacks in case A. For opportunity exploration, relationships have been particularly involved in giving the entrepreneur the insight demanded for the product to exist and by offering access to potential buyers and retailers as well as emotional support. For opportunity exploitation, relationships have in particular been beneficial in many different ways for fund-raising and product development.

5.2. Case B: Relationships’ involvement in opportunity exploration and exploitation

In case B, in total 23 relationships have been involved in the critical events involved in exploration and exploitation of the initial business idea and the early internationalisation opportunities. A unique relationship has been involved in 1-6 critical events, and on an average in 1,9 events. Of the relationships, 9 have been decisive for opportunity exploration and exploitation, 9 of some importance and 5 are replaceable. In addition, 8 of the relationships have had a brokerage function to other relationships being involved in the critical events. In Table 17 the benefits and drawbacks of relationships for different exploration and exploitation activities are found.

For the exploration of opportunities in case B, the single most important relationship has been B1, Bob the co-founder of the firm. During all activities relating to the exploration of the initial business idea, Ben worked closely together with Bob, and he has contributed to many important aspects ranging from the identification of the core business opportunity, product and market knowledge and the insight of the two friends’ expertise in the area to the possibility of becoming entrepreneurs and emotional support. Another decisive relationship for opportunity exploration is B6, friends from school who are now working at a large MNE. These have been important as they were the bridge to a large buyer (B7) which in turn has opened up doors to international market opportunities for firm B. Ben explains that they prefer to go through existing relationships when approaching potential new buyers:

Relationships and networks are important especially when you are new and have not yet operated in the market. When you come with a new product to the market, it is very difficult to convince potential buyers; either you have to be able to offer very convincing proof of the product or you have to have really low prices. For us, it succeeded in the way that our friends [B6] knew that we had done a lot of work in the insulation industry and what things we had developed and contacted us regarding the problems they experienced with insulations at their workplace [B7]. In addition, the prototypes convinced also those people at B7, that were not earlier friends or acquaintances, and in that way we progressed. And now, after having done international business with such a large MNE it convinces other buyers in turn to use us. There are of course two ways to get new international buyers: to market ourselves at trade fairs or the like, but that is a very slow way, so we decided to use already existing ways – existing relationships. (Ben, Case B, Interview I)

Finally, a relationship with organisations related to sea, ship and fire safety (B21) has been of some importance for the identification of business opportunities both nationally and internationally. Through B21, Ben keeps up-to-date on new international regulations and legal requirements for fire safety on board. Ben also actively takes parts in working groups lead by B21 in order to be able to influence new regulations. These regulations offer great potential for making businesses, when insulation products are developed according to the requirements – at least in theory. However, even though the regulations are valid globally, Ben has noticed that the adherence to them varies significantly from place to place. Thus, what in theory could have been an immense
business opportunity for the firm, has turned out in practice to be relevant but not that huge. Ben explains why the firm has been successful in some markets and not in others:

Well in Africa they don’t care about regulations and the same applies to Southern-Europe so those markets are difficult. In Scandinavia and Northern-Europe firms are quite orthodox regarding regulations and in the USA it is quite good, due to the raw law system and the fear of being sued. In other words, in Scandinavia regulations are followed because they exist and also because the firms really think that the regulations improve the safety – the safety of the firm, their customers or the environment. In Northern-Europe it is a bit the same, but there it seems to be more that ‘Well the regulations exist, so we have to adhere to them’. In the USA they don’t seem to actually care about the environment or anything, but due to the fear of being sued they adhere to the rules. In the rest of the world they don’t care. They act as they do and if we get something sold then it is fine, but often it is only then because of the seller being good. So this has been a surprise and disappointment for us...that actual regulations exist and you imagine that all people are the same, but then realise in reality they are not. (Ben, Case B, Interview II)

Relationships have been beneficial for all opportunity exploitation activities in case B, except for legal registration. In particular, the relationship to B16 has been beneficial in a number of ways for different exploitation activities such as building up the internal system and fund-raising. B16 is a business angel that invested in firm B and this person is also the founder of several successful firms within the energy sector. Ben came in contact with B16 through the accountant. When B16 offered to invest in the firm, they had got several other offers from firms and persons willing to invest as well. However, the reason why Ben chose B16 as one investor was that he was from the same region and had a deep experience not only of business management in general, but specifically of the start-up of new small firms and of turning them into large successful businesses. In addition, he had experience from the energy sector, an industry close to the insulation industry. Ben thought that this was important in order to get an investor that understands the situation of the firm. This also turned out to be the case and B16 has contributed not only with equity capital and board membership, but he has been really active in the development of strategies, in building up systems for the firm and for board activities and in offering all kinds of support for business management and also emotional support. He is a good role model for any entrepreneur and through his good reputation and enormous business experience he has brought firm B trustworthiness and has been beneficial by improving their chances of getting other types of financing as well. Other financiers have been willing to invest, when they see that B16 believes in the idea. Ben is more than happy to have B16 involved in their firm and states:

He [B16] is sharp and hard, but for a CEO really the optimal chairman of the board because he gives clear assignments, he checks the outcome of the assignments in a structured way without being critical. You can discuss and argue with him without having to fight. [...] He is fair and still he dares to say anything he wants. [...] And in addition he keeps his ego in check and can take it when another decision is taken than the one he wanted and he can take it when he is right or wrong about a decision. (Ben, Case B, Interview II)

Relationships have also been involved in the exploration activity development of the business plan, by offering advice and by conducting the detailed market research needed for a solid business plan. The role of contributing with advice is also apparent for patent application. Furthermore, the relationship involved here keeps Ben updated with information on current legislation. Employees have contributed with needed additional capacity, access to valuable competency and loyalty. In addition, the three employees have offered important emotional support during problematic times and were then also ready to join as part owners and invest equity capital in the firm. During this time they also participated in building up internal systems. Also for evaluation of the business opportunity relationships contributed with emotional support by believing in the idea. Another benefit gained through relationships during this activity was
having other eyes, external eyes, looking at and evaluating the business idea, as for a long time only the two founders, that is the two friends, had been part of it.

Fund-raising relationships have as in case A contributed in several different ways. In addition to the benefits mentioned by Adam, Ben has through relationships gained access to the accountant’s network and information about possible financing opportunities from one of the financiers. Joining the incubator and the relationship developed though the coach has not contributed with important benefits to the same extent as in case A. Here this relationship is only seen to have contributed with an office and information on current activities going on. Instead, the two mentors gained through participation in the mentoring programme have been beneficial in a number of important ways. Ben experiences that these two mentors have been important discussion partners and have shared their valuable knowledge on business management with him, especially during the development of the business plan, but also later on. In addition, they have provided access to their networks.

In case B, as is similar to case A, relationships have offered advice, information about desired product characteristics, manufacturing and technical knowledge. In addition, relationship B9, Ben’s previous employer, was very generous during the early product development and offered Ben and Bob free and unlimited access to their facilities, equipment and materials. Relationship B7 has contributed with joint product development projects. B7 is the first and still main buyer of firm B’s products and as earlier explained it has been irreplaceable when it comes to offering access to global businesses and being a reference giving firm B trustworthiness in others’ eyes. However, this is also the only relationship that has been really problematic for case B. Ben finds that a major drawback is B7’s inefficient internal systems. Communication works very badly between different units which has lead to many difficulties for firm B. For example, B7 has sold products still in the development phase with a promise of fixed delivery dates, incorrect data has been stored about firm B in B7’s registers, people that should have sold firm B’s products for years do not even know about their existence, the lifecycle thinking and appreciation of solid, high-quality insulations only exist in the service unit offering up-dated insulation boxes to old buyers, but not in the unit manufacturing new machines etc. In addition, Ben finds B7 to be arrogant and exploitative towards small suppliers. He explains:

B7 is a two-piped firm for small firms in the region. It is a tremendously wonderful opportunity and a good place where you get to develop all kinds of nice products and demanding technologies, but sometimes it feels that they don’t realise that they have access to the best technologies in the world. I wonder why they don’t understand this, as they consider themselves to be a high quality brand with cutting edge products and technologies and still they use a lot of product development services offered by suppliers. But they don’t really understand where the top technology comes from. [...] They don’t appreciate the extent to which their cutting edge technology depends on small suppliers. (Ben, Case B, Interview II)

On the contrary, the relationship with B22, a new international buyer and an even larger MNE than B7 and also one of B7’s competitors, has been very smooth and efficient. After only a few days of structured, efficient negotiations a contract for prototypes was made and Ben feels at all times like he is a valued expert when he has discussions and is in contact with them. Thus, the inefficient internal systems of B7 and their arrogance towards small actors cannot be explained or justified by the difference in firm size; that is B7 being large and firm B only being a small, new, unimportant supplier. It is perhaps rather a matter of attitudes and of developing a dependency relation in the favour of B7.
<table>
<thead>
<tr>
<th>Benefits</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opportunity exploration activities</strong></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial insight</td>
<td>Insight of own expertise (B1) Thought of being entrepreneurs → co-founders (B1)</td>
</tr>
<tr>
<td>Entrepreneurial preparation</td>
<td>Access to network (B2) Market knowledge (B1) Product knowledge (B1)</td>
</tr>
<tr>
<td>Opportunity identification</td>
<td>Access to potential buyers and/or retailers, also international (B6, B7, B22, B23) Cooperation opportunity (B23) Emotional support (B1) Global marketing and distribution channel (B7) Identification of problem (B1) Information on new regulations involving business opportunities (B21) Insight of product demand/market gap (B1) Opportunity to influence (B21)</td>
</tr>
<tr>
<td><strong>Opportunity exploitation activities</strong></td>
<td></td>
</tr>
<tr>
<td>Building up internal systems</td>
<td>Emotional support (in problematic times) (B9, B16, B17, B18, B19, B20) Experience of business management (B16) Role model (B16, B23) Strategic advice (B16)</td>
</tr>
<tr>
<td>Development of business plan</td>
<td>Advice (B4, B11, B12) Conduction of market research (B13)</td>
</tr>
<tr>
<td>Employees</td>
<td>Access to competency (B18, B19, B20) Additional capacity (B18, B19, B20) Loyalty (B18, B19, B20)</td>
</tr>
<tr>
<td>Evaluation of business opportunity</td>
<td>Emotional support (B9) First external evaluators of business idea (B3, B4)</td>
</tr>
<tr>
<td>Fund-raising</td>
<td>Access to network (B15) Activation of board (B16) Board member (B14, B16, B17) Equity capital (B1, B9, B16, B17, B18, B19, B20) Financial advice (B15) Financing (B5, B9) Guidance for financial applications (B4) Information on financing opportunities (B5) Trustworthiness, improving chances to get financing (B16) Bureaucracy (B5)</td>
</tr>
</tbody>
</table>
### Incubator and mentor programs
- Access to network (B11, B12)
- Discussion partner (B11, B12)
- Experience of business management (B11, B12)
- Information on current activities (B4)
- Knowledge of start-up of firms (B3)
- Office (B4)

### Patent application
- Advice (B8)
- Information on new legislation (B8)

### Product development
- Access to facilities, equipment and materials (B9)
- Advice (B2)
- Desired product characteristics (B21)
- Joint projects (B7)
- Manufacturing knowledge (B9, B14)
- Technical knowledge (B1)

### Orders
- Contract for prototype (B22)
- Efficient, structured negotiations (B22)
- First and main buyer (B7)
- Learning experience of how to (not) make contracts (B7)
- Reference → trustworthiness (B7, B22)

### Start-up of complementing firm
- Access to software program (B10)
- Sharing costs (B9, B10)
- Sharing technical workforce (B9, B10)

In short, Table 17 shows that the benefits of relationships by far exceed the drawbacks with regard to opportunity exploration and exploitation in case B. Many different types of opportunities have been identified through relationships – new buyers, business opportunities through regulations, cooperation possibilities etc. For exploitation of opportunities, relationships have been involved in a large number of ways. In particular, relationships were of importance when the firm experienced difficult times as they then offered emotional and financial support and were helpful for building up internal systems in the firm.

### 5.3. Case C: Relationships’ involvement in opportunity exploration and exploitation

In case C, in total 20 relationships have been involved in the critical events involved in exploration and exploitation of the initial business idea and the early internationalisation opportunities. A unique relationship has been involved in 1-4 critical events, and on an average in 2 events. Of the relationships, 8 have been decisive for opportunity exploration and exploitation, 6 of some importance and 6 are replaceable. In addition, 6 of the relationships have had a brokerage function to other relationships being involved in the critical events. In Table 18, the benefits and drawbacks of relationships for different exploration and exploitation activities are found.

Like in case B, relationships have been beneficial for all opportunity exploration and exploitation activities in case C, except for the legal registration of the firm. For
exploration activities only one relationship C1, the co-founder, was beneficial for the entrepreneurial insight as he believed in the business opportunity created and was inspired to start a new firm around it. For exploration activities relating to opportunity identification, relationships played an important role in confirming that product demand actually exists for such products that the co-founders intended to develop. This was of particular relevance since the development of the business opportunity was in this case not based on an identified problem or need. Instead, the business opportunity had been actively searched for and then created by the two co-founders. C1’s existing relationships to C3 and C4, electricity plants and long-term buyers to C1’s other firm, as well as C5, C1’s brother-in-law and a product manager of an electronics firm, were interviewed about their opinions about and experienced need for a corresponding product. C3 and C4 were very enthusiastic about the product idea and expressed willingness to later on buy ready products.

Also in Case C, existing relationships have been contributing access to both national and international potential buyers as well as with the provision of international visibility. Regarding the importance of existing relationships for internationalisation Carl (Case C, Interview I) states: "It is principally personal relationships abroad that open up doors in this industry". Additional business opportunities have also been developed together with cooperation partners. For example, together with C9, a firm producing transformers, joint product development projects resulting in an expansion of the current product family have been planned. In the early stage, high expectations were laid on relationship C6 to offer access to global markets by acting as the firm’s marketing and distribution channel. This would have been a huge source for international business opportunities for the firm, as C6 is a large MNE with a ready built up sales network and thus access to potential buyers globally. C6 is a long-term buyer from C1’s other firm, and thus the expectations were seen as being completely realistic. Negotiations were carried out with this cooperation partner and everything looked bright. Participating in the negotiations were the sales organisation from C6 and the manager of the Finnish sales division C7. All were positive towards the products and towards a distribution contract. However, when the contract came from C7 it turned out to be a really bad offer that would even have brought firm C into bankruptcy. Thus, C7 was in this case a real drawback and the one that put an end to the exploitation of an interesting and important international business opportunity for firm C. The arrogance towards and exploitation of small actors was prevalent here in a corresponding way to that seen in case B.

For the exploitation activity of developing the business plan, relationships have given advice and financing for the conducting of research needed and for writing up the plan. A number of relationships have been involved in the evaluation of the business idea. In addition to the external evaluation, market and technical knowledge as well as emotional support gained through relationships, Carl has also got knowledge about competitors through C1 and his relationships and also support from C1’s extensive experience of starting and managing his own business. During fund-raising case C experienced the same benefits of relationships as the ones that appeared in cases A and B. These include information on financing opportunities and help with making financing applications from the business incubator, financing and financial advice from governmental institutions and trustworthiness through one of the mentors resulting in improved chances of receiving financing. Also case C has got equity capital through relationships as one of the mentors was interested in joining the firm as a minority part owner. However, Carl perceives that joining the business incubator is not only beneficial. Yes, the incubator has given help when searching for financing and also brokered new relationships to Carl, but still the relationship is perceived to be
problematic. It is inefficient and slow and in addition he has even received conflicting or incorrect information from the incubator. Carl explains:

We haven’t been really satisfied with the incubator. It feels like it is quite tame and it always takes weeks before something happens. And sometimes it is the way that one guy says one thing and another one another thing and later on we discover that we chose the wrong alternative – as was the case with one application when we searched for financial support for marketing. Then one guy from the incubator told us that we should apply for marketing activities and the other told us that we could absolutely not apply for actual marketing activities, but that it had to be for marketing research. I did fancy Power-Point slides and went to present them and then the guy [from the governmental financing institution] said ‘nice presentation, good thing and interesting, but you should hire someone to do the marketing instead, for that you should apply for money’. So we chose to believe the wrong guy. (Carl, Case C, Interview II)

On the other hand, Carl has been more satisfied with participating in the mentoring programme. The two mentors (C18 and C19) have given important insights, supportive and trustworthy through their membership in the board and role as discussion partners. C18 is regarded to be quite busy and takes part in firm C’s operations to a limited degree. C19 on the other hand is very actively involved in the firm and both decided to join as part owner and part-time employee after the financing received through the mentoring programme had ended. In particular the mentors’ experience of international markets is highly appreciated and the expectations on the mentors to contribute with access to international buyers and retailers are great. Carl and Colin explain:

Carl: They [the mentors] are our trumpet in the world. Always when possible they talk about us abroad.

Colin: And they have an extremely good background, long experience and know an enormous amount of customers all over the world so it couldn’t be better.

Carl: Yes it is the type of know-how that I don’t think that money can buy.

Colin: Yes that is the way it is. It would be an enormous amount of work, for let’s say an engineer-younger that had just passed his final exams and perhaps has studied some marketing at the university, so for him it would be an enormous amount of work to start building networks out in the real world. It is a project spanning dozens of years, or at least ten years, isn’t it?

Carl: Yes, and the crazy thing is that even if you would be an expert in marketing and in human relationships... even if we play with the words and say you are the best in the world, then you would not bring anything about in less than five years. It requires a certain amount of time. That is just the way it is. So therefore if you recruit people that do not have the network or the experience then you can count on it that it takes at least five years before anything starts to happen. That is why people like these, who have 20-30 years of experience in the industry, are more precious than gold.

Colin: And luckily we have got two such persons in our team. That is very important. (Carl & Colin, Case C, Interview I)

The launch of the product took place at an industry trade fair in Tampere. For this activity relationships were contributing in different ways. The mentor C19 participated and represented the firm at the trade fair. This was seen as very important since it gave firm C the trustworthiness to have an experienced business man well-known within the industry to be at their stand presenting and talking about the product. This awakened interest and curiosity in the product. C16, the CEO of a large transformer substation manufacturer in Finland known to Colin from a long time back, was relevant as he arranged for a joint exhibition stand offering firm C lower participation costs. This relationship has also been important for the firm as the firm of C16 has acted as a pilot user of the first switch- and disconnector terminal unit. For the exploitation activity of
patent application relationships have contributed with advice as well as financing. For product development relationships have offered the same benefits as identified in cases A or B, that is, insight into desired product characteristics, development and supply of major parts for the product, manufacturing and technical knowledge as well as joint projects. In addition, C20 has been involved in the official testing of the product.

Table 18  Benefits and drawbacks of relationships for opportunity exploration and exploitation in case C

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Drawbacks</th>
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</thead>
<tbody>
<tr>
<td><strong>Opportunity exploration activities</strong></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial insight</td>
<td>Inspiration, belief in business opportunity (C1)</td>
</tr>
<tr>
<td>Opportunity identification</td>
<td>Access to potential buyers and/or retailers, also international (C1, C9, C16, C18, C19) Confirmation of product demand (C3, C4, C6) Cooperation opportunity (C5, C8, C9) Information on regulations involving business opportunities (C5) Potential buyer (C3, C4, C6) Potential global marketing and distribution channel (C6) Provision of international visibility (C18, C19) Search for business opportunity (C1, C2)</td>
</tr>
<tr>
<td><strong>Opportunity exploitation activities</strong></td>
<td>Exploitative: Arrogance towards small actors, Bad contract → end Unreliable: Confusive (C7)</td>
</tr>
<tr>
<td>Cooperation partners</td>
<td>Access to network (C1) Cooperation negotiations (C6, C7, C8) Efficient, favourable, competent cooperation partner (C9, C13) Retailer (C9, C16) Supplier (C2, C9, C13, C14, C15)</td>
</tr>
<tr>
<td>Development of business plan</td>
<td>Advice (C10) Financing (C11)</td>
</tr>
<tr>
<td>Employees</td>
<td>Access to competency (C19)</td>
</tr>
<tr>
<td>Evaluation of business opportunity</td>
<td>Emotional support (C18, C19) Entrepreneurship experience (C1) First external evaluators of business idea (C3, C4, C5) Knowledge about competitors (C1, C3, C4, C5) Market knowledge (C1, C5) Technical knowledge (C5, C18, C19)</td>
</tr>
<tr>
<td>Fund-raising</td>
<td>Equity capital (C1, C19) Financial advice (C12) Financing (C11, C12) Guidance for financial applications (C10) Information on financing opportunities (C10) Trustworthiness, good reputation, improving chances of obtaining financing (C18, C19)</td>
</tr>
</tbody>
</table>
In short table 18 shows that also in case C the benefits brought about by relationships by far outnumber the drawbacks. Relationships have been of advantage in a large number of different ways for the identification of opportunities, the evaluation of them and also the realisation of them in particular by being involved in financing and product development.

### 5.4. Case D: Relationships’ involvement in opportunity exploration and exploitation

In case D in total 21 relationships have been involved in the critical events involved in exploration and exploitation of the initial business idea and the early internationalisation opportunities. A unique relationship has been involved in 1-13 critical events, and on an average in 3,1 events. Several of the relationships are the lead entrepreneur’s relationships with the other founders and these relationships have been involved in more critical events than on average. Of the relationships, 6 have been decisive for the opportunity exploration and exploitation, 11 of some importance and 4 are replaceable. In addition, 5 of the relationships have had a brokerage function to other relationships being involved in the critical events. In table 19 the benefits and drawbacks of relationships for different exploration and exploitation activities can be found.

Like in case B and C relationships have been beneficial for all opportunity exploration and exploitation activities in case D, except for the legal registration of the firm. In case D relationships have been vital to opportunity exploration as they have offered access to the innovative technology upon which the initial business opportunity builds, that is, the bearing drive technology as well as patents for this technology. Relationship D2 identified opportunities for applying this technology to new purposes in other industries as David explains:

He [D2] was strongly of the opinion that there were huge opportunities for using this technology in the wind power industry, because he knows that industry and has done business within it and knows the actors and their problems. (David, Case D, Interview II)
The other founders and the mentor also offer access to potential buyers and retailers nationally and internationally. For example, the other founders D2 and D5 have brokered a relationship with a huge Chinese firm, D20. The business potential inherent in getting D20 as a buyer is seen as enormous. D20 is also extremely interested in the bearing drives based on friction, however, still this relationship and in particular the eagerness shown by D20 is experienced as complicated. David explains:

We would have got an order from them to deliver within eight months a 3 MW bearing drive and they would have been prepared to pay. But considering that we don’t even have a prototype that we would have at least some experience from, you can’t go ahead and promise anything with an 8 months delivery time. It is so revolutionary our business idea. [...] They [D20] have paid huge attention and are ready to test it and they say that even if it fails or there are problems, they won’t tell anybody about it. But even though they are ready for anything, we can’t go yet. First, we have to obtain test results. (David, Case D, Interview II)

This shows that as in case A a positive thing like eagerness from potential buyers can turn out to cause the entrepreneurs worries if it comes too early. D20 also offered to become a pilot buyer; however, David would prefer to first have a domestic pilot user and has thus still continued to search for one. For the exploration of other international business opportunities in case D relationships have provided international visibility and potential international marketing and distribution channels.

Building a founding team was a critical opportunity exploitation activity unique to case D. For this relationships were vital as all eight other founders in some way relate to D2. The founders were selected based on both the fact that they were known to D2, and also on the fact that they brought different expertise with them. The founders have been organised into teams depending on the expertise they contribute to the firm – administration expertise including financial knowledge, manufacturing expertise and procurement expertise are specifically found among the founders. In addition, several of the founders have experience of being entrepreneurs which is also an important benefit for the start-up of firm D.

For the development of the business plan and for the patent application some of the other founders have contributed with advice. For evaluation of the business opportunity and for fund-raising the same benefits of relationships can be identified as appearing in the earlier cases. Employees have in case D been beneficial since they have provided access to competency and additional capacity. Furthermore, D14 that unfortunately later on left due to his family not feeling at home in Vaasa, was considered rare as he was very bright and questioned a lot of solutions and details, and was thus a major benefit in improving and simplifying the product. Other benefits of relationships for the product development except for the technical insights are information on desired product characteristics, development and supply of major parts, financing for product development and manufacturing knowledge. For the early product development the relation D4 was also vital as they offered access to facilities, equipment and materials needed. Through D6, on the other hand, firm D gets access to testing-equipment and facilities for this purpose.

As in case C the relationships gained through participation in the mentoring programme have brought about more benefits than participation in the incubator programme also for case D. The incubator has provided information on financing opportunities as well as an office space, whereas the mentor has in addition to the advantages already mentioned been beneficial as a discussion partner, in giving emotional support, in being an expert of several languages and international markets. The participation in the mentoring programme came a bit too early, but since the mentor (D15), in a similar way as in case C, decided to continue working in the firm as a
part-time employee and for the firm as a part owner, firm D still has access to the benefits gained through him. David explains:

Yes, he [D15] is still with us. We used the mentoring-financing a bit too early, as we didn’t have a ready product. But he has so much experience from different areas but had time on his hands since he had retired. He was for the last seven years the manager of a [MNE’s] Taiwan unit and has a good knowledge base and contacts in all different directions. So he is in that way a huge asset to us, when we get the test results. [...] Marketing is his area but he has also taken part in the practical building of the product, asked questions and showed enthusiasm. (David, Case D, Interview II)

Table 19  Benefits and drawbacks of relationships for opportunity exploration and exploitation in case D

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Drawbacks</th>
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<tbody>
<tr>
<td><strong>Opportunity exploration activities</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Opportunity identification</strong></td>
<td>Imbalance: D20 eager and willing to buy immediately – D wants product to be ready in order not to get a bad reputation (D20)</td>
</tr>
<tr>
<td>Access to business opportunity and technology patent (D1)</td>
<td></td>
</tr>
<tr>
<td>Access to potential buyers and/or retailers, also international (D2, D5, D15)</td>
<td></td>
</tr>
<tr>
<td>Contact link to inventor (D3)</td>
<td></td>
</tr>
<tr>
<td>Insight of product demand/market gap, applicability of technology to other markets (D2)</td>
<td></td>
</tr>
<tr>
<td>Potential international buyer (D20)</td>
<td></td>
</tr>
<tr>
<td>Potential marketing and distribution channel in China (D21)</td>
<td></td>
</tr>
<tr>
<td>Provision of international visibility (D15)</td>
<td></td>
</tr>
<tr>
<td><strong>Opportunity exploitation activities</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Building team</strong></td>
<td></td>
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<tr>
<td>Access to network (D2, D5, D7)</td>
<td></td>
</tr>
<tr>
<td>Administration team (D2, D9, D10)</td>
<td></td>
</tr>
<tr>
<td>Entrepreneurship experience (D1, D2, D8, D10)</td>
<td></td>
</tr>
<tr>
<td>Manufacturing team (D1, D5, D6)</td>
<td></td>
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<tr>
<td>Procurement team (D7, D8)</td>
<td></td>
</tr>
<tr>
<td>Trustworthiness, good reputation (D2)</td>
<td></td>
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<tr>
<td><strong>Development of business plan</strong></td>
<td></td>
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<tr>
<td>Advice (D1, D2, D5)</td>
<td></td>
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<tr>
<td><strong>Employees</strong></td>
<td>Left due to family reasons (D14)</td>
</tr>
<tr>
<td>Access to competency (D14, D15)</td>
<td></td>
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<tr>
<td>Additional capacity (D14)</td>
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</tr>
<tr>
<td>Open, bright, critical in a positive way (D14)</td>
<td></td>
</tr>
<tr>
<td><strong>Evaluation of business opportunity</strong></td>
<td></td>
</tr>
<tr>
<td>Emotional support (D15, D16, D20)</td>
<td></td>
</tr>
<tr>
<td>Market knowledge (D2, D5)</td>
<td></td>
</tr>
<tr>
<td>Technical knowledge (D1, D2, D5)</td>
<td></td>
</tr>
<tr>
<td><strong>Fund-raising</strong></td>
<td></td>
</tr>
<tr>
<td>Board member (D1, D2, D5, D9, D10, D17)</td>
<td></td>
</tr>
<tr>
<td>Equity capital (D1, D2, D4, D6, D7, D8, D9, D10, D15)</td>
<td></td>
</tr>
<tr>
<td>Financial advice (D5, D9)</td>
<td></td>
</tr>
<tr>
<td>Financing (D16, D17)</td>
<td></td>
</tr>
<tr>
<td>Information on financing opportunities (D2, D5, D10, D13)</td>
<td></td>
</tr>
<tr>
<td>Trustworthiness, improving chances to obtain financing (D2)</td>
<td></td>
</tr>
<tr>
<td>Passiveness: Passive part owner after D5 left the firm D4. However, D4 opposed D5 buying them out. (D4)</td>
<td></td>
</tr>
<tr>
<td>Incubator and mentor programmes</td>
<td>Discussion partner (D15)</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td>International market experience (D15)</td>
</tr>
<tr>
<td></td>
<td>Language skills (D15)</td>
</tr>
<tr>
<td></td>
<td>Office (D13)</td>
</tr>
<tr>
<td>Patent application</td>
<td>Advice (D4)</td>
</tr>
<tr>
<td>Pilot buyers</td>
<td>Potential pilot user (D20)</td>
</tr>
<tr>
<td>Product development</td>
<td>Access to facilities, equipment and materials (D4, D6)</td>
</tr>
<tr>
<td></td>
<td>Desired product characteristics (D2, D4, D5)</td>
</tr>
<tr>
<td></td>
<td>Development and supply of major parts/systems for product (D18, D19)</td>
</tr>
<tr>
<td></td>
<td>Financing (D4, D20?)</td>
</tr>
<tr>
<td></td>
<td>Flexible and obliging supplier (D19)</td>
</tr>
<tr>
<td></td>
<td>Manufacturing knowledge (D1, D6, D18, D19)</td>
</tr>
<tr>
<td></td>
<td>Technical knowledge (D1, D2, D5, D14)</td>
</tr>
</tbody>
</table>

In short, table 19 shows that benefits of relationships outweigh the drawbacks. For opportunity exploration relationships have contributed to business opportunities in many different ways. The special situation of case D with regard to the large founding team shows that many different competencies are found among the founding members. This is particularly evident in activities like opportunity identification, development of business plan, evaluation of business opportunity, financing and product development.

### 5.5. Case E: Relationships’ involvement in opportunity exploration and exploitation

In case E in total 34 relationships have been involved in the critical events involved in exploration and exploitation of the initial business idea and the early internationalisation opportunities. A unique relationship has been involved in 1-7 critical events, and on an average in 1.7 events. In all, 6 relationships have been decisive for opportunity exploration and exploitation, 15 of some importance and 13 are replaceable. In addition, 9 of the relationships have had a brokerage function to other relationships being involved in the critical events. In table 20 the benefits and drawbacks of relationships for different exploration and exploitation activities can be found.

Case E is the only case where relationships have been beneficial for all opportunity exploration and exploitation activities including the registration of the firm. The most important relationships involved in the early development of the firm are, except for the other founder Elias, from whom Eric got access to the technology on which the initial business idea is based upon, two representatives of investors with whom Eric was in contact with at an early stage. These two, E5 and E11, were decisive as they contributed to Eric’s entrepreneurial insight, his belief in the opportunity and his decision to suggest to Elias to jointly start a firm exploiting the opportunity. Eric explains:

The investors are in a key position – E5 and E11 are the main actors behind the fact that I started this whole project in the first place. Without their positive attitude from the very beginning I’m not sure that I would even have got as far as applying for financing. But they immediately reacted so positively and announced that ‘Yes, this is possible! There is certainly money to apply for this.’ So, I decided to go for it. (Eric, Case E, Interview II)
For the entrepreneurial preparations the other founder Elias and Eric's previous workplace E1, have offered access to network, market as well as product knowledge. For opportunity identification relationships have been an advantage in many different ways. Relationships were the reason why Eric came into contact with Elias and his technology for drying and granulating bio mass in the first place. Relationships have contributed with access to potential buyers both nationally and internationally, and relationships have made Eric realise the need for change in strategy in order to be able to sell any plants – that is, potential buyers first want to rent a full-scale plant, rather than buy it directly. Relationships have also provided international visibility and international cooperation opportunities. For example, with E32 joint biogas systems could be delivered and firm E could become a retailer for E32 in Finland. However, the other founder Elias put a stop to this mainly due to being suspicious. The same happened with the intended cooperation with E33. Regarding E32 Eric explains:

[Elia] did not believe in E32's system, so he didn’t want us to engage in it. We had quite a stormy discussion about it. Both the chairman of the board [E25 from the venture capital firm] and I stated after the meeting that it is completely unnecessary to bring in any other technologies into firm E as Elias is so jealous of them. So, ok we keep firm E simply for his technology, it is the easiest. [...] Also E32 didn’t see any advantage in it being firm E, but they wanted me as a person as an agent. Then I activated a sleeping firm in my own name, and made an agreement with the venture capital firm that they would be the first to invest in that firm if it needs financing. So I started this on my own. (Eric, Case E, Interview II)

For opportunity exploitation relationships have been beneficial by offering emotional support and being the first external evaluators of the business idea. For the development of the business plan relationships have given important insights and advice. In addition, E8, Elias' patent agency, provided help with documentation of the technology as he for a long time had been Elias' “right hand man” and had done all the writing and descriptions of the technology. For the fund-raising the same benefits are mentioned as in the previous cases, that is, access to network, board members, discussion partners, equity capital and other financing, financial advice and trustworthiness that has improved the chances of getting financing. In this case Eric tells about the positive effects of his personal relationship with the chairman of the venture capital firm's investment council on the official financing decision:

And the chairman of the investment council is the bank director [E10] and I used to play golf with him during the 1990s when I worked at [a firm within the chemical industry]. I have a more personal relationship with him. [...] I certainly believe this had an effect. It was an advantage that we were old mates and he knew my history. This, I definitely believe, helped in them making the decision they did. They would not have invested in Elias, but they invested in me. It also turned out that the bank found it troublesome that Elias owned such a large part of the firm. They suggested that I was the one who should run the business and that I should own enough in order for it to be attractive enough to do it seriously and not only as a regular employee. So [E12, bank manager] found it positive that the owner structure later on changed. (Eric, Case E, Interview II)

A new drawback with relationships, thus, came up in case E – the financiers being hesitant toward the other founder. Not only one, but several financiers found the financial background, personality, health problems and requirements of Elias troublesome. As in case D, also case E has experience of some of the part owners being very passive. Like case A, Eric has also had problems with a part owner having differing visions for the firm; however, Eric has also had experiences of important part owners (E5, E25) sharing his view on future visions and from these he has gained important support and strength for continuing his work.

Eric found that joining the incubator was very beneficial and he has developed relationships with several persons there. These have in turn offered different types of support during firm development. Some have been important for networking activities,
discussions, arranging office space and providing opportunities for making the firm visible, whereas others have been important for emotional support, for informing about current activities or for arranging courses. Regarding the incubator Eric explains that:

I’m very positive towards Merinova. I think they nicely fill their function as a technology centre in the region. [...] They have also tried to arrange gatherings for the incubator firms, but I haven’t been very active in those. They are so different from the other incubator firms. So in that way the incubator hasn’t been of great use. Instead it is the incubator services that are important and Merinova’s own staff that have offered access to their networks and have been sparring partners. (Eric, Case E, Interview II)

In addition, the quote shows that even though Eric is a very social person and very active in networking, he networks consciously and purposefully. That is, he chooses consciously which occasions to participate in based on the expectations for advantages gained through them. Case E is the only case where relationships have been involved in the legal registration and also have offered benefits in this context. E15, a lawyer known to Eric from before and also recommended by E5, has been important for getting advice and documentation needed for the start-up. Searching for pilot buyers is an exploitation activity recurring in two rounds in case E, first for the mini pilot plant, then for the full-scale reference plant. Finding the pilot users for the mini pilot went smoothly by using Elias and E16 as brokers. However, even though all three pilot users from the first round were very positive and interested in renting a full-scale plant, it turned out to be very problematic to finally get a pilot buyer contract, for example, due to the founders messing up contracts and relationships.

For product development relationships have been beneficial in the same way as in some or even all of the other cases, that is, by offering advice, financing, manufacturing and technical knowledge as well as by participating in the development and supply of major parts of the product. When selecting suppliers for the development and manufacturing of the reference plant, Eric has only used actors known to him and explains as follows:

Now we’re building the reference plant and for that we use many suppliers. There are a lot of suppliers to choose among, but I chose the ones I did because I know the persons. [...] If we start with the main designer doing the technical drawings, I chose E27 and E28 as I knew them from before as they were doing technical design assignments at one of my previous workplaces [the firm within chemistry]. [...] And then through E27 and E28 I chose the one that was to build the plant... that is our core technology so for that I chose E29. [...] Then we have the power- and automation planning. There we have E30 and E31. [...] They have both attended the same course arranged by Merinova as I have and I got to know them there. [...] And as I don’t know automation myself I have to have someone that does and so it is really safe and secure to have someone from the gang that belongs to Merinova’s network. And Merinova is an active part owner in these houses so all of us who rent office places here belong to the Merinova-family. So in that way I chose them. (Eric, Case E, Interview II)

This shows that relationships and knowing each other have been the most important selection criteria for getting suppliers and cooperation partners in the early stage of the manufacturing at the plants.
Table 20  Benefits and drawbacks of relationships for opportunity exploration and exploitation in case E

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opportunity exploration activities</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Entrepreneurial insight** | Inspiration, belief in business opportunity (E5, E11)  
Thinking of being entrepreneurs → co-founders (E2) |  |
| **Entrepreneurial preparation** | Access to network (E1, E2)  
Market knowledge (E1, E2)  
Product knowledge (E2) | Difficult personality (jealous, suspicious, stubborn) → limits development of firm (E2)  
Inefficiency: Slow buying process in municipalities (E34) |
| **Opportunity identification** | Access to business opportunity and technology patent (E2)  
Access to potential buyers and/or retailers, also international (E4, E18)  
Contact link to inventor (E1)  
Identification of side opportunity (E24)  
Insight of product demand (first rent, rather than buy) (E22, E23, E24)  
International cooperation opportunity (E32, E33)  
Potential buyer, also international (E3, E4, E24, E34)  
Provision of international visibility (E34) |  |
| **Opportunity exploitation activities** |  |
| **Cooperation partners** | Access to network (E32)  
Cooperation negotiations (E32)  
Firm E as retailer (E32, E33)  
Supplier (E27, E28, E29, E30, E31) |  |
| **Development of business plan** | Advice (E5, E20)  
Documentation of technology (E8) |  |
| **Evaluation of business opportunity** | Emotional support (E5, E11, E22)  
First external evaluators of business idea (E5, E11) | Conflicting visions for firm (E2)  
Financiers hesitant towards E2 (due to financial background, personality, health problems, requirements) (E7, E12)  
Passiveness: passive part owner (E13, E14) |
| **Fund-raising** | Access to network (E9)  
Board member (E5, E8, E14, E25)  
Discussion partner (E5, E6, E7, E13, E14)  
Equity capital (E2, E14)  
Financial advice (E25)  
Financing (E5, E6, E7, E9, E11, E12, E13, E14, E21)  
Shared view on future vision (E5, E25)  
Trustworthiness, improves chances of getting financing (E10) |  |
| **Incubator and mentor programmes** | Access to network (E16)  
Arrangement of courses (E19)  
Discussion partner (E16)  
Emotional support (E17, E18)  
Information on current activities (E16, E18, E26)  
Office (E16)  
Support with visibility (E16, E20) |  |
<table>
<thead>
<tr>
<th>Legal registration</th>
<th>Advice (E15)</th>
<th>Documentation for start-up (E15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot buyers</td>
<td>Pilot user of mini pilot plant (E22, E23, E24)</td>
<td>Consequences of dissolving relationships: End of negotiations as E22 left firm (E22)</td>
</tr>
<tr>
<td></td>
<td>Potential pilot user of reference plant (E22, E23)</td>
<td>Mess up regarding pilot contract for full-scale reference plant with E24, end of negotiations (E2)</td>
</tr>
<tr>
<td></td>
<td>Pilot user of reference plant (E24)</td>
<td>Bureaucracy (E23)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inefficiency: Delays (E23)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack of courage to carry through business (E23)</td>
</tr>
<tr>
<td>Product development</td>
<td>Advice (E3)</td>
<td>Exploitative: Bad contract (E24)</td>
</tr>
<tr>
<td></td>
<td>Development and supply of major parts/systems for product (E27, E28, E29, E30, E31)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financing (E9, E11, E12, E13, E25, E26)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing knowledge (E29)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical knowledge (E2, E27)</td>
<td></td>
</tr>
</tbody>
</table>

In short, Table 20 shows that relationships have brought more benefits than drawbacks for opportunity exploration and exploitation in case E. However, compared to the other cases, case E has experienced more drawbacks of relationships. The benefits of relationships for opportunity exploration are diverse and relationships have been involved not only in identifying opportunities, but also in gaining insight, will and preparedness to become entrepreneurs and start a firm. For opportunity exploitation relationships have been beneficial in a vast number of different activities and ways. Compared to the other cases relationships involved in the business incubator programme have been perceived as offering many different benefits for case E. The benefits relationships bring for fund-raising and product development are also particularly evident.

5.6. Analysis of relationships

The analysis of relationships is conducted on the individual level from the perspective of the lead entrepreneur. For the five cases, a total of 117 unique relationships were identified, relationships which lead entrepreneurs associated with the critical events during pre-founding, start-up and early internationalisation. One relationship may have been involved in several events and may have changed strength between the events. Hence, the total number of relationships exceeds 117 in the analyses on relationship type and strength, and in type and/or strength in relation to critical events. The rationale being, that since I capture the dynamics of relationships it is logical to include relationships that changed in strength from one critical event to the other in these analyses. Any other solution would be to go against the data. However, I used unique relationships when it was appropriate and possible to focus on unique relationships as is illustrated in tables 21 (origin of relationships), 24 (dynamics in type) and 26 (dynamics in strength).
5.6.1. Origin of relationships

The lead entrepreneurs seem to rely on different strategies when it comes to what relationships have been involved in the critical events during the early firm development. The origins of the 117 unique relationships are described in table 21. These are either direct or indirect relationships of the lead entrepreneurs. The direct relationships are the entrepreneur's own relationships, relationships that he has created on his own either previously (at work, with friends and family members) or through formal search activities explicitly for the purpose of firm development. The indirect relationships in turn are relationships that the lead entrepreneur has gained through different brokers. The other founders have played a major brokerage role especially in cases where the founders' backgrounds differ from each other. This is particularly evident for the lead entrepreneurs in cases C and D. In case B, on the other hand, the two founders share the same education and work history and thus have similar networks. This explains why the other founder has not played a broker role in case B. In case C the two founders did not even know each other until the start-up of the firm and thus have very different backgrounds. The other founder has long-term experience within the firm's industry and has brokered many relevant relationships new to the lead entrepreneur. The reason behind the extensive use of the other founders as brokers in case D is probably because the founding team of the firm is large and consists of nine persons. Thus, collectively the members have diverse backgrounds and brokerage potential within their existing network. The lead entrepreneur has not yet felt the need to enlarge his network base beyond the relationships gained through the other founders. Using existing, personal relationships to build new networks is also emphasised by Andersson and Wictor (2003). The lead entrepreneur in case E, however, diverges in this sense as he has largely relied on new sources for relationships. This entrepreneur is a very sociable person with an impressive ability to recognise and grasp every opportunity for creating new contacts. This may explain the extensive use of relationships outside the existing network. While he has been very active in searching for new relationships himself, he has also identified and used different institutions and the business incubator as important brokers for new relationships.

The lead entrepreneurs in cases A, B and C have used a mixture of direct and indirect relationships that have originated to almost an equal extent from within and outside their existing network at the time of critical events (see table 21). In general, entrepreneurial relationships seem to be primarily based on the lead entrepreneur's or the other founders' professional experience. Former workplaces are a relevant source for the relationships involved in the critical events. Although the entrepreneur in Case B relies more on friends others rarely use this strategy. Family connections are not used extensively by any of the lead entrepreneurs, thus raising questions about the findings of Riddle and Gillespie (2003), Jack et al. (2004) and Jack (2005). In case D, the only case where family members have been used to any larger extent, the family members involved are all sons of the CEO and also co-founders of the firm.

How do lead entrepreneurs develop new relationships? The cases show that two different ways exist: through brokers or through formal search. The main brokers are other founders, different institutions, mentors and business incubators. The lead entrepreneurs in cases A, B and E have acquired new relationships through institutions as brokers. They mainly use government institutions and the programmes they offer to establish relationships with e.g. business incubators, mentors and financiers. New relationships with customers are also formed through them. Venture capital firms also form an important link to new relationships especially to other financiers and lawyers. Conversely in case D, some of the entrepreneurs already have corresponding
relationships to e.g. financing organisations and the business incubator through their existing professional networks. Therefore, the lead entrepreneur has not experienced any need to go through government institutions to create such relationships. Similarly in case C, institutions have not been used as brokers to new relationships. Here the lead entrepreneur perceives that government institutions are slow and inefficient. He therefore prefers to search for and approach new contacts alone or relies on his mentors for this. In fact, the entrepreneurs’ mentors and the business incubator constitute a link to new relationships for all cases. In case D, the mentor has not yet brought any new relationships that are involved in the critical events of early firm development. Nevertheless, there are high expectations on him to introduce the lead entrepreneur to new international customers. A similar situation exists in case C where the mentors are expected to help with developing customer relationships globally. The business incubator has in general brokered new relationships with a variety of different actors – part owners, mentors, financiers, customers, suppliers and government institutions.

As regards finding new relationships through formal search, the entrepreneurs actively search for new business connections using the Internet, telephone catalogues and industry magazines. They subsequently contact interesting actors directly. Eric explains as follows: “It is simply to pick up the telephone or knock on the door and say Hi this is me […]” (Eric, Case E, Interview I). Next to using the other founders as brokers, formal search is the most common way of gaining contact with new relationships. It is mainly used by lead entrepreneurs in cases A, C and E. The lead entrepreneur in case B mentioned that he deliberately avoided this way of making contacts. His experience is that it is more efficient and promising to approach new contacts by using brokers. For example, when approaching a new potential international customer (B22) he first contacted another local firm (B23) that he knew was doing business with B22. The lead entrepreneur in case B believes that the chance of being seen as a trustworthy and interesting business partner is considerably enhanced in this way.

Table 21  Lead entrepreneur’s direct and indirect relationships and their origins

<table>
<thead>
<tr>
<th></th>
<th>Case A</th>
<th>Case B</th>
<th>Case C</th>
<th>Case D</th>
<th>Case E</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lead entrepreneur’s direct relationships</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Created at former workplaces *</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Friends *</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Family *</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Through formal search **</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>6</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>12</td>
<td>8</td>
<td>5</td>
<td>13</td>
<td>48</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Case A</th>
<th>Case B</th>
<th>Case C</th>
<th>Case D</th>
<th>Case E</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lead entrepreneur’s indirect relationships</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other founders as brokers *</td>
<td>9</td>
<td>16</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>Friends as brokers *</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Former workplaces as brokers *</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Institutions as brokers **</td>
<td>3</td>
<td>8</td>
<td>7</td>
<td>18</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Mentor or business incubator as brokers **</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

* = relationships belonging to or gained from the lead entrepreneur’s existing network
** = relationships gained from outside the lead entrepreneur’s existing network
5.6.2. Type of relationships

The type of each relationship was evaluated by the informants according to the definitions of business and personal relationships used in the dissertation (see chapter 1.2) and placed on a continuum ranging from business to personal. The informants also provided their motivations for why they placed a relationship at a certain point on the continuum. When analysing the continua, five different combinations of type were evident from the interview data: business (B), more business than personal (Bp), equally business as personal (bp), more personal than business (bP) and personal (P) (see figure 21). About half (64/125 or 51%) of the relationships were regarded to be either entirely business or entirely personal, the remaining (61/125 or 49%) were placed somewhere in between. This shows that a considerable part of entrepreneurs' relationships are neither strictly business nor strictly personal and a need for a more nuanced differentiation exists. Table 22 shows the number of relationships for each case according to each type. This table includes all relationships that have been involved in critical events during pre-founding, start-up and early internationalisation. In general, these entrepreneurs seem to rely on business relationships (B) and relationships that are more business than personal (Bp) during pre-founding, start-up and early internationalisation. All types of relationships are found in all cases except for strictly personal relationships. Relationships of this type (P) have not been involved in critical events in case A and E.

![Figure 21 Continuum for type of relationship](image)

<table>
<thead>
<tr>
<th>Case</th>
<th>Business (B)</th>
<th>More business than personal (Bp)</th>
<th>Equally business as personal (bp)</th>
<th>More personal than business (bP)</th>
<th>Personal (P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>13</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>17</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>7</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>E</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td><strong>54</strong></td>
<td><strong>31</strong></td>
<td><strong>18</strong></td>
<td><strong>18</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

Table 22 Type of relationships for each case

Strictly business relationships (B) constitute the largest group of relationships and are found in 54 out of 125 relationships. These relationships are mainly new (n=45)
The division regarding importance for founding and early development of the firm is the following: 10 are decisive, 29 of some importance and 15 replaceable. Business relationships are often indirect (n=33) and brokered through institutions (n=13). They are also often a result of formal search (n=15) made by the lead entrepreneur. Strictly business relationships tend not to be brokers to other new relationships involved in critical events, as only 10 such relationships have acted as brokers. The lead entrepreneurs describe these relationships as being purely or strictly business or as only being involved in a business context.

Relationships that are more business than personal (Bp) is the second largest group of relationships as 31 of 125 relationships are noted to be of this type. These relationships are mainly new (n=26) relationships. In general these relationships are very heterogeneous. An almost equal amount have been decisive (n=14) as replaceable (n=12) for firm development. Thus, it is difficult to say something about their importance in general. The same applies to their tendency to act as brokers; about an equal amount have brokered new relationships with the lead entrepreneur, as those who have not. Also their origin varies as 13 are the lead entrepreneurs’ direct relationships found mainly through formal search and 18 are indirect relationships brokered mainly through other founders, institutions as well as mentors and the business incubator. The motivations mentioned by the lead entrepreneurs for this type of relationship show that they are mostly connected with business matters but that they also meet in private, informal settings or talk about personal things.

Relationships that are equally business as personal (bp) are found in 18 of the relationships. These are to almost an equal extent found in new (n=10) as in old (n=8) relationships. The relationships are mainly direct relationships (n=11) created at former workplaces or through formal search or indirect relationships brokered by the other founders (n=5). Of these, 12 relationships have not acted as brokers, whereas 6 have functioned as gateways to new relationships involved in critical events. The main part (n=11) of these relationships is considered to have been decisive for the early development of the firm. The lead entrepreneurs describe these relationships as involving both friendship and business for example as they share a common background by being schoolmates, workmates or relatives, or because they meet very often as they are co-workers or have lunch together. Some kind of personal warmth or shared personal interests in relationships that otherwise are maintained primarily due to the inherent business potential are also characteristic of this type of relationship (bp).

Relationships that are more personal than business (bP) account for only 12 of all relationships. These are heterogeneous as it comes to age, but are regarded to have been of some importance (n=7) or even decisive (n=4) for firm development. The main part of these relationships are the lead entrepreneurs’ indirect relationships (n=10) brokered by the other founders. These relationships tend not to be important for further brokerage as only 3 relationships have acted as a link to other relationships. The personal aspect is emphasised by the informants for example in the following ways: sharing personal information; personal touch in meetings and conversations; relationships based on friendship; being family friends; playing golf together.

Personal relationships (P) have been involved in critical events to a very limited extent, as only 10 of 125 relationships are regarded to be of this type. These are primarily old relationships (n=7) with family members (n=5) or friends (n=3). The three new relationships are brokered by the other founders. Although personal relationships have been used very sparsely by these cases in the critical events, those that have been are
regarded to have been important for firm development, with them being either decisive (n=5) or of some importance (n=4).

In summary, the tendency can be observed that business relationships are used to a larger extent in critical events of early firm development than personal relationships, when moving on the continuum ranging from business to personal. However, on an individual level, the importance of relationships for firm development increases when moving from business to personal relationships. Thus, business relationships are seen as less important for firm development than more personal relationships. The relationships are further analysed in chapter 5.6.4 for correlations between type and strength of relationships.

**Dynamics in the type of relationships**

The dynamics in the type of relationships were analysed to capture the change over time. Each relationship was evaluated at two different points of time: during the event in question and at the time of the interview. Table 23 indicates the dynamics in the type of relationships and shows that most relationships (n=61) have not changed direction. Of those that have changed, however, more relationships have developed in a personal (n=14) than a business (n=5) direction. In particular, the lead entrepreneur in case B had relatively more relationships that had become more personal. These had mainly developed from being entirely business relationships (B) to becoming more business than personal (Bp) as they had learned to know each other better and also talk about personal things. In cases C and D, relationships develop from being more business than personal (Bp) to becoming equally business as personal (bp) relationships. Only one relationship has developed into becoming considerably more personal. This is relationship D1 with the inventor and co-founder of firm D. David explains that, “A very personal relationship has developed. He lives at our place when he is visiting the firm and my wife and I have been visiting him and his wife both at their home and at their summer cottage. They are a very sympathetic couple.” This shows that friendship has developed, and that the parties meet also in truly personal settings.

A common occurrence for most relationships developing in a personal direction is that the parties work on a regular basis together with the lead entrepreneur as they either are co-founders (cases C and D), mentors (cases B and C), employees (cases B and D) or representatives of part-owners (case B). In general it is seen as purely positive that relationships develop in a personal direction. The only exception is B14, a relationship to a representative of a part owning firm. Here Ben mentions that they explicitly try to keep the relationship ‘objective’ and do not want it to develop in a too personal direction. The reason for this is that as the part owning firm has its own interests in the firm by also being a manufacturer of firm B’s products, the person, who is not working in the part owning firm, is if possible kept as an objective, neutral part between the two firms.

Very few relationships have developed in a business direction. However, the ones in case B were all with people that before had been purely friends and then as a consequence of the relationships being involved also in business cooperation, they have become equally business as personal. In cases A and D, relationships have developed in a business direction due to persons changing in contact organisations. This shows that the type of a relationship with an organisation sometimes depends on a particular person in it. Sometimes the lead entrepreneur either did not feel the need to or could not evaluate the development of a relationship’s strength. This was particularly the case
for very new relationships (n=27), relationships that had been brokered through other founders (n=5) or relationships that will not continue (n=3).

Table 23  Direction of change in type of unique relationships

<table>
<thead>
<tr>
<th></th>
<th>Case A</th>
<th>Case B</th>
<th>Case C</th>
<th>Case D</th>
<th>Case E</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>More personal</td>
<td>0</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>More business</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Unchanged</td>
<td>13</td>
<td>10</td>
<td>10</td>
<td>13</td>
<td>15</td>
<td>61</td>
</tr>
<tr>
<td>Information missing due to newness of relationship</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>Information missing for other reason</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>23</strong></td>
<td><strong>20</strong></td>
<td><strong>21</strong></td>
<td><strong>34</strong></td>
<td><strong>117</strong></td>
</tr>
</tbody>
</table>

5.6.3. Strength of relationships

The strength of each relationship was evaluated by the informants according to the definitions of strong and weak relationships used in this dissertation (see chapter 1.2) and placed on a continuum ranging from strong to weak. The informants also provided their motivations for why they placed a relationship at a certain point on the continuum. When analysing these continua, five different levels of strength were evident from the interview data: strong (S), more strong than weak (Sw), equally strong as weak (sw), more weak than strong (sW) and weak (W) (see figure 22). The labels for these five levels were derived from the informants’ explanations. Only 43 of 122 relationships (35%) were regarded to be either completely strong or completely weak. The remaining 79 (65%) were placed somewhere in between. This indicates a need for a more nuanced differentiation when referring to strength of relationships instead of only two distinct categories – strong or weak. Table 24 shows the number of relationships for each case according to each level of strength. This table includes all relationships that have been involved in critical events during pre-founding, start-up and early internationalisation. In general, these entrepreneurs seem to rely on stronger (S, Sw) and equally strong as weak (sw) relationships rather than weaker (sW, W) ones during pre-founding, start-up and early internationalisation. Relationships of all different levels of strength are found in all cases except for entirely weak relationships that are not found in case B.

![Figure 22: Continuum for strength of relationship](image)
Table 24  Strength of relationships for each case

<table>
<thead>
<tr>
<th></th>
<th>Case A</th>
<th>Case B</th>
<th>Case C</th>
<th>Case D</th>
<th>Case E</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong (S)</td>
<td>2</td>
<td>14</td>
<td>5</td>
<td>8</td>
<td>9</td>
<td>38</td>
</tr>
<tr>
<td>More strong than weak (Sw)</td>
<td>8</td>
<td>6</td>
<td>11</td>
<td>6</td>
<td>11</td>
<td>42</td>
</tr>
<tr>
<td>Equally strong as weak (sw)</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>28</td>
</tr>
<tr>
<td>More weak than strong (sW)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Weak (W)</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21</strong></td>
<td><strong>25</strong></td>
<td><strong>21</strong></td>
<td><strong>22</strong></td>
<td><strong>33</strong></td>
<td><strong>122</strong></td>
</tr>
</tbody>
</table>

Entirely strong relationships (S) constitute 38 out of 122 relationships. These relationships are heterogeneous when it comes to type (personal-business) and age. Of these 38 relationships 16 are old and 22 are new. Thus, even new relationships may be perceived as entirely strong. This diverges from earlier research stating that strong relationships tend to be old ones (see Mønsted 1995). The entirely strong relationships include strictly business relationships, friends as well as family ties. A common pattern to emerge is the importance of the relationship for the development of the firm – 20 strong relationships have been decisive and 16 relationships of some importance for the founding and early development of the firm. Only two relationships are replaceable. Strong relationships are often described with the following words: open, generous, psychically close, mutual trust, active participation and inspiration. The lead entrepreneur in case E explains why the relationship with a representative from the venture capitalist firm investing in the start-up is seen as strong: “It worked between us. We spoke the same language, so it was very easy and fun to work with him”. Thus, the personal chemistry worked and they understood each other well. This person eventually left the venture capital firm and a new representative was appointed. This new relationship, however, immediately became a strong one because of shared vision and trust.

Relationships that are more strong than weak (Sw) constitute the largest group of relationships with it having 42 relationships. Interestingly the majority (n=33) are new relationships, that is, a larger proportion of new relationships are found among these relationships than among the entirely strong ones. The distribution regarding importance for the founding and early development is more even than for strong relationships, as 13 relationships have been of decisive importance, 19 of some importance and 10 are replaceable. Thus, relationships at this level are not equally important as the entirely strong ones. Nevertheless, these relationships are described with the same words as the entirely strong relationships such as open, honesty, trust, actively involved and enthusiasm. The entrepreneur in case A justifies the strength of one relationship as more strong than weak in the following way: “Since they have confidence in this project and in me too, they want it to succeed and they have been involved by giving advice.”

Relationships that are equally strong as weak (sw) are found in 28 relationships. Intuitively one could question if a relationship could really be equally strong as weak or whether this represents a group of relationships that the lead entrepreneurs could not easily categorise according to strength. This seems to be the case for some of the relationships as the entrepreneurs expressed difficulty in determining the strength, especially as the amount of new relationships was high in this category (22 new and 6 old relationships). Several explanations, however, confirm that the relationships were indeed equally strong as weak. As the entrepreneur in case A states regarding an old relationship with a potential retailer in Sweden, “Sometimes it feels that they are not
really into it, sometimes they are really inspired and have great expectations”. This shows uncertainty about the relationship and that it is hard to understand. The entrepreneur in case C had a similar experience when one of the representatives for a large firm was really optimistic and positive during the negotiations, but when it came to signing the contract he offered them a really bad deal which would have meant the end of the firm.

Several relationships of this strength (sw) are described in a positive way. For example, the entrepreneurs are very satisfied with the relationships as well as the quality of their products and find them to show interest and willingness to help. They are, however, easily replaceable or only sporadically involved, which according to the entrepreneurs weakens them. This is illustrated by the following two quotations. The first is made by the entrepreneur in case A about a supplier: “[A17] could be replaced by someone cheaper. [...] But I have been very satisfied with their work. It would be stupid to take a chance. It is good to have them as you know what you get.” The second comes from the lead entrepreneur in case B regarding relationships with friends/colleagues at a former workplace: “if the relationship is strong or weak depends on the situation. We are immediately on the same wave length when we talk on the phone or meet. But on the other hand we don’t have so much to do with each other, it happens now and then. But in principle we could start immediately from where we last ended.” Relationships of this strength often have some kind of imbalance mainly due to passiveness. In general, relationships of this strength seem to be heterogeneous as it comes to their importance for the founding and early development of the business; eight were decisive, 11 were of some importance and 9 replaceable. Nevertheless, the lead entrepreneurs are inclined to wish that these relationships should be continued and strengthened (n=20), often because of the potential benefits that they could bring. They explicitly hoped for only four relationships to come to an end and were indifferent about five other relationships.

The advantages with relationships of this strength are that they often play a brokerage role to new relationships, have the potential for additional business opportunities both nationally and internationally and contribute with financing and absent competencies. The disadvantages are, however, uncertainty regarding the future of the relationships, unprofessionalism and arrogance. I found clear examples where these relationships were influenced by emotional factors (e.g. fear of being offended and exposed to false rumours spread by the other party if the relationship was ended), relational factors (e.g. the relationship is a long-term relationship of another founder, or an influential person in a potentially important firm) and contextual factors (e.g. the smallness of the new firm implying limited negotiation power as well as dependence on others for financing and knowledge).

More weak than strong relationships (sW) account for only 9 of all relationships and are found in limited numbers in all cases. These relationships are mostly with financiers who are described as passive, faceless or invisible. One difference is a relationship described by the lead entrepreneur in case A, which is a new relationship with an advertising agency. Although the agency is very good and its services are needed, the relationship will be discontinued. The services offered are too expensive for a small resource poor firm such as case A. The relationships of this strength are mainly new (n=8) and all nine relationships are replaceable.

Entirely weak relationships (W) are the smallest group, only 5 relationships, and are completely absent from case B. The weak relationships in cases A, C and D are new relationships. In addition, they are considered to be either easily replaceable or only temporarily involved in the business, so called one-project-relationships. The weak relationships in case E are not new, but originate from the lead entrepreneur’s previous
work. They are now sporadically involved as discussion partners and/or potential customers, but are currently perceived to be of minor importance for the firm.

*Dynamics in the strength of relationships*

The dynamics of the relationships were analysed to capture the change in strength over time. As mentioned earlier the strength of each relationship was evaluated at two different points of time: during the event in question and at the time of the interview. Table 25 indicates the dynamics of relationships in terms of strength and shows that most relationships (n=60) have not changed direction. Of those that have changed, however, almost an equal number of relationships have developed in a stronger direction (n=11) as those that have become weaker (n=8). In particular, the lead entrepreneur in case B had a relatively greater number of relationships that had developed in a weaker direction. A common occurrence for those relationships was that the frequency of interactions had become more sporadic. The same applies to the relationship described by the lead entrepreneur in case E. Thus, it seems that in case B and E the frequency of contact has an impact on the more subjective attributes of strength such as closeness and trust. The weakening relationship of the lead entrepreneur in case D occurred because the contact person at a firm left thus affecting the relationship with that firm. This shows that also the strength of a relationship with an organisation sometimes depends on a particular person.

The main reason for a relationship to develop in a stronger direction, however, was that partners became better acquainted or as in the case of lead entrepreneur A that the partner developed more confidence in A’s business idea. According to the lead entrepreneur in case B relationships developed in a stronger direction because of increased efficiency, smoothness of relationship and that they got along better or learned to know each other better. Thus, it seems as though traits which make relationships emotionally closer influences the strength positively. In some cases the lead entrepreneur either did not feel the need to or could not evaluate the development of a relationship’s strength. This was particularly the case for very new relationships and sometimes for relationships that had been brokered through other founders.

*Table 25  Direction of change in strength of unique relationships*

<table>
<thead>
<tr>
<th></th>
<th>Case A</th>
<th>Case B</th>
<th>Case C</th>
<th>Case D</th>
<th>Case E</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stronger</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Weaker</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Unchanged</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>13</td>
<td>14</td>
<td>60</td>
</tr>
<tr>
<td>Information missing due to newness of relationship</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Information missing for other reason</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>19</td>
<td>23</td>
<td>20</td>
<td>21</td>
<td>34</td>
<td>117</td>
</tr>
</tbody>
</table>

*5.6.4. Type and strength of relationships*

In this section the relationships are analysed for type and strength simultaneously in order to explore potential connections between the two dimensions. In table 26 the different combinations of type and strength existing among the relationships involved in the early firm development can be seen. Interestingly, strictly business relationships are found on all different levels of strength. Similarly, entirely strong relationships and
relationships that are more strong than weak also exist in all different types of relationships from strictly business to entirely personal. In fact, entirely strong relationships seem to be almost equally common in all different types of relationships. This shows that it is not possible to assume that business relationships are weak, or that strong relationships only are personal. That is, type and strength of relationships are two different things, something that most of the extant research has not paid attention to. Instead, strength of relationships has often been defined by using the type of relationships, for example, strong relationships have been defined as relationships to family and friends, whereas weak relationships have been defined as relationships to acquaintances, business partners and colleagues (e.g. Brüderl & Preisendörfer, 1998; Lin et al 1981; Granovetter, 1982; Singh, 2000).

The most common combinations of type and strength occurring in the study are strictly business relationships that are either equally strong as weak (Bsw) or more strong than weak (BSw). In general, the findings show that the business relationships involved are often stronger rather than weaker ones. Personal relationships are stronger relationships and no weaker personal relationships have been used at all by the entrepreneurs in the critical events during early firm development. The combinations totally absent from the data in this study are hence PW, PsW, Psw, bPW, bPsw, bpW, bpsW and BpW. The equally strong as weak relationships (sw) that often involve some kind of uncertainty tend to be business relationships. This was also evident from the fact that these relationships often were kept due to the business potential inherent in them. The middle type of relationships that are equally business as personal tend to be stronger relationships. On the other hand, weak relationships are in general used very sparsely by the entrepreneurs and therefore not found to any larger extent in any of the different types of relationships.

When conducting further analyses on the characteristics (e.g. age, importance, origin and brokerage role) of the relationships, most combinations of type and strength include relationships that are old or new, direct or indirect, of varying origins and relationships that have played a brokerage role and those that have not. That is the combinations include heterogeneous relationships. Further analyses, however, show that BpS and bpS relationships are regarded to have been most decisive for early firm development.

Table 26  Relationships according to type and strength

<table>
<thead>
<tr>
<th></th>
<th>S</th>
<th>Sw</th>
<th>Sw</th>
<th>sW</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>10</td>
<td>17</td>
<td>18</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Bp</td>
<td>8</td>
<td>12</td>
<td>7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>bp</td>
<td>8</td>
<td>7</td>
<td>3</td>
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<td></td>
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<td>bP</td>
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</tr>
<tr>
<td>P</td>
<td>9</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dynamics in the type and strength of relationships

When analysing those relationships that had changed in direction either regarding type or strength simultaneously, interesting results appear (see table 27). Slightly more relationships had developed on only one dimension (n=14), than those that had developed on both dimensions (n=12). This means that a relationship may change in strength without changing type or vice versa. In addition, all different changes on only one dimension seem to be equally likely to occur.
Of those relationships that had changed on two dimensions, that is, both regarding type and strength, from one event to the other or from one event to the time of interview II, seven relationships had become more personal and stronger. This is a development that seems logical. All, except for one, of the relationships are new relationships and as the parties get to know each other better, they feel closer and the relationships become personal. For example, as the three employees in case B showed loyalty and commitment towards the firm also during the problematic time when financial problems and chaos characterised the firm, Ben felt that the relationships developed in a more personal and stronger direction. In cases C and D, new relationships to another founder, which from the beginning was mostly business related and not that strong, have with time developed into becoming stronger as the persons have got to know each other better, trust each other and feel closer to one another. The relationships have also got more personal as they work together and are involved also in each other’s personal lives and visit each other’s homes. However, we can also see that three relationships had become more personal but yet weaker. These are all found in case B. Ben explains the reason for this is that on the one hand the parties have got to know each other better and thus the relationships feel more personal, but on the other hand the help and support offered by the relationship is not needed as often anymore and thus it feels weaker. That is, this development is possible on occasions where the entrepreneur considers strength to be impacted by either frequency of contact or of the declining importance of the relationship for the development of the firm. No examples of relationships that simultaneously had changed towards becoming more business related and stronger were found in this study, whereas two relationships had become stronger but yet weaker. In common to both was that they were firms where the contact person had changed; in case A as a consequence of a succession in the firm and in case D as a consequence of the CEO of the firm changing workplace.

**Table 27  Direction of change in type and strength of unique relationships**

<table>
<thead>
<tr>
<th>Relationships changed on only one dimension</th>
<th>Relationships changed on two dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>More personal</td>
<td>More personal + Stronger</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>More business</td>
<td>More personal + Weaker</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Stronger</td>
<td>More business + Stronger</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Weaker</td>
<td>More business + Weaker</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>

5.7. **Analysis of relationships’ involvement in critical entrepreneurial and internationalisation events**

This section analyses the relationships according to type, strength and origin in relation to their involvement in opportunity exploration and exploitation during the critical entrepreneurial and internationalisation events related to pre-founding, start-up and early internationalisation.

Table 28 shows the number of relationships involved in exploration and exploitation of business opportunities during these phases according to the type (personal-business) of the relationships, whereas table 29 shows the number of relationships according to their level of strength (strong-weak) and table 30 summarises the origin of the relationships involved in the different phases.
Table 28  Type of relationships involved in entrepreneurial and internationalisation events

<table>
<thead>
<tr>
<th>Case</th>
<th>Entrepreneurial Events</th>
<th>Internationalisation Events</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-founding phase</td>
<td>Start-up phase</td>
</tr>
<tr>
<td></td>
<td>Exploration</td>
<td>Exploitation</td>
</tr>
<tr>
<td>B</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>B</td>
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</tr>
<tr>
<td></td>
<td>C</td>
<td>1</td>
</tr>
<tr>
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<tr>
<td>bp</td>
<td>A</td>
<td>1(2)</td>
</tr>
<tr>
<td></td>
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</tr>
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</table>

Note: The first number is the number of unique relationships involved in critical events in that phase of firm development (when one relationship is counted only once). The number within brackets is the total amount of relationships involved in critical events in that phase (one relationship can be involved in multiple events in each phase). For example, the numbers 9(10) for business relationships in case A for exploitation activities during the start-up phase mean that 9 different relationships have been involved in critical entrepreneurial events relating to exploitation of the business opportunity in the start-up phase in case A. However, one of these 9 relationships has been involved in two different events and thus in total 10 relationships have been involved in critical events during this phase in case A.
### Table 29  Strength of relationships involved in entrepreneurial and internationalisation events

<table>
<thead>
<tr>
<th>Case</th>
<th>Pre-founding phase</th>
<th>Start-up phase</th>
<th>Internationalisation events</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Exploitation</td>
<td>Exploration</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
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<td>C</td>
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<tr>
<td>E</td>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>C</td>
<td>3</td>
<td>1</td>
<td>2(3)</td>
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<td>D</td>
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</tr>
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</tr>
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<tr>
<td>sW</td>
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Note: The first number is the number of unique relationships involved in critical events in that phase of firm development (when one relationship is counted only once). The number within brackets is the total amount of relationships involved in critical events in that phase (one relationship can be involved in multiple events in each phase). For example, the numbers 3(4) for strong relationships in case C for exploration activities during the pre-founding phase mean that 3 different relationships have been involved in critical entrepreneurial events relating to exploration of the business opportunity in the pre-founding phase in case C. However, one of these three relationships has been involved in two different events and thus in total four relationships have been involved in critical events during this phase in case C.
Table 30  Lead entrepreneur’s direct and indirect relationships involved in entrepreneurial and internationalisation events according to strength

<table>
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<tr>
<th>Origin of relationship</th>
<th>Strength</th>
<th>Entrepreneurial events</th>
<th>Internationalisation events</th>
<th>Total</th>
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<td>Start-up phase</td>
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<td></td>
<td>Early internationalisation</td>
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<td></td>
<td>Sw</td>
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<td>10</td>
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<td>sw</td>
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</tr>
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<td>• Within existing</td>
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<td>15</td>
<td>3</td>
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<td>network (relationships</td>
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<td>4</td>
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<td>-</td>
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<td>created at former</td>
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<td>2</td>
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<td>network (formal search)</td>
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<td>9</td>
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<td></td>
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<td>27</td>
<td>9</td>
</tr>
<tr>
<td>• Outside existing</td>
<td>S</td>
<td>-</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>network (institutions,</td>
<td>Sw</td>
<td>-</td>
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<td></td>
<td>W</td>
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<td>Total</td>
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<td>7</td>
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5.7.1.  Relationships’ involvement in pre-founding

In the pre-founding phase relationships of all different types ranging from strictly business to entirely personal are involved to almost an equal extent (see table 28). This applies both to exploration activities that is the search and recognition of opportunities and to exploitation activities, the early evaluation of the opportunities. However, when
having a look at the strength of relationships mainly (S) and (Sw) relationships have been involved (see table 29). This means that entrepreneurs primarily involve close relationships based on trust, mutual respect, commitment, deep knowledge and experience of each other in the pre-founding phase. An example of how a strong relationship is used in the pre-founding phase relates to Ben and Bob (S) who are the founders of case B. They are close friends, and have known each other from the 1980s when they were schoolmates. They were subsequently work colleagues on projects in Norway and Sweden mainly within the nuclear power industry. While they were working with annual maintenance revisions they recognised a problem – maintenance personnel were exposed to four times as much radiation as others in the nuclear power plant. They discovered that this was mainly because the insulations were often damaged and difficult and time consuming to change. Together Ben and Bob started to plan a solution, insulation module systems, that they developed over several years before they took the decision to start a firm. Hence Bob has been involved in several critical events in the pre-founding phase – two regarding the exploration of the business opportunity and three about exploitation of it.

An illustrative example of how a Sw relationship is involved in the exploration of a business idea is found in case A. The business idea originally came from a previous employer (A1) who had approached Adam several times inquiring about his interest in starting a business which develops and sells a demolition robot. Adam describes this as follows:

In 2005 I visited A1 for another reason and then he again asked if I’m not interested in taking over the whole thing. I said; what do you mean? And he answered, well, I have contacts and I have got requests to manufacture machines like these, but I simply do not have the time. (Adam, Case A, Interview I)

The relationships involved in the pre-founding are primarily the entrepreneurs’ existing relationships formed through previous workplaces or relationships gained through the other founders (see table 30). This applies both to exploration and to exploitation activities. The extensive use of existing relationships in the pre-founding phase may be a sign of the entrepreneurs’ desire to discuss the potential business idea with known persons who they feel are loyal to them. Relationships C1 and E11 are the only relationships involved in the pre-founding phase that originate from outside the lead entrepreneurs’ existing network. C1 is Carl’s relationship with the other founder, Colin (BpSw). Here the two founders did not know each other beforehand. Carl was looking for work and by coincidence found Colin’s firm on the Internet. Colin had some thoughts on a new product, but lacked the technological knowledge needed. Since Carl had that knowledge they decided to jointly start a new firm.

Relationship E11 (BpSw) is Eric’s relationship with the finance manager at Finnvera. After formal search procedures Eric contacted this person in order to get his opinion about the business idea. E11’s emotional support, inspiration and trust in the idea as well as in Eric were then decisive to the decision to start the firm. In this way, E11 was involved in exploitation activities during pre-founding.

From table 30 it is evident that relationships involved in this phase both among the lead entrepreneur’s direct and indirect relationships are of different strengths that range from entirely strong to entirely weak. A closer look at the strength shows that relationships originating from former workplaces vary in strength from strong to weak, while the friend and family ties involved are all entirely strong. Relationships gained through the other founders are on the stronger side (S, Sw, and sw).
Direct relationships within the existing network, particularly the other founders and former workplaces, often function as bridges to new relationships already in the pre-founding phase. In case A, one of the first things that Adam did after the offer from A1 (his previous employer) was to meet the retailers that had asked for the demolition robot in order to investigate the demand. These were A4 (Sw) from Sweden and A5 (Sw), A6 (Sw) and A7 (W) from the USA. The relationships with A4 and A5 came through A1, and to A6 and A7 through A5. On the other hand, indirect relationships outside the lead entrepreneurs’ existing network were not at all involved in this phase.

5.7.2. Relationships’ involvement in start-up

The relationships involved in the start-up phase are mainly used in exploitation activities. In exploration activities, that is, activities primarily about identifying additional business opportunities very few relationships are involved. Those involved are mainly business relationships (B or Bp) as well as stronger ones (S or Sw). Relationships involved in exploitation activities during the start-up phase are involved in various activities such as developing the business plan, financing the start-up as well as developing and testing the product. Even though all types of relationships are involved in this phase, most relationships are B or Bp relationships. The other three types of relationships are used to the same extent (see table 28). Relationships of all different levels of strength are involved in exploitation activities in this phase, but most are (S), (Sw) and (sw) relationships (see table 29). Relationship A11 (S) illustrates the vital help that an institutional mentor gave in the start-up phase:

I get help [from A11] when I need it, or mostly it is perhaps not directly help, but sparring – discussing a question back and forth [...] For me everything is very simple – you see a problem, that’s it. But he can easily split that problem into pieces and then it is much easier to do something about it. You see it in another way than as a big burden that you don’t know how to deal with. (Adam, Case A, Interview II)

A very decisive relationship for case B in the start-up phase is Ben’s previous employer B9 (S). From there the entrepreneurs received invaluable support and help when starting firm B. As Ben states:

We told the founder of B9 about our product idea and then we didn’t even know what or how but he said ‘just come here’. It was like this: He gave us the keys to their firm and said ‘here are the keys, come and go as you wish, order material as you want and pay if you can’. And we agreed that if it [the product idea] becomes anything and if B9 wants to, they would be the first to be partners in our firm. (Ben, Case B, Interview II)

This is also an example of how an existing relationship may contribute with extensive emotional, material and financial support during the early firm development. However, in general the relationships involved in the start-up phase originate to a larger extent from outside the entrepreneurs’ existing network (n=53) than from within it (n=45) (see table 30). This shows that it becomes necessary to complement existing relationships with new ones during the start-up phase. Regarding the new relationships originating from outside the existing network, the three different sources of formal search, institutions as well as mentors or business incubator are used to almost the same extent. Interestingly, an analysis of the strength in relation to origin shows that relationships of all strengths are found both within and outside the existing network. Thus, even new relationships originating from formal search, institutions, mentors or the business incubator may be quite or entirely strong from the very beginning.
The number of indirect relationships gained through brokers increases and is used more extensively than direct relationships in this phase (see table 30). In fact, the largest single source for the relationships involved are the other founders, resulting in relationships of different strengths, particularly S, Sw and sw relationships. Among the lead entrepreneur’s direct relationships most come through formal search activities. More family and friendship relationships are involved in this phase than during the other phases. Nevertheless, the amount of these types of relationships is small also in this phase.

5.7.3. Relationships’ involvement in early internationalisation

The early internationalisation of the five case firms mainly includes exploration activities, and thus the relationships involved in this phase mainly belong to exploration activities. These relationships are of all different types, however, the largest group is strictly business relationships (see table 28). Exploitation activities mainly relate to case B, whose export intensity is 90-95 per cent. For exploitation activities strictly business relationships is the only group present, except for one relationship (B6) being entirely personal.

The strength of the relationships involved in the early internationalisation phase are (S), (Sw), (sw) and (W), with (Sw) being most common for both exploration and exploitation activities (see table 29). In case E, the lead entrepreneur Eric has through formal search activities and a bit of luck, developed new relationships with three different international actors. These are: E32 a Norwegian firm with whom a potential cooperation opportunity could be developed involving joint biogas systems; E33 an American firm from whom firm E could get a Finland or Europe-wide license for a complementing cleaning technology; and E34 a potential Swedish buyer. Even though being new all these relationships are Sw. Unfortunately, the two founders’ diverging opinions regarding the vision for the firm’s future, will most probably mean that the international opportunities explored by the lead entrepreneur with E32 and E33 will not be exploited by firm E.

In the early internationalisation phase the lead entrepreneurs in general seem to rely on brokers (see table 30). The other founders, former workplaces, institutions as well as mentors and the business incubator are used for brokerage. In cases A and D the brokers’ existing international relationships with potential customers and retailers, were even decisive for the entrepreneurs’ decision to start a firm in the first place. For example, in case D two of the other founders had developed important relationships with partners within the wind power industry in countries such as Norway and China, through their work in other firms. These relationships have now been transferred to the lead entrepreneur and firm D and constitute important potential buyers and retailers. In case B the first order came from B7 (Sw) the month after the start-up, as some school friends (B6, S) of Ben and Bob acted as gatekeepers to B7. B7 is a large MNE and through this relationship B’s products are found worldwide. B has recently acquired a new large customer, an MNE in Germany (B22) and a competitor of B7. Also for the relationship with B22 (Sw) brokerage was used as an entry strategy as this relationship came through another firm (B23, sw) who has done business with B22 for a long time. Ben learned to know B23 during an institutionally arranged project with the aim of building a regional network for suppliers of large industry firms.

Three of the cases (B, C and D) have formal business mentors supporting them in the development of the firm. The mentors have been considered important in order to
compensate for the shortages existing in the entrepreneurs’ own sales and marketing capabilities. Also existing research has identified insufficient sales and marketing know-how as a common problem experienced by INVs (Loane et al., 2007). The mentors are either retired or active businessmen and are also considered to be vital for the internationalisation phase. Case C provides an illustrative example regarding the two mentors C18 (Sw) and C19 (Sw) which the lead entrepreneur has very high expectations for as sources for international relationships and for international business opportunities. Both mentors have extensive international experience and large international networks that are expected to propel forward the firm’s internationalisation. Also Ozgen and Baron (2007) have identified mentors to facilitate opportunity exploration for entrepreneurs.

5.7.4. Relationships’ involvement according to type and strength

Next, relationships are analysed simultaneously regarding type and strength in relation to their involvement in entrepreneurial and internationalisation events in the three phases of early firm development. This analysis is done in order to possibly identify if some specific combinations of type and strength are more common than others in some phases or some activities.

When interpreting the results one has to bear in mind that as the different combinations possible becomes numerous, a specific combination comes to contain only a few relationships. This limits the possibilities of drawing any stronger conclusions based on this dataset. However, the analysis does show that the tendency exists that particularly in exploitation activities within the start-up phase the most unique relationships used are Bsw, BSw and BpSw relationships (see table 31). Also in internationalisation events BSw relationships are used the most, whereas in the pre-founding phase relationships with a stronger personal dimension are used the most, i.e. PS and bpSW relationships. In general, however, many different combinations are used in all different phases and activities. In particular, this is evident for exploitation activities in the start-up phase. For example, strictly business relationships (B) of all different levels of strength are used to a considerable extent. The same applies to Bp relationships that used all strengths except for entirely weak ones.

The findings also show that the combinations of relationships mostly used are not necessarily the combinations perceived to have been most decisive for firm development. As mentioned in chapter 5.6.4 BpS and bpS relationships were namely regarded to have been most decisive for early firm development. When taking a closer look at these two combinations, one can conclude that BpS relationships have to some extent been used in exploration as well as exploitation activities in the entrepreneurial events, but not in any internationalisation events. In exploitation activities in the start-up phase they have in fact been used quite frequently, as 8 unique and in total 20 relationships of this combination of type and strength have been involved in critical events in this phase. As far as the bpS relationships are concerned they have been involved in exploration activities in the pre-founding and early internationalisation phases and exploitation activities within the pre-founding and start-up phases. However, particularly in the start-up phase they have been used to a considerably lesser extent than many of the other combinations.
Table 31  Types and strength of relationships involved in entrepreneurial and internationalisation events

<table>
<thead>
<tr>
<th></th>
<th>Pre-founding phase</th>
<th>Start-up phase</th>
<th>Internationalisation Events</th>
<th>Early internationalisation phase</th>
</tr>
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<td></td>
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<td>Exploitation</td>
<td>Exploration</td>
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</tr>
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</tr>
<tr>
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<td>12(16)</td>
<td>5(7)</td>
</tr>
<tr>
<td>Bsw</td>
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</tr>
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<td>1(2)</td>
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<td>1(2)</td>
<td>11(18)</td>
</tr>
<tr>
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<td>1</td>
<td>5(9)</td>
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</tr>
<tr>
<td>BpSws</td>
<td></td>
<td></td>
<td>4(6)</td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>bpS</td>
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<td>2(3)</td>
<td>4(8)</td>
<td>1(2)</td>
</tr>
<tr>
<td>bpPs</td>
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<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
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</tr>
<tr>
<td>BPW</td>
<td></td>
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<tr>
<td>bPS</td>
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</tr>
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</tr>
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<td>3(7)</td>
<td>1</td>
<td>9(18)</td>
</tr>
<tr>
<td>Psw</td>
<td></td>
<td></td>
<td>1</td>
<td>2(3)</td>
</tr>
<tr>
<td>PSW</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PW</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

5.7.5. Types of relationships involved in opportunity exploration and exploitation

In summary, types of relationships have been analysed regarding their involvement in exploration and exploitation activities during firm development. As can be seen from table 32, in particular B, Bp and bp relationship are involved in identification of business opportunities. However, also bP and P relationships are to some extent involved in opportunity exploration. For realising an identified opportunity, that is, to evaluate, implement and commercialise it all cases except for D mainly rely on B and Bp relationships. In case D, however, P relationships are used to a considerable extent due mainly to the large team of founders being connected through personal relationships.
Table 32  Types of relationships involved in exploration and exploitation activities

<table>
<thead>
<tr>
<th>Type</th>
<th>Case</th>
<th>Exploration</th>
<th>Exploitation</th>
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<tbody>
<tr>
<td>B</td>
<td>A</td>
<td>4(5)</td>
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<tr>
<td></td>
<td>B</td>
<td>5(7)</td>
<td>16(25)</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>1</td>
<td>7(10)</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>1(2)</td>
<td>2(3)</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>4</td>
<td>11(16)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15(19)</td>
<td>48(67)</td>
</tr>
<tr>
<td>Bp</td>
<td>A</td>
<td>2</td>
<td>4(8)</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>1</td>
<td>5(11)</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>6(8)</td>
<td>14(26)</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>1(3)</td>
<td>4(12)</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>3(4)</td>
<td>29(59)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10(15)</td>
<td>29(59)</td>
</tr>
<tr>
<td>Bp</td>
<td>A</td>
<td>2(4)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>1</td>
<td>3(6)</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>3(4)</td>
<td>3(5)</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>2</td>
<td>2(4)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9(12)</td>
<td>13(20)</td>
</tr>
<tr>
<td>bP</td>
<td>A</td>
<td>2(4)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>1</td>
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<tr>
<td></td>
<td>C</td>
<td>1(3)</td>
<td>4(7)</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>4(13)</td>
<td>1(3)</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3(7)</td>
<td>12(24)</td>
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<tr>
<td>P</td>
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<td>B</td>
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<tr>
<td></td>
<td>C</td>
<td>2(5)</td>
<td>6(18)</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>Total</td>
<td>5(10)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10(28)</td>
<td></td>
</tr>
</tbody>
</table>

5.7.6. **Strength of relationships involved in opportunity exploration and exploitation**

Finally, the strength of relationships has been analysed regarding involvement in exploration and exploitation activities during firm development. Within exploration of business opportunities, i.e. in activities like search, discovery and running across problems, all cases mainly include S and Sw relationships (see table 33). Relationships that are more weak than strong (sW) are not involved at all in opportunity exploration and entirely weak relationships are involved only to a small extent in cases A and E. For exploitation activities, i.e. in activities like refinement, evaluation, implementation and commercialisation of the business opportunity, in addition to S and Sw relationships also sw relationships are used extensively, particularly in cases A, D and E. sW and W relationships are used only to a minor extent in exploitation activities.
Table 33  Strength of relationships involved in exploration and exploitation activities

<table>
<thead>
<tr>
<th>Strength</th>
<th>Case</th>
<th>Exploration</th>
<th>Exploitation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong></td>
<td>A</td>
<td>1(2)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>3(6)</td>
<td>14(27)</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>3(5)</td>
<td>5(11)</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>3(4)</td>
<td>7(30)</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>3(4)</td>
<td>9(20)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13(21)</td>
<td>36(89)</td>
</tr>
<tr>
<td><strong>Sw</strong></td>
<td>A</td>
<td>5(8)</td>
<td>5(6)</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>4(6)</td>
<td>5(11)</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>7(10)</td>
<td>9(14)</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>2(3)</td>
<td>5(9)</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>3</td>
<td>8(10)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>21(30)</td>
<td>32(50)</td>
</tr>
<tr>
<td><strong>Sw</strong></td>
<td>A</td>
<td>1</td>
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<td>B</td>
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<td>4</td>
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<tr>
<td></td>
<td>C</td>
<td>1(3)</td>
<td>3(7)</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>1</td>
<td>6(11)</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>1</td>
<td>6(11)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4(6)</td>
<td>28(42)</td>
</tr>
<tr>
<td><strong>sW</strong></td>
<td>A</td>
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<td>1</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>1(2)</td>
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<tr>
<td></td>
<td>D</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>5(6)</td>
<td>5(6)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>9(11)</td>
</tr>
<tr>
<td><strong>W</strong></td>
<td>A</td>
<td>1(2)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>1</td>
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<td></td>
<td>C</td>
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<td>D</td>
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<td>3(4)</td>
<td>3(4)</td>
</tr>
</tbody>
</table>
6 CONCLUSIONS

In this dissertation several different research streams are combined to provide the framework for the study: international entrepreneurship, internationalisation, entrepreneurship as well as multiple approaches to networks. Integrating various theories provides a deep insight into the entrepreneurship process in line with recommendations by Sorenson and Stuart (2008). In addition, I agree with Slotte-Kock and Coviello (2010) that entrepreneurship research on the network processes benefits from being informed by different perspectives on networks. Consequently, I draw on contributions from both a social network perspective and a business perspective on networks in addition to research specifically on entrepreneurial networks. Thus, I have consciously involved several different theoretical approaches in this dissertation. Building a study on such a broad stream of literature has involved challenges. Already the reading load has been a real challenge. In addition, to develop an understanding of the different theories, the concepts they use and the meaning they apply to the concepts as well as to integrating understandings from different perspectives has been challenging. Thus, it has not always been easy, but I still believe it has contributed to a more holistic picture and understanding of the involvement of relationships in opportunity exploration and exploitation in the early entrepreneurial and internationalisation events of INVs.

6.1. Discussion of the most important findings

In order to bring out the most important findings of the study the purpose and the research questions of the dissertation are repeated and the results discussed in relation to these. The purpose of the study was to develop our understanding of the involvement of entrepreneurs’ relationships in exploration and exploitation of opportunities during an international new venture’s (INV’s) early and critical entrepreneurial and internationalisation events. The critical events are studied during three phases: pre-founding, start-up and early internationalisation.

The research questions were:

1) How are opportunities explored and exploited in INVs? What activities are involved in the opportunity exploration and exploitation?

The study shows that exploration and exploitation of opportunities are not strictly sequential activities. During exploitation activities new opportunities may be identified which start a new round of exploitation activities. Thus, the study indicates that the entrepreneurial process in INVs is characterised by going back and forth between different exploration and exploitation activities.

The main activities involved in opportunity exploration and exploitation were to a large extent the same among the five cases or for the majority of the cases (see table 15 in chapter 4.5). Opportunity identification, entrepreneurial insight and entrepreneurial preparation were the main activities involved in opportunity exploration. Whereas, opportunity exploitation included the following activities: evaluation of business opportunity, fund-raising, incubator and mentor programmes, legal registration, product development, cooperation partners, development of business plan, employees, patent application and pilot buyers. Compared to previous studies on activities in the entrepreneurial process discussed in chapter 2.2.2.2, these were to some extent the
same, but also new activities were found to be critical to the development of the INV. Such new activities were e.g. entrepreneurial preparation, incubator and mentor programmes as well as pilot buyers. However, if the critical activities were somewhat the same for the cases, the order for conducting them varied. Thus, from these cases it seems as it is not possible to develop a single pattern for a process of opportunity exploration and exploitation being valid for INVs. The pattern is firm specific and thus idiosyncratic. This is in line with the results by Reynolds and Miller (1992) on the entrepreneurial process.

Interestingly, the findings showed that events which turn out to be critical for the exploration or the exploitation of business opportunities could have taken place a very long time before any thoughts of becoming an entrepreneur or any insights of a business opportunity even existed. This makes it important to include the pre-founding stage when studying opportunity exploration and exploitation. As the main part of earlier research on emerging firms mainly focuses on the start-up process, it misses out on the lengthy process preceding the decision to start a firm. This dissertation shows that an important and mostly lengthy pre-founding phase precedes this decision. From the perspective of IE, Madsen and Servais (1997) acknowledge that analysis of INVs should go beyond the legal birth of the firms. This study also shows that it is of advantage not to state a specific point of time for when the pre-founding stage begins as the time from the first to the last critical event in the pre-founding stage may vary greatly; in this study from only one month to more than 20 years. In addition, the case study showed that legal registration was not really found to be a critical event by the entrepreneurs; it was important only as it meant that the firm existed officially. This diverges from the results by Delmar and Shane (2004) as they emphasise the establishment of a legal entity as a firm legitimising activity of importance for the creation of relationships and for initiation of routines which are important for the initial survival of new firms. Instead this dissertation found that there was a point of time when the entrepreneurs mentally took a silent decision to start a firm. This happened before the legal registration, however, and the time length varied again from one month to two years. In this way, this study supports Oviatt and McDougall’s (1994) recommendations that empirical studies on INVs have to include a definitional ambiguity as no exact point of time exists for a firm’s birth. Equally, a specific time limit for international sales to occur can be seen to be problematic as even though international ambitions also for the sales side were an inherent part of the start-up ambitions of all firms, the study showed that all types of sales (both domestic and international) were often delayed due to longer product development phases than expected. The lengthy product development phase clearly was a result of the unexpected challenges brought about by the highly innovative products or technologies. Also, like Kazanjian (1988) emphasises for technology-based firms the time from conception to commercialisation can take a long time due to time-consuming product development processes.

Specifically, the international opportunity recognition process has been stated as being a neglected area in previous research (Chandra et al, 2009:30). In this study it has been shown that activities involved in exploration of international business opportunities are identification of or access to potential international buyers, retailers and cooperation partners, identification of regulations and legal requirements implying business opportunities, participation in international trade fairs and access to international visibility. Exploitation of international business opportunities, on the other hand, are contracts with international suppliers, retailers and cooperation partners, orders from international buyers and international patent applications. As will be discussed closer in the following sections the entrepreneurs’ direct and indirect relationships have been
largely involved in the recognition and exploitation of international business opportunities.

In addition, the findings show that in INVs the exploration and exploitation of international business opportunities is a parallel process to the exploration and exploitation of the initial business opportunity that the firm is started around. In some cases these are even the same, but in others not. Thus, the early internationalisation phase is a parallel phase to both the pre-founding and the start-up phase in INVs.

2) What are the benefits and drawbacks of relationships for opportunity exploration and exploitation in INVs?

First of all, the study shows that the benefits of relationships clearly exceed the drawbacks when it comes to opportunity exploration and exploitation in INVs and this applies both to the initial business opportunity and also to additional international opportunities. Thus, the study is in accordance with Andersson and Evangelista (2006) who found that personal networks of entrepreneurs in INVs are not restricting forces that make it difficult for the entrepreneur to make new innovative strategic decisions, but rather they are facilitating opportunities and enabling international expansion. In addition, the drawbacks that appear in this study seem to be very relationship specific depending on e.g. a difficult personality, unreliable partners or exploitative relationships, whereas the benefits tend to be the same both for separate relationships and for separate cases. The only drawbacks mentioned in several cases were inefficiency or slowness e.g. due to bureaucratic relationships, conflicting visions for firm development as well as passiveness among part owners.

This study shows that relationships’ contribution is far more extensive than shown in previous research. Especially when comparing the benefits of relationships (see table 34) with entrepreneurship and international entrepreneurship literature (see table 38 and 39), this study offers a more detailed insight into what relationships contribute. An extensive part of earlier research mentions advantages gained by networks in quite abstract and broad terms such as advice, information, knowledge, resources and support. This study instead reveals more depth by focusing on what exactly relationships contribute in different critical activities related to opportunity exploration and exploitation. As an example, the study shows that the entrepreneurs’ relationships play an important role for offering emotional support. The interest shown by others and others’ belief in the business idea is vital for the entrepreneur in order to have the will and courage to bring things forward. However, this is not only the case for opportunity identification during opportunity exploration, but during many different activities of opportunity exploitation as well. The same applies to relationships as sources of product or technological knowledge which is important both for the exploration activity of entrepreneurial preparation, and for exploitation activities such as evaluation of the opportunity and product development. Relationships’ importance for offering advice is similarly current in many different exploitation activities and thus the type of advice gained through relationships is e.g. advice related to business plan development, financial issues, patent application and product development.

For the identification of the initial opportunity relationships have been involved in all cases, however, in different ways. In case B the lead entrepreneurs’ relationship to his long-term friend and colleague was all the time involved in the identification of a problem at a previous workplace – a problem that turned out to be an opportunity. In case C relationships were involved in the active search for an opportunity and the other
cases (A, D, E) show that entrepreneurs got access to business opportunities through their relationships. This last way of opportunity identification also shows that the entrepreneurs are exposed to the same opportunities as others, that is, as their relationships have been. However, what distinguishes the entrepreneurs is that they decide and how they decide to exploit those opportunities, that is, how they take advantage of them. McAuley (1999) found the same applies to Scottish entrepreneurs of INVs. This can also be related to Kirzner (1979; 1997) who stated that entrepreneurs interpret their environment in a different way and create new strategies. For example, in case D, the entrepreneurs Douglas and Don saw new opportunities for applying the technology originally developed by the inventor Danny to new industries and hence to exploit the opportunity in new markets. In case E, Eric saw the business potential inherent in the granulation technology developed by Elias and suggested exploiting it by starting a joint firm.

The study also shows that it is common that entrepreneurs use their re-activated relationships during both entrepreneurial and internationalisation events. Relationships can, thus, be latent and dormant for a long time and be re-activated when needed. Also, Jack (2005) found that this was the case for entrepreneurs’ strong relationships and emphasised that inactive relationships, thus, remain within the entrepreneurs’ networks as latent knowledge and resources.

The perspective taken in this dissertation makes it possible to see which benefits of relationships are current and in which exploration and exploitation activities. Here the findings show that for opportunity identification relationships are involved in a lot of different ways. They are not only involved in identifying the initial business opportunity and additional business opportunities domestically or internationally, but they are also important by offering access to potential buyers and/or retailers, by serving as global marketing and distribution channels, by sharing or confirming existence of a market gap and product demand, by offering emotional support and by providing visibility. For example, all cases rely extensively on relationships for access to potential buyers and retailers, particularly to international ones and the lead entrepreneur in case B mentions that this is a much faster and easier way. Case D has good access to such relationships through the other founders. Case A makes use of a combination of direct and indirect relationships as well as international trade fairs. Case C does not have very good international existing relationships as their plan A, to use Colin’s relationship with a large MNE in order to gain entry into the firm’s global marketing and distribution network, came to nothing. Instead they now consciously search for alternative ways to make contact with potential international buyers and retailers though their two mentors. The lead entrepreneur in case E very actively works on building up an international network himself by grasping every opportunity to create relationships.

The findings show that internationalisation events in INVs were focused on a few specific relationships in a limited number of foreign markets. Furthermore, the entrepreneurs intended to build additional relationships internationally through bridgehead relationships, in order to gain access to the international relationships of their existing relationships. Thus, in line with Chandra et al. (2009:47) it is not the number or type of relationships that are important for international opportunity recognition, but it is if the relationships are the right ones, linking the “right people and firms at the right time”. For example, some of the case firms use their business mentors’ international networks to build new relationships. Thus, this study shows that it is not only the entrepreneur’s existing international network that is of importance for the early internationalisation of INVs, but also their domestic, local relationships that in turn may have important international relationships or access to such relationships.
This is an addition to Oviatt and McDougall’s (2005) notion of the mediating role of entrepreneur’s international network for INVs, but in line with the results by Andersson and Wictor (2003), Chetty and Campbell-Hunt (2003) as well as Sharma and Blomstermo (2003). The INVs also added new part owners in an effort to link important persons to the firm and to gain continued access to their domestic and international relationships. This was e.g. the case with both official and unofficial mentors in cases B, C and D. In a way this can be interpreted to be in line with Loane et al. (2007) who found that entrepreneurs of INVs increased the firm’s network by taking in additional members to the management team – members with international experience and international contacts.

Finally, it is acknowledged that even though this study focused on the involvement of relationships in opportunity exploration and exploitation, the findings also showed that existing relationships are not the only source for opportunities. Not recognising this fact has been stated as a weakness of network studies according to criticism brought forward by Ellis (2011). For example, in this study international opportunities were explored through formal search on the Internet and through meeting strangers when participating in trade fairs. However, two points were obvious of such examples of opportunity exploration. First, existing relationships were often still involved in some way in these events e.g. indirectly by being the motivating source for why the entrepreneur searched for information or participated in the event in the first place. Second, opportunities being explored with strangers were often found to be difficult to continue e.g. interest shown by strangers at trade fairs tended to come to nothing.

3) How do relationships of different a. origin (direct/indirect), b. type (business-personal), and c. strength (strong-weak) differ in their involvement in different critical events (entrepreneurial and internationalisation), phases (pre-founding, start-up and early internationalisation) and activities (exploration and exploitation) during the early development of INVs?

Origin

The study shows that both entrepreneurs’ direct and indirect relationships are of benefit for both entrepreneurial and internationalisation events. Among the lead entrepreneurs’ direct relationships, mainly old relationships created at former workplaces and new relationships created through formal search are involved. The importance of previous workplaces for opportunity exploration and exploitation and for networking is in line with Anderson et al. (2007). However, the findings also show that family connections are involved to a very low degree in these firms. This is a contradictory result compared to Jack et al. (2004) and Jack (2005). The indirect relationships of the lead entrepreneur mainly originate from the other founders or from institutions, mentors and the business incubator.

The extensive involvement of indirect relationships indicates the significance of integrating network closure and the brokerage role in the early entrepreneurial process in INVs. Thus, the findings enhance Burt’s (2004) notion about the beneficial role of brokerage in entrepreneurship. The other founders were a particularly relevant source for the lead entrepreneur when forming new relationships. In particular, when the other founder had a very different background (e.g. education and work history) from the lead entrepreneur, he tended to have a critical brokerage role. By connecting such disparate relationships the broker provided access to new resources and opportunities
for the lead entrepreneur. Institutions, mentors and the business incubator also played an important brokerage role and brokerage was seen by the lead entrepreneurs to be a natural and important part of these relationships – as a part of their jobs. Former workplaces acted as brokers to some extent, whereas family and friends were brokers only if they also were co-founders. Brokers were important not only for connecting the lead entrepreneur to new relationships, but also for e.g. legitimacy. Here reputation and legitimacy was found to be important in two ways: first, examples were found where entrepreneurs entered a new network because of the relationship’s good reputation and trustworthiness (other founder, former workplace or mentor). In addition, the legitimacy of the new firm and the lead entrepreneur were increased in the eyes of the third party when relationships were brokered either through institutions, mentors or the business incubator. Legitimacy has earlier been found to be an important aspect gained through personal networks (Johannisson & Monsted, 1997) or through a mix of strong and weak ties (Elfring & Hulsink, 2003). However, these do not discuss it explicitly in relation to the brokerage role of relationships.

Relating to brokerage and network closure discussed by Burt (2005), examples are evident from the study where lead entrepreneurs had great expectations on particularly their mentors playing a brokerage role to international buyers, retailers and cooperation partners, but where network closure did not occur as the three partners were not yet linked. The lead entrepreneur is still waiting to meet these so that network closure and benefits such as entry into international markets could occur. Additionally, among the sw relationships examples are found where the lead entrepreneur could see the potential for brokerage in a relationship but was still waiting for this to happen. Thus the opportunity for network closure was recognised but so far unrealised.

In the pre-founding phase, direct and indirect relationships are used to an equal degree, however, almost only relationships originating from within the entrepreneurs’ existing network are involved. This means that the lead entrepreneurs primarily involve relationships that are known to them directly or to the other founders. Trust and familiarity are important aspects for involving relationships in opportunity exploration and exploitation at this stage. However, as the firm moves into the start-up phase, indirect relationships are used more extensively than direct ones and also more relationships originate from outside the lead entrepreneur’s existing network. Thus, at this stage it becomes relevant for lead entrepreneurs to complement the existing network especially with regard to opportunity exploitation. Also in the early internationalisation phase more indirect relationships are used than direct. However, here more indirect relationships originate from within the existing network, implying that the other founders and former workplaces have acted as brokers to international actors.

The findings show that when it comes to specific benefits offered by relationships for different exploration and exploitation activities (see table 34), only the direct relationships of the entrepreneur have offered benefits in the very early exploration activities such as entrepreneurial insight and entrepreneurial preparation. Here direct relationships have contributed with e.g. inspiration and belief in the business idea, access to networks and different types of knowledge. However, for most other exploration and exploitation activities both direct and indirect relationships have offered the same benefits. The only exceptions are emotional support during opportunity identification, additional capacity offered by employees, global marketing and distribution channels, international market experience, advice for patent application and finding pilot users. Emotional support during opportunity identification was only offered by direct relationships with these being the
entrepreneur’s friends or relationships created at former workplaces. Also all employees were in these cases the entrepreneur’s direct relationships found through formal search procedures. Thus, the entrepreneurs did not use their existing relationships for hiring employees. This finding is contradictory to both e.g. Andersson and Wictor (2003) and Shaw (2006), but this may well depend on the fact that very few employees had up until this point been hired to the firms. On the other hand, only indirect relationships mainly gained through the other founders or through the mentors or the business incubator had contributed to global marketing and distribution channels, international market experience, advice for patent application and finding pilot users.

Type

The findings of the study show that a considerable part of entrepreneurs’ relationships involved in opportunity exploration and exploitation are neither strictly business nor strictly personal (61 of 125 relationships or 49%). This supports Johannisson and Mønsted’s (1997) notion that in entrepreneurial networks there are business and social aspects often intertwined in individual relationships. This finding shows a need for a more nuanced differentiation than only dividing relationships into being either personal or business. The types of relationship used by entrepreneurs are more likely to appear in a continuum rather than as two distinct entities in the form of business or personal. In general, these entrepreneurs seem to rely on business relationships (B) and relationships that are more business than personal (Bp) for opportunity exploration and exploitation during early firm development. In addition, the findings show that entrepreneurs are likely to use more business relationships (B) in the start-up phase and early internationalisation phase, whereas those in the pre-founding phase are likely to involve relationships with some degree of personal aspect. The findings also indicate that even though the amount of relationships involved in early firm development is likely to decrease when moving on the continuum from business towards personal relationships, the importance of the relationships is likely to increase. That is, the few more personal relationships identified as being involved in opportunity exploration and exploitation, have been perceived as being decisive for early firm development.

The study shows that for the benefits offered by relationships no distinct pattern emerges when it comes to the type of relationship (see table 34). In general all different types ranging from entirely business to entirely personal relationships may offer benefits of all different kinds for opportunity exploration and exploitation activities. For example, all different types of relationships have been involved in opportunity identification by offering access to potential buyers and/or retailers as well as by giving the entrepreneurs insight into existing product demands or market gaps. All different types of relationships are also found among the board members and among the business incubator or mentors with them offering different complementing skills or with them being relevant partners in discussions.

Strength

First of all, the findings of the study indicate a clear need for a more nuanced differentiation when referring to strength of relationships instead of only two distinct categories – strong or weak. The strength of relationships used by entrepreneurs is more likely to appear in a continuum and thus a continuum is better suited for explaining the strength of relationships. Of all relationships being involved in the critical events of early firm development in the five case firms only 43 of 122 (35%)
were regarded to be either completely strong or completely weak. When analysing the continuum five different levels of strength were evident: strong (S), more strong than weak (Sw), equally strong as weak (sw), more weak than strong (sW) and weak (W).

The finding regarding the five different levels of relationship strength questions most of the extant literature (e.g. Granovetter, 1973) which considers strong and weak relationships as distinct entities. The findings can, however, be used to build on the work of Aldrich and Zimmer (1986) as well as Perry-Smith and Shalley (2003) about the varying levels of relationship strength. Moving away from a dichotomy of strong and weak as separate entities is in line with suggestions of more recent entrepreneurship network research (e.g. Jack et al., 2004).

The study shows that the importance of the relationship for opportunity exploration and exploitation is an important aspect of relationship strength. Entirely strong relationships have in general been more important than the relationships that are more strong than weak and so on. Parallels to this finding on the relationship between strength and importance can be drawn with Jack (2005:1251). She does not explicitly use the concept of importance but found that one determinant of relationship strength was the “usefulness and applicability of relationship to entrepreneurial situation at a particular point in time”. This signifies the importance of a relationship for the business. However, the findings show that a relationship with frequent interaction over a longer period of time is not necessarily a strong relationship, which is compatible with Marsden and Campbell (1984) and Uzzi (1997). These scholars argue that strength has more to do with commitment, affection, trust, respect and reciprocity than with frequency.

In addition, while much of the earlier research states that strong relationships tend to be old ones (see Mønsted 1995) these findings raise questions. Here it was found that even new relationships may be perceived as entirely strong or as more strong than weak from the very beginning. This is also noted by Elfring and Hulsink (2007) regarding entrepreneur’s business relationships used during the firm’s start-up and early growth. This can be explained by using Morgan and Hunt’s (1994) notion about commitment and trust in relationships. As long as there is commitment and trust in the relationship it quickly becomes strong. Hence, it is proposed that the strength of relationships benefit from being analysed on the basis of subjective rather than objective criteria, as the more subjective characteristics for strength offer a more multiplex perspective of the relationships than objective measures of frequency and duration. In addition, the dynamics of how the strength of the entrepreneur’s relationships change have been captured in the study and it is found that they may develop in both a stronger and weaker direction, even though the majority remained unchanged.

This dissertation shows that equally strong as weak relationships (sw) form a distinct category in entrepreneurial firms. Since they entail uncertainty and complexity for the entrepreneurs they deserve some attention from researchers. Relationships of the sw type exist as in the early phases of firm development it is difficult for entrepreneurs to determine which relationships are essential. They are often relationships that entrepreneurs need to deal with and decide about whether they should actively try to develop them, leave them as they are, or abandon them. Most sw relationships were new relationships formed through brokers (in particular through the other founders and institutions) and with few exceptions they were characterised by trust. By using Coleman’s (1988) theory on social capital one could infer that the uncertainty about these sw relationships partly occurs because they are still getting acquainted with each other to understand the social norms such as obligation and reciprocity. In addition, it
takes time for entrepreneurs to learn how they could benefit from new relationships, what resources the partners could offer the firm and above all how they could get hold of these resources. While the lead entrepreneurs mostly described sw relationships in positive terms they also mentioned their negative aspects. The findings show that sw relationships are characterised by the phenomenon that Graebner (2009:435) refers to as, ‘coexistence of trust and deception’. It has for example been illustrated how promises were broken when the entrepreneurs in case C were misled during negotiations to believe that they would get a good deal, but were in fact given a very bad final offer. This happened in a relationship perceived to be trustworthy.

The findings of the study show that stronger relationships (S, Sw) and equally strong as weak (sw) relationships dominate in opportunity exploration and exploitation in all three phases of pre-founding, start-up and early internationalisation. This finding about the importance of stronger relationships questions Granovetter’s (1973) notion of the ‘strength of weak ties’. One could have assumed that for opportunity identification one critical aspect would be access to ideas and new ways of thinking of and seeing things, something connected with weak ties. In addition, strong relationships could have been assumed to be negative for the opportunity exploration process as earlier research has found that strong relationships offer few new or different views, result in lock-ins and over-embeddedness (e.g. Grabher, 1993; Uzzi, 1997). However, this was not at all the case among the strong relationships involved in the opportunity exploration and exploitation in this study. On the contrary, strong relationships were regarded to be very important, which could be explained by the preparedness to be of assistance and the high credibility characterised by strong relationships (e.g. Granovetter, 1982). However, the findings are compatible with the results of many entrepreneurship researchers such as Hite and Hesterly (2001), Jack et al. (2004) as well as Jack (2005) who have found that strong relationships are important in the firm’s early development phases. As stronger relationships dominated in this study, the many benefits but few drawbacks of the relationships identified can also be interpreted to support Jack et al. (2004) who state that for entrepreneurs strong relationships are not characterised by the liabilities that earlier research has ascribed to them. Instead, strong relationships are seen as valuable with regard to resource heterogeneity and bridging function.

The entrepreneurs in this study are in the early phase of developing the firm and are surrounded by networks that are not well connected. As noted in the previous section the findings of the study show that brokers play an important role in linking individuals to disparate networks which is consistent with Burt (2004). Hence, due to the gaps in these networks the entrepreneurs’ strong relationships are in this study found to be important for brokerage. This finding questions earlier research which has identified the poor capacity for bridging structural holes as a weakness of strong relationships and instead emphasises the use of weak relationships for this (Granovetter, 1973; Greve, 1995; Davidsson & Honig, 2003; Jack et al., 2004). However, this finding both questions and enhances Burt’s work (1992, 2005) on the strength of ties and brokerage. On the one hand, it poses questions for Burt’s (1992) notion that only weak ties function as brokers to new relationships and networks. On the other hand, it is similar to Burt’s (2005:24) statement about strong relationships and brokerage: “...His strong relations to otherwise disconnected groups give him a competitive advantage in detecting and developing rewarding opportunities”.

For specific advantages gained from relationships for different opportunity exploration and exploitation activities it is not at all straightforward to draw conclusions when it comes to relationships of different strengths. This as well as S, Sw and sw relationships
are dominant in general in the involvement of critical events, whereas relatively few sW and W relationship have been involved. Thus, a large part of the benefits are offered by S, Sw and sw relationships. However, relationships of all different levels of strength have offered access to potential domestic or international buyers and/or retailers and access to networks for finding cooperation partners. On the other hand, only entirely strong relationships have given entrepreneurs guidance for financial applications as well as access to facilities, equipment and material. The latter is easier to explain as such benefits require the relationship to trust and have deep confidence in the entrepreneur.

Table 34  Summary of results: Relationships’ involvement in opportunity exploration and exploitation

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Benefit</th>
<th>Origin*</th>
<th>Type</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opportunity exploration activities</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Entrepreneurial insight</td>
<td>Inspiration, belief in business opportunity C, E</td>
<td>DR: Fr, FS</td>
<td>Bp-bp</td>
<td>S-Sw</td>
</tr>
<tr>
<td></td>
<td>Thought of being entrepreneurs B, E</td>
<td>DR: Fr, FWP</td>
<td>Bp, P</td>
<td>S</td>
</tr>
<tr>
<td>Entrepreneurial preparation</td>
<td>Access to network A, B, E</td>
<td>DR: FWP</td>
<td>B-bp</td>
<td>S-sw</td>
</tr>
<tr>
<td></td>
<td>Market knowledge A, B, E</td>
<td>DR: Fr, FWP</td>
<td>Bp-P</td>
<td>S-Sw</td>
</tr>
<tr>
<td></td>
<td>Product knowledge A, B, E</td>
<td>DR: Fr, FWP</td>
<td>Bp-P</td>
<td>S-Sw</td>
</tr>
<tr>
<td>Opportunity identification</td>
<td>Access to potential buyers and/or retailers, also international ALL</td>
<td>DR: Fa, Fr, FS, FWP</td>
<td>B-P</td>
<td>S-W</td>
</tr>
<tr>
<td></td>
<td>Emotional support A, B</td>
<td>DR: Fr, FWP</td>
<td>B-P</td>
<td>S-sw</td>
</tr>
<tr>
<td></td>
<td>Global marketing and distribution channel B, C, D</td>
<td>IR: Fr, Fo</td>
<td>B, bP</td>
<td>S-Sw</td>
</tr>
<tr>
<td></td>
<td>Identification of additional opportunities B, C, E</td>
<td>IR: Fr, Fo</td>
<td>B-P</td>
<td>S-sw</td>
</tr>
<tr>
<td></td>
<td>Identification of initial business opportunity ALL</td>
<td>DR: Fr, FS, FWP, Fo, I, M/BI</td>
<td>Bp-P</td>
<td>S-sw</td>
</tr>
<tr>
<td></td>
<td>Insight of product demand/market gap A, B, D, E</td>
<td>DR: Fr, FS, FWP, Fo, M/BI</td>
<td>B-P</td>
<td>S-sw</td>
</tr>
<tr>
<td></td>
<td>Potential buyers, also international B, C, D, E</td>
<td>DR: Fr, FS, FWP, Fo, M/BI</td>
<td>B-bP</td>
<td>S-W</td>
</tr>
<tr>
<td></td>
<td>Provision of international visibility A, C, D, E</td>
<td>DR: Fr, FS, FWP, Fo, M/BI</td>
<td>B-P</td>
<td>S-Sw</td>
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<tr>
<td><strong>Opportunity exploitation activities</strong></td>
<td></td>
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<tr>
<td>Cooperation partners</td>
<td>Access to network A, C, E</td>
<td>DR: FWP, FS</td>
<td>B-bp</td>
<td>S-W</td>
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<tr>
<td></td>
<td>Cooperation negotiations C, E</td>
<td>DR: Fr, FWP, Fo</td>
<td>B-bP</td>
<td>S-sw</td>
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<tr>
<td></td>
<td>Retailer A, C</td>
<td>DR: Fr, FWP, Fo</td>
<td>B-bP</td>
<td>S-W</td>
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<td></td>
<td>Supplier C, E</td>
<td>DR: Fr, FS, FWP, Fo, M/BI</td>
<td>B-bP</td>
<td>S-sw</td>
</tr>
<tr>
<td>Development of business plan</td>
<td>Advice B, C, D, E</td>
<td>DR: Fa, Fr, FS, Fo, I, M/BI</td>
<td>B-P</td>
<td>S-sw</td>
</tr>
<tr>
<td>Employees</td>
<td>Access to competency B, C, D</td>
<td>DR: FWP, Fo, M/BI</td>
<td>B-P</td>
<td>S-sW</td>
</tr>
<tr>
<td></td>
<td>Additional capacity B, D</td>
<td>DR: Fr, FWP, Fo, M/BI</td>
<td>B-P</td>
<td>S-Sw</td>
</tr>
<tr>
<td>Evaluation of business opportunity</td>
<td>Emotional support ALL</td>
<td>DR: Fr, FWP, Fo, M/BI</td>
<td>B-P</td>
<td>S-W</td>
</tr>
<tr>
<td>Evaluation of business opportunity</td>
<td>First external evaluators of business idea B, C, E</td>
<td>DR: Fr, FS</td>
<td>B-P</td>
<td>S-Sw</td>
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<td>Market knowledge, also international A, C, D</td>
<td>DR: Fa, FS</td>
<td>B-P</td>
<td>S-sw</td>
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<tr>
<td></td>
<td>DR: Fo, FWP</td>
<td>B-P</td>
<td>S-Sw</td>
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<td></td>
<td>Technical knowledge A, C, D</td>
<td>DR: Fa</td>
<td>Bp-P</td>
<td>S-Sw</td>
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<td></td>
<td>DR: Fo, FWP, M/BI</td>
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<tr>
<td>Fund-raising</td>
<td>Access to network B, E</td>
<td>DR: FWP</td>
<td>B, Bp</td>
<td>S-sw</td>
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<td></td>
<td>DR: I</td>
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<td></td>
<td>Board member A, B, D, E</td>
<td>DR: Fa, Fr, FWP</td>
<td>B- P</td>
<td>S- sW</td>
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<tr>
<td></td>
<td>DR: Fo, M/BI, I</td>
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<td></td>
<td>Equity capital ALL</td>
<td>DR: Fa, Fr, FS, FWP</td>
<td>B-P</td>
<td>S-sW</td>
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<td></td>
<td>DR: Fo, M/BI, I</td>
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<td>Financial advice ALL</td>
<td>DR: FS, FWP</td>
<td>B, bP</td>
<td>S-sw</td>
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<td></td>
<td>IR: Fo</td>
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<td></td>
<td>Financing ALL</td>
<td>DR: Fr, FS, FWP</td>
<td>B-bP</td>
<td>S-W</td>
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<td></td>
<td>IR: Fo, I, M/BI</td>
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<td>Guidance for financial applications A, B, C</td>
<td>DR: FS</td>
<td>B-bp</td>
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<td></td>
<td>DR: I</td>
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<td></td>
<td>Information on financing opportunities B, C, D</td>
<td>DR: Fa, FS</td>
<td>B-P</td>
<td>S-sw</td>
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<td></td>
<td>DR: Fo, M/BI, I</td>
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<td></td>
<td>Trustworthiness, good reputation, improving chances to get financing ALL</td>
<td>DR: Fa, FWP, IR: Fo, FWP, I, M/BI</td>
<td>Bp-P</td>
<td>S-sW</td>
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<tr>
<td>Incubator and mentor programmes</td>
<td>Access to network B, C, E</td>
<td>DR: FS</td>
<td>B-Bp</td>
<td>S-sw</td>
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<td></td>
<td>DR: I</td>
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<td></td>
<td>Complementing skills (e.g. languages, business management, start-up) B, D, E</td>
<td>DR: FS</td>
<td>B-P</td>
<td>S-Sw</td>
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<td></td>
<td>DR: Fo, I, M/BI</td>
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<td>Discussion partner ALL</td>
<td>DR: FS</td>
<td>B-P</td>
<td>S-Sw</td>
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<td>DR: Fo, I, M/BI</td>
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<td></td>
<td>Information on current activities B, E</td>
<td>DR: FS</td>
<td>B-Bp</td>
<td>S-Sw</td>
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<td></td>
<td>DR: Fo, I, M/BI</td>
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<td></td>
<td>International market experience C, D</td>
<td>IR: Fo, M/BI</td>
<td>Bp, P</td>
<td>S-w</td>
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<td></td>
<td>Office A, B, D, E</td>
<td>DR: FS</td>
<td>B-bp</td>
<td>S-Sw</td>
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<td></td>
<td>DR: Fo</td>
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<tr>
<td>Patent application</td>
<td>Advice B, C, D</td>
<td>IR: Fo, M/BI</td>
<td>B, bP</td>
<td>S-sW</td>
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<tr>
<td>Pilot buyers</td>
<td>Pilot user C, D, E</td>
<td>IR: Fo, M/BI</td>
<td>B-bp</td>
<td>S-sw</td>
</tr>
<tr>
<td>Product Development</td>
<td>Access to facilities, equipment, material B, D</td>
<td>DR: Fa, FWP</td>
<td>bp-P</td>
<td>S</td>
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<td></td>
<td>DR: Fr, FWP, M/BI</td>
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<td></td>
<td>Advice A, B, E</td>
<td>DR: FWP, FS</td>
<td>B-bp</td>
<td>Sw-W</td>
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<td></td>
<td>DR: Fo, FWP</td>
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<td></td>
<td>Desired product characteristics A, B, C, D</td>
<td>DR: Fa, FWP</td>
<td>B-P</td>
<td>S-Sw</td>
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<td></td>
<td>DR: Fo, FWP, I</td>
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<td>Development and supply of major parts/systems for product A, C, D, E</td>
<td>DR: Fr, FS, FWP</td>
<td>B-bP</td>
<td>S-sW</td>
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<tr>
<td></td>
<td>DR: FWP, Fo, M/BI</td>
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<td></td>
<td>Financing A, D, E</td>
<td>DR: FS</td>
<td>B-bP</td>
<td>S-sw</td>
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<td>DR: Fo, I</td>
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<td></td>
<td>Joint projects B, C</td>
<td>DR: FS</td>
<td>B, Bp</td>
<td>Sw</td>
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<td>DR: Fr</td>
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<tr>
<td></td>
<td>Manufacturing knowledge ALL</td>
<td>DR: Fa, FS, FWP</td>
<td>B-P</td>
<td>S-sw</td>
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<td></td>
<td>DR: Fo, FWP, M/BI</td>
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<td></td>
<td>Technical knowledge ALL</td>
<td>DR: Fa, Fr, FS, FWP</td>
<td>B-P</td>
<td>S-sW</td>
</tr>
<tr>
<td></td>
<td>DR: Fo, M/BI, I</td>
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</table>

* Abbreviations: DR (direct relationship), IR (indirect relationship), Fa (Family), Fr (Friendship), Fo (Founder), FS (Formal search), FWP (Former workplace), I (Institution), M/BI (Mentor/Business incubator)
6.2. Reflection on the contribution of the study

The contribution of the study is next elaborated upon from the perspectives of theoretical, methodological, managerial and policy contribution.

6.2.1. Theoretical contribution

Contribution to international entrepreneurship research

The theoretical contribution of the dissertation is principally within research on international entrepreneurship. The study makes a contribution to the understanding of international new ventures, by focusing on the lead entrepreneur and his egocentric network on the level of individual relationships in relation to exploration and exploitation of opportunities.

In this respect the dissertation contributes to international entrepreneurship mainly in two ways. First, by offering a deep insight into which opportunity exploration and exploitation activities entrepreneurs’ relationships are involved in. Second, by also adding to our understanding of what the relationships contribute to these opportunity exploration and exploitation activities, mainly in the sense of benefits gained through the relationships. By studying relationships in depth, specifically in relation to opportunity exploration and exploitation activities for both entrepreneurial and internationalisation events during three phases of early firm development (pre-founding, start-up and early internationalisation), this study offers a unique approach to INV network research. It offer a response to calls for further research made by e.g.: Coviello (2006:714) who acknowledges a need to understand INV networks also at the pre-internationalisation and pre-founding stages; Autio et al. (2000:921) who call for research on the roles of individuals in the dynamic process of opportunity recognition in INVs; Andersson and Victor (2003:266) who request research distinguishing between the influence of different types of networks on INVs; Coviello (2006:727) who asks for research based on data including perceptions of tie strength, importance or the level of trust associated with different ties.

A unique contribution of the study is also regarded to derive from the type of case firms studied. The study focused on micro firms in the very early stage of firm development and included following them in real time in their development towards INVs. Thus, it offered unique insights into pre-founding and start-up as well as the pre- and early internationalisation. Very few studies on INVs have been carried out on micro firms, that is, firms employing less than 10 people. Exceptions are e.g. McAuley (1999), Chell and Baines (2000) and Coviello (2006). However, these deal with different phenomena such as business growth or network dynamics but not including content of relationships to any larger extent. Thus, by also focusing on micro firms the study adds to the existing understanding of the phenomenon in focus in the dissertation, that is, the combination of INVs, entrepreneurs’ relationships and opportunity exploration and exploitation. To my knowledge this specific understanding is so far limited and dealt with in the forthcoming study of Ellis (2011). However, the type of early internationalising firms he studied (from small to very large firms with more than 10,000 employees) significantly differs from the firms in focus in this dissertation.

Coviello (2006) concludes that including the very early stages of the INV lifecycle benefits INV research on networks as relationships useful for internationalisation may be created already at the stage of concept generation. However, this study shows that it
is beneficial to go even further back, to times when there was no thought of starting the INV. This means that by focusing on the entrepreneurs’ background and relationships, a more complete picture of also the INV's network is gained. Relationships created at former workplaces or already during school time might turn out to be the ones that set off internationalisation of the INV (such as in cases A and B).

A contribution of the study is the development of a continuum for the strength of relationships offering a more fine-grained view of relationship strength in line with reality. In relation to opportunity exploration and exploitation the results show that stronger relationships (S and Sw) and relationships that are equally strong as weak (sw) are used more often than weaker ones in opportunity exploration and exploitation during all three phases of pre-founding, start-up and early internationalisation. This finding about the importance of stronger relationships questions Granovetter’s (1973) notion of the ‘strength of weak ties’. In addition, a unique contribution is the discovery of a new distinct category of relationships, equally strong as weak relationships (sw). These relationships have not been identified or discussed at all in earlier research. These relationships deserve attention from researchers, as they are involved almost to the same extent as S and Sw relationships in the opportunity exploration and exploitation but are characterised by complexity for the entrepreneurs – they namely involve both trust and potential, but also uncertainty and deception.

Contribution to entrepreneurship research

The study also contributes to the entrepreneurship literature as it focuses on a very early stage of the entrepreneurial process called pre-founding; a stage that has often been neglected or assumed obvious in earlier research. This dissertation shows that an important and mostly lengthy pre-founding phase precedes the decision to start a firm. As the main part of earlier research on emerging firms mainly focus on the start-up process, they miss out on the lengthy process preceding the decision to start a firm. A contribution of the study is also a deeper insight into how opportunities are explored and exploited by identifying specific important activities related to these. Furthermore, the study brings in network thinking into research on entrepreneurial opportunities by entering deeper into the involvement of networks in opportunity recognition and development. By this the study responds e.g. to the call for research by Gaglio and Winter (2009:318) requesting empirical studies that increase our understanding of the role of networks in opportunity identification as they found such research to be limited and disappointing during the 2000s.

In evaluating this study based on the two perspectives on networks in entrepreneurship research – networks as independent or dependent variables – discussed by Hoang and Antoncic (2003) as well as Slotte-Kock and Coviello (2010), the contribution of it is mainly related to the first; that is by treating networks as independent variables it increases our understanding of how relationships affect the entrepreneurial process by offering benefits to the entrepreneur during both opportunity exploration and exploitation. In this sense the study offers a more detailed view of the content of relationships and the activities they are involved in.

However, as the study also captures the development of individual relationships during early firm development with regard to the relationship's strength and type, the study also makes a contribution to the second perspective, that is, networks as dependent variables by increasing our insight of how relationships can develop in these dimensions. In this sense the study makes a contribution by showing that a relationship can develop in a stronger or a weaker direction during early firm development, but it
may also become more personal or more business orientated. Elfring and Hulsink (2007) observed that relationships may develop from weak to strong during firm start-up. However, this study shows that relationships may develop in whatever direction.

**Contribution to network research**

This study has captured the dynamics of relationships on the individual relationship level, not on the network level. This allows for contributions to network theory by offering insights regarding measures and dynamics of individual relationships.

First, a unique contribution of the dissertation is the integration of real experiences of entrepreneurs with existing theory to develop a continuum for the strength of relationships according to five levels of strength instead of two distinct entities. This offers a more nuanced and complex view on relationship strength. Second, subjective measures are found to be more appropriate for determining relationship strength than objective measures. Third, the study shows that type and strength of relationships are not the same. Thus, relationship strength should not be defined in terms of type, such as that strong relationships would be relationships to family or friends. Both personal and business relationships may be strong or weak. Fourth, a contribution is made in relation to the dynamics of relationships, as the study shows that a relationship may develop in whatever direction as it comes to strength and type. In addition, a relationship may develop on only one dimension (strength OR type), or on both (strength AND type) simultaneously. That relationships may develop on only one dimension shows that changing strength does not necessarily have to have an impact on the type of the relationship or vice versa. The change on both dimensions shows that relationships may both become more personal and stronger, more personal and weaker or more business and weaker.

**6.2.2. Methodological contribution**

The systematic and detailed research process followed in the dissertation is regarded to offer methodological contribution. Methodological contribution is specifically possible to identify in the way of collecting data both with regard to how data was collected for opportunity exploration and exploitation as well as how data was collected for relationships.

Regarding the first this study supports the standpoint made by Bruyat and Julien (2001) that entrepreneurs should be studied in close connection to the new value they are creating. In this dissertation, the new value created is considered to be the opportunities explored and exploited, that is the initial business idea (innovative product or technology) resulting in the creation of a new firm and any international business opportunities grasped making the new firm an international new venture. Therefore, I decided to reach information on opportunity exploration and exploitation through a two-step approach. First I inquired in general about the business idea, start-up and internationalisation and used the timeline map for identifying critical events happening before, during and after start-up of the firm. The following time I met the entrepreneurs I introduced the event-relationship map in order to get more details on the critical events involved in opportunity exploration and exploitation, as well as the relationships involved in these. This systematic, stepwise technique involving drawing maps and offering longitudinal data on pre-founding, start-up and early internationalisation is regarded to constitute a useful methodological contribution of the dissertation.
Second, a methodological contribution is found in the way of asking about the relationships during data collection. By collecting data on all relationships involved in the critical events, I was able to collect quite a large number of relationships per case, compared common strategies applied in earlier studies. Common procedures have e.g. been to ask about the five most important relationships per entrepreneur (see e.g. Greve & Salaff, 2003). In comparison this study involved in-depth insight into 19-34 relationships per firm. In addition, the range of these relationships varied, that is, by focusing on the relationships involved in critical events I got insight into relationships of different origin, strength, type, importance etc. Particularly, using continua for asking about strength and type of relationships is a unique contribution of the dissertation. Through these continua the entrepreneur’s own judgments of strength and type of relationships were captured and also their own explanations for these. In addition, the continua also took dynamics of relationship into account. The strength and type of each relationship was thus captured at least two different times – when they had been involved in the critical event and at the time of the second interview, that is in real time. Thanks to using this new method, sw relationships could be identified – a new, but important level of relationship strength for new firms.

By the using two simple tools, the timeline map and the event-relationship map, I found that both the data collection and the data analysis was facilitated, improved and systemized. The maps where relevant in order to understand the process of opportunity exploration and exploitation as well as the nature and content of relationships involved in these activities. The maps also allowed for in an illustrative way focus on the chronologies of development and simplified the conduction of event- and content-analyses. Methodologically the study could be seen to follow the call made by Coviello and Jones (2004) for research in international entrepreneurship to combine methods including a time-sensitive design.

Finally, by using the six criteria suggested by Healy and Perry (2000) to be specifically appropriate for the evaluation of trustworthiness for case studies building on the realism paradigm, this study offers an example of how to evaluate trustworthiness both by acknowledging validity and reliability and by going beyond them.

6.2.3. Managerial contribution

A managerial contribution of the study lays in its attempts to make entrepreneurs conscious about their networks and relationships. By consciously thinking and talking about the network it might develop from being a phenomenon that is taken for granted, natural and perhaps not at all reflected upon, into a phenomenon of strategic importance and value. The insight that the network can be a relevant tool for recognizing and developing business opportunities, might spur the entrepreneur to consciously create and develop networks according to current and future interests. This is possible based on the assumption that networks are dynamic and develop over time.

This study shows that relationships bring considerably more benefits than drawbacks for the exploration and exploitation of both the initial business opportunity and for international opportunities. Thus, managers should realise the potential inherent in their network relationships for these activities. An extensive variation of benefits gained through relationships has been identified in this study and it shows that both entrepreneurs’ own direct and indirect relationships gained through brokers such as other founders with complementing background and networks, mentors, previous employees and work mates, financiers, accountants etc. are potential sources for both
exploration and exploitation of business opportunities in a domestic and international setting. In particular, involving experienced, trustworthy businessmen with existing networks in place has been found to be important for both opportunity exploration and exploitation. Such people may function as mentors while still being in work life. However, then they tend to be busy and have very limited time to spend with the development of a new firm. Therefore, it might also be a good idea to include retired businessmen as mentors. These both have the interest, time, experience and knowledge to guide the new entrepreneur and offer access to new relationships and additional opportunities.

Entrepreneurs should realise that much can be done without large expenditures in the early stage of firm development if the entrepreneur is active and finds appropriate relationships as well as consciously tries to get into contact with persons that might function as bridges to other firms or organisations that the entrepreneur considers interesting. By using bridging relationships advantages gained are e.g. fastness, legitimacy and lower expenditures. However, fruitful relationships are always a question of mutual benefits and in return for bridging relationships the new firm may offer opportunities for joint cooperation projects, shared services or even ownership.

This study indicates that entrepreneurs need to value strong relationships and specifically aim for strong relationships during the early phases of firm development. This is mainly because in the initial stages of a firm’s formation entrepreneurs need to focus on essential relationships. Strong relationships need to be considered as an important source for forming new relationships. Entrepreneurs also need to realise that strong relationships can remain dormant and be reactivated many years later with minimum effort. The continuum developed in this study could guide entrepreneurs to identify whether they should focus their efforts into strengthening, weakening or abandoning certain relationships during the pre-founding, start-up and early internationalisation phases. In particular, the equally strong as weak relationships (sw) require attention from entrepreneurs as they involve both positive and negative aspects, such as future potential but passiveness, trust but also deception, interest but risk of negative rumour etc. An additional indication of the study is that for the early phases of development of INVs entrepreneurs’ business relationships seem to be more beneficial and more personal relationships are only of limited benefit.

6.2.4. Policy contribution

The policy contribution of the study is that it helps to understand the possible role that networking and relationships – business-personal as well as strong-weak relationships – can have upon the ability to identify opportunities as well as the decision to exploit recognised opportunities. This knowledge is of particular importance when trying to promote the development of innovations as well as the establishment of new firms in society. In order to promote entrepreneurship, efforts directed both at developing existing ventures and at stimulating the creation of new ventures are needed. Opportunities are at the bottom of both of these. An important question then arises: how to find opportunities? This study shows that different ways do exist, but primarily that opportunities do not lie around waiting to just be found, but instead they are created based on prior knowledge and social interaction. This means that entrepreneurs’ relationships are a good source for identifying and developing opportunities through the support, complementary knowledge, experience and contacts held by the relationships.
This study also aims to draw attention to the possibilities for new and small firms to start international activities from the very beginning. Often consultants and government organisations advocate a cautious, incremental internationalisation process which is in line with earlier internationalisation process model theories. However, the business opportunity explored together with the entrepreneurs’ ambitions and relationships may well enable a fast and early internationalisation. For people and organisations supporting entrepreneurs in the early phases of firm development the results of this study in particular emphasise that such actors can make important contributions by offering access to networks, emotional support (believing in the idea), opportunities for visibility and facilitating services (e.g. information on financing opportunities and guidance in making financial applications). In addition, entrepreneurs appreciate if this is done in an efficient, fast and knowledgeable way. Supporting entrepreneurs in networking seems, however, to be a tricky thing in several ways. First, entrepreneurs differ in the sense of what type of relationships they need and want others to broke. This depends on the relationships, experience and knowledge already found within the entrepreneurial team. Second, formally arranged networks may not be perceived as valuable. This was in particular the case regarding the other firms in the incubator. None of the cases found the occasions arranged by the incubator for networking activities among the incubator firms as valuable or rewarding as the incubator firms were very different from each other and operated in different industries. However, on the other hand, the findings also show that entrepreneurs may in whatever situations, be they arranged occasions such as seminars or courses or totally by accident, come into contact with new relationships that at some point of time turn out to be an important relationship. Thus, it is in advance difficult to know what will be fruitful or not. The findings of this study show that institutions have been important brokers to different relationships of importance for the entrepreneur – e.g. to financiers, part owners, pilot users, suppliers and other cooperative partners. Thus, brokering relationships with actors that have something in common is important for the early development of firms both from the perspective of exploitation of the initial business opportunity and exploration as well as exploitation of international business opportunities. Encouragement and facilitation of the use of bridgehead relationships to enter and expand in international markets is an important activity for policy makers who promote internationalisation activities and network development.

6.3. Reflection on the trustworthiness of the study

Validity and reliability are common concepts in evaluation of the trustworthiness of a study. Validity refers to whether or not the results of a study really are about what they should be and about what they appear to be (Saunders et al., 2009). In other words validity is about whether the study measures the phenomenon it says it does. Reliability, on the other hand is about “the absence of random error, enabling subsequent researchers to arrive at the same insights if they conduct the study along the same steps again” (Gibbert et al., 2008). Validity and reliability have their roots in the positivist paradigm and in quantitative research (e.g. Golafshani, 2003; Gibbert et al., 2008). However, qualitative research methods partly place emphasis on other requirements for evaluating the credibility of results than just those of quantitative research methods. For example, the concepts of validity and reliability are by some authors considered to not be suitable for evaluation of qualitative studies (e.g. Leininger, 1994; Stenbacka, 2001), whereas others emphasise the need to redefine the concepts and interpret them in a way that is appropriate for qualitative research (e.g. Golafshani, 2003; Gibbert et al., 2008).
Stenbacka (2001) argues that while it is possible to interpret the concept of validity in a way relevant for qualitative studies, the concept of reliability is totally irrelevant and not at all applicable. She states that “the concept of reliability is even misleading in qualitative research. If a qualitative study is discussed with reliability as a criterion, the consequence is rather that the study is no good” (Stenbacka, 2001:552). Instead, with regard to reliability she emphasises evaluating the quality of the study. Leininger, (1994) strongly argues that in order to be able to establish substantive research outcomes, qualitative research must be evaluated with specific qualitative research criteria. To use validity and reliability as evaluation criteria in qualitative research she says is a sign of “a lack of knowledge of the different purposes, goals, and philosophical assumptions of the two paradigms” (Leininger, 1994:96). Instead, Leininger (1994) presents six evaluation criteria appropriate for qualitative research: credibility, confirmability, meaning-in-context, recurrent patterning, saturation and transferability. Golafshani (2003) does not reject using validity and reliability for evaluation of qualitative research, but concludes that these could be evaluated by discussing the trustworthiness, rigor and quality of the study. A common understanding when it comes to the quality of qualitative studies is that validity in qualitative studies ensures the reliability of the study (Golafshani, 2003; Gibbert et al. 2009).

In relation to evaluation of studies in line with a critical realist approach Guba and Lincoln (1998) recommend using quality criteria according to critical realism ontology: rigor, internal (isomorphism of findings with reality) and external (generalisability) validity, reliability (in the sense of stability) and objectivity (distanced and neutral observer). Patton (2002:93) also emphasises that a realist perspective implies that aspects such as validity, reliability, and objectivity are central also in qualitative research. The influence that realism has upon the way of making and evaluating research can be described by the following:

You realise that completely value-free inquiry is impossible, but you worry about how your values and preconceptions may affect what you see, hear, and record in the field, so you wrestle with your values, try to make any biases explicit, take steps to mitigate their influence through rigorous field procedures, and discuss their possible influence in reporting findings. [...] you emphasize the empirical findings–good, solid description and analysis–not your own personal perspective or voice, though you acknowledge that some subjectivity and judgment may enter in. You include triangulation of data sources and analytical perspectives to increase the accuracy and credibility of findings. (Patton, 2002:93)

Your criteria for quality include the “truth value” and plausibility of findings; credibility, impartiality, and independence of judgment; confirmability, consistency, and dependability of data; and explainable inconsistencies or instabilities. You may even generalize case study findings, depending on the cases selected and studied, to generate or test theory, establish causality, or inform program improvement and policy decisions from patterns established and lessons learned. (Patton, 2002:93)

Whereas Guba and Lincoln (1998) as well as Patton (2002) advocate quality criteria in line with validity and reliability also for studies building on the realism approach, Healy and Perry (2000) develop six criteria specifically appropriate for evaluation of trustworthiness for case studies building on the realism paradigm. These criteria are presented in table 35.
Table 35  Quality criteria for case study research within the realism paradigm

<table>
<thead>
<tr>
<th>Quality criteria</th>
<th>Description of quality enhancing aspects (specifically developed for case studies within realism paradigm)</th>
<th>Similarities to other quality criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontological appropriateness</td>
<td>Selection of research problem, for example, is it a how or why problem</td>
<td>Internal validity (Yin, 1994; Miles &amp; Huberman, 1994)</td>
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<tr>
<td></td>
<td></td>
<td>“Truth value” or credibility (Lincoln &amp; Guba, 1985)</td>
</tr>
<tr>
<td>Contingent validity</td>
<td>Theoretical and literal replication, in-depth questions, emphasis on “why” issues, description of the context of the cases</td>
<td>Objectivity (Miles &amp; Huberman, 1994)</td>
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<tr>
<td></td>
<td></td>
<td>Neutrality, confirmability (Lincoln &amp; Guba, 1985)</td>
</tr>
<tr>
<td>Multiple perceptions</td>
<td>Multiple interviews, supporting evidence, broad questions before probes, triangulation, self-description and awareness of own values, published reports for peer review</td>
<td>Reliability (Yin, 1994; Miles &amp; Huberman, 1994)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consistency or dependability (Lincoln &amp; Guba, 1985)</td>
</tr>
<tr>
<td>Methodological trustworthiness</td>
<td>Case study database, use in the report of relevant quotations and matrices that summarise data, and of descriptions of procedures like case selection and interview procedures</td>
<td>External validity (Yin, 1994; Miles &amp; Huberman, 1994)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applicability or transferability (Lincoln &amp; Guba, 1985)</td>
</tr>
<tr>
<td>Analytic generalisation</td>
<td>Identify research issues before data collection, to formulate an interview protocol that will provide data for confirming or disconfirming theory</td>
<td>Construct validity (Yin, 1994)</td>
</tr>
<tr>
<td>Construct validity</td>
<td>Use of prior theory, case study database, triangulation</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Healy & Perry, 2000:122

Next, this study is discussed according to the quality criteria developed by Healy and Perry (2000).

Ontological appropriateness:

The research questions guiding this dissertation are clearly “how” questions: How are opportunities explored and exploited? How are entrepreneurs’ relationships involved (benefits and drawbacks) in opportunity exploration and exploitation? How do relationships differ in this aspect? Therefore, it is in line with the ontology of realism (and critical realism) that the research problem deals with a complex social phenomena outside people’s mind.

Contingent validity:

Contingent validity relates to the assumption that the nature of social phenomena are not fixed, but contingent on their environment. According to Healy and Perry (2000)
this means that relevant quality criteria evaluate aspects like: theoretical and literal replication, in-depth questions and description of the context of the cases.

I regard the contingent validity to be good in the study since the study is rooted both in existing theory as well as in an understanding of the context of the cases. Specifically, I regard the case descriptions of critical events in chapter 4 to be central for the reader to get a comprehension of the cases and their individual situations.

**Multiple perceptions:**

In the study triangulation with regard to collecting data from different sources has been applied. In addition to multiple in-depth interviews with each lead entrepreneur, documents have been used as supporting evidence. Business plans offered insight into the entrepreneurs’ intentions and ambitions during early firm start-up and could thus be used to catch the situation at an even earlier point of time than the interviews. In this sense business plans were used to complement interview data and to offer a base for clarifying questions regarding discrepancies between stories told during the first interview and plans in the business plan document. Also other documents have been used such as timeline maps, event-relationships maps and articles. However, the firms were entered in an early stage and the retrospective bias is therefore not considered to have been a significant problem in the first place. Still, it is important to complement the entrepreneurs’ stories with other data sources and in different ways to offer the informants opportunities to recall events in the past as accurately as possible. I found the timeline map and the event-relationship maps to be important tools in this aspect.

However, I have reflected on the fact that only one entrepreneur in each firm was interviewed even in the cases where the firm was founded by a team of entrepreneurs. This could be seen as a limitation of the study. However, I decided to interview the entrepreneur who is both founder and CEO, the rationale being that this entrepreneur is responsible for the general management of the firm and has direct and hands-on experience of the firm’s development. In addition, as the firms are very small, most things actually happen around this lead entrepreneur. By interviewing this person I believe that I obtained a comprehensive picture of both the firm’s development process and the relationships involved. The lead entrepreneurs’ perspective was also complemented as I obtained information from secondary data such as the business plans of the firms. In one case, case C, both entrepreneurs participated in a part of the first interview. This was unplanned. However, I noticed that the additional information gained by the other entrepreneur’s participation was not new information, but rather information that supported and repeated things already mentioned by the lead entrepreneur. Consequently, I find that interviewing the other entrepreneurs would most probably not have added much more new information. It would have required an immense amount of time, however, to collect, transcribe and analyse the additional raw data gained.

Regarding the other dimension of this quality criterion – multiple perspectives on data analysis and potential biases deriving from this, I can conclude that I have mainly been alone in the interpretation of data. I have, however, consciously tried to diminish this bias by using different data sources and comparing them with each other, going back and forth between the different data sources and the tables I made during analysis. In the presentation of results I have used quotations in order to give the reader the possibility to get a sense of the raw data.
Methodological trustworthiness:

In order for the reader to evaluate the methodological trustworthiness I have aimed for stringency and transparency by describing the research process in a very detailed way. I have explained my methodological selections throughout all stages from abstract ontology to practical case selection and ways of conducting interviews. In addition, I have explained the process of analysing data, and I have included the event tables in appendix 5 in order for the reader to get a picture of how I constructed summary tables of the data that were used in further analysis. My attempt has also been to offer the reader insight into the raw data in order to follow my analysis and interpretations. For this I particularly regard the inclusion of the original timeline maps in appendix 4, the case descriptions in chapter 4 as well as the relevant quotations from interviews included in chapters 4 and 5 to be of importance.

Methodological trustworthiness is related to the criteria of reliability and in addition to the aspects mentioned by Healy and Perry (2000), I find it relevant to also discuss two more aspects related to the threats to reliability mentioned by Saunders et al. (2009). The first one relates to the subject or participant bias and the second to the observer error. Firstly, Saunders et al. (2009) raise the question of whether the informants say the truth or what they expect someone else wants them to. In order to avoid bias in this aspect I would like to say that I consciously did not tell the informants before or during the first interview that I was interested in hearing them talk about relationships’ involvement in the early stages of firm development and internationalisation. I did this so as not to steer the discussion and their stories. Instead I found it important to be able to capture the involvement and importance of relationships without having influenced the informants in any way. In addition, I believe that the fact that the informants were given the opportunity to be anonymous was important for the quality and depth of the data I obtained.

The second aspect is observer error. Here I would like to mention that as an interviewer I tried to be as silent and passive as possible giving the informants room to give their stories. I focused on active listening. This was also important as I wanted to ensure that I correctly understood them. As I collected all data myself I could also ensure that I obtained data on the same aspects from the different informants; and I found that the careful planning I had undertaken before conducting the interviews had been important in obtaining the rich data I gathered. The careful planning both applies to the structure, that is, doing the interviews in a step-wise approach, as well as to my efforts to prepare interview guides specific to each case for the second round of interviews.

Analytic generalisation:

Generalisability is also called external validity. For case studies, Saunders et al. (2009), state that as long as the researcher conducting case research does not claim that the results or conclusions are generally generalisable, there is no problem. The purpose of the case researcher is instead to try to explain what is going on in that context. The robustness of findings, conclusions and theories may instead be tested in potential follow-up studies. Analytic generalisation is, however, possible for case study research and means that case studies may generalise from data to theory, for example, by comparing results with theory and by developing propositions. Thus, by establishing a relationship to existing theory researchers are able to demonstrate a broader significance of findings from a particular case study (Gibbert et al., 2008; Saunders et al., 2009).
In this study, the intention is not to make statistical generalisations, even though also quantitative analyses have been conducted on the entrepreneurs' relationships. As noted before, the quantity of relationships should not be mistaken for quality. That is, for example, it should not automatically be interpreted that a large amount of relationships involved in an event are more important for firm development than a few relationships involved in another event. Similarly, the quantitative analyses should not be interpreted as I am trying to claim something about the phenomenon in focus in general within INVs. The results apply to the case firms and relationships involved in these.

Instead, analytic generalisation is attempted for in the dissertation. Before the empirical study, I spent a lot of time getting to know the phenomenon of interest from different existing theoretical perspectives. The research issue was thereby carefully identified before data collection so as I could collect data to be used for comparing it to the existing research. Analytic generalisation and theory building has been done by pattern matching findings from the study to theory and pointing out aspects confirming and questioning existing research.

Construct validity:

Construct validity is related to how well information about constructs are being “measured” (Healy & Perry, 2000:125). As mentioned, I spent a lot of time getting to know the phenomenon of interest from different existing theoretical perspectives before the empirical study. This allowed me to get a good insight into how concepts had been defined and operationalised before. Based on the benefits and drawbacks identified with different definitions and “measures”, I tried to develop as good and comprehensive concepts as possible that were both in line with research findings in the specific context and in line with my beliefs shaped by the literature review. For example, before collecting data I defined what strong and weak relationships mean in this dissertation. These definitions are not identical to any existing definitions, but they can be described as summarising existing research and thus being supported by earlier research. Based on this I tried to consciously and systematically plan the data collection process in advance in a way that would offer me the best and deepest insight into the phenomenon. For example, for the strength of relationships in existing theory there are some mostly implicit hints that relationships are perhaps not that black and white i.e. being strong or weak. This also corresponded to my belief and I then tried to think about different ways to collect data that would capture whether this was the case or not. I came up with the idea of letting informants fill out on a continuum ranging from strong to weak each relationship discussed. However, in order to be sure that everyone was evaluating the same thing, I found it necessary to provide the informants with the definitions of strong and weak relationships used in this study. This conscious process of deriving definitions based on existing literature and planning data collection based on it was not only done for the strength of relationships, but for all other concepts found to be important in the study as well. In this way, I have tried to reach construct validity.

In relation to this I have also reflected on the appropriateness of collecting data about opportunities and the involvement of relationships in exploration and exploitation of these, through the critical events. Even after the data has been analysed I still regard this to have been the best way that I could think of. It provided me good data on a lot of relationships involved in both exploration and exploitation activities occurring both before and during start-up as well as both related to the initial business idea and to additional business opportunities – also international ones. It would most certainly
have been impossible to capture the entrepreneurs’ entire networks or even all relationships that were involved before and during firm development. Hence, I regard this way of collecting data on only the relationships involved in the critical events to have been successful. It may of course have impacted on the finding that mainly strong or stronger relationships are used in these early phases of firm development. However, considering the range of relationships mentioned from new to old, from friends to financiers, from decisive to replaceable etc. I also believe that this study captures a great deal of the relationships involved in pre-founding, start-up and early internationalisation as well.

6.4. Reflection on need for further research

The findings from this study provide several opportunities for future research. First of all additional research could be made on the phenomenon being studied in this dissertation, that is the involvement of relationships in opportunity exploration and exploitation in an international entrepreneurship setting. This could, however, be done in the context of different countries and based on a deductive approach in order to validate the results from this study.

Second, future research could hone the continuum developed in the dissertation of relationship strength to confirm that strength of relationships does not fit neatly into either strong or weak. Since this study focuses on young and very small firms, future researchers could test the continuum using larger and older firms with more internationalisation experience to advance theory in international entrepreneurship. The main concepts in the dissertation could be operationalised into measurable constructs for a questionnaire to be used in a large quantitative study. These studies could include comparisons between domestic firms only and those who internationalise, thus contributing to both entrepreneurship and international entrepreneurship research.

Third, in particular relationships on the level of strength of ‘equally strong as weak’, deserve further attention because of the uncertainty and complexity they imply for the entrepreneurs. More knowledge is needed on these relationships in order to develop an understanding of what strategy entrepreneurs should take with these relationships and in which situations: when should they be strengthened and how could it be done? When should they be left as they are? When should they be abandoned and what could that lead to?

Fourth, future researchers could make a methodological contribution to international entrepreneurship by refining this approach. For example, they could use multiple informants, for example, all members of a founding team, and study the phenomenon from the perspective of the firm’s network.

Fifth, further studies are still suggested for the dynamics of relationships, both in regard to dynamics of individual relationships and in regard to dynamics of relationships over time. The first aspect could concentrate on the phenomenon of dormant or sleeping relationships and the dynamics in these. The latter aspect could go into details with how and why new relationships are added over time in the development of INVs.

Finally, it would be interesting to continue the longitudinal study of the firms for a longer time and examine not only the early, but also later/subsequential critical events
in the firm’s internationalisation. The international ambitions were prevalent from the very beginning, however, as most firms still were in an early stage of development during the main data collection it would be interesting to follow the international development of the firms further to see whether they develop into successful INVs or not, as well as to study the relationships’ role in either of these circumstances. Thus, a final suggestion for further research would be to compare successful INVs with the ones failing to survive or failing to internationalise from the viewpoint of relationship involvement. In this respect it would also be interesting to include the speed of international development.
REFERENCES


5th Biennial McGill Conference on International Entrepreneurship, September 15-17, 2006 at McGill University, Montreal, Canada.


Tesch, R., (1990), Qualitative research: analysis types and software tools. New York: Falmer Press.


## APPENDIX 1  SUMMARY OF LITERATURE REVIEW

Table 36  Definitions for personal, social and business relationships in entrepreneurship research

<table>
<thead>
<tr>
<th>Author(s) (year)</th>
<th>Personal networks/relationships</th>
<th>Social networks/relationships</th>
<th>Business networks/relationships</th>
<th>Separate/Continuum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dubini &amp; Aldrich (1991)</td>
<td>Personal network: the individual entrepreneur’s network – all direct and indirect (via direct) relations such as partners, suppliers, customers, financiers, family.</td>
<td>Extended networks: aggregation of personal networks (intra-firm or interfirm relations).</td>
<td>Intertwined</td>
<td></td>
</tr>
<tr>
<td>Ostgaard &amp; Birley (1996)</td>
<td>Personal network. Social + professional.</td>
<td>Social network: all family, friends, and acquaintances that the entrepreneur relates to primarily on a social level.</td>
<td>Professional network: all those individuals with whom the relationship is primarily concerned with business.</td>
<td>Separate</td>
</tr>
<tr>
<td>Johannisson &amp; Mønsted (1997)</td>
<td>Entrepreneurial networks/ Personal networks: entrepreneurs social and business ties. Personal relationship: business and social concerns are dimensions of any exchange relationship maintained by an entrepreneur; and relationships originating in either a business or social event will end up in a two-dimensional personal relationship.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Characterised by:</td>
<td>Social capital.</td>
<td>Dyadic economic interaction. Involving interaction extent, effort, ease and quality.</td>
<td>Relationships may build on one, two or all three. Full embeddedness characterised by high personal relationship, high economic interaction and high social capital.</td>
</tr>
<tr>
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<td>-------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Hite (2003)       | Characterised by:  
|                   | personal knowledge of and identifying with each other; affect (respect, loyalty, caring); sociality (knows private life, social activities). | Involving obligation (asymmetry, expectations, norms); resource accessibility; brokering; structural embeddedness. | Involving obligation (asymmetry, expectations, norms); resource accessibility; brokering; structural embeddedness. | Relationships may build on one, two or all three. Full embeddedness characterised by high personal relationship, high economic interaction and high social capital. |
|                   | Business relationships can be social and/or commercial. |                                                                                   |                                                                                      |                                                                                                                                    |
| Jack (2005)       | Personal contacts:  
|                   | individuals that the entrepreneur is familiar with. Familiarity trough knowledge, experience, trust.  
|                   | Personal links:  
|                   | individuals known from previous experience within same industry. |                                                                                   |                                                                                      |                                                                                                                                    |
Table 37  Definitions for strong and weak ties in previous research

<table>
<thead>
<tr>
<th>Author(s) (year)</th>
<th>Strong tie</th>
<th>Weak tie</th>
<th>Measurement for strength of ties</th>
<th>Separate/Continuum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granovetter (1973)</td>
<td>Relationships with contact at least twice per week.</td>
<td>Relationships with contact more than once a year and less than twice a week.</td>
<td>A combination of the amount of time, emotional intensity, the intimacy, and reciprocal services.</td>
<td></td>
</tr>
<tr>
<td>Granovetter (1982)</td>
<td>Close friends, relatives, people resembling each other.</td>
<td>Acquaintances</td>
<td></td>
<td>Separate</td>
</tr>
<tr>
<td>Marsden &amp; Campbell (1984)</td>
<td></td>
<td></td>
<td>Closeness/intensity</td>
<td></td>
</tr>
<tr>
<td>Aldrich &amp; Zimmer (1986)</td>
<td>Relationships entrepreneurs can count on.</td>
<td>Superficial, casual relations with little emotional investment.</td>
<td>Level, frequency, and reciprocity of relationships between people.</td>
<td>Varies from strong to weak</td>
</tr>
<tr>
<td>Dubini &amp; Aldrich (1991)</td>
<td>Embedded relations: close or special relationships characterised by trust and personal nature of business relationships.</td>
<td>Arm’s length relations: market relationships characterised by explicit contracts, transactions, lack of reciprocity, and non-repeated nature of interaction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uzzi (1997)</td>
<td>Ties characterised by frequent interaction (e.g. family, friends, close co-workers), trust, emotional bond.</td>
<td>Low maintenance casual contacts (e.g. colleagues, acquaintances).</td>
<td>How well you know the contact.</td>
<td></td>
</tr>
<tr>
<td>Singh (2000)</td>
<td>Ties characterised by frequent interaction (e.g. family, friends, close co-workers), trust, emotional bond.</td>
<td>Low maintenance casual contacts (e.g. colleagues, acquaintances).</td>
<td>How well you know the contact.</td>
<td></td>
</tr>
<tr>
<td>Hite &amp; Hesterly (2001)</td>
<td>Socially embedded ties: from dense, cohesive sets of connections e.g. personal or social relationships.</td>
<td>Arm’s length relations: based on economic costs and benefits, without any extensive human or social contact.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Author(s)</td>
<td>Type</td>
<td>Relationship</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Elfring &amp; Hulsink (2003)</td>
<td>Ties with exchange of tacit knowledge, trust-based governance, resource co-operation.</td>
<td>Ties with access to novel information.</td>
<td>Separate</td>
<td></td>
</tr>
<tr>
<td>Hite (2003)</td>
<td>Relationally-embedded ties: 7 different types based on combinations of personal relationship, dyadic economic action, social capital.</td>
<td>Only mentions them: arm's length relationship.</td>
<td>Implicitly assumes a continuum</td>
<td></td>
</tr>
<tr>
<td>Perry-Smith &amp; Shalley (2003)</td>
<td>Direct relationships with frequent interactions, high emotional closeness, reciprocity.</td>
<td>Direct relationships with infrequent interactions, low emotional closeness, one-way exchanges.</td>
<td>Continuum from strong to weak.</td>
<td></td>
</tr>
<tr>
<td>Hite (2005)</td>
<td>Relationally embedded network ties, based on trust.</td>
<td>Only mentions them: non-embedded market-based ties.</td>
<td>Continuum from market-based non-embedded to embedded relational</td>
<td></td>
</tr>
<tr>
<td>Jack (2005)</td>
<td>Personal ties friends, business friends and family links characterised by respect, knowledge about an individual, familiarity, trust.</td>
<td>Contacts not directly known by the entrepreneur, secondary links from existing strong ties.</td>
<td>Separate</td>
<td></td>
</tr>
<tr>
<td>Elfring &amp; Hulsink (2007)</td>
<td>Ties binding similar people in longer-term and intense relationships.</td>
<td>The intensity and diversity of relationships (Granovetter 1995).</td>
<td>Separate</td>
<td></td>
</tr>
<tr>
<td>Author(s) (year)</td>
<td>Context</td>
<td>Benefits of networks for entrepreneurial process</td>
<td>Method</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>---------</td>
<td>-------------------------------------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Butler &amp; Hansen (1991)</td>
<td>Initial and ongoing success of entrepreneurial firms</td>
<td>Entrepreneurial phase: social networks used for opportunity identification. Business start-up phase: business networks used only sporadically for labour and legal assistance. Prior business experience more important than networks. Ongoing business phase: Strategic Networks used for exploiting opportunities by linking firm to other organisations and for marketing advantages.</td>
<td>Interviews with founding entrepreneurs of 29 wineries mainly started in the 1980s</td>
<td></td>
</tr>
<tr>
<td>Greve (1995)</td>
<td>Firm establishment process</td>
<td>Resources Later phases of establishment process: bridges to new contacts ← information; Experienced business founders or managers in the network ← knowledge, experience.</td>
<td>Survey of 100 persons in different phases (idea, planning, establishing and running a business) Social networks</td>
<td></td>
</tr>
<tr>
<td>Hansen (1995)</td>
<td>Pre-founding and first year growth</td>
<td>Size and degree (how well people know each other) of entrepreneur’s network contacts that contribute in some way to the founding have a positive effect on the first year’s growth.</td>
<td>Interviews with 44 entrepreneurs of new firms</td>
<td></td>
</tr>
<tr>
<td>Ostgaard &amp; Birley (1996)</td>
<td>New venture growth</td>
<td>Personal networks: support, contact, credibility, competitor information, access to new contacts (particularly to customers and investors).</td>
<td>Survey of 159 English owner-managed firms (&lt;10 years old, &lt;50 employees)</td>
<td></td>
</tr>
<tr>
<td>Hills et al. (1997)</td>
<td>Entrepreneurial opportunity recognition</td>
<td>Identification of opportunities (weak)</td>
<td>Survey of 171 entrepreneurs that had recognized and exploited opportunity</td>
<td></td>
</tr>
<tr>
<td>Brüderl &amp; Preisendörfer (1998)</td>
<td>Survival and growth of newly founded businesses</td>
<td>Support from personal network improves survival and growth. Support from strong ties more important than from weak ties. Emotional support from family positive effect on start-ups.</td>
<td>Interviews with 1710 German start-ups founded 1985-1986</td>
<td></td>
</tr>
<tr>
<td>Chell &amp; Baines (2000)</td>
<td>Business performance of micro firms</td>
<td>Information (weak) Information for recruitment purposes (strong and weak) Business growth (weak)</td>
<td>Quantitative (questionnaire to 104 owner-managers (om). Qualitative (interviews with 34 om on critical incidents), micro firms (0–9 employees, &gt;2 years)</td>
<td></td>
</tr>
</tbody>
</table>
| Singh (2000) | Entrepreneurial opportunity recognition | Recognition of new venture opportunities (social network, weak)  
Recognition of successful new venture opportunities (social network, strong + weak)  
Exploitation of new venture opportunities (social network) | Survey of 303 entrepreneurs. Social networks |
| Anderson & Jack (2002) | Business activity | Finding new/maintaining existing business, tapping into external resources and knowledge, becoming known and informed. | Inductive study involving in-depth interviews and observations |
| Jack & Anderson (2002) | Entrepreneurial process as ongoing process from start-up onwards | Recognition of opportunity  
Realisation of opportunity (e.g. advice, contacts, information, knowledge, practical and moral support, access to latent resources). | Qualitative, ethnographic, longitudinal study of 7 entrepreneurs on embeddedness in social, local structures |
| Jenssen & Koenig (2002) | Success of business start-up | Information and access to financing (strong and weak), effect on success  
Access to financing (strong and weak), effect on success  
Motivation (strong), no effect on success | Survey on 100 entrepreneurs that had tried to start a new business (success + failures) Social network |
| Davidsson & Honig (2003) | Nascent entrepreneurs | Bridging (linking to weak ties) and bonding (operating with close network of strong ties) predictor for nascent entrepreneurs  
Strong – entrepreneurs among family or friends, encouragement from family and friends → opportunity discovery, entry, rapid gestation activity, and successful exploitation  
Weak – rapid and frequent gestation activities, first sale, profit. | Longitudinal interviews with 380 nascent entrepreneurs, follow-ups during 18 months |
| Elfring & Hulsink (2003) | Emergence and early growth | Discovery of opportunities (strong + weak)  
Securing resources (strong)  
Obtaining legitimacy (strong + weak) | Exploratory case study of 3 Dutch firms |
| Greve & Salaff (2003) | Business establishment process | All phases: access resources through SN; Family members largely involved.  
1) Motivation phase: Discussion about business idea with the closest relationships.  
2) Planning phase: Discussions about business idea and establishment with large SN.  
3) Establishments phase: SN limited to discussions with only important, helpful members. | Cross-sectional survey on 213 U.S., 52 Italian, 261 Swedish and 62 Norwegian firms. Social networks (SN) |
2. Marketing networks, most important in early phases of life, access to new markets or clients.  
2-3. Co-opetition networks important in all development phases, flexibility and resource access.  
3-4. Knowledge, innovation and technology networks important in all phases, but in early phases lack of access to them, in later phases problems in managing them. | Case study of 10 German IT-firms in different development phases: 1. Fast-growing start-up, 2. IPO-preparation, 3. IPO-due diligence, 4. Post-IPO, 5. Established firm Network development stages 1-4 |
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Type of Firms</th>
<th>Key Activities</th>
<th>Methodology</th>
</tr>
</thead>
</table>
*Business contact:* Information about, introduction to and validation of people, Mentor, Strategy development. 
*Customers, competitors, suppliers:* General and specific market information, New product ideas, Market ideas, Avoidance of competition. | Qualitative study of strong ties, interviews with 12 Scottish entrepreneurs, firms founded 1973-1997, various industries (e.g. computing services, video production, language school, oil supply services) |
| Hite (2005)       | Emerging firms         | *Relationally-embedded (strong) ties:* Discovery of opportunity; Exploitation of opportunity (evaluation, taking risks, refining opportunity market, open doors to take advantage of the opportunity); Resource acquisition (type of resource needed according to type of relationally-embedded tie). | Case study of 8 emerging firms in computer industry (18-24 months since legal registration) |
| Jack (2005)       | Business activity      | *Strong ties:* Knowledge, information about business, industry, local area; Support to start business; Maintain, extend and enhance business and personal reputations; Bridge to weak ties; Development of customer base; financing. | Qualitative, ethnographic, longitudinal study of 14 entrepreneurs, firms founded 1959-1998, various industries Social/personal networks |
| Neergaard (2005)  | Networking activities of founding team | Building the new venture team, Raising capital; Recruitment; Finding customers; Obtaining access to relevant advice/knowledge; Establishing international contacts. | Longitudinal study, two rounds of interviews (1. all team members, 2. team leader) in 24 Danish new technology-based ventures over a period of two years |
*Cooperative technology networks* at founding: negative influence on time to break-even. 
*Marketing information networks* in the years after founding: positive effect for sales. 
*Co-opetition networks* in the years after founding: positive effect on firm's flexibility and sales growth through use of sub-contractors or joint realisation of projects. 
*Social networks* 1) at founding: no direct effect on time to break-even; 2) in years after foundation: negative effect on sales growth. | Survey from 60 venture capital-financed entrepreneurial start-ups in German speaking countries, <10 years old, founding management still in firm |
<p>| Shaw (2006)       | Business activity      | Personal contact network: Information (market information, customer information), and advice (legal, accountancy, financial, marketing, staffing, location, interior design); Economic transactions (personal relationships with clients identified as contributing directly or by reputation and referral to turnover and client base); Bartering-exchanges (exchange of business services for a mix of money and in-kind payments as tickets to football matches, to widen own resource base); Normative expressions (services/advantages based on friendship) and multiplex relationships (strong). | Longitudinal qualitative case study of 6 small (less than 10 employees) Scottish firms in the creative industries sector, &gt;3 years old |</p>
<table>
<thead>
<tr>
<th>Study</th>
<th>Business activity</th>
<th>Details</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson et al. (2007)</td>
<td>Business activity</td>
<td>Discovery of (market) opportunities, information, business advice, team building, introduction to brokers/gatekeepers (social networks).</td>
<td>Interviews with entrepreneurs of 10 technology firms</td>
</tr>
<tr>
<td>Ozgen &amp; Baron (2007)</td>
<td>Opportunity recognition for new ventures</td>
<td>Entrepreneur’s alertness to opportunities (mentors, informal industry networks, professional forums) Schema strength (cognitive, mental frameworks) → opportunity recognition (mentors and professional forums) Self-efficacy (belief in themselves) → opportunity recognition (informal industry networks)</td>
<td>Survey on 201 entrepreneurs with newly founded (mostly last 6 months) IT firms</td>
</tr>
<tr>
<td>De Carolis, Litzky &amp; Eddleston (2009)</td>
<td>New venture creation</td>
<td>Social networks and relational capital (information and influence being a part of SN) enhance illusion of control (which is important for the progress of new venture creation) Relational capital has a positive effect on risk propensity.</td>
<td>Survey of 269 entrepreneurs that recently had started a firm or were in the process of starting a firm. Social networks (to how many business associations, community, political, religious and alumni organisations the entrepreneur belongs)</td>
</tr>
</tbody>
</table>
Table 39 Empirical research on benefits of networks for INVs

<table>
<thead>
<tr>
<th>Author(s) (year)</th>
<th>Benefits of networks</th>
<th>Constraints of networks</th>
<th>Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coviello &amp; Munro (1995)</td>
<td>Formal and informal networks: <em>International market development</em>: trigger to foreign market selection and entry mode, new market opportunities, potential partners, market access, increased negotiation power, piggybacking, joint marketing or development agreements, <em>Marketing-related activities</em>: market knowledge, credibility, access to distribution channels, reducing costs, risks and time.</td>
<td>Limited the marketing opportunities pursued and establishment of relationships with others</td>
<td>Mixed methods: 4 in-depth case studies of entrepreneurial firms in a mature stage of internationalisation; Survey of 25 firms at an earlier stage of internationalisation; software industry, New Zealand</td>
</tr>
<tr>
<td>Coviello &amp; Munro (1997)</td>
<td>Internationalisation process: guiding foreign market selection, access to distributors, access to partners, joint product development and marketing agreement, market opportunities.</td>
<td>Limited the marketing opportunities pursued and establishment of relationships with others</td>
<td>4 in-depth case studies of entrepreneurial firms in a mature stage of internationalisation; software industry, New Zealand</td>
</tr>
<tr>
<td>Crick &amp; Jones (2000)</td>
<td>Network of customers and contacts created at previous workplace → overseas market expansion, nature and pace of internationalisation.</td>
<td></td>
<td>Case study of 10 high-technology small (max 100 employees) INVs in U.K.</td>
</tr>
<tr>
<td>Andersson &amp; Wictor (2003)</td>
<td>Reaching market, subcontracting, recruiting, building distribution channels, registering patents.</td>
<td></td>
<td>Case study of 3 Swedish INVs, focus on entrepreneurs, networks, industry and globalisation of the firms</td>
</tr>
<tr>
<td>Chetty &amp; Campbell-Hunt (2003)</td>
<td>Business networks → internationalisation path (access to new markets and distributor networks, market knowledge), development of collaboration capabilities, new product ideas, technology, knowledge, finance, increased sales.</td>
<td>Time- and energy consuming, misunderstandings, differences in ethics, differences in propensity to take risks</td>
<td>Case study in two stages: 1. Two rounds of interviews with 12 SMEs (100-300 employees), 2. Further interviews with 4 of the cases showing continued international success</td>
</tr>
<tr>
<td>Sharma &amp; Blomstermo (2003)</td>
<td>Strong domestic relationships as broker to weak relationships abroad. Weak relationships: knowledge of market and customers; source of referrals → selection of country market and market entry mode.</td>
<td></td>
<td>Single-case study of Swedish INV</td>
</tr>
<tr>
<td>Reference</td>
<td>Description</td>
<td>Methodology</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
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<td></td>
</tr>
<tr>
<td>Coviello (2006)</td>
<td>Market access, financing, distribution channels, legitimacy, referrals, contacts for internal and external development. These resources are essential also for pre-internationalisation, pre-growth and pre-commercialisation, that is, from the earliest stage of firm development, the conception. Social and economic ties, strong and weak ties are involved in INV networks.</td>
<td>Case study of 3 INVs (micro firms, &lt;6 years old), part of incubator programme, from New Zealand</td>
<td></td>
</tr>
<tr>
<td>Freeman, Edwards &amp; Schroder (2006)</td>
<td>Personal networks, collaborative partnerships and client followship used in order to overcome constraints (poor access to economies of scale, lack of financial and knowledge resources, risk aversion) faced by INVs. Brokerage role of networks, shared resources, access to knowledge and financial resources, flexibility and trust → rapid internationalisation.</td>
<td>Case study of 3 small Australian INVs, 20 interviewees, personal and focus group interviews, some interviewed at several occasions</td>
<td></td>
</tr>
<tr>
<td>Loane &amp; Bell (2006)</td>
<td>Existing social and business networks to get access to decision-makers in target firms, knowledge, resources, financing. Strong ties evident in start-up phase, but weak ties more important for international knowledge and development.</td>
<td>Multi-stage, mixed methods. Information from online sources of 218 small internationalising firms, 143 e-mail responses, interviews with 53 CEOs from four countries</td>
<td></td>
</tr>
<tr>
<td>Mort &amp; Weerawardena (2006)</td>
<td>Enables identification and exploitation of market opportunities (market-experiential knowledge, access to customers, resources), facilitates development of knowledge-intensive products (technological and market trend knowledge, ideas for product development) and firm international market performance (enhance range of strategic options for market entry).</td>
<td>Case study of 6 Australian INVs in low- and high-tech industries</td>
<td></td>
</tr>
<tr>
<td>Chandra et al. (2009)</td>
<td>Identification of international opportunities, entering international markets (especially weak ties rich in structural holes linking different international knowledge networks).</td>
<td>Case study, 8 Australian SMEs (3-180 employees, founded 1980-2000), majority INVs</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 2  INTERVIEW GUIDES

Interview Guide for Interview I

1. Tell me about the firm
   - Tell me about the time before the firm was started – the idea and how it developed
   - Tell me about the start-up of the firm

2. Tell me about your views on internationalisation
   - Tell me about how the firm has been internationalised

3. Timeline map
   - Fill in events/activities that according to you have been important for the development of the firm. That is, events/activities BEFORE – DURING – AFTER the start-up of the firm.
   - The events/activities can be about:
     * Products
     * Production methods
     * Technology
     * Organisation (employees, partners)
     * Financing
     * Customers
     * Internationalisation
Interview Guide for Interview II

Different for each firm:
- Clarifying questions regarding unclear points from interview I
- Follow-up questions regarding how activities that were going on during interview I had developed and turned out – what had happened since the previous interview?
- Which critical events that we discussed during interview II depended on the events/activities mentioned in the timeline map as well as events talked about during interview I.

However, for all critical events the following aspects were discussed:
- Tell me about this event
  i. What happened (process)?
  ii. When was it?
  iii. How did it develop?
  iv. Why is it important?
- Who was involved? (persons, firms, organisations)
  i. How do you know the person/firm/organisation?
  ii. Tell me about the relationship (origins, development, how is it currently)
  iii. Personal – business relationship? (fill out on a continuum)
    1. How has it developed from the event until now?
    2. Why was it placed where it was?
  iv. Strong – weak relationship? (fill out on a continuum)
    1. How has it developed from the event until now?
    2. Why was it placed where it was?
  v. What did the relationship give you? Content?
  vi. Has this relationship been involved later on in the business development process?
  vii. How important is the relationship?
  viii. Have there been any problems in the relationship?
- Has any relationship that you have been a problem/barrier for this event?
- Do you consider that you have been lacking in any relationships that would have been important for this event?
  i. What have you done about it?

Finally, I asked about relationships that the entrepreneur had talked about during interview I, but that had not been discussed in detail in relation to any critical event. Therefore, had the entrepreneur forgotten to mention a relationship or had it not been involved in any of the critical events?
## APPENDIX 3 COLLECTION OF DATA

Table 40  Main collection of data

<table>
<thead>
<tr>
<th>Case</th>
<th>Informant</th>
<th>Date</th>
<th>Position*</th>
<th>Place</th>
<th>Duration</th>
<th>Type**</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Adam</td>
<td>2.2.2007</td>
<td>F + CEO</td>
<td>Firm + cafeteria</td>
<td>3 h 20 min</td>
<td>I1+TML+BP+A</td>
</tr>
<tr>
<td>B</td>
<td>Ben</td>
<td>8.2.2007</td>
<td>F + CEO</td>
<td>Firm</td>
<td>2 h 45 min</td>
<td>I1+BP</td>
</tr>
<tr>
<td>C</td>
<td>Carl (100%)</td>
<td>12.2.2007</td>
<td>F + CEO</td>
<td>Firm</td>
<td>1 h 45 min</td>
<td>I1+TLM+BP</td>
</tr>
<tr>
<td></td>
<td>Colin (20%)</td>
<td></td>
<td>F</td>
<td>Firm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Ben</td>
<td>15.2.2007</td>
<td>F + CEO</td>
<td>Mail</td>
<td></td>
<td>TLM</td>
</tr>
<tr>
<td>D</td>
<td>David</td>
<td>5.3.2007</td>
<td>F + CEO</td>
<td>Firm</td>
<td>1 h 25 min</td>
<td>I1+BP</td>
</tr>
<tr>
<td>E</td>
<td>Eric</td>
<td>7.3.2007</td>
<td>F + CEO</td>
<td>Business school</td>
<td>1 h 50 min</td>
<td>I1</td>
</tr>
<tr>
<td>B</td>
<td>Ben</td>
<td>7.5.2007</td>
<td>F + CEO</td>
<td>Firm</td>
<td>4 h 15 min</td>
<td>I2+ERM</td>
</tr>
<tr>
<td>E</td>
<td>Eric</td>
<td>16.5.2007</td>
<td>F + CEO</td>
<td>E-mail</td>
<td></td>
<td>BP</td>
</tr>
<tr>
<td>A</td>
<td>Adam</td>
<td>22.5.2007</td>
<td>F + CEO</td>
<td>Firm + cafeteria</td>
<td>3 h 5 min</td>
<td>I2+ERM</td>
</tr>
<tr>
<td>D</td>
<td>David</td>
<td>4.6.2007</td>
<td>F + CEO</td>
<td>Mail</td>
<td></td>
<td>TLM+BP</td>
</tr>
<tr>
<td>C</td>
<td>Carl</td>
<td>20.6.2007</td>
<td>F + CEO</td>
<td>Firm</td>
<td>2 h</td>
<td>I2+ERM</td>
</tr>
<tr>
<td>D</td>
<td>David</td>
<td>31.7.2007</td>
<td>F + CEO</td>
<td>Firm</td>
<td>2 h 55 min</td>
<td>I2+ERM</td>
</tr>
<tr>
<td>E</td>
<td>Eric</td>
<td>17.8.2007</td>
<td>F + CEO</td>
<td>Firm</td>
<td>3 h 40 min</td>
<td>TLM+I2+ERM</td>
</tr>
</tbody>
</table>

* F = Founder
  CEO = Chief Executive Officer

** I1 = Interview 1
  I2 = Interview 2
  TLM = Timeline map
  ERM = Event/relationship map
  BP = Business plan
  A = Article (newspaper, magazine)
APPENDIX 4  ORIGINAL TIMELINE MAPS

Figure 23  Original timeline map of case A

1980s  Demolishes melting furnaces by hand
1997  Sells demolition machines to Finland
1998  Demolition machines bought up by large Swedish firm
2002  Wanted to change jobs
2003  Worked in Finland, part owner of firm A3 selling spare parts to the process industry
2003  Contacted by A1, interested in starting with demolition robots?
2005  A3's investments in Sweden did not go very well
2005  Contacted by A1, take over demolition robots?
2006  January: Meets retailers from the USA and Sweden
2006  January: Positive answer from financiers in Sweden
2006  March: Negative answer from financiers in Sweden
2006  Contact with Tekes, Finnvera & TE-Keskus
2006  Contact with Merinova
2006  Partners A12 and A13 join

Firm legally registered in July 2006
Applications ready for Tekes, Finnvera & TE-Keskus
Machine design ready
Drawings ready for the prototype
Article in the industry magazine Professional Demolition (come out from the wardrobe)
Positive answer regarding financing from Tekes, Finnvera & TE-Keskus
Contacted by potential retailers and customers
Proto ready
BAUMA 23.4.07
0-series ready
Employ a spare part salesman
Prognosis:  First order during June 2007
10 machines sold during 2007
(4 USA, 3 Sweden, 1-3 Finland, Germany, France)
20 machines sold during 2008
Retailer- and service network ready during 2008
The years 1985-2000
The time to learn a profession and to grow up. Ben and Bob realised that they were valued experts in their area.

Start-up of the firm

The years 2000 - 2002
The best time of the working career. Interesting product development without pressure.

The years 2004-2005
All different kinds of problems, e.g. organisational, financial and health problems. These were worked out and from 2006 onwards growth was on track.

1985 Went to work in Norway
1988 First time a chief at a big site (oil refinery in Norway)
1990 Recessionary period first in Norway, then in Finland
1991 First annual service revision at nuclear power plant (in Sweden)
1995-96 The Maldives
1996 Thoughts about the product that is to become Insulation Module Systems
1998 Ben and Bob take the decision to start a firm
1999 Contact to Startia

Firm legally registered in January 2000

2000 First order (from large MNE B7), February Patent
2002 LIKSA and INTRO success!
2003 Contract with B7
Partners join
Employees
Actual business starts
2004 Difficult year
Maritime authorities grant ships additional time before they have to adhere to the SOLAS-regulations
2005 Reality hits – took the wrong decisions and expected too much
2006 New start!
Employees join as shareholders
Business revives and the feeling is good
B7 starts to work again
New possible buyer
Profitable year
2007 The year of growth
New large buyer
2008 Entering the nuclear power plant market

Figure 24 Original timeline map of case B
Figure 25 Original timeline map of case C

April 2006  Carl starts to work for Colin’s firm C2
May 2006   Product idea
           Initial technical analyses
           Interviews with potential buyers
           Negotiations with large MNE regarding cooperation
           Negotiations with other firms
           Analysis of competitors
           Development of business plan
           Arranging financing

**Firm legally registered in June 2006**

Product development
Selection of suppliers and other cooperation partners
Patent application
Recruitment of experts (marketing, technology, international experience)
Testing of products
Searching for pilots – installation
Launching of product at fair-trade in Tampere February 2007

Installation of pilots
Recruitment of experts
Expansion of product development
Internationalisation
1980s  Inventor D1 comes up with the idea about the technology/product.

September 2005  Inventor D1 contacted D2 at venture capital firm D3
Telephone discussions and meetings: D1 and D2 discussed the applicability of the bearing gear for the wind power industry
Initial analyses of technical dimensioning
Planning of first reel lane at D4 (D5 = manager, firm of D1 = design)
D2 and D5 applied for patent for the integrated gear

December 2005  Business put on hiatus due to lack of money
Discussions among friends, acquaintances and family about starting a firm
Development of business plan
Incubator firm at Merinova (D13 coach)

Firm legally registered in May 2006

June 2006  Manufacturing of prototypes for reel lanes started
Employed D14 as mechanics designer

September 2006  Testing of product

December 2006  Employed D15 as business development manager (mentor), KEOPARA-programme
Tekes application for wind power application
Venture capital firm investment in D

February 2007  Planning of 550 kW bearing drive for wind power industry

May 2007  Assembly of prototype (550kW gear)
Invitation for tenders from D20 (Chinese firm) for 3 MW gear

Representative in China
Pilot preferably in Finland (550kW gear)
Creation of cooperation consortium

Figure 26  Original timeline map of case D
Figure 27 Original timeline map of case E

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Eric – thought of starting a business</td>
</tr>
<tr>
<td>2001</td>
<td>Eric – change of workplace, working with environmental technology at E1</td>
</tr>
<tr>
<td>2002</td>
<td>Contacted by inventor Elias</td>
</tr>
<tr>
<td>January 2005</td>
<td>Suggestion regarding cooperation with Elias</td>
</tr>
<tr>
<td>February 2005</td>
<td>Contact with E5 at venture capital firm, idea positively received</td>
</tr>
<tr>
<td>April 2005</td>
<td>Development of business plan</td>
</tr>
<tr>
<td>June 2005</td>
<td>Financing: Positive decision regarding investment from the venture capital firm, Tesi and Finnvera</td>
</tr>
<tr>
<td></td>
<td>Firm legally registered in July 2005</td>
</tr>
<tr>
<td>October 2005</td>
<td>Eric starts to work fulltime in the firm</td>
</tr>
<tr>
<td></td>
<td>Incubator firm at Merinova</td>
</tr>
<tr>
<td></td>
<td>Purchase of a pilot unit to demonstrate the function to customers</td>
</tr>
<tr>
<td></td>
<td>Pilot attempt at E22, E23 and E24</td>
</tr>
<tr>
<td></td>
<td>Insight that full-scale reference unit is needed.</td>
</tr>
<tr>
<td>Spring 2006</td>
<td>Search for reference customer</td>
</tr>
<tr>
<td></td>
<td>Financing of reference unit – Tekes, Finnvera, Bank loan, Venture capital firm and Tesi</td>
</tr>
<tr>
<td>2006/2007</td>
<td>Realisation of the venture capital firm’s and Tesi’s option to increase their shareholding</td>
</tr>
<tr>
<td>January 2007</td>
<td>Contract with B24, reference unit is being built</td>
</tr>
<tr>
<td></td>
<td>Identification of side opportunities</td>
</tr>
<tr>
<td></td>
<td>Negotiations going on with potential international customer</td>
</tr>
</tbody>
</table>
## APPENDIX 5  CRITICAL EVENTS

### Table 41  Summary of critical events in case A

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
<th>Event</th>
<th>Phase</th>
<th>Activity</th>
<th>Why important</th>
<th>Based on relationship</th>
<th>Relationships linked to event</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE1</td>
<td>1980s Demolishes melting furnaces by hand</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Product knowledge</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inspiration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE2</td>
<td>1997 Sells demolition machines to Finland</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Product knowledge</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Market knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Network</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Identified market gap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE3</td>
<td>1998 Machines bought up by large Swedish firm</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Market gap</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Revenge action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE4</td>
<td>2003 Work in Finland, part owner of firm A3 selling spare parts to the process industry</td>
<td>E</td>
<td>P</td>
<td>**</td>
<td>Knowledge of Finland and Finnish business culture</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>→ firm localisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Self-confidence to start own business</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Reference</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE5</td>
<td>2003 and 2005 contacted by A1, interested in starting with demolition robots?</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Business idea</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Product demand exists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE6</td>
<td>2006 Meets retailers from the USA and Sweden</td>
<td>E</td>
<td>P</td>
<td>**</td>
<td>Explore product demand</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EI</td>
<td>**</td>
<td>Potential retailers and customers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE7</td>
<td>2006 Negative answer from financiers in Sweden</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Localisation of firm A (changed country)</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>AE8</td>
<td>2006 Tekes, Finnvera and TE-keskus – contact, applications and financing</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Positive towards business idea</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Financing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE9</td>
<td>2006 Contact with Merinova</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Mentoring (develop business idea, exchange thoughts) Networking (contact with business partners)</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>AE10</td>
<td>2006 Partners join</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Knowledge of product development and manufacturing Board members Part owners (financing)</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>AE11</td>
<td>Legal registration of the firm</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Only important thing is that firm exists officially</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>AE12</td>
<td>Building the prototype – design, drawings and development of product</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Product development Long process before sales begin</td>
<td>Yes/No</td>
<td>7 offered more than products</td>
</tr>
<tr>
<td>AE13</td>
<td>Article in the industry magazine Professional Demolition</td>
<td>I</td>
<td>EI</td>
<td>*</td>
<td>Advertising reaching main part of potential customers Recognition before BAUMA trade fair</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>AE14</td>
<td>Contacted by potential retailers, customers and cooperation partners</td>
<td>I</td>
<td>EI</td>
<td>*</td>
<td>As a consequence of the article in PD about 20 potential retailers, customers and cooperation partners contacted firm A Interest in the product exists</td>
<td>No</td>
<td>Still just contacts, not relationships</td>
</tr>
<tr>
<td>AE15</td>
<td>Product launch at BAUMA trade fair</td>
<td>I</td>
<td>EI</td>
<td>*</td>
<td>Launch of product Interest in the product exists Worldwide contacts to retailers (about 50, sale and service) and customers (about 240) Base to build up service and retail network Insight into the industry, players and market potential</td>
<td>Yes</td>
<td>1; others still just contacts</td>
</tr>
<tr>
<td>AE16</td>
<td>Building up a retailer- and service network</td>
<td>E</td>
<td>S</td>
<td>EI</td>
<td>Evaluation of contacts from PD-article and BAUMA trade fair to build up retailer- and service network</td>
<td>Yes/No</td>
<td>3; others still just contacts</td>
</tr>
<tr>
<td>Event</td>
<td>Description</td>
<td>Event</td>
<td>Phase</td>
<td>Activity</td>
<td>Why important</td>
<td>Based on relationship</td>
<td>Relationships linked to event</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td>-------</td>
<td>-------</td>
<td>----------</td>
<td>---------------</td>
<td>-----------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>BE1</td>
<td>1985- Working in Norway and Sweden</td>
<td>E</td>
<td>P</td>
<td><em>/</em>*</td>
<td>Opportunity recognition (problem in nuclear power plants, NPPs) Market gap Product knowledge Market knowledge Network Team building/people knowledge Structuredness (NPPs a role model for all business activities) Product development</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>BE2</td>
<td>1990s Recessionary period in the Nordic countries</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Philosophy in work life changed (no progress, only regression) Insight: do it yourself if you want it done (exploit the opportunity)</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>BE3</td>
<td>1995–96 The Maldives</td>
<td>E</td>
<td>P</td>
<td><em>/</em>*</td>
<td>Opportunity needed in different industries Time to develop the product First handmade solutions Testing the solutions Insight: experts in their area Insight: own knowledge gaps Insight: potential of opportunity</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>BE4</td>
<td>Thoughts about the products that were to become insulation module systems</td>
<td>E</td>
<td>P</td>
<td>**</td>
<td>Product development</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>BE5</td>
<td>1998 Ben and Bob mentally take decision to start a firm</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Fund-raising period</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>BE6</td>
<td>1999 Contact with Startia and Merinova</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Simplified information gathering about starting a firm, First external evaluators of business idea</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>BE7</td>
<td>1.1.2000 Legal registration of the firm</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Full-time concentration on firm start-up, Not important in other ways</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>BE8</td>
<td>2000 First order (from MNE, B7)</td>
<td>E</td>
<td>S</td>
<td>El</td>
<td>**</td>
<td>Business done immediately, Learning experience (also negatively, how to (not) make contracts), Gateway to additional business, Changed market focus (from NPPs to ship engines)</td>
<td>Yes</td>
</tr>
<tr>
<td>BE9</td>
<td>Patent</td>
<td>E</td>
<td>S</td>
<td>El</td>
<td>**</td>
<td>Patent valid in countries important for B or for competitors, Marketing instrument (sign of B's innovativeness), Technical and ethical barrier (slow down possible competitors)</td>
<td>No</td>
</tr>
<tr>
<td>BE10</td>
<td>2001 Start-up of a second jointly owned firm</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Overcoming financial constraints, Sharing technical workforce</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>BE11</td>
<td>2002 LIKSA and INTRO success</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>LIKSA (programme for developing business plan): Business plan development, presentation, feedback, financing of two mentors, opportunity to participate in INTRO together with five other firms, INTRO (programme for finding investors for high potential business ideas): Business plan development, 8 interested investors, encouragement</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>BE12</td>
<td>Contract with B7</td>
<td>E</td>
<td>I</td>
<td>S</td>
<td>EI</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>BE13</td>
<td>Partners join</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Active participation in business activities Access to network Advice, mentoring Financing</td>
<td>Yes</td>
<td>5</td>
</tr>
<tr>
<td>BE14</td>
<td>Employees</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Additional capacity Skilled and loyal</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>BE15</td>
<td>SOLAS-regulations (Safety of Life at Sea)</td>
<td>E</td>
<td>I</td>
<td>S</td>
<td>EI</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>BE16</td>
<td>Problems experienced during difficult years 2004-2005</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Problems (e.g. delayed contract with B7, products sold that had not been planned, several prototypes at a time, hectic time, lack of internal systems, Ben’s health) Welded together the workforce – fighting spirit Noticed that financiers believed in the firm Internal systems built up Healthy scepticism/caution</td>
<td>Yes</td>
<td>8</td>
</tr>
<tr>
<td>BE17</td>
<td>Employees join as shareholders</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Commitment Fair rewarding system Financing</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>BE18</td>
<td>Relationship with B7 is working again</td>
<td>E</td>
<td>S</td>
<td>*</td>
<td>Cooperation opportunity: Joint product development</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>------</td>
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<td>----</td>
<td>---------------------------------------------------</td>
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</tbody>
</table>
| BE19 | Possible new large international buyer, B22 | I  | EI | */**| International business opportunity
Visit of B22, negotiations
Contract for prototype | Yes | 2  |
| BE20 | Entering the nuclear power plant market | I  | EI | */**| Return to initially planned market segment
Relationships exist to some extent
Orders from Swedish NPPs | Yes | 0  |
| BE21 | Accessories for insulation products | E  | S  | *  | Business opportunity (sell accessories like the locking system and registration system separately for other purposes) | No  | 0  |
### Table 43  Summary of critical events in case C

<table>
<thead>
<tr>
<th>CASE C</th>
<th>Description</th>
<th>Event</th>
<th>Phase</th>
<th>Activity</th>
<th>Why important</th>
<th>Based on relationship</th>
<th>Relationships linked to event</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE1</td>
<td>Carl starts to work for Colin’s firm C2</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Business idea</td>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>CE2</td>
<td>Business idea</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Active search for business opportunity in order to save C2</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>CE3</td>
<td>Initial technical analyses and interviews with potential buyers</td>
<td>E</td>
<td>P</td>
<td>/**</td>
<td>Investigation of product needs Information on technical as well as competing solutions Advice for product improvements Strengthened belief in products</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>CE4</td>
<td>Cooperation negotiations with large MNE, C6</td>
<td>E</td>
<td>P</td>
<td>**</td>
<td>Intended primary global distribution channel Sudden end of planned cooperation (arrogant contract) Turning point – with C6 or alone?</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>CE5</td>
<td>Negotiations with other firms</td>
<td>E</td>
<td>S</td>
<td>/**</td>
<td>Cooperation opportunities: Compatible products and joint product development projects</td>
<td>Yes/No</td>
<td>3</td>
</tr>
<tr>
<td>CE6</td>
<td>Analysis of competitors</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Information about competitors’ strengths and weaknesses</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>CE7</td>
<td>Development of business plan</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Lighthouse (to keep direction) Important for financiers</td>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>CE8</td>
<td>Arranging financing</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Financing for product development and start-up</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>CE9</td>
<td>Legal registration of the firm</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Only important thing is that firm exists officially</td>
<td>No</td>
<td>0</td>
</tr>
</tbody>
</table>
| CE10 | Product development | E | S | ** | Development of product family
Time consuming hard work, research, design, planning, selecting components, testing | Yes | 1 |
| CE11 | Selection of suppliers and other cooperation partners | E I | S EI | ** | Local, national and international suppliers from China, Estonia
Selection criteria: Wide product range, short delivery times, competitive pricing | Yes/No | 3 |
| CE12 | Patent application | E I | S EI | ** | First Finland, then Europe
Expected risk to be copied minor (sales technical support vital) | Yes | 3 |
| CE13 | Recruitment of mentors | E I | S EI | ** | KEPSA-financing from Tekes for employing two mentors
Good reputation, well known, knowledge and experience of marketing, technology and international business, large international networks | Yes | 3 |
| CE14 | Testing of products | E | S | ** | In own facilities, university laboratory, official testing at C20 | No | 1 |
| CE15 | Searching for pilots – installation | E | S | ** | Test of products
Positive results (technology reliable, products easy to install)
Reputation and trustworthiness, critical to getting sales going | Yes | 2 |
| CE16 | February 2007 Product launch at trade fair in Tampere | E | S | ** | Launch of product
Competitors spying (C6 in secret, experienced as interesting due to love-hate relationship)
Product positively received
International contacts (stagnate?) | Yes | 3 |
| CE17 | Recruitment of experts | E | S | ** | Marketing person – difficult Designer – discussions with 2 candidates, known from before | Yes/No | 0 |
| CE18 | Expansion of product development | E | S | */** | Exploration and evaluation of additional product ideas Joint product with C9 | Yes/No | 1 |
| CE19 | Internationalisation | I | EI | * | Internationalisation as soon as product is ready, tested and documentation done Expectations on mentors for bridging relationships to buyers | Yes/No | 2 |
Table 44  Summary of critical events in case D

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
<th>Phase</th>
<th>Activity</th>
<th>Why important</th>
<th>Based on relationship</th>
<th>Relationships linked to event</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE1</td>
<td>1980s Inventor D1 develops the first thoughts about the product/technology</td>
<td>E P</td>
<td>*</td>
<td>Idea internationally awarded Commercialisation failed since 1) effectiveness of technique could not be proven due to non-existing adequate calibration techniques 2) industries investing heavily in cogwheel driven machines were not eager to adopt the technology</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>DE2</td>
<td>2005 Inventor D1 contacts D2 at venture capital firm D3</td>
<td>E P</td>
<td>*</td>
<td>Access to business idea (D2 finds idea interesting and suggests examining the potential of it jointly)</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>DE3</td>
<td>Discussions between D1 and D2 about applicability of technology to wind power industry</td>
<td>E P</td>
<td>*</td>
<td>New market potential (D2 sees potential for technology to solve problems within wind power industry)</td>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>DE4</td>
<td>Initial analyses of technical dimensioning</td>
<td>E P</td>
<td>**</td>
<td>Continuous, important activity: Testing, changes, testing</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>DE5</td>
<td>Planning of first reel lane at D4</td>
<td>E P</td>
<td>**</td>
<td>New application of innovation Test of bearing drive technique Later: Try to sell this in order to focus on wind power industry</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>DE6</td>
<td>D2 and D5 apply for patent for the integrated gear</td>
<td>E P</td>
<td>**</td>
<td>Intention to use the integrated gear in the wind power industry</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>DE7</td>
<td>Business pauses due to lack of money</td>
<td>E P</td>
<td>**</td>
<td>D4 not willing to continue financing the project Decision for continuation needed</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>DE8</td>
<td>Building of founding team</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Gathering of founding team (friends, acquaintances, family) Access to financing, knowledge, networks and work input</td>
<td>Yes</td>
</tr>
<tr>
<td>DE9</td>
<td>Development of business plan</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Programme to follow and realise Important for financing</td>
<td>Yes</td>
</tr>
<tr>
<td>DE10</td>
<td>Incubator firm at Merinova</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Support, information and office</td>
<td>Yes</td>
</tr>
<tr>
<td>DE11</td>
<td>Legal registration of the firm</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Only important thing is that firm exists officially</td>
<td>No</td>
</tr>
<tr>
<td>DE12</td>
<td>Manufacturing of prototypes for reel lanes starts</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Testing the bearing drive Simpler version developed → manufacturing easier and cheaper</td>
<td>Yes</td>
</tr>
<tr>
<td>DE13</td>
<td>Employment of mechanics designer</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Competent and good designer</td>
<td>No</td>
</tr>
<tr>
<td>DE14</td>
<td>Employment of mentor</td>
<td>E</td>
<td>S</td>
<td>El</td>
<td>**</td>
<td>*</td>
</tr>
<tr>
<td>DE15</td>
<td>Tekes application for wind power application</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Financing Positive towards business idea</td>
<td>No</td>
</tr>
<tr>
<td>DE16</td>
<td>Venture capital firm investment</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Financing Board member</td>
<td>No</td>
</tr>
<tr>
<td>DE17</td>
<td>Planning and assembly of 550 kW bearing drive for wind power industry</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Bearing drive planned and manufactured. Next testing, then ready for pilot project.</td>
<td>Yes</td>
</tr>
<tr>
<td>DE18</td>
<td>Invitation for tenders from Chinese firm (for 3 MW bearing drive)</td>
<td>I</td>
<td>El</td>
<td>*</td>
<td>Visit by five representatives of Chinese firm Great opportunity: large order, international buyer, but product not yet ready</td>
<td>Yes</td>
</tr>
<tr>
<td>DE19</td>
<td>Representative in China</td>
<td>I</td>
<td>El</td>
<td>*</td>
<td>Preliminary contract</td>
<td>Yes</td>
</tr>
<tr>
<td>DE20</td>
<td>Pilot preferably in Finland (for 550 kW bearing drive)</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Testing urgent for business to take off Easier to do pilots domestically</td>
<td>Yes/No</td>
</tr>
<tr>
<td>DE21</td>
<td>Creation of cooperation consortium</td>
<td>EI</td>
<td>EI</td>
<td>*</td>
<td>*</td>
<td>Vision: a cooperation consortium selling a whole product package to the wind power industry consisting of generator, bearing drive and turbine</td>
</tr>
</tbody>
</table>
Table 45  Summary of critical events in case E

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
<th>Event</th>
<th>Phase</th>
<th>Activity</th>
<th>Why important</th>
<th>Based on relationship</th>
<th>Relationship linked to event</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE1</td>
<td>Thought of starting a business (Eric)</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Insight (self-employment an option to consider)</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>EE2</td>
<td>Change of workplace, working with environmental technology at E1, contacted by inventor Elias</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Knowledge and network within environmental industry</td>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td>EE3</td>
<td>Suggestion regarding cooperation with Elias</td>
<td>E</td>
<td>P</td>
<td>*</td>
<td>Suggestion to jointly start a firm</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Market potential (EU directives stimulate development of this type of technology)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE4</td>
<td>Contact with E5 at venture capital firm</td>
<td>E</td>
<td>P</td>
<td>**</td>
<td>First external evaluators of business idea</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Idea positively received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE5</td>
<td>Development of business plan</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Tool for thinking through idea and estimating financial aspects</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Important for financing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Trustworthiness to the business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE6</td>
<td>Financing: Positive decision regarding investment from venture capital firm, Tesi and Finnvera</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Presentation of business idea</td>
<td>Yes</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Positive investment decision</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ownership structure: Eric 24.5%; E2, E14 (son) 51%; venture capitalists 24.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE7</td>
<td>Legal registration of the firm</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Only important thing is that firm exists officially</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>EE8</td>
<td>Incubator firm at Merinova</td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Network, information and office</td>
<td>No</td>
<td>6</td>
</tr>
<tr>
<td>EE9</td>
<td><strong>Purchase of a pilot plant, pilot attempts and insight that full-scale reference plant is needed</strong></td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Demonstration of technology Insight (full-scale plant needed + potential reference customers not ready to buy, want to rent first)</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>EE10</td>
<td><strong>Financing of reference plant – Government (Tekes, Finnvera), bank loan, venture capital (vc firm, Tesi)</strong></td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Financing conditions 1. Tekes requires contract with reference customer on 30.1.2007 2. All other financing dependent on Tekes</td>
<td>Yes</td>
<td>6</td>
</tr>
<tr>
<td>EE11</td>
<td><strong>Search for reference customer (for full-scale plant)</strong></td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Vital but problematic in getting reference customer (financing dependent on contract; sales of plants require proofs that technology works)</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>EE12</td>
<td><strong>Realisation of venture capital firm’s and Tesi’s option to increase shareholding</strong></td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Negative equity—clause realised Change of ownership structure: E2’s family lost majority</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>EE13</td>
<td><strong>Contract with E2 for full-scale reference plant</strong></td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Bad contract reached 26.1.2007, forced due to time pressure Financing secured</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>EE14</td>
<td><strong>Building the reference plant</strong></td>
<td>E</td>
<td>S</td>
<td>**</td>
<td>Suppliers known from before Environment permit prolongs process</td>
<td>Yes</td>
<td>6</td>
</tr>
<tr>
<td>EE15</td>
<td><strong>Identification of side opportunity (heat switcher)</strong></td>
<td>E</td>
<td>S</td>
<td>*</td>
<td>Additional business opportunity (employee at B24 identified problem in heat switchers, E develops solution)</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>EE16</td>
<td><strong>Identification of side opportunity (joint biogas project)</strong></td>
<td>I</td>
<td>EI</td>
<td>*</td>
<td>Cooperation opportunity (joint complete biogas systems with Norwegian firm + E a Finnish retailer for them) Disagreement among founders (E2 opposes, Eric starts own firm)</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>EE17</td>
<td>Identification of side opportunity (license for water cleaning technology)</td>
<td>I</td>
<td>EI</td>
<td>*</td>
<td>Cooperation opportunity (Finland- or Europe-wide license for technology of American firm) Disagreement among founders (E2 opposes, Eric starts own firm)</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>EE18</td>
<td>Potential international customer</td>
<td>I</td>
<td>EI</td>
<td>*</td>
<td>International business opportunity: Good dialogue with potential Swedish customer</td>
<td>No</td>
<td>1</td>
</tr>
</tbody>
</table>


JOANNA BETH SINCLAIR: A Story about a Message That was a Story. Message Form and Its Implications to Knowledge Flow. Helsinki 2010.


