The Collaborative Entrepreneurship Process - a Large Firm Perspective

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Abstract

This qualitative, single embedded case study examines collaborative entrepreneurship as a process in a large firm. Theory on corporate entrepreneurship is integrated with partnership literature to advance the understanding of collaborative entrepreneurship as a strategic decision. First, we propose a theory-induced model of the collaborative entrepreneurship process. Four stages of the collaborative entrepreneurial process were identified for empirical examination: (1) why large firms engage in collaborative entrepreneurship (2) how partners are evaluated (3) factors influencing the collaboration and, (4) collaborative output. In doing so, this study significantly contributes to our understanding of what the elements and underlying factors forming the collaborative entrepreneurship process are.

The empirical study finds that large firms engage in collaborative entrepreneurship due to entrepreneurial orientation and a need for resources, which in our case firm were induced by strategic changes transitioning the firm from a buyer-supplier context to increasingly engage in partnerships. Partner fit is evaluated in terms of complementarity, compatibility, and overlaps; the factors influencing collaboration were relational capital, the interdependence, and joint combinatory efforts. The final process, the collaborative output; was defined by innovation, partnering experience and standardisation.

This study is built on rich data collected through in-depth and semi-structured interviews together with secondary sources to ensure triangulation. Theoretical and managerial implications are discussed and a theory induced model and an empirical model with theoretical implications are suggested.

Key words: collaborative entrepreneurship, large firm, partnerships, partner fit, relational capital, knowledge management
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1 Introduction

In the context of growing market globalisation and high rates of changes in areas such as technology and industry, firms need to engage in entrepreneurial activities aimed at discovering, evaluating and exploiting new business opportunities (Miles et al., 2006; Toledano et al., 2010; Franco & Haase, 2013). Established firms have increasingly left old paradigms of making investments and acquisitions to exploit opportunities and access complementary resources; and have moved towards open and collaborative models of resource-acquisition (Wynarczyk, 2013). Indeed, since the turn of the twenty-first century there has been a dramatic shift in the way technological research and development and the process of acquiring market knowledge is undertaken and globally mobilised by firms (Andresen et al., 2014). Closed innovation models have given way to a new open innovation paradigm where firms increasingly engage in collaborations with partners to collect knowledge (Chesbrough, 2014; Jacobs et al., 2013). As a result there has been a vast increase in collaboration across firm boundaries, allowing firms to combine external and internal ideas, knowledge and technology and use both internal and external paths to the market (Powell et al., 1996; Wynarczyk, 2013).

1.1 Problem statement

One recently introduced concept in the field of entrepreneurship is collaborative entrepreneurship. Collaborative entrepreneurship is defined in the literature as “the creation of something of economic value arising out of new, jointly created ideas that emerge from the sharing of information and knowledge coming from outside an organisation” (Franco & Haase, 2013; Miles et al., 2006). Collaborative entrepreneurship combines strategic entrepreneurship, defined as advantage and opportunity seeking as firm-level, with collaborative innovation, defined as the creation of innovations across firm and industry boundaries through the sharing of ideas, knowledge and opportunities (Burgelman & Hitt, 2007). Within the string of research on collaborative entrepreneurship very few empirical studies have been conducted. The empirical contexts explored have been limited to new enterprises; small and medium-sized firms found in specific environments and industry contexts, here there is little knowledge on how large firms and multinational corporations work strategically with collaborative entrepreneurship.
Particularly, the process oriented-perspective on collaborative entrepreneurship, emphasising opportunity exploitation and exploration, has been given little empirical attention (Andresen et al., 2014). The process-oriented perspectives on entrepreneurship have not been described to a great extent; but the need for dialogue that recognises such opportunities has been acknowledged together with calls for a more embedded view on entrepreneurship (Ribeiro-Soriano & Urbano 2009; Audretsch et al. 2011; Andresen et al., 2014). Burgelman and Hitt (2007) raise several interesting questions, among these; they argue that further research could investigate how the process of collaborative entrepreneurship works in large firms. Hence, further empirical studies are needed to explore the collaborative entrepreneurship processes in order to understand the underlying forces driving the process and to expand the knowledge regarding the phenomena (Short et al. 2011; Andersen et al., 2014). Understanding how firms work strategically in the process of discovering, evaluating and exploiting a business opportunity in a collaborative relationship is crucial; to better understand how firms can achieve continuous innovation and learning through partnerships.

1.2 Research question
The purpose of this thesis is to empirically explore the process of collaborative entrepreneurship as a strategy for large firms, and in doing so contributing to the on-going research debate regarding corporate entrepreneurship and filling the gap regarding how firms work strategically with collaborative entrepreneurship. This will significantly contribute to our understanding of how firms engage in collaborative entrepreneurial processes. This thesis seeks to answer the following research question(s):

*What are the elements that form the collaborative entrepreneurial process?*

Drawing upon existing theory, four questions are identified and explored. To understand the process of collaborative entrepreneurship we seek to answer *Why large firms engage in collaborative entrepreneurship*. Thereafter, three interdependent sub-processes of the collaborative entrepreneurship process are examined: firstly, we examine *How potential collaborative partners are evaluated*; secondly, *What factors are important in an on-going collaborative relationship*; and thirdly, *What are the output and learning effects?*

1.3 Case description
The empirical case setting consists of a large firm in the communication technology and services industry. This industry setting is characterised by change; driven by technological
innovation, increasing consumer demand and convergence (Basole, 2008). Organisationally, the industry-leading firm can be viewed as embedded in an ecosystem of collaborative networks; including firms of various sizes and non-governmental organisations. A lead firm can participate in multiple networks, collaborations and contexts, each of which has large entrepreneurial potential (Ketchen et al., 2007). Purposefully selected network-partnerships within the large firm’s network are chosen to illustrate the process of collaboration. The partnerships are different in terms of context and resource sharing.

1.4 Disposition
The thesis is structured as follows: the introduction and problem statement (section 1) is followed by a theory section and literature review (section 2) where existing literature on collaborative entrepreneurship and a body of literature on partnerships is discussed proposing a theoretical model for collaborative entrepreneurship. Next, methodological considerations and case study design are discussed in the methods section (section 3). Subsequently, we present our findings in the empirical findings section (section 5). In the analysis (section 5) we elaborate on an empirical model and framework illustrating the process of collaborative entrepreneurship. The concluding section (section 6) will highlight main conclusions, and managerial and theoretical implications of the study will be discussed, including limitations and suggestions for further research.
2 Theory

Collaborative entrepreneurship is a new phenomenon that lately has gained increased research attention within several research fields. Collaborative entrepreneurship has been studied in the context of emerging markets (Ratten, 2014a), university sports partnerships (Franco & Pessoa, 2014), in terms of entrepreneurial actions and innovation (Burgelman & Hitt, 2007), as a business model for continuous innovation (Miles et al., 2006), in business decisions and negotiations (Ribeiro-Soriano & Urbano, 2009), inter-firm alliances (Franco & Haase, 2012) and as relational capital in SMEs (Welbourne & Pardo-del-Val, 2008).

2.1 Firm engagement in collaborative entrepreneurship

What characterises collaborative entrepreneurship is the firm’s ability to collaborate outside the organisation, more specifically three elementary dimensions of collaborative entrepreneurship are emphasised: strategy, structure and management philosophy (Yan & Sorenson, 2003; Ribeiro-Soriano & Urbano, 2009). Preconditions that support the birth of a collaborative entrepreneurship initiative are entrepreneurial attitudes, experience, social trusting and collaborative relationships that promote resource sharing (Andresen et al., 2014). Factors affecting the decision to enter a strategic partnership are the access to new technology and market knowledge (Bennett et al., 2008; Jacob et al., 2013; Valentim et al., 2013).

Indeed, collaborative entrepreneurship includes firms’ level of entrepreneurial orientation, and firms’ intangible and tangible resources as precursors (Montoro-Sànchez, 2009; Franco & Haase, 2013). Drawing upon earlier studies, entrepreneurial orientation is understood as the firm’s innovative, pro-active and risk-taking behaviour as well as its internal collective capability (Miller, 1983; Covin & Slevin, 1991; Lumpkin & Dess, 1996; Thorgren, 2012). Several authors posit that a firm’s ability to collaborate with other firms starts with being able to collaborate internally (Miles et al. 2005; Ribeiro-Soriano & Urbano, 2009). In fact, it has been found that innovative potential, along with collective capability; serve as the most important reasons for collaborative entrepreneurship (Antoncic, 2007). In addition, risk-taking in terms of investments and strategic direction is regarded as prerequisite for collaborative entrepreneurship since knowledge sharing between partners always involves some level of uncertainty (Miller, 1983; Covin & Slevin, 1991).
2.2 Partner fit in collaborative entrepreneurship

Continuous innovation and market exploration are the building blocks of an entrepreneurial organisation (Ribeiro-Soriano & Urbano, 2009). To remain competitive and take advantage of new entrepreneurial opportunities, entrepreneurs may need resources that they do not currently possess (Teng, 2007; Das & Teng, 2008). This need triggers entrepreneurs to form both formal and informal relationships with other firms, that is to say, they are instigated towards collaboration (Andresen et al., 2010). Furthermore, Montoro-Sánchez et al. (2008) support this by arguing that the current competitive business environment leads to a hunt for resources where a growing number of entrepreneurial firms rely on strategic partnerships to achieve strategic objectives. In most strategic partnerships, firms can select their partners; this is among the most important decisions that determine whether the collaboration will hold and perform well (Sadowski & Duysters, 2008; Kale & Singh, 2009). Evaluation strategies can enhance the understanding of how firms chose potential partners from their existing networks (Bierly & Gallagher, 2007).

The concept of partnerships is found to be particularly involved with collaborative entrepreneurship (Franco & Haase, 2012:116; Ratten 2014b). A strategic partnership is defined as a mutual decision adopted by two or more independent firms in order to trade or share resources for mutual benefit (Das & Teng, 2000; Hitt et al., 2005). Literature suggests that partner fit in terms of complementarity and compatibility can explain why firms are motivated to collaborate (Thorgren et al., 2012). Complementarity refers to the lack of similarity or overlap between partners’ resources in relation to each firm’s capabilities (Mowery et al., 1996; Kale et al., 2000). Conversely, compatibility refers to the similarity between partners’ organisational cultures, management and operating styles (Sarkar et al., 2001). High compatibility and complementarity in terms of resources leads to higher levels of corporate entrepreneurship (Kale et al., 2000; Das & Teng, 2008; Franco & Haase, 2012:120).

The motives for focusing on complementarity and compatibility are potential synergies and absorptive capacity needed for the creation of value (Thorgren et al., 2012). Fit in terms of complementarity and compatibility is expected to positively impact both relational capital and learning between partners (Kale et al., 2000). The logic underlying leveraging resources in strategic partnerships therefore, is founded on partner fit and synergies that exists among partners (Bierly & Gallagher, 2007). Partners with high partner fit may not want to risk destroying the relationship through opportunistic action, conflicting intentions, or unwanted
behaviour due to the potential inherent in having established a relationship with high partner fit and combined resources (Thorgren, 2012).

2.2.1 Complementarity of resources

From a resource-based point of view, scholars argue that the main reason for firms to collaborate is access to scarce resources, and potential output in terms of higher levels of entrepreneurship, through increased competitiveness, new technology, market access and reduced risk (Sachwald 1998; Das & Teng, 2008). Hence, a firm’s competitive advantage stems from tangible and intangible resources that are valuable, rare, inimitable and non-substitutable (Penrose, 1959; Pardo-del-Val et al., 2008).

While the resource-based view focuses on heterogeneity of resources, entrepreneurship research suggests that entrepreneurial opportunities exist because agents have unique belief about value of resources (Venkataraman, 1997). More specifically, entrepreneurship is viewed as a process where firms pursue opportunities without regard to the resources they currently control, advocating that the ideas of resource leverage and entrepreneurship are closely linked (Stevenson & Jarillo, 1990; Montoro-Sánchez et al., 2008). Resource-leverage occurs when partners’ complementary skills and resources are joined to create added value for each participating firm (Hamel, 1991). Accumulation of resources refers to how partner firms gain access to partners’ resources and internalises them to their own firm (Thorgren et al., 2012).

Ideally the complementarities of the firms’ resources and capabilities produce synergies for both firms (Thorgren et al., 2012). In some studies technological resources are determinant (Montoro-Sanchez et al., 2009), other authors posit that skills are the most important factor (Riberio-Soriano & Urbano, 2009), while some argue that financial resources will be essential to exploit opportunities (Franco & Haase, 2013). However, most authors agree that previous experience from collaborations are determinant when choosing partners, while the experienced gained enhances the understanding of the competences and needs of a future partner (Simonin, 1999; Hasty et al., 2006; Das & Teng, 2008; Montoro-Sanchez et al., 2008; Riberio-Soriano & Urbano, 2009).

Complementarity ensures that both partners bring different but valuable capabilities and resources to the relationship. Typically, the goal of collaborative entrepreneurship is reduced
dependence on resources in competitive markets (Franco & Haase, 2012: 120). The complementarity of resources, which is the *raison d'être* of any partnership, creates mutual interdependency and facilitates the formation and development of the collaboration (Sarkar et al., 2001).

2.2.2 Compatibility of organisational culture

There is an obvious link between organisational culture and the attainment of firm goals (Smart & St John, 1996). Among the many definitions of organisational culture, theory has defined culture in terms of shared values, norms, attitudes and beliefs, leadership styles, language and symbols, procedures and routines (Martin & Siehl, 1983; Hofstede et al., 1990; Deshpande et al., 1993; Cameron & Quinn, 1999:15). In addition, Sarkar et al. (2001) argue that social compatibility facilitates collaboration. Partnerships are “socially conceived mechanisms for collective action, which are continually shaped and restructured by actions and symbolic interpretations of the parties involved” (Ring & Van de Ven 1994:96). If the organisations are similar enough in culture, management, and operating styles they can realise the potential in their complementary resources (Thorgren et al., 2012). DeLong and Fahey (2000) further argue that, while most managers acknowledge the importance of culture, streamlining the relationship of their existing culture to strategic and collaborative objectives is a mammoth task.

2.3 Factors influencing the collaboration process

Many factors are involved in establishing a successful collaborative partnership. Theory identifies three factors; these are, relational capital, interdependence, and joint combinatorial efforts (Capello & Faggian, 2005; Kale et al., 2000). These factors are suggested to interdependently foster to a successful collaborative output (Thorgren, 2012).

2.3.1 Relational capital

Relational capital is defined as the set of all relationships established between firms that stem from a capacity of collaboration typical of culturally similar firms (Capello & Faggian, 2005). Literature from the resource-based view of the firm suggests that human capital is a unique, inimitable resource driving long-term competitive advantage (Nahapiet & Goshal, 1998). Dyer and Singh (1998) propose that the potential a firm has to create competitive advantage depends not just on its resources but also on its relational assets, that is, its relationships with other key firms. Relational capital thus serves as the basis for collaborative entrepreneurship (Welbourne & Pardo-del-Val, 2008). A prerequisite for knowledge transfer is developed
relational capital; where trust is essential in terms of transferring resources between partners (Norman, 2002).

More specifically, relational capital is the social dimension of a collaborative relationship based on personal interaction, respect, trust, friendship and reciprocity (Kale et al., 2000). If these factors are present in a relationship, partners may be motivated to build a high-quality relationship in which a social dimension is important (Thorgren et al., 2012). Independently of firm size, research suggests a positive relationship between performance and relational capital (Hatch & Dyer, 2004). This indicates relational capital is an important asset to build up over time (Welbourne & Pardo-del-Val, 2008). Relational capital is fundamental for good working conditions in partnership, where past experiences and future decisions play important roles (Ariño et al., 2001). To sum up, relational capital is a fundamental asset for firms, and high performing companies are those that are able to collaborate with others, thus placing a high value in relational capital (Welbourne & Pardo-del-Val, 2008).

Thornton et al. (2011) argue that personal interaction is the main resource of innovative behaviour and opportunity recognition. Indeed, Andresen et al., (2014) argue that reciprocity in strategies evolves through dialogue. Newell and Swan (2000) relate the relational aspect of friendship to companion trust, i.e. trust developed on the basis of emotions and friendship. Trust, in an inter-organisational setting, is considered the willingness to be vulnerable and open to others, based on expectations that others have something to give and are reliable in their conduct (Das & Teng, 1998). Mutual trust creates the basis for an enduring and effective relationship between partnering firms (Kale et al., 2000). Morgan and Hunt (1994) see trust as “existing when one party has confidence in an exchange partner’s reliability and integrity”. Kale et al., (2000) found that respect is another relational factor that curbs opportunism. Synthesising prior typologies in trust research, for the purpose of this thesis, we identify three aspects of trust: companion; based on friendship, competence; skills and ability to perform and commitment trust; based on agreements between interacting parties (see Newell and Swan, 2000). Uzzi (1997) finds that trust in a relationship is important because it enriches the firm’s opportunities, access to resources, and flexibility.

2.3.2 Interdependence

High interdependence occurs in a relationship when partners find the exchanged resources to be critical for their firm, particularly when it is simultaneously difficult to obtain similar
resources from another source (Zaheer et al., 1998; Thorgren et al., 2012). Interdependence can be understood as the willingness to contribute with information, assistance and guidance to the partnering firm, and willingness to invest substantial resources from the firm to the partners, and reciprocally, the provision from partners of significant resources difficult to acquire in another way (Thorgren, 2012). Dhanaraj and Parkhe (2006) argue that reciprocity strategies are of importance in collaboration. Interdependence may increase the value of the relationship while reducing the probability of finding another relationship that can replace the established partnership (Zaheer et al., 1998). In other words, the social dimension can lead to interdependence. A positive relationship between relational capital and interdependence is also based on the notion that relational capital can provide partners with resources that are difficult to acquire in strictly instrumental relationships (Uzzi, 1997). Interdependent partners are by definition motivated to maintain the relationship (see Emerson, 1962). Extending this notion, Thorgren et al., (2012) argue that partners may be less protective of their own knowledge when they depend on partners’ resources. Hence, firms in an interdependent partnership will be highly motivated to share knowledge and ensure that their partners are able to absorb the knowledge. Inherent to the concept of interdependence is firm motivation to maintain exchanges (Thorgren et al., 2012).

2.3.3 Joint combinatory efforts
Joint combinatory efforts are the extent to which collaborators in partnership combine mutual resources (Thorgren et al., 2012). Drawing upon resource leverage research, combinatory efforts refer to activities where partners jointly explore options and combine resources to get more out of resources than they possess individually (Hamel & Prahalad, 1993). These joint combinatory efforts can include business development-activities such as resource combining for new products, technology development and marketing (Thorgren, 2012). To ensure that combining resources will materialise, partners can sign contracts that outline the terms and objectives for their joint activities (Thorgren et al., 2012). Critical for any contract to be signed at all, however, is that the partners perceive they can gain something from combining resources with partners. Legal bonds are detailed and binding contractual agreements that specify the obligations and roles of both parties in the relationship (Cannon & Perreault, 1999). Legal bonds and contractual agreements further help alleviate opportunist behavior (Morgan & Hunt, 1994).
2.4 Collaborative output

Previous research has not acknowledged collaborative output; for the purpose of this thesis, focus lies on examining output in terms of innovation and partnering experience, where knowledge transfer, absorptive capability and learning are considered prerequisites (Dyer & Singh, 1998; Gupta & Govindarajan, 2000; Eden & Ackermann, 2001; Hasty et al., 2006; Teng & Das, 2008; Montoro-Sanchez et al., 2009).

2.4.1 Knowledge management

Successful knowledge management constitutes a competitive advantage and depends on the ability to collaborate outside the organisation (Kogut & Zander, 1992, 1993; Grant, 1996; Nonaka & Takeuchi, 1995: 6; Tallman & Phene, 2007; Ribeiro-Soriano et al., 2009; Franco & Haase, 2012:116). The goal of a firm is to transfer existing knowledge to the production of products and services (Nonaka & Takeuchi, 1995:6; Grant, 1996). Knowledge in the context of entrepreneurship is defined as valuable, targeted and levelled against production, organisation and learning within the firm (Thorgren et al., 2012). There are different types of knowledge; in this thesis, knowledge is understood as technological, marketing and process knowledge, as these are found in inter-firm collaborations (Bennett et al., 2008; Jacob et al., 2013; Valentim et al., 2013).

Knowledge transferred between firms leads to enhanced capabilities for adapting to changes in the business environment and proactive decision-making resulting in competitive advantages (Westerlund & Rajala, 2010). In this vein, it is argued that firms learn to acquire and develop new and relevant knowledge and skills that assist in staying ahead of competition (Nielsen, 2005). Crucial for knowledge transfer to occur is that the receiver of knowledge is able to learn and absorb the message (Norman, 2002; Hasty et al., 2006; Thorgren, 2012).

2.4.2 Innovation

The ultimate goal of collaborative entrepreneurship is the creation of something of economic value (Franco & Haase, 2013). In collaborative entrepreneurship information and knowledge sharing is key as it enables the creation of synergies between partners; this means leverage in resources leading to strengthened corporate entrepreneurship (Gupta & Govindarajan, 2000; Nielsen, 2005). Acquired knowledge, in turn, may be used for the purpose of continuous innovation enabling higher levels of competitiveness (Covin & Slevin, 1991; Miles et. al, 2006, Riberio-Soriano & Urbano, 2009; Andresen et al., 2014). Increased competitiveness is a
result of new technology, extended market access and reduced risk (Sachwald 1998; Das & Teng, 2008; Franco & Haase, 2012:221).

2.4.3 Partnering experience

Several authors posit that previous partnering experience influences decision-making and the engagement in new partnerships (Dyer & Singh, 1998; Eden & Ackermann, 2001; Hasty et al., 2006; Das & Teng, 2008; Montoro-Sanchez et al., 2009). In other words, the output of collaboration in terms of gained process knowledge is conceived important for future engagement. Furthermore, knowledge acquired from previous collaboration generates credibility and trustworthiness in the eyes of new potential partners, which facilitates future knowledge transfer (Moenaert et al, 1992; Szulanski, 2000; Bennett et al., 2008). Simonin (1999) stresses that a firm that previously has worked with partners has developed a deeper understanding of needs and competencies of this kind, leading to more successful knowledge transfer in future engagements. However, while most authors argue that previous partnering experience is positively correlated with successful collaborative entrepreneurship, Franco and Haase (2013) argue the opposite and suggest that partnering experience affects the decision-making regarding future collaboration negatively.

2.5 Summary

Summarising the theory section is Fig. 1 and Table 1, elaborating upon the prominent elements of the collaborative entrepreneurship-process from a theoretical perspective. To answer the purpose of the thesis “to empirically explore the process of collaborative entrepreneurship as a strategy for large firms“, we first used theory to create an understanding of the emerging collaborative entrepreneurship field. Overall, there is a lack of conceptualisations and models on collaborative entrepreneurship, since the research field is relatively new, and theoretical and empirical studies are scarce. We used theory on strategic partnerships in conjunction with the body of research on collaborations in entrepreneurship to form our theoretical understanding. This is the theoretical basis for the empirical study.

With the lack of received models and empirical studies of collaborative entrepreneurship, the underlying steps and characteristics of this collaborative process remain relatively unknown (Short et al. 2011; Andersen et al., 2014).

As the basis for our theoretical understanding, we made a first assumption based on a previous conceptualisation and empirical study on collaborative entrepreneurship answering
why firms engage in collaborative entrepreneurship. Here, we posit that resources and entrepreneurial orientation are determinants for collaborative entrepreneurship (see Franco & Haase, 2013). Secondly, we identified three interdependent stages that form the elements of the collaborative entrepreneurship process. The first is the evaluation of the partner based complementarity of resources and compatibility of organisational culture, the second, constitutes factors that are important in an on-going collaborative relationship (i.e. relational capital, interdependence, joint combinatory efforts), the third, the collaborative output, has the purpose of achieving continuous innovation and partnering experience; where knowledge transfer and learning are pre-requisites.

The literature review is summarised in a model, (see Fig. 1), drawing on several previous studies. In the development of the model we critically reviewed literature on corporate entrepreneurship and partner fit.

**Fig. 1 The collaborative entrepreneurship process**
Below, table 1 summarises the theory-induced factors that form the collaborative entrepreneurship process.

**Table 1 The collaborative entrepreneurship process**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entrepreneurial orientation</strong></td>
<td>• A precondition that supports the birth of a collaborative entrepreneurship initiative is the existence of entrepreneurial orientation (Montoro-Sánchez, 2009; Franco &amp; Haase, 2013).</td>
</tr>
<tr>
<td><strong>Innovation</strong></td>
<td>• Innovation refers to the process of introducing new products, services or technological solutions (Miller, 1983; Covin &amp; Slevin, 1991; Lumpkin &amp; Dess, 1996).</td>
</tr>
<tr>
<td><strong>Pro-activeness</strong></td>
<td>• Pro-activeness refers to the ability to see opportunities in ideas, to analyse and forecast trends in the internal and external environment (Miller, 1983; Covin &amp; Slevin, 1991; Lumpkin &amp; Dess, 1996).</td>
</tr>
<tr>
<td><strong>Risk-taking</strong></td>
<td>• Risk-taking is defined as making investment decisions and strategic actions while facing uncertainty as well as boldness in relation to pursuing opportunities (Miller, 1983; Covin &amp; Slevin, 1991; Lumpkin &amp; Dess, 1996).</td>
</tr>
<tr>
<td><strong>Collective capability</strong></td>
<td>• Collective capability is the ability to scan internal environment for improvement, build and maintain an organisational culture, and to communicate all essential facts within the firm (Miller, 1983; Covin &amp; Slevin, 1991; Lumpkin &amp; Dess, 1996; Thorgren, 2012).</td>
</tr>
<tr>
<td><strong>Partner fit in collaborative entrepreneurship</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Complementarity of resources</strong></td>
<td>• Complementarity refers to the lack of similarity or overlap between partners’ resources in relation to each firm’s capabilities (Mowery et al., 1996; Kale et al., 2000).</td>
</tr>
<tr>
<td><strong>Compatibility of organisational culture</strong></td>
<td>• Compatibility refers to the similarity between partners’ organisational culture, management and operating style (Sarkar et al., 2001).</td>
</tr>
<tr>
<td><strong>Factors influencing the collaboration process</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Relational capital</strong></td>
<td>• Relational capital is the social dimension of a relationship based on personal interaction, respect, trust, friendship and reciprocity (Kale et al., 2000).</td>
</tr>
<tr>
<td><strong>Interdependence</strong></td>
<td>• Interdependence occurs when partners find the exchanged resources to be critical for their firm, particularly when it is simultaneously difficult to obtain similar resources from another source (Zaheer et al., 1998; Thorgren et al., 2012).</td>
</tr>
<tr>
<td><strong>Joint combinatory efforts</strong></td>
<td>• Joint combinatory refer to activities where partners jointly explore options and combine resources to get more out of resources than they possess individually (Hamel &amp; Prahalad, 1993)</td>
</tr>
</tbody>
</table>
Collaborative output

Knowledge management  ▪ Successful knowledge management theory suggests that external knowledge generated from collaboration constitutes a competitive advantage (Grant, 1996; Ribeiro-Soriano et al., 2009; Franco & Haase, 2012:116).

Innovation  ▪ The output of collaboration is the creation of something of economic value arising out of new, jointly created ideas that emerge from the sharing of information and knowledge coming from outside an organisation (Franco & Haase, 2013).

Partnering experience  ▪ Partnering experience influences decision-making regarding the selection of new partners and processes in the own firm (Hasty et al., 2006; Das & Teng, 2008; Montoro-Sanchez et al., 2009).
3 Method

With the purpose of exploring a new phenomenon in entrepreneurship, namely collaborative entrepreneurship, we conducted an exploratory study. An exploratory study has the purpose of finding out what is happening, to seek new insights and assess a phenomenon in a new light (Robson, 2002:59). In particular, an exploratory case study was chosen to gain deep insights into a contemporary and complex issue within its real-life context (Yin, 2003:13). The exploratory approach can be motivated as there is a lack of both empirical studies and theoretical conceptualisations of collaborative entrepreneurship. In light of before-mentioned shortcomings in previous literature we used an exploratory case study design; as case studies are known to be particularly well suited to new research areas (Eisenhardt 1989; Rowley 2002).

With the purpose of empirically exploring the process of collaborative entrepreneurship as a strategy for large firms our aim was to create an understanding of a largely unexplored area of research; and thus our chosen research approach could be likened to the activities of a traveller or an explorer (Adams & Schvaneveldt, 1991). An exploratory case study may have the purpose of explaining how some sequences of events occurred; which is the purpose of our process-oriented perspective on collaborative entrepreneurship (Yin, 2009:238). Holme and Solvang (1997) argue that when applying a methodology based on an exploratory approach, a qualitative research design is suitable. Thus, a qualitative approach was used to explore the process of collaborative entrepreneurship. The qualitative standpoint brought a richer understanding when exploring the new phenomenon in an empirical context. This approach does not restrict that the found processes could be extended and drawn upon in traditional quantitative hypotheses tests in further research on collaborative entrepreneurship (Voss et al., 2002).

Acknowledging that there is a lack of received models and empirical studies of collaborative entrepreneurship, we comprehended that an inherent flexibility in the exploratory study was important. Adams and Schvaneveldt (1991) argue that flexibility is important in an exploratory research, but this does not mean absence of direction to the enquiry. What it does mean is that focus is initially broad and becomes progressively narrower as the research progresses (Saunders et al., 2009:140). To advance the understanding and narrow down focus, we used a pre-study to enhance our understanding of the theoretical concept and empirical
setting. The pre-study will be elaborated on in the section ‘Data Collection’. It was followed by a single embedded case study; the rationale for this research design is explained in the following section ‘Research Design’.

3.1 Research design

For this thesis, and as recommended by Yin (2009:57), we used a single embedded case study as our research design. We chose to perform a case study as it is advised in the literature when the phenomena observed is new and only limited knowledge of the subject exist (Saunders et al., 2009:146). Single case studies can richly describe the existence of a phenomenon, which is the purpose of the current thesis that set out to empirically investigate collaborative entrepreneurship in a large firm (Yin, 2009:57). An embedded case study is well suited to explore the diverse nature of partnerships and collaborations that have different purposes and desired outputs. According to Yin’s (2009:57) definition of an embedded case study, this was a suitable design for our research purpose; and in particular to perform a rich empirical investigation an unknown phenomena and to answer our research questions. This rationale of a single case-study design cannot usually be satisfied by multiple cases (Yin, 2009:57). In order to avoid aspects such as cultural differences and disparities in innovation climate between firms, a single-case method has been selected, where we look at fixed variables within one firm. Focusing on one case firm, rather than multiple, further allows us to study the unexplored field.

Yin (2009:53) proposed that embedded case studies are superior to holistic case studies; which are concerned only with the organisation as a whole. Our research is concerned with a single organisation, yet the analysis include the examination of collaborative entrepreneurship over a number of sub-units within the organisation and involving more than one unit of analysis (Saunders et al., 2009:147). As recommended by Yin (2009:53) in our embedded design there are multiple levels of analysis within the single firm; the sub-units in our design are both Group Functions (strategy-level) and Business Units (operational-level). An embedded design can serve as an important device for focusing a case study inquiry (Yin, 2009:55). Subunits can often add significant opportunities for extensive analysis, enhancing the insights into the single case. An embedded design may have some pitfalls, one being that a case study focuses only on sub-unit level and fails to return the larger unit of analysis (Yin, 2009:55). To avoid such bias, we have talked with respondents on both strategic and operational level, and top-executives with a more holistic view of the firm, a perspective that
may otherwise be lost in an embedded study, as was recommended by Yin (2009:59). By having several informants of strategy level we avoided bias and strengthened the purpose of the study (Yin, 2009:56).

Yin (2009:48) recommends using theory in single-case studies to achieve external validity in the research design and replication logic in multiple-case studies. Since we have used a priori theoretical constructs to achieve external validity, and replicated this through semi-structured interviews over a number of sub-units, we have dealt with generalisability according to Yin’s (2009:48) recommendation. McClintock (1985) argues that where the case study yields sub-units as research subjects, it is desirable to have a sample of observations (i.e. several sub-units) in order to explore multivariate relationships and assess external validity. This rationale will be elaborated on in the sections ‘Case selection’ and ‘Validity and reliability’.

3.2 Literature review

The weakness of the literature review in the ‘Theory’ section is simply the lack of research articles available that cover the subject of collaborative entrepreneurship. By enriching the literature with theory on partnerships and corporate entrepreneurship the generalisability, construct definitions and theoretical level is raised, as argued by Eisenhardt (1989). The theory that went into the initial design of the case, as empirically enhanced by our case study findings, has formed the groundwork for analytic generalisation. The analytical generalisation is based on advancing and modifying existing theoretical concepts from previous research fields and theory, and the new concepts that arose upon completion of the case study. These constructs have predominantly been used in the corporate entrepreneurship literature, in the current thesis they served as a theoretical base for the examination of a new research phenomenon, collaborative entrepreneurship. In doing so, i.e. implementing previous concepts in a new area of research, we achieved analytical generalisation as well as allowed for external validity in our single-case study, as argued by Yin (2009:48).

3.3 Case selection

The case firm was selected on the basis of the following criteria: size, market characteristics, degree of entrepreneurial orientation and more specifically, it should be going through a change in the mix of products and services; following previous sampling used in studies on collaborative entrepreneurship (see Toledano et al., 2009). In the study of collaborative entrepreneurship, the case firm needed to be involved in partnerships with substantial effect
on the business in terms of continuous innovation (Ribeiro-Soriano & Urbano, 2009). In addition, the firm had to be a large firm, i.e. have assets and facilities in several countries, but centralised headquarters in one country, in order to answer the research question, which was to study the process of collaborative entrepreneurship in large firm. In addition, Toledano et al. (2009) used the following selection criteria in a study of collaborative entrepreneurship; which were applied for the purpose of this thesis:

- the firm(s) had introduced examples of different forms of corporate entrepreneurship activities that involved the introduction of innovations during the last decade
- the firm(s) had a clear willingness to change in order to face the more dynamic and hostile environment

From the above criteria, Ericsson was selected as case firm as it is currently going through a transition towards increasingly focusing on services, software and partnering in new industries and in the mobile ecosystem, with decreased focus on hardware. Ericsson is listed on Nasdaq OMX, operates in communication technology and services with headquarters in Stockholm, Sweden, and net sales of SEK 228 b (2014) (Ericsson, 2015a:1). The LARGE FIRM has business relationships in more than 180 countries and carries out projects on numerous markets (Ericsson, 2015a:1). Ericsson is well known for collaborating with other firms such as Sony which Ericsson formed a strategic alliance with in 2001 (Thorgren, 2012). Ericsson is recognised as a worldwide leader in Telecom Operations Management (Ericsson, 2013) and was awarded for its innovativeness at Global Mobile Awards 2013 in the category “Best Product, Initiative or Service in Emerging Markets”, and in 2015 in “Best Mobile Innovation for Automotive” (Global Mobile Awards, 2013; 2015) as well as “Most Digitally Innovative” at Melcrum Awards 2014 (Melcrum, 2014). In terms of pro-activeness, innovation and R&D, Ericsson holds “one of the strongest patent portfolios in the industry” and a leading position in Sweden with more than 25 000 people working in R&D and 37 000 patents, which is almost six times as many as the firm placed second (Ericsson, 2015a; SvD, 2015). Ericsson appears strong in terms of innovation, pro-activeness, and collective capability; as evidenced by insights gained in the pre-study and secondary sources. Hence, Ericsson appears to have the pre-requisites to be a suitable case firm in the study of collaborative entrepreneurship.

The organisation is divided into Business Units (BU), Group Functions (GF) and Regions. In this thesis, empirical material is based on interviews with respondents from all BUs, these are
Global Services, Support Solutions, Cloud and IP and Radio, and from Group Functions Strategy and Technology and two Group Functions: Strategy and Technology; however the region perspective will not be taken into consideration. At GF level coordination of the business as a whole in terms of overall strategy, operations and resource allocation is conducted. The BUs are responsible for generating profit by innovating, developing and delivering products and services (Ericsson, 2008). BU Global Services is a growing unit within Ericsson responsible for services including network rollout, customer support and managed services (Ericsson, 2015:31). BU Support Solutions delivers software, business operation support, TV and media management and M-Commerce, a mobile banking solution mainly focusing on emerging markets (Ericsson 2015:32). BU Cloud and IP is the newest BU founded July 1st 2015, where the role is to develop cloud and IP solutions. BU Radio is responsible for providing ICT solutions including radio networks and core networks (Ericsson 2015:14).

3.4 Data collection
Data collection was made using multiple methods such as observations, interviews, and written sources such as reports, informational and marketing materials, following Barratt et al. (2011). This allowed us to collect a rich body of information to capture both the complexity of, and the patterns in, the collaborative entrepreneurial processes, in line with Stuart et al. (2002). The data collection will be elaborated upon in the following paragraphs.

3.4.1 Pre-study
Preceding the primary data collection was a pre-study; conducted in the early phase of the research process in order to increase our understanding of collaborative entrepreneurship and to assess if the sampled case firm indeed suited the purpose of this study. The latter was confirmed through an in-depth interview with the Former Vice President of Strategic Alliances. The in-depth interview involved our respondent engaging in dialogue with the researchers where the process of collaboration and partnering at Ericsson were topics discussed. Main themes that resurfaced were the collaborative climate and the strategies used at Ericsson. The interview lasted approximately 60 minutes and included demonstration of internal documentation on selection criteria (not disclosed in the purpose of this thesis). Throughout the pre-study dialogue it became clear that Ericsson was an interesting firm to study from the perspective of collaborative entrepreneurship. The pre-study informant was employed at Ericsson for 35 years and has vast experience from various divisions within the global firm, at both operational and strategic level. His latest role at the firm included
responsibility for strategic relations globally and maintaining a network of employees who were engaged with regional partners. Since the aim of the pre-study was to gain a deeper understanding of the processes of collaborative entrepreneurship and partnering at Ericsson, the pre-study informant was purposefully selected as being the respondent with the broadest and most appropriate background. His experience and insights enabled us deepen our understanding and narrow down the scope of the research. Having secured this contact at the firm enabled us to access other respondents using both snowballing and purposeful sampling. The informant continued to support the researchers and clarify inconsistencies throughout the process to increase construct validity, and as recommended by Yin (2009:47). The sampling method will be elaborated upon below.

3.4.2 Primary data

The aim of the thesis was to get a multidimensional perspective of the firm by looking at collaborative entrepreneurship over several sub-units and at a strategic level. Purposeful sampling was used in order to have multivariate perspectives (Yin, 2011:88). The main benefit of purposeful sampling is that respondents selected will yield the most relevant and plentiful data. (Yin, 2011:88). Nevertheless, it may be challenging to get access to respondents in large firm; thus snowballing serves as a complement to purposeful sampling (Yin, 2011:89). A problem related to snowballing is that respondents tend to recommend individuals who are similar to them, leading to a more or less homogenous group of respondents (Saunders et al., 2009:240). However, choosing representatives from different units broadens the perspective and reduces the level of bias (Eisenhardt & Graebner, 2007). Yin (2011:89) recommends having a purposive reason when using snowball techniques, which we observed. This included using a selection of respondents who could ensure that data was collected from actors with different perspectives with respect to the investigated phenomena (Piekkari et al., 2010). Respondents were selected on the basis of their roles and were characterised by their high level of insight and influence. Due to tight schedules, restricted access was the dominant challenge in terms of data collection; however one pre-study and twelve interviews, including one group-interview, were conducted. Empirical data was primarily collected through semi-structured face-to-face (F2F) interviews, including one group interview, in-depth interviews and observations at Ericsson’s headquarters in Kista, Sweden; and through telephone conferences and interviews. Respondents included vice presidents, managers and directors within the following units at Ericsson: Strategy, Cloud & IP, Support Solutions, Technology and Radio.
Table 2, below, presents a summary of interviews and observations conducted.

**Table 2 Primary sources: overview of interviews**

<table>
<thead>
<tr>
<th>Date</th>
<th>Type</th>
<th>Length</th>
<th>Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GF Strategy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-11-21</td>
<td>In depth, F2F</td>
<td>60 min</td>
<td>Former Vice President Strategic Alliances</td>
</tr>
<tr>
<td>2015-02-23</td>
<td>In depth, F2F</td>
<td>60 min</td>
<td>Vice President New Business Development &amp; Innovation</td>
</tr>
<tr>
<td>2015-02-23</td>
<td>Face-to-face</td>
<td>30 min</td>
<td>Head of Global Partnering &amp; Strategic Alliances</td>
</tr>
<tr>
<td>2015-03-04</td>
<td>Telephone</td>
<td>40 min</td>
<td>Former Vice President Strategic Alliances</td>
</tr>
<tr>
<td>2015-03-19</td>
<td>Telephone</td>
<td>30 min</td>
<td>Director New Business Development &amp; Innovation</td>
</tr>
<tr>
<td>2015-02-23</td>
<td>Observation</td>
<td>10 min</td>
<td>Demonstration of model of business innovation processes</td>
</tr>
<tr>
<td>2015-02-23</td>
<td>Observation</td>
<td>10 min</td>
<td>Demonstration of Ericsson’s internal Idea Box</td>
</tr>
<tr>
<td><strong>GF Technology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015-03-24</td>
<td>Telephone</td>
<td>30 min</td>
<td>Director of Technology</td>
</tr>
<tr>
<td><strong>BU Global Services &amp; BU Support Solutions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015-02-18</td>
<td>Telephone</td>
<td>30 min</td>
<td>Director Industry Solutions</td>
</tr>
<tr>
<td>2015-03-17</td>
<td>Telephone</td>
<td>40 min</td>
<td>Global Sales Director Cloud Solutions</td>
</tr>
<tr>
<td>2015-04-01</td>
<td>Telephone</td>
<td>30 min</td>
<td>Head of Business Development, M-Commerce</td>
</tr>
<tr>
<td><strong>BU Cloud and IP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015-03-17</td>
<td>Telephone</td>
<td>30 min</td>
<td>Head of Strategic &amp; Tactical Marketing</td>
</tr>
<tr>
<td>2015-03-25</td>
<td>In depth, F2F</td>
<td>40 min</td>
<td>Director Application &amp; Ecosystems</td>
</tr>
<tr>
<td><strong>BU Radio</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015-03-25</td>
<td>In depth, F2F</td>
<td>60 min</td>
<td>Head of Business Development &amp; Strategic Investments</td>
</tr>
<tr>
<td>2015-03-25</td>
<td>In depth, F2F</td>
<td>60 min</td>
<td>Partner and Ecosystem Manager</td>
</tr>
<tr>
<td>2015-03-25</td>
<td>Observation</td>
<td>20 min</td>
<td>Demonstration of internal documentation on partnerships</td>
</tr>
</tbody>
</table>

Prior to the interviews, an interview guide based on information from the pre-study and *a priori* theoretical constructs was created including four main themes and 29 questions (see Appendix). Interview questions were created on the basis of constructs used by Franco and Haase (2013) and Thorgren et al. (2012), elaborating on determinants for collaborative entrepreneurship; and the collaboration process (partner fit, relational capital, interdependence, joint combinatorial efforts and knowledge transfer). In order to achieve
construct validity, we defined collaborative entrepreneurship in terms of specific constructs that we related to the objective of the study, and we identified operational measures that matched the concepts found in other studies (Yin, 2009:46). The four themes with subtopics used to construct the questions were: entrepreneurial orientation (innovation, pro-activeness, risk-taking and collective capability); partner fit (complementarity and compatibility); factors influencing collaboration (relational capital, interdependence and joint combinatory efforts); and collaborative output (learning and knowledge transfer). Respondents were instructed to answer these questions with the partners with whom they had actively worked in mind.

Having secured access, potential respondents were contacted by email, where on request the interview guide was sent out in advance, resulting in both prepared and spontaneous answers. The aim of the semi-structured interview guide was to increase the understanding of elements that form the collaborative entrepreneurship process. Semi-structured interviews were used in relation to the exploratory study; and these were mainly used on a strategic-level, since it gave us the opportunity to assess the processes in a more structured way and noticing divergent answers (Saunders et al., 2009:140). The interviews were semi-structured with open-ended questions, an appropriate method used in qualitative studies to gain a deeper understanding of a phenomenon (Saunders et al., 2009:343). The semi-structured interviews were 30-40 minutes, held in English, recorded and transcribed, as recommended by Saunders et al. (2009:485).

The in-depth interviews were centred around the four thematic topics where the respondents were asked to elaborate on their experiences. In our exploratory study, in-depth interviews were helpful to find out what was happening, and to seek new insights (Robson, 2002:59). In-depth interviews were used when exploring cases within the subunits at an operational level. This was decided since it enables storytelling and thereby to explore the underlying factors driving a process in-depth. This was particularly the case when exploring a sub-unit with the first respondents, as recommended by Saunders et al. (2009:321). When you are undertaking an exploratory study, or a study that includes an exploratory element, it is likely that you will include non-standardised, qualitative research interviews in your design (Cooper & Schindler, 2008). In-depth interviews lasted approximately 40-60 minutes.

It is important to acknowledge bias related to the role of the interviewer, as it affects the outcome of the interview. Interviewer bias refers to the way tone; behaviour and comments
affect responses from the respondents (Saunders et al., 2009:326). In order to reduce this type bias both researchers attended all interviews and took turns in asking questions. Initially, attention was focused on establishing personal contact, as this increases the chances of getting qualitative answers (Saunders, 2009:324). Following recommendations by Saunders et al. (2009:485) the interviews were recorded and transcribed, resulting in 84 pages of empirical material. Transcribing interviews provided a more comprehensive picture of the findings, enabling a better analysis, and reduced bias by diminishing emotions and interpretations of speech (Langley, 1999). Transcriptions were manually analysed by both researchers.

Empirical material was structured into categories based on a priori defined theoretical constructs, as recommended by Eisenhardt and Graebner (2007). Data were systematically summarised according to these pre-defined themes and analysed in the empirical study. In order to focus attention to the most important findings, data was re-read at several points by the researchers (Eisenhardt & Graebner, 2007). To achieve construct validity in the data collection we used multiple sources of evidence; and established a chain of evidence, as recommended by Yin (2009:46). To achieve reliability in the data collection, Yin (2009:123) recommends that one must demonstrate that the operations of a study, such as the data collection procedures, can be repeated, with the same results, which was achieved through using a protocol as a basis for questions.

### 3.4.3 Secondary data

To complement in-depth and semi-structured interviews and observations, secondary data from annual reports, analysis from external parties and research institutes, newspaper articles and material from Ericsson’s website were collected. A benefit of using approved annual reports is that auditors have controlled numbers and statements (Saunders et al., 2009:256). However, using secondary data means a more extensive screening process as only a fraction of the information provided may be appropriate for the purpose (Saunders et al., 2009:270). Using multiple methods allows collection of a richer body of data and a more holistic view of the collaborative entrepreneurship process (Yin, 2009:241; Barratt et al., 2011). Multiple-source secondary data may provide further new discoveries (Saunders et al., 2009:269)

### 3.5 Validity and reliability

In order to ensure triangulation, multiple data sources were used, including in-depth interviews, semi-structured interviews, observation, and secondary sources (Yin, 2009:241). Triangulation is defined as the convergence of data collected from different sources to
determine the consistency of a finding (Yin, 2009:241). Applying triangulation techniques is also used to ensure respondent validation (Piekkari et al., 2010; Patton, 2002). In order to achieve construct validity in the design, we defined collaborative entrepreneurship in terms of specific constructs that we related to the objective of the study (Yin, 2009:46), and identified operational measures that matched the concepts found in other studies (Thorgren et al., 2012; Franco & Haase, 2013). Several tactics were available to increase the construct validity in the case study (Yin, 2009:47). The first was using multiple sources of evidence in the data collection; which was ensured through triangulation; the second was to establish a chain of evidence in the data collection, which was done through the use of a protocol. The third tactic was to have the draft case study report reviewed by key informants which was done in the last stages of thesis-writing (Yin, 2009:47).

Reliability is defined as the consistency and repeatability of the research procedures used in a case study (Yin, 2009:240). To increase the reliability of information in the case study we maintained a chain of evidence, as recommended by Yin (2009:127). The principle was to allow an external observer to follow the derivation of any evidence from initial research questions to ultimate case study conclusions; through linking questions to protocol topics, using citations to specific evidentiary sources, as recommended by Yin (2009:127). Through achieving these objectives the case study’s evidence also exhibits heightened construct validity (Yin, 2009:127).

Saunders et al. (2009:156-57) discuss four types of threat to reliability: subject and participant error, subject and participant bias, observer error and observer bias referring to errors and biases where either the respondent fails to deliver the true answer or the observer fails to interpret the answer correctly. In order to reduce threats related to the respondent, interviews were scheduled at “neutral” hours, neither as first thing after, nor the last before the weekend, not too early in the morning or late in the afternoon, as that may cause errors and bias (Saunders et al. 2009:156). In order to overcome observer error and bias both researchers attended the interviews and made sure to re-read transcriptions to diminish the effect of external disruptions.

Being one of the first empirical studies studying the process of collaborative entrepreneurship, and since the research area is relatively new, one may encounter problems of generalisation. The single case is found in highly technological context, which might reduce possibilities of
generalisations beyond this context. Indeed, Yin (2009:40) argues that it might be difficult to draw analytical generalisations that go beyond the setting for the specific case. This is one limitation of the study. The aim of analytical generalisation is still to generalise to these other concrete situations and not just to contribute to abstract theory building (Yin, 2009:41). It is an impossibility to cover all contexts and situations; still Yin (2009:41) argues that the generalisations, principles or lessons learned from a case study may potentially apply to a variety of situations, far beyond any strict definition of the hypothetical population of like-cases represented by the original case.
4 Empirical findings

Firstly, we sought to answer empirically ‘why firms engage in collaborative entrepreneurship’. Next, empirical findings were structured into three interdependent sub-processes; ‘partner fit in collaborative entrepreneurship’, 'factors influencing collaboration’, and 'collaborative output’. In order to answer how the firm works strategically with collaborative entrepreneurship, data presentation was separated into operational business units (BU) and strategic group functions (GF), to differentiate between different organisational levels. The following section will illustrate how we have processed the data. In future quotations will be linked either to BU or GF.

4.1 Firm engagement in collaborative entrepreneurship

The transition from a supplier firm to increasingly engage in partnerships has influenced the processes of collaborative entrepreneurship in Ericsson. The Former Vice President of Strategic Alliances (GF/FVPSA) identified the entrepreneurial initiative and change within Ericsson in terms of faster growth in services; which is the area where innovation is increasing due to new evolving needs. The Director Industry Solutions (BU/DIS) argued that the most significant change in the mix and products and services - as a measurement of pro-activeness - at Ericsson is the transition to service delivery models and cloud. BU/DIS explained that the service transformation and virtualisation transformation goes across the company and the ability to transform is what has kept Ericsson successful and innovative. The transformation was reflected in the recently announced downsizings (Ericsson, 2015b). The Director of New Business Development and Innovation (GF/DNBDI) argued that the high level of innovativeness in Ericsson is related to the highly competitive environment. One way to achieve continuous innovation is through extended collaboration with others; where Ericsson is working to find opportunities to innovate across corporate borders, GF/FVPSA explained. Both GF/FVPSA and Head of Global Partnering and Strategic Alliances (GF/HGPSA) identified frameworks for how to exploit external opportunities, and respondents highlighted R&D as a vital part of Ericsson’s business model. When engaging in partnerships Ericsson takes a calculated risk, as noted by Head of Strategic and Tactical Marketing (BU/HSTM). Though, GF/DT argued when you are sure there is no risk involved, there might not even be an opportunity. Openness, as determinant to collective capability, was pivotal in terms of communication and information sharing; where employees have access to information on need-to-know basis. Vice President New Business Development and Innovation (GF/VNBDI) noted: “if you call someone in the company, you will get the information that you need, I
have not seen the same situation in other companies”. However, Director of Technology (GF/dt) stressed that due to the size of the organisation “we sometimes do not know that we know things, because the right information has not reached the individual”. Another aspect of collaborative entrepreneurship is defining someone as a partner. The Product and Ecosystem Manager (BU/PEM) elaborated on this:

One important thing when you try to separate partners from being just suppliers to Ericsson […] of course all suppliers want to call themselves partners, but we are setting supplier demands on them and we do not see that as a partnerships […] it is a monetary transaction and those are different companies that we see as partners.

Ericsson has identified several categories of partnerships to enable a convergent view within the firm (Observation: Demonstration of internal documentation on partnerships). These are: ecosystem partners, industrial partners, technology partners, channelling and offering partners. The BU/PEM exemplified: ecosystem partners are the different parties needed to deliver good value to Ericsson’s network of cooperative partners. In the ecosystem Ericsson is trying to build up, we align with 30-40 different companies. In the category of industrial partners Ericsson tries to drive standardisation, which is increasingly important for the seller and network technology. The third category is technology partners; this is a deeper collaboration of joint development with the output of creating a product together. Other categories are channelling and offering partners. Channelling is about our partner reselling products and examples of partners are HP and IBM. These listed categories are the partnerships we will explore further in our empirical study.

4.2 Partner fit in collaborative entrepreneurship
Partner fit in collaborative entrepreneurship is related to the complementarity of resources and compatibility of organisational culture. From the interviews it became clear that partner fit was important in terms of complementarity and compatibility. In addition, in our empirical findings we found that overlaps leading to coopeitation were important in evaluating partner fit.

4.2.1 Complementarity of resources
Respondents from GF level highlighted the complementarity when evaluating a potential partner. Hence, it seems complementarity is the starting point of a collaborative effort. The process seems to start with complementarity, thereafter Ericsson engages in discussions with several different companies in the evaluation process; brainstorm and set up work-sections in
different areas. The collaborative efforts are rooted in strategy and strategic ambitions at Ericsson. In the evaluation process, complementary assets and the partnering firms’ convergent strategies are carefully considered; while taking into consideration what is needed to successfully execute the strategy. Often, the process starts from a technology-point-of-view where the aim is to access partnering know-how. Other capability gaps may be related to commercial processes; which involves collaborating with channelling and offering partners, or learning more about new industries. Achieving B2B2C, and consumer understanding, may be a pivotal strategy for the firm going forward in an increasingly competitive climate where consumer’s demands are increasing.

In the evaluation process, finding a partner that actually wants to work with Ericsson was emphasised. Sometimes, Ericsson may try to drive a partnership with a company that is hesitant. Whereas some level of dependence or stickiness is developed in a relationship where there is a perceived, or genuine need, to access complementary assets and capabilities. Evaluating fit from the very beginning of the dialogue was regarded as a focal strategy. Occasionally, Ericsson may first find a partner and then find a purpose for the partnership, as noted by one GF respondent:

"We need to choose a partner for a certain reason, not choose a partner and then choose the reason for why we chose them. We are not used to working like that, except for our global solutions. When we are bringing someone in, it is usually in the beginning of development and then it is basically saying ‘you have a free ticket in, just name your price’ and we are going to have to pay because we made you partnering into our product. It is not that easy, we are used to working with suppliers and sub-suppliers that is the model we are used to. Everything that we look at, we tend to look at through the supplier glasses."

The business units (BU) corroborated the findings from strategy level. The starting point from a BU perspective of the evaluation process was also to identify resource and capability gaps. Depending on the magnitude of the gaps Ericsson either close the gap internally (through investments in R&D or through focusing on an internally ventured business opportunity), or externally through partnering or acquiring, BU respondents argued. When Ericsson is using partnerships and strategic alliances as entrepreneurial strategy; there is an identified gap where potential monetary gains are large; and the identified gap is substantial in terms of resources. The identified gaps are usually in technology or sales channels; thus leading to
partnerships with technology, offering or channelling partners. To succeed in a partnership, one BU respondent said that determining factors are the relative strengths and abilities to execute, along with finding the right place in the architecture, i.e. the relative firms’ finding their roles in the collaboration.

4.2.2 Compatibility of organisational culture
Compatibility was regarded as an incentive that facilitates interaction and decision-making, regarding the process of partner fit. In terms of management style, communication, alignment, decision-making, and cultural aspects were important. GF level argued that compatibility in operating style is a style where you believe in building trust. However, compatibility of organisational culture may not be detectable early on in the relationship impeding a successful strategic choice of partner. Here, transparent dialogue can facilitate the conceptualisation of the partnership. One respondent at GF level noted:

If you come from a telecom company and you are going to partner with an IT company, there are a lot of cultural issues you need to overcome. If you are not sensitive to those in the beginning […] we sit down and make sure that we have a common language when talking about technology assets, business or innovation models […] you have problem. In many cases you start off and think that you have a good conversation and you think that you are going to be partners. But at the end of the conversation it turns out that you have misunderstood each other. And then you stop the collaboration. How good is Ericsson at that? I think we are fairly good but we are also realising that we need to be much better in partnering and identifying those complementarities quickly.

Respondents at GF level perceived cultural fit as the most important factor in the evaluation process. GF level respondents emphasised that cultural differences are the important aspects of cultural fit to evaluate. Cultural differences may not inhibit Ericsson from engaging in partnership; the firm just needs to prepare and be aware of organisational differences. One respondent quoted Carl-Henric Svanberg (former CEO of Ericsson), who used to say: "culture will always beat strategy, if culture is not in place, strategy will not succeed" and argued that the cultural fit must exist before driving strategic goals. Working across different cultures in terms of hierarchies, development and R&D requires both parties to acquiesce and adapt to each other’s requests. One GF level respondent noted:
when it comes to development and R&D [...] some of the companies are a bit more agile than we are, we are a bit more hesitant. I don't think we are worse at doing the R&D, we just have a different culture.

Large firms are often similar due to the sheer size and organisation, which might be slow and complex, one respondent at BU level said. Being slow and complex can be negative; but since large firms usually have the same window of how the other firm is working it is accepted. As one BU respondent noted that organisational culture rarely is the same, though between large firms the same patterns are usually observed; including one party trying to dominate the relationship, being more selfish or opportunistic. Whereas, in collaboration with smaller firms, one respondent at BU level noted:

[Ericsson] might have done the mistake sometimes that if it is a small company that we work with, that we suffocate them. Because we are a big company and we have divided our units and operations in a certain way and then there a lot of people who want to contact them and they might be just one or two guys, and they are overwhelmed with information, requests, meetings etc. You need to keep in mind the size of the company.

One BU respondent described how the first thing Ericsson evaluates is the country of origin of the potential partner. Firms from similar cultures are easier to collaborate with. Difficulties were connected to language barriers and different teamwork mentalities. As a global company with presence in many countries Ericsson is used to dealing with “old” business cultures and management styles. Indeed, the ability to collaborate with firms from any region or country was regarded as a competitive advantage; the competition was not regarded as equally capable, especially not when coming from China or eastern cultures. Partnering is a discipline in itself, and by working with many partners the knowledge of how to manage such partnerships increases, BU respondents argued. When encountering a market or culture where business development is mainly done internally, this is very apparent, one BU respondent noted.

Working with different partners introduced Ericsson to different organisational cultures. One BU respondent said:

I have always thought that telco-operators were the most slow moving, large kind of organisations. I learned that financial industry and now Carmakers are probably even
Car manufacturing is a very, very traditional industry. Ericsson, as large and slow moving as it can be […] I think we may actually be more prone or used to adjusting to the fast moving world than the car manufacturer.

In addition to complementarity and compatibility, the aspect of overlaps in terms of coopetition was a substantial finding in our empirical study that was not found in previous theory.

4.2.3 Overlaps leading to coopetition

In terms of evaluating complementary resources, potential (present or future) overlaps may create situations of coopetition or competition. Since coopetition was not mentioned previously in theory, a definition is provided for the purpose of this thesis: coopetition is a portmanteau of cooperation and competition. Secondary data suggests that coopetition is an over-used and under-implemented terminology (Strategy Analytic, 2015). Indeed, coopetition was the second most emphasised factor in the evaluation process throughout the interviews.

Since the goal of collaboration and partnering is complementarity of resources, GF respondents related overlaps to situations of competition or coopetition. Sometimes you have to be careful whom you chose as a partner, by partnering in one area you build a competitor in another area. Coopetition mainly arose in situations where Ericsson collaborated with other large firms. Smaller firms engage in fewer activities, thus fewer opportunities for coopetition arises, whereas global organisations might have competing divisions. One GF respondent explained that “internal massaging” might be needed in order to manoeuver such internal barriers within both organisations to achieve successful coopetition.

GF level respondents stressed the importance of digging into overlaps and understanding how realistic, sensitive and important they are, to be able to take such factors into consideration. Secondary data suggest that “it is better to receive a smaller part of the value chain than desired than be excluded from the solution altogether” (Strategy Analystics, 2015). Overall, all respondents agreed the larger the partnering firm, the larger the likelihood that while competing in certain areas, you can still partner in others. What arises is a situation of complex partnering within a large, global firm, which adds to the complexity of the collaborative relationships and entrepreneurial strategies. Overlaps were regulated in contractual agreements where roles are specified.
Corroborating findings from GF the business units (BU) argued the importance of contractually defining in which areas partnering occur, where partnering firms’ are competing, and where there is a customer relationship. One respondent at BU level noted:

I think the larger the partnership companies are, the larger the likelihood that even if you are competing in certain areas you can still partner in others, which makes it a little weird. […] There is still a win-win for both.

Despite contractual agreements and NDAs situations may arise where partnering firms enter into direct conflict. There are examples of critical situations with IPR infringements, while concurrently partnering in other areas. Ericsson was discussing whether to stop all partnering activities in this particular instance, but decided against it. Even if Ericsson and partners are fighting at a certain level, there are still discussions on other levels, one BU respondent noted.

4.3 Factors influencing collaboration

Relational capital, interdependence and joint combinatory efforts were three elements influencing collaboration in theory. Another issue related to collaboration emerged as important during the data collection, regarding boundary conditions that determine when to stop partnering.

4.3.1 Relational capital

*Personal interaction* was an important relational aspect influencing collaboration. True partnerships, or business relations, relies on people agreeing and finding common ground; also on a personal level, one GF respondent noted. When you find a match in capabilities, ambitions and ability to cooperate, that is when you have successful partnerships. Respondents at GF level were stressing the importance of having relations between similar levels in the partnering organisations. In collaborations where Ericsson has strong dependency to the partnering firm, there are connections established on all levels up to executive level. Still, there are partnerships where Ericsson invests heavily without an executive connection, one GF respondent noted.

Part of the role of the executive team is to facilitate the creation of more relationships; their mandate and executive drive was perceived as critical. Similar counterparts in the partnering firms need to be established in order to facilitate interaction. Without executive sponsorship

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1 An example was the IPR infringements, where Ericsson in 2015 announced that the firm sues Apple for refusing to pay for technology developed by Ericsson and used by
and support it is difficult to move things forward; if you do not have the right people at all of the other levels, the work does not get done. One GF noted that middle management must be in place for knowledge about the collaboration to be established.

That is what we are doing in Intel, setting up middle management to different collaboration areas, which the CEO will never see. […] You need the middle management to be established, because if someone quits or leaves, then you don't want the whole thing to fall apart.

The initiative to start collaborating can come from any level. There are cases where the executive team comes out of a meeting and have identified a great opportunity and initiate the search for a collaborative partner. In other cases initiatives come out of research.

‘Respect’ was emphasised in relation to strategic goal achievement. Without respect it is hard to believe in goal achievement, one GF respondent argued. To build respect, especially when working with larger companies, it was perceived important to “put competent resources in front of each other” and take the opportunity to show capabilities and bring value to the table. In terms of achieving mutual respect to have teams and partners dialoguing was important. Building trust was related to the operating style of the partnering firms in terms of alignment and communication. A transparent information flow and open communication were considered important to build trust. GF respondents argued that partnering does not occur where there is no perception of trust. Legal binging agreements are used to handle trust-issues. Hence, from GF level it was perceived that contractual agreements regulated trust backwards.

At BU level ‘personal interaction’ was explained as a learning experience where people get to know each other. Engagement and capabilities needs to be harmonised to a point where the partnership is under terms and conditions where you can achieve something together. When there is a common ground partnering is quite straightforward. If ground roles are not set and ambitions are not matching; the situation might become problematic. One BU respondent argued that respect for your partners is based on the fact that roles are sorted out. A successful partnership will not progress if one of the parties feels used and trust may dissipate. One respondent at BU level noted:

If you do not have the trust then there is not a partnership, it is more a competitive situation or the other party is trying to get an advantage. That is a bad situation, if
you feel that the other is getting more benefit or is using dirty tricks, that they are not transparent and that they are hiding information. Then the whole idea of trust starts crumbling down and the partnership dissolves.

Even if the partnership is trusting, the first thing discussed at Ericsson is a non-disclosure agreement (NDA). Without NDAs Ericsson does not operate. Having the legal documents in place is a pre-requisite. Legal agreements can mitigate trust, as was argued by several respondents. Trust is built on two levels; first, through a legal framework that sets expectations, second, there needs to be personal trust and an understanding that partnering firms can both cooperate and compete. You need formal trust and personal trust, one BU respondent said.

4.3.2 Interdependence
The possibility of replacing partners at Ericsson, might elated to difficulties since partnering is complex and may require adjustments to partnering technology. GF level stressed that the complexity of the partnerships is related to the complexity of the business models, fast moving technology and the global scale of operations. Interdependence was related to investments in the partnerships, financially, resource-wise and time-wise. Interdependence, reliance on the partner, and the ability to replace the partners depended on the level of integration. One GF respondent noted:

If they are embedded, technology-wise in our solutions, like in OEM, then you do deep technical integration, you create an offer and the customer see that it is a partner product in our offering; and of course to replace the partner is a lot of work, because you do a long term bet, whereas if you do a light integration or defined interfaces […] then of course we can replace them because we are working towards a defined interface. It depends on the level of integration, how exchangeable they are.

The willingness to contribute with information, assistance and guidance, which are the determining factors for interdependence, were dependent on how the collaboration was progressing. Providing assistance in the mobile ecosystem was perceived as a challenge since intellectual property rights (IPRs) and the operating level are generally of two minds regarding open innovation, which encumbers collaboration. When describing Ericsson’s willingness to contribute with information, assistance and guidance to the other members firms in the cooperative network one GF respondent noted:
We are generally fairly open to share and to make sure that they succeed. In complex integration project like we are performing, it is essential that you give the counterpart a good enough view of what you are providing on your part and I think it works and I sometimes you jointly develop capabilities that didn’t exist before by combining forces.

BU level did not mention interdependence as an important factor influencing the on-going collaboration.

4.3.3 Joint combinatory efforts
Ericsson’s perception of reciprocity in collaborative relations was related to an understanding of ones roles and ambitions in the partnership. The level of joint combinatory efforts was related to a mutual understanding of business potential and related resources needed to achieve the strategic goals, GF level respondents argued. From strategic level the perception of joint business development and joint efforts was perceived as a necessary basis for collaboration. There was evidence of joint developments with deep integration. Joint combinatory efforts were related to agreed business objectives and investments. What typically is invested in are governance and management, followed by either investments in technology testing or joint market or sales activities, where the level of participation is according to the model you have decided. One GF respondent noted:

When business starts to grow and Ericsson sees advantage with the partnership, then it is obvious; you can see the cooperation is growing. […] There is always a competition about resources and competences, and the provision from partners will be related to what opportunities you see in the business.

In addition to factors influencing collaboration, the reverse question did arise as an important discussion: when do you stop a partnership?

4.3.4 When to stop partnering
This issue did arise as an important topic at BU level, while not mentioned at GF level, or in previous theory. To be engaged in a partnership does not mean that the partnership will continue interminably. Ericsson needs to consider when man-hours are just burnt leading nowhere. Partnering is engaging and the involved actors get fond of the partnership; meetings are fun and the involved actors may even deliberately make things up to make the partnership endure. One BU respondent with unit responsibility revealed that he had discussions where
actors involved in less fruitful partnerships argued that “it was a good partner” to make the partnership endure whereas he returned sustainability and profit arguments. Having reached the purpose, or achieved the goals of the partnership, boundary conditions must come in place to end the partnership; which may indeed be very difficult for some of the involved actors. Ending a partnership is correlated to other problematic issues; how do you formally stop a partnership? There might still be relationships with other parts of the organisation. What will happen to those other parts of the relationship? Developing strategies for how to exit a partnership was determined as pivotal for the firm.

4.4 Collaborative output

Successful knowledge management, in theory, was a precursor to collaborative output, defined in terms of innovation and partnering experience. Adding to previous literature, standardised solutions emerged as an additional output of collaborative entrepreneurship.

4.4.1 Knowledge management

At GF level it was stressed that the basis for collaboration is to put value out there; in other words, knowledge needs to be shared to enable output. One GF respondent stressed that knowledge transfer is important in terms of long-term strategies for the firm. Frequently discussed was knowledge sharing in terms of IPRs and NDAs, specifying what is shared with collaborative partners and in the mobile ecosystems.

The importance of openness and knowledge transfer was also stressed at BU level; where respondents argued that knowledge transfer leads to development of new products. In many cases Ericsson does joint development with partners, which is an open type of discussion, but, as one BU respondent explained, safeguarded at the same time through NDAs. Although BU respondents suggested that Ericsson is a relatively open company in comparison to many North American firms. At BU level there was no general perception of the extent to which knowledge is shared between partners; it depends on the type of relationship and the project. However, Ericsson understands that the mobile ecosystem is needed, and to be a part of that, one has to open up and share, while at the same time there is a desire to protect knowledge through IPRs.
One BU respondent noted:

IPR are protective […] “do not do anything that is hampering IPR revenue”. I do not know well enough how IPR matches open source, we are at two minds, we want to be open source, but it is a big risk considering our huge portfolio, we are not ready to decrease IPR by open source.

4.4.2 Innovation

At GF level it was emphasised that innovation is important; both internally and through collaboration with partners to reach higher levels of innovation. There are structured ways for managing the innovation process in terms of distributing knowledge in the operation and finding partners to innovate with. The Networked Society\(^2\) strategy opens up for conversations and collaboration with others with the aim of finding new innovations. In addition, GF respondents explained that Ericsson with partners develops new processes for doing business; where the innovation is the business model not the physical product. At GF level the long-term perspective of innovation in the highly competitive environment was stressed, where one respondent noted that a partnership that may not generate financial value right away, might however be important in the long run.

At BU level, it was heavily emphasised that partnerships need to be profitable in order to be carried out: “show me the money, I always ask, if you cannot show me the money there is no value for us”, one respondent explained. In addition, how to manage ecosystems strategically for increased learning and innovation arose as an important challenge going forward where innovation was described as more open sources and “Silicon Valley style”. One BU respondent exemplified co-developing by using Microsoft as a success story:

Microsoft have succeeded with a huge ecosystem […] they also have a huge system of resellers, for every revenue dollar that Microsoft makes, the whole ecosystem makes eight […] we need to learn that, and we need to be much more fast-paced in going to market.

Innovation not only in terms of a physical product but also a process was also mentioned at BU level as well as by secondary sources where the Connected Vehicle Cloud\(^3\) example was used. As one BU respondent explained:

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2 Networked Society is the idea and strategy of connecting everthing that benefits from being connected.

3 Connected Vehicle is a collaboration between Ericsson, AT&T and Volvo to create connected vehicles based on Cloud solutions.
Connected Vehicle Cloud has prompted a rethinking of how suppliers can not only work together but also with car makers to create a solution that embraces their individual core competencies to deliver a superior solution (Strategy Analytics, 2015).

4.4.3 Partnering experience

Process knowledge is an important output of collaboration, which Ericsson brings forward to the next partnership, as stressed by several GF respondents. Partnering experience led to “shortcuts” in future collaborations. However, it was stressed that Ericsson needs to get better at learning from experience. One GF respondent underlined the importance of partnering experience:

In terms of partnering experience; learning is key in terms of how the partnership was set up, what the structures were, and the experience gained from the collaboration. These factors are priority to management.

At BU level it was argued that Ericsson learns a lot from collaborating; technology, marketing and process wise. Partnering experience was conceived as important. Partnering experience gained related to different experiences with partners. An example is the M-Commerce water pump project carried out in emerging markets where Ericsson collaborates with Grundfos and NGOs, water associations and other actors to create a solution that enables customers from the bottom of the pyramid to pay for water with their mobile phones. The partnering experience gained from working with NGOs versus regular firms, was exemplified by a BU respondent:

We are already working with the emerging markets with money providers in that markets and now when we are working with water NGOs we gain totally different insights in the needs [...] where they do not have scarce solutions.

4.4.4 Standardisation

Frequently mentioned in Ericsson was the aim for standardised solutions. At GF level it was argued that the aim of collaborating and learning is to start the creation of an ecosystem around Ericsson and the partners’ products; and then go into automation. Standardisation was further emphasised by BU respondents who explained that learning effects from collaboration

4 Grundfos is the Danish industry leader in water pumps.
in terms of insights of new markets and industries enable innovations and business solutions to be transferred into other industries. Obvious examples where the aim is to be able to transfer a solution to another industry, or collaboration, are the water pump payment solution and the platform Ericsson developed for the app used in the Falun 2015 World Cup. It was argued that a defined and transferrable interface is the perspective Ericsson has on any solution. One BU respondent exemplified:

With simple tools we can exchange the platform; we put new cheese and dressing on the hamburger, and then we have a Tex-Mex burger instead of a regular one.
5 Empirical analysis

To answer the research purpose of empirically exploring the process of collaborative entrepreneurship as a strategy for large firms; the analysis has been subdivided into four sections; the first answering ‘why firms engage in collaborative entrepreneurship’, followed by the three interdependent sub-processes; ‘partner fit in collaborative entrepreneurship’, ‘factors influencing collaboration’ and ‘collaborative output’.

5.1 Firm engagement in collaborative entrepreneurship

It was evidenced by empirical findings that entrepreneurial orientation along with resources, are important reasons for engaging in collaborative entrepreneurship, as proposed in theory (see Franco & Haase, 2013). Ericsson is an entrepreneurial firm and resource and capability gaps are driving the search for collaborative partners. The categorisation of partners according to needs (e.g. ecosystem partners, channel partners) highlights the resource-aspect of collaborative entrepreneurship (Yan & Sorenson, 2003; Ribeiro-Soriano & Urbano, 2009).

Ericsson is transitioning from a supplier-buyer firm to increasingly engage in partnerships; where entrepreneurial activities aimed at discovering, evaluating and exploiting new business opportunities are important in a technological era, where fast paced changes and increased consumer demands require more of established firms (Miles et al., 2005; Basole, 2008). Entrepreneurial orientation was reflected in Ericsson’s frameworks for exploiting opportunities in the external environment and in R&D investments; which are the characteristics for pro-activeness in entrepreneurship theory (Miller, 1983; Thorgren et al., 2012; Franco & Haase, 2013). The firm’s entrepreneurial orientation was also reflected in the service and virtualisation transformation, relating the change in the mix of products and services to pro-activeness, as proposed in the theoretical framework. Although, pro-activeness and innovativeness were emphasised as firm characteristics mainly at strategy level, indicating that visions at GF level may not always correspond with reality in the BUs.

The perception of risk-taking in the firm diverged from theory, as it was generally agreed that Ericsson works towards minimising risks, while theory suggests risk-taking to be an antecedent to entrepreneurial orientation (Miller, 1983; Covin & Slevin, 1991; Lumpkin & Dess, 1996; Thorgren, 2012; Franco & Haase, 2013). Ericsson is well aware that risk-taking is part of collaborative entrepreneurship, while at the same time trying to minimize-risk through calculated risk-taking. While theory suggests that firms are either risk-taking or not, empirical
findings show that calculated risk may be part of a firm’s entrepreneurial strategy. Respondents at GF and BU level stressed that risk-minimising activities may lead to missed opportunities, which supports risk-taking as antecedence to entrepreneurial orientation (Miller, 1983; Franco & Haase, 2013).

Collective capability was highlighted empirically in terms of an open communication climate internally, suggesting that collective capability works as antecedence to entrepreneurial orientation (Franco & Haase, 2013). A collective internal environment opens up for entrepreneurial activities. The sheer size of the firm may limit information sharing due to complex structures, in line with previous theory (Miles et al., 2005). Franco and Haase’s (2013) analysis reveals that a firm’s innovative capacity and collective capability are likely to promote collaborative entrepreneurship, whereas we found that Ericsson takes a calculated risk before engaging in partnerships, and placed more emphasis on innovativeness. The empirical findings corroborate theory in terms of innovation, pro-activeness and collective capability but shows inconclusive results regarding risk-taking (Miller, 1983; Covin & Slevin, 1991; Thorgren et al., 2012; Franco & Haase, 2013).

5.2 Partner fit in collaborative entrepreneurship
As suggested in theory partner fit is foremost based on complementarity of resources and compatibility of organisational culture, in addition, as evidenced by empirical findings, overlaps leading to coopetition were important in evaluating partner fit. In theory overlaps are briefly mentioned as part of complementarity; while not elaborating on potential conflicts related to overlapping competences (see Thorgren et al., 2012). The process of how firms evaluate potential partners may be of importance for enhancing our understanding of collaborative entrepreneurship and fill knowledge gaps.

5.2.1 Complementarity of resources
We found that resource and capability gaps were related to the need to access complementary technology, or industry and commercial processes at Ericsson. The need for new industry-knowledge was related to the firm’s transition from a buyer-supplier firm to increasingly engage in partnerships and new business areas. Franco and Haase (2013) found that financial, administrative and commercial assets were determining factors for collaborative entrepreneurship in small and medium sized firms. Hence, commercial assets were found to be important in small, medium-sized and large firms, whereas large firms, according to our empirical findings, are not evaluating their partners in terms of administrative or financial
assets, since these are already developed in the large firm and might be transferred to the smaller firm if needed. As evidenced by empirical findings, and in line with theory, strategic partnerships are useful to fill resource gaps and lack of specific competences (Hitt et al., 2005; Das & Teng, 2008; Sadowski & Duysters, 2008; Ribeiro-Soriano & Urbano, 2009; Andresen et al., 2010). Complementarity of resources was perceived as a strategic decision at Ericsson, which confirms the notion from Burgelman and Hitt (2007) connecting the process of collaborative entrepreneurship to strategic entrepreneurship. For the partnering firms to have convergent strategies and complementary assets was considered pivotal in the evaluation of partner fit from a strategy-perspective; whereas the business units emphasised that partnering should lead to larger monetary gains than if the resource-gap was filled internally.

5.2.2 Compatibility of organisational culture

Evidence from Ericsson suggests that social compatibility and personal interaction facilitates collaboration, this is in line with suggested theory from Sarkar et al. (2001). More specifically, empirical findings suggested that compatibility was regarded as an incentive facilitating interaction and decision-making. Compatibility in terms of management style was related to good and effective communication, alignment and an operating style based on continuous trust building. Hence, the empirical findings suggest, in addition to categories put forward by theory, that compatibility of organisational culture and management style is related to effective communication, alignment of decision-making and continuous trust building.

Compatibility was also evaluated in terms of cultural fit, where hierarchies, common business language and management styles were contingent factors at Ericsson. In theory, hierarchies and common business language were not stated as factors influencing the partner fit premise. Furthermore, evidence from the empirical findings shows that not all Ericsson’s partner-firms are equally capable of collaborating, e.g. Chinese firms were perceived as less capable, which corroborated theory, since this capacity is usually related to culturally similar firms (Capello & Faggian, 2005). Theory on partner fit did not emphasise that cultural fit was an important evaluation criterion, whereas empirical findings suggested that strategy would not succeed without cultural fit. Hence, the relation between cultural fit and the achievement of strategic goals was important in our empirical findings. DeLong and Fahey (2000) suggest that streamlining culture to strategic goals is a mammoth managerial task. In theory, Kale and Singh (2009) only specified a positive relation between partner fit and partnership performance. Hence, our empirical findings suggest that cultural fit should be included in the
definition of partner fit.

Regarding compatibility we found no evidence for the creation of interdependency in relation to organisational compatibility, as was suggested in theory (see Kale et al., 2000; Thorgren et al., 2012). However, we found that connection in relation to resource complementarity.

5.2.3 Overlaps leading to coopetition

Ericsson was not perceived as excelling in coopetition. Coopetition at Ericsson was related to increasing flexibility in the industry; and the fact that it is increasingly rare that one company has all the competencies, as was evidenced by empirical findings and secondary data. Secondary data also suggest that it is better to receive a smaller part of the value chain than desired than to be excluded from the solution altogether; which is a realisation that Ericsson is working strategically towards. Coopetition, as evidenced in the empirical findings, leads to complexity in the collaborative relationships; and overlaps are regulated contractually, in line with previous theory (Cannon & Perreault, 1999). Contractual agreements may be violated, as was evidenced in the empirical findings, leading to situations of opportunistic behaviour; still partnering firms may have discussion in other eras. Coopetition, and the sheer vastness of the partnering firm in terms of divisional structures, may lead to conflicts and adding to the complexity of inter-firm relationships, empirical findings suggested. Although, where there is high partner fit partners may not wish to risk destroying the relationship through opportunistic action, conflicting intentions, or unwanted behaviour (Inkpen & Currall, 1998).

5.3 Factors influencing collaboration

In the empirical findings three factors came across as important; these were ‘relational capital’, in terms of personal interaction at all levels, trust and respect; ‘interdependence’, in terms of level of integration and a social dimension leading to interdependence, or even reluctance to leave, and lastly, ‘joint combinatory efforts’ as a pre-requisite regulated through contractual agreements, and furthermore findings indicated that joint combinatory efforts are not achieved where there is lack of partner fit.

5.3.1 Relational capital

As described in the empirical findings, we found partial support in established literature for some factors of relational capital; these were ‘respect’ and ‘trust’. In addition, we found that all respondents, on both strategic and business unit level, substantiated personal interaction on all levels. Personal interaction and dialogue was part of the conceptualisation dialogue, where
the firm established a common ground in terms of roles and ambitions; this was strongly emphasised at both strategic and operational level, in line with Andresen et al.’s (2014) findings. To find a match in capabilities, ambitions and ability to cooperate was suggested to be critical for personal interaction with partners at Ericsson.

At strategy level respect was emphasised as a key factor in relation to strategic goal achievement in partnerships. To build respect competence trust, in terms of showing capabilities and bringing value to the table, was key in Ericsson’s partnerships, confirming previous theory that suggests trust is built on reliability of partnering skill and ability to perform (Newell and Swan, 2000). Trust and respect was also built in Ericsson’s partnerships through establishing connections with similar counterparts in the partnering firms. In addition, building trust was related to the operating style of the partnering firms, in terms of alignment and effective communication. Transparent information flows were considered pivotal for partnership success and trust building, confirming the theoretical notion that communication affect trust in relationships (Morgan & Hunt, 1994).

Several respondents argued that trust could be mitigated by legal contracts. In addition, trust was related to a confidential aspect connected to NDAs and other legal frameworks set up at Ericsson, in line with previous findings (Cannon and Perreaults, 1999). The confidential aspect was important in formalising trust. The less formalised aspects of trust were built on personal relations and companion trust built up over time, corroborating Newell and Swan’s (2000) findings. Trust was needed both informally and formally to make the relationship work. Contractual agreements were important since they specified the obligations and roles of the involved parties, which confirm the notion of legal bonds and commitment trust (Cannon and Perreault, 1999; Newell and Swan, 2000). Contractual agreements goes back to issues related to competitive situations, transparency and opportunistic behaviour; which have not been previously discussed in relation to collaborative entrepreneurship, but are extended on in the partnership literature (see Inkpen and Currall, 1998). As evidenced by empirical findings, Ericsson tries to act upon a win-win motto when participating in collaborative partnerships, which according to previous theory, creates the greatest advantage for positive effects from trust among partners (see Thorgren, 2012).

Relational capital was not just a variable that kept constant along time in Ericsson’s partnerships. As Maurer and Ebers (2006) noted, and as suggested by evidence at Ericsson,
the firm had to adapt the way they establish relations, because resource needs change over time and the configuration of their relations must accommodate their business development stage, which was corroborated by the discussion on ‘when to stop partnering’. Here, empirical findings suggested that boundary conditions must determine when to stop partnering. Organisational performance was though to be improved when relational capital’s configuration was adapted to changing resource needs, as indicated by Andresen et al. (2014), and such needs can be regulated by boundary conditions. By doing so, relational capital has an impact on organisational adaptability and therefore on firm performance.

5.3.2 Interdependence
In partnerships were there was a perceived, or genuine need to access complementarity assets and capabilities, some level of stickiness or dependence was developed in the partnership. Indeed, in theory, development of high interdependence was related to critical resources that were simultaneously difficult to obtain from another source, hence empirical findings corroborated previous theory (Thorgren et al., 2012). Interdependence occurred when Ericsson had integrated solutions with partners. All respondents argued that the difficulty of replacing the partner, as a measure of interdependence, as depended on the level of integration. Theory did not elaborate on integration and complexity of partnerships in relation to interdependence. At Ericsson lighter integration and defined interfaces increased the possibility of exchanging or replacing partners. Further, as evidenced in findings, a social dimension could also lead to interdependence or even reluctance to leave the partnership. Consequently, relational capital might increase the value of the relationship while reducing the probability of finding another relationship that can replace the established partnership, in line with Zaheer et al. (1998).

5.3.3 Joint combinatory efforts
Joint efforts were understood as a prerequisite to collaboration in the empirical findings. Indeed, the respondents agreed that ambitions and efforts were determined in the early phase of drawing up the partnership; and bound by legal documentation and contracts. To ensure combining resources will materialise Ericsson signs contracts with partners outlining terms and objectives for the joint activities, in accordance with previous theory (Cannon & Perreault, 1999). These joint combinatory efforts can include business development-activities such as resource combining for new products, technology development and marketing, as was evidenced in the empirical findings. Critical for any contract to be signed at all, however, is that the partners perceive they can gain something from combining resources with partners.
Evidence from Ericsson shows that the premise of partner fit is not always achieved; in the early phases of drawing up partnerships Ericsson might invite partners that are given a ‘free ticket in’, which may not yield result. This indicates that joint combinatory efforts are not achieved where there is lack of partner fit.

5.4 Collaborative output

In the empirical findings three factors came across as important in terms of collaborative output: ‘innovation’, ‘partnering experience’ and ‘standardisation’. The innovation factor was tied to technological knowledge, whereas partnering experience and standardisation were factors discussed in the context of know-how and market knowledge. Findings show that additional prerequisites for collaborative output; other than knowledge transfer and learning mentioned in theory, are legal frameworks that enable knowledge transfer to occur.

5.4.1 Knowledge management

Value from partnering was generated from technological, marketing and process learning, thus reflecting theory (Bennett et al., 2008; Jacob et al., 2013; Valentim et al., 2013). It was perceived that the desired output of collaboration to complement the own business in all three areas (technology, marketing and processes), rather than to acquire knowledge and skills in order to diminish the dependence on the partner as was proposed in theory. Ericsson’s approach to knowledge transfer creates a competitive advantage (Westerlund & Rajala, 2010). Compatibility and complementarity were factors discussed in theory as precursors to synergy effects and absorptive capacity; in the empirical findings the former was emphasised, while the latter was given less attention (see Thorgren et al., 2012). In line with theory, the main reason for knowledge transfer stressed by BU respondents was the development of new products (Nonaka & Takeuchi, 1995:6; Grant, 1996). Whereas, at GF level knowledge transfer and learning were important in the long-term perspective. Reasons for diverging views are that strategic, overall perspectives are discussed at GF level whereas products are discussed at BU level, while also being responsible for sales and financial results.

Empirical findings suggested that Ericsson is experiencing a transition towards open source in the cooperative network. Whereas authors such as Franco and Haase (2012:221) discuss collaborative entrepreneurship in the light of risk-taking and risk sharing; respondents focused on the risk-taking aspect related to knowledge transfer. For large firms, such as Ericsson, knowledge sharing in collaboration or partnerships does not occur without IPRs and NDAs, to protect valuable information. In this sense, IPRs and NDAs serve as precursors to knowledge
sharing and learning. However, in the cooperative network IPRs and NDAs rather limit transferred knowledge since the aim is open source; and managing the mobile ecosystem thus becomes a strategic challenge. The internal division, the firm being of two-mind regarding open source, was emphasised by respondents. On one hand Ericsson wants to be open and share and on the other hand protects intellectual property; where the latter goes in line with previous theory (Kogut & Zander, 1992, 1993; Grant, 1996). Hence, the challenge of managing the mobile ecosystems needs was identified.

5.4.2 Innovation
At GF level innovation was discussed in the context of Ericsson’s long-term strategy. At BU level, focus was centred on short-term goals regarding the financial output of innovation; which, indeed, theory suggests is the goal of collaborative entrepreneurship (Gupta & Govindarajan, 2000; Franco & Haase, 2013). This may be related to different time horizons, BUs having planning horizons of 1-3 years while GFs have a time frame of 3-5 years. Knowledge in Ericsson was shown not only to generate technological innovation, but also process innovation. Business model innovations appeared important as they generated efficiency and synergy effects; but these were not discussed in literature; which focused on more traditional innovations. Innovation in the cooperative network was a result of sharing of knowledge between firms; where the protection of knowledge hampered sharing in the mobile ecosystem, which required Ericsson to be more open source. As innovation in networks becomes increasingly important to sustain competitiveness; managing the mobile ecosystems becomes a challenge for Ericsson.

5.4.3 Partnering experience
Both GF and BU level stressed experience gained from partnering led to more attractive partnerships, which corroborated theory (Dyer & Singh, 1998; Eden & Ackermann, 2001; Hasty et al., 2006; Das & Teng, 2008; Montoro-Sanchez et al., 2009). While theory mostly discussed partnering experience in the context of choosing partners, empirical findings showed that it constitutes an important output factor, as experience generates process knowledge used for the purpose of improving the business. Experience from engaging with different types of partners lead to extended technological and marketing knowledge enabling standardisation. In this sense, partnering experience serves both as an output of current collaborative entrepreneurship, and as an antecedent to future collaborations, as illustrated in Fig. 1 (Simonin, 1999; Hasty et al., 2006; Das & Teng, 2008; Montoro-Sanchez et al., 2008; Riberio-Soriano & Urbano, 2009).
5.4.4 Standardisation

Standardisation was not discussed in theory, but did arise frequently in the empirical findings, especially among BU respondents. The aim of many solutions with industry-partners was standardised solutions. In standardisation, technological, marketing and process knowledge is used for the development of a solution that is transferrable from one industry context to another, through defined interfaces. The most important reason found for standardisation was scalability, where costs are reduced and efficiency enabled. In a business environment that requires faster development and go to market, standardised solutions enhances competitiveness and should become increasingly important for large firms as competition tightens.

5.5. Summary

The empirical implications of the collaborative entrepreneurial processes described in our case study and its theoretical implications for the model are presented in Fig. 2. The prominent elements and theoretical implications of the model are elaborated upon in Table 3. The theory driven elements that were behind the model construction are presented in Table 1 (see 2.5 Summary). The process building, as illustrated in Fig. 2, consists of the ‘evaluation process’ in terms of partner fit; where complementarity of resources, compatibility of organisational culture, and overlaps in terms of capabilities, were the main determinants in the evaluation process; the next process; ‘factors influencing collaboration’, was determined by relational capital, interdependence, and joint combinatory efforts; the last process, ‘collaborative output’, was determined by innovation, learning through gained partnering experience, and standardisation where knowledge transfer, learning and NDAs were pre-requisites.
Table 3 elaborates on the theoretical implications of the empirical model of the collaborative entrepreneurship process.

<table>
<thead>
<tr>
<th>Elements</th>
<th>Theoretical implications</th>
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<tbody>
<tr>
<td><strong>Entrepreneurial orientation</strong></td>
<td>- The process of evaluating risk is complex and incorporates calculations</td>
</tr>
<tr>
<td></td>
<td>- Innovation and collective capability are precursors to collaborative entrepreneurship.</td>
</tr>
<tr>
<td><strong>Partner fit and resources</strong></td>
<td>- Resource complementarity is a precursor to collaboration. Complementarity is important to fill resource gaps and capability gaps, driven by technology know-how, industry and commercial processes.</td>
</tr>
<tr>
<td></td>
<td>- Compatibility in terms of management culture and <em>cultural fit</em> facilitates collaboration. Cultural fit is evaluated in terms of hierarchies, common business language, and management style. Management style is related to alignment, effective communication and continuous trust building.</td>
</tr>
<tr>
<td></td>
<td>- Potential overlaps may create present (or future) situations of coopetition. Present or future overlaps may create competitors.</td>
</tr>
</tbody>
</table>
**Factors influencing collaboration**

- Relational capital refers to personal interaction, enabled by connections at all levels, and companion, commitment and competence trust. Competence-trust builds respect in partnerships.
- Interdependence refers to the level of integration, complexity and integration of the solutions adapted in the partnership; which influences exit strategies, reciprocity and interdependence. A social dimension may lead to interdependence and reluctance to leave the partnership.
- Joint combinatory efforts are a pre-requisite to partnering and regulated through contractual agreements. Joint combinatory efforts are not achieved where there is lack of partner fit.

**Collaborative output**

- IPRs, NDAs, knowledge transfer and learning are precursors to successful collaborative entrepreneurship in a large firm.
- Collaboration must lead to financial output in terms of innovation.
- Experience gained from previous collaboration is transferred into new partnerships.
- Standardisation is the result of solutions transferrable from one industry context to another, through defined interfaces.
6 Conclusion

Previous research has examined traditional entrepreneurial processes; only minor attempts have explored how engagement in collaborative entrepreneurial processes is used as strategy in established firms. In this, our understanding of how firms’ work strategically with collaborative entrepreneurship to achieve continuous innovation and learning in partnerships is of importance to both practitioners and scholars. Here, we contribute to the field of corporate entrepreneurship by filling the research gap regarding how large firms work strategically with collaborative entrepreneurship.

6.1 Theoretical contribution

Using a rich case description from a large firm that has exploited collaborative entrepreneurship as strategy, we developed a framework and model of the collaborative entrepreneurial process. The model includes three interdependent processes, as described in Fig. 1. The sub-processes have close links to previous literature on partnerships and entrepreneurship. Those interested in partner fit, relational capital and knowledge transfer will also find value in our framework when we combine this with the corporate entrepreneurship literature. In doing so, we develop a model and framework that contributes to research and theory at the intersection of partnership literature and entrepreneurship.

Our contribution lends further clarification to collaborative entrepreneurial processes and its influencing contingencies. This is much needed due to the lack of research and formal models in this field (Bergh et al., 2011). Our model and framework suggests three interdependent processes (see Fig. 1, Table 4). In the first evaluating phase; partner fit is evaluated in terms of ‘complementarity’, ‘cultural fit’, and ‘overlaps’, in the second phase, the factors influencing collaboration were ‘relational capital’ in terms of personal interaction, trust and respect; ‘interdependence’, which influenced the complexity of the partnership, and ‘joint combinatory efforts’. The third stage, the collaborative output; was defined by learning in partnership leading to ‘innovation’, gained ‘partnering experience’ and ‘standardised solutions’ transferrable from one partnering context to another.

Some challenges and practical implications in collaborative entrepreneurship were identified. Inherent in the concept of partner fit and compatibility are resource and capability overlaps; related to this, is the concept of ‘coopetition’. The aspect of coopetition has largely been neglected in the discussion on partner fit in previous literature but came across as a critical
issue for large firms. Coopetition resurfaced mainly in discussions on strategic level. This is yet another important aspect why large firms and strategic entrepreneurship are especially suited to exploring a new phenomena of collaboration, since such aspects can emerge as new and important areas of research. Relational and emotional aspects determining when to exit a partnership, and how firms work with establishing boundary conditions is another area of interest for further research. In relation to the industry setting how to manage the mobile ecosystems strategically did arise as an important future challenge. The embeddedness of the case study provided both strategic and operational views; where BUs were more concerned with financial output whereas GF had a long terms strategic focus.

6.2 Managerial implications
Some managerial implications are suggested. Firstly, select partners that fit your firm in terms of cultural fit and complementary capabilities and resources. This is among the most important decisions that determine whether the collaboration will hold and perform well (see Sadowski & Duysters, 2008). A growing body of research emphasises the relational quality as both an input and output in successful collaborations. Our findings suggest that firms should consider what behaviour creates trust and willingness to share knowledge and resources. Finding partners that fit your firm in terms of compatibility and complementarity may be one option (see Thorgren, 2012). Thirdly, firms should regulate positive and negative trust effects separately. If the firm acts upon a win-win motto when participating in the partnership this will create the greatest advantage for positive trust-building effects. This thesis demonstrates that fit among partners is related to overlaps, competition and coopetition. Thus, firms should be careful when selecting partners. If there are several firms between which the firm may choose, it may be useful to select those whose capabilities are not too similar to those the firm already possesses, but still have a management style similar to the firm’s. In terms of knowledge transfer in relation to IPRs and NDAs, firms need to be aware that the latter constitute obstacles in the cooperative network. Here, the firm needs to aim for a balance between sharing and protecting knowledge.

6.3 Limitations and suggestions for further research
Some limitations are present in the empirical study; due to the large firm and technological context, findings from one single firm cannot converge in generalised conclusions. Rather, the empirical study provides a deeper understanding of how one firm works strategically with collaborative entrepreneurship. Although the strength of inductive-oriented case research, like
that described in the present thesis, is used to generate new ideas and empirical insights for theorising, we acknowledge limitations in validating existing ideas.

We believe that the model and framework should encourage further research, for example, to give new insights into collaborative entrepreneurship in large firms. The trust-aspect in the evaluation process and throughout the collaboration needs to be tested as part of the collaborative entrepreneurship theory. Coopetition, boundary conditions, and knowledge transfer in open innovations with IPRs and NDAs in place, are some managerial challenges that present fruitful suggestions for future research in large firms. Again, we believe our model and framework needs additional empirical testing and that it should mostly be understood as first exploration into the field of collaborative entrepreneurship as a strategy for large firms.
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# 8 Appendix

## Interview Questions

### Construct & author  
### Item description

#### Entrepreneurial orientation

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item Description</th>
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<tbody>
<tr>
<td>Innovation</td>
<td>How would you describe the level of innovativeness in Ericsson’s products and services?</td>
</tr>
<tr>
<td>(Thorgren et al., 2012; Franco &amp; Haase, 2013)</td>
<td>How would you describe on-going strategic changes in the mix of products and services at Ericsson?</td>
</tr>
<tr>
<td>Pro-activeness</td>
<td>How do you perceive Ericsson’s level in terms of R&amp;D, technological leadership and innovation?</td>
</tr>
<tr>
<td>(Thorgren et al., 2012; Franco &amp; Haase, 2013)</td>
<td>How does Ericsson use strategies to exploit opportunities in its external environment?</td>
</tr>
<tr>
<td>Risk-taking</td>
<td>How would you describe Ericsson’s involvement in high risk projects (with chances of very high return)?</td>
</tr>
<tr>
<td>(Thorgren et al., 2012; Franco &amp; Haase, 2013)</td>
<td>How do you perceive Ericsson in terms of bold, wide-ranging acts to position its products and services? Any example?</td>
</tr>
<tr>
<td>Collective capability</td>
<td>How would you describe Ericsson’s practice in terms of scanning internal processes for areas that may be improved upon?</td>
</tr>
<tr>
<td>(Franco &amp; Haase, 2013)</td>
<td>How would you describe internal communication at Ericsson? Are all relevant facts communicated? Or are there any “politically or strategically unacceptable” facts that are not communicated on all levels?</td>
</tr>
</tbody>
</table>

#### Partner fit and resources

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complementarity</td>
<td>How do you perceive the complementarity (i.e. differences but necessary ones) between the resources/capabilities of the partners and Ericsson?</td>
</tr>
<tr>
<td>(Thorgren et al., 2012; Franco &amp; Haase, 2013)</td>
<td>How would you describe similarities/overlap between the core capabilities of the partners and Ericsson?</td>
</tr>
<tr>
<td>Compatibility</td>
<td>How would you describe partners’ technological/commercial and administrative know-how in terms of complementarity?</td>
</tr>
<tr>
<td>(Thorgren et al., 2012; Franco &amp; Haase, 2013)</td>
<td>How would you describe the compatibility of organisational culture between Ericsson and the partners?</td>
</tr>
</tbody>
</table>
How do you perceive the management and operating styles of the partners in terms of compatibility with Ericsson? In terms of: (1) creation of information (2) internal communication (3) teamwork.

How do you perceive the decision making process and how do collaborators partake in it?

Human
(Franco & Haase, 2013)

How do you value partner’s prior partnership experiences when you evaluate potential partners?

To what extent do you value your own/Ericsson’s experiences of strategic partnerships in the process?

Factors influencing collaboration

Relational capital
(Thorgren et al., 2012)

How would you describe personal interaction between partners at multiple levels?

How would you describe mutual respect between partners at multiple levels?

How would you describe mutual trust between partners at multiple levels?

How would you describe mutual friendship between partners at multiple levels?

How do you perceive reciprocity among the partners?

Interdependence
(Thorgren et al., 2012)

How would you describe Ericsson’s willingness to contribute with information, assistance and guidance to other member firms in the cooperative network?

How would you describe Ericsson’s willingness to invest in substantial resources from the firm to the partners in the cooperative network?

How would you describe the provision from partners of significant resources difficult to acquire in other ways?

Within the projects carried out, how would you describe your partners’ contribution in terms of innovation (1), technology (2), physical (3), financial resources (4) and commercial and administrative know-how (5)? Would it have been difficult to replace the partners?

Joint combinatory efforts
(Thorgren et al., 2012)

Estimate to which extent Ericsson and the partner assigned for the joint business development project have combined mutual resources.
Estimate the average number of hours in joint efforts as a measurement.

**Collaborative output**

Knowledge transfer (Thorgren et al., 2012) How would you describe the transference of knowledge from the firm/s? Describe how you learned about (to what extent) the other firms’ partnering technology, market and/or process knowledge.

Throughout the collaborative process, did you absorb technological, market and/or process knowledge from the other firm? Did this diminish the technological/market dependence on the other firm?