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ABSTRACT

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Abstract

Prior research emphasizes the role of selecting a suitable partner for interorganizational collaboration such as alliances and partnerships. Studies show that selecting a wrong partner is one of the main reasons for strategic alliances to fail. Concurrently, cooperation is taking even more intense and closer forms. New organizational models, such as the project alliance model, emphasize the collaborative way of working in networks: the contractors, planners and the client work together to achieve the objectives of the project. In these types of projects, choosing a wrong partner would be detrimental. However, research on how companies choose their partners in project alliances is nonexistent and hence this study is first of its kind to focus on the partner selection of project alliances.

The objective of the study is to examine the partner selection process in a project alliance environment. This objective is fulfilled by focusing on both the process phases in alliance formation and the factors that influence the selection of a partner. Relying on previous literature on strategic alliances, the study identifies which steps are taken in the process and which distinctive factors have an impact on the partner choice of a project alliance partner.

Eight Finnish companies have been involved with the project alliance model, six of which participated in the study. The data were gathered through qualitative theme interviews among the directors of the largest infrastructure construction companies in Finland.

Based on the findings of the study, a framework was established for project alliance partner selection. The framework consists of a cyclical, five-phase process. The process starts when preliminary project information about a forthcoming project reaches the potential project company. After this, the process continues with a self-assessment of the company, evaluation of potential partner, contacting and negotiations and final choice of a partner, after which the partners continue on assessing whether they need additional partners. During the process, different factors influence the partner selection. In addition to the three categories mentioned in previous literature: task-related selection factors, partner-related selection factors and learning-related selection factors, a fourth category of factors was found to affect the choice. The fourth category is named the project alliance specific selection factors. Altogether, these four categories consist of 15 specific factors.

The main theoretical contribution of this thesis is shedding light to process of companies selecting partners for alliance projects. Furthermore, with the use of the framework, managers may conduct a more systematic analysis of potential partners and recognize which phases in the selection process are essential, what factors managers should affect and on the other hand, what can they improve to be more attractive as project alliance partners.

Key words	alliance, project alliance, partners, partner selection, selection factors

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Tiivistelmä

Olemassa oleva tutkimus korostaa partnerinvalinnan tärkeyttä yritystenvälisissä yhteistyömalleissa, kuten alliansseissa sekä kumppanuuksissa. Tutkimukset osoittavat, että epäsopivan partnerin valitseminen on yksi pääsyistä strategisten allianssien epäonnistumisille. Samanaikaisesti yhteistyö on muuttumassa yhä intensiivisemmäksi sekä läheisemmäksi. Uudet organisaatiomallit, kuten projektiallianssimalli, korostavat yhteistyötä verkostoissa: rakennuttajat, suunnittelijat ja tilaaja toimivat yhdessä saavuttaakseen projektin tavoitteet. Tämän tyyppisissä projekteissa väärän partnerin valinta olisi hyvin haitallista, mutta tästä huolimatta aihetta ei ole aiemmin tutkittu. Tämä tutkielma on täten ensimmäinen tutkimus, joka keskittyy projektiallianssimallin partnerinvalintaan.

Tämän tutkimuksen tavoitteena on tutkia partnerinvalintaprosessia sekä siihen vaikuttavia tekijöitä projektiallianssimallissa. Tutkimuksessa keskitytään sekä prosessin eri vaiheisiin että tekijöihin, jotka vaikuttavat partnerinvalintaan. Aiempi strategisiin alliansseihin keskittynyt tutkimus toimii tutkimuksen pohjana, sillä prosessin vaihteita sekä erilaisia vaikuttavia tekijöitä on tutkittu strategisissa alliansseissa.

Kahdeksasta suomalaisesta projektiallianssimallissa mukana olleesta yrityksestä kuusi osallistui tutkimukseen. Tutkimus toteutettiin kvalitatiivisilla teemahaastatteluilla, joissa haastateltiin Suomen suurimpien infrastruktuurirakentajien sekä -suunnittelijoiden johtajia.

Tutkimuksen tulosten perusteella muodostettiin viitekehys projektiallianssin partnerinvalinnalle. Viitekehys koostuu syklisestä, viisivaiheisesta prosessista. Prosessi alkaa, kun yritykset saavat alustavia tietoja tulevasta projektista. Tämän jälkeen prosessi jatkuu yrityksen omalla itsearvioinnilla sekä mahdollisten partnereiden arvioinnilla. Yhteydenpidon ja neuvotteluiden jälkeen yritys tekee päätöksen partnerista, jonka jälkeen kyseiset yritykset yhdessä arvioivat, tarvitsevatko lisää partnereita. Prosessin vaiheiden aikana eri tekijät vaikuttavat partnerinvalintaan. Aiemmassa tutkimuksessa löydettyjen kolmenlaisten valintatekijöiden, tehtävään liittyvien, partneriin liittyvien sekä oppimiseen liittyvien valintatekijöiden lisäksi tutkimus löysi neljännen luokan: projektiallianssille erityiset partnerinvalintatekijät. Yhteensä nämä neljä kategoriaa muodostuvat 15 eri tekijästä.

Tutkielman pääasiallinen tieteellinen kontribuutio antaa uutta tietoa prosessista, jota yritykset käyttävät valitessaan partnereita allianssiprojekteihin. Hyödyntämällä tutkimuksen löydösten perusteella muodostettua viitekehystä yrityksen johto kykenee analysoimaan potentiaalisia partnereita systemaattisemmin sekä tunnistamaan, mitkä ovat prosessin olennaisimmat vaiheet. Lisäksi johto pystyy ottamaan huomioon olennaiset tekijät ja toisaalta arvioimaan, miten yritys pystyy parantamaan omaa houkuttelevuuttaan projektiallianssimallipartnerina.

Asiasanat	allianssi, projektiallianssi, kumppaninvalinta, valintatekijät

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Espoo, 25.2.2018

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PARTNER SELECTION PROCESS IN PROJECT ALLIANCES

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in Marketing

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The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin OriginalityCheck service.

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1 INTRODUCTION

1.1 Background to the research

The construction industry is commonly characterized as a conservative industry that suffers from low productivity and inefficiency (Atkin et al. 2008; Cheng & Li 2002, 194; Pekuri 2014, 13). Complex projects tend to often fail their target deadlines and exceed costs (Berg & Kamminga 2006, 1; Flyvbjerg 2006). Reasons for these issues are numerous: fragmentation (Lahdenperä 2012a, 57; Flanagan et al. 2006), ever-increasing complexity (Jefferies et al. 2014, 465), the adversarial nature of the industry (Li et al. 2001, 171), conflicts (Black et al. 2000, 423), poor cooperation (Thompson & Sanders 1998, 78) and traditional buyer-seller relationships and their inconsistent objectives and risk transfer (Chen et al. 2012, 465) are all seen as factors contributing towards the inadequate performance.

The low productivity and the lack of growth have also been recognized as problems of the construction industry in Finland (Ahonen et al. 2008, 8). Some of the most important negative factors have been recognized as: too little interaction and continuous improvement, lack of trust, respect and incentives between parties involved and clients following the lowest price, not the best quality (Flanagan et al. 2006, 53, 136–139). The largest ever infrastructure project in Finland, Länsimetro, is an infamous example of unsuccessful projects. The subway project exceeded its original budget by almost 30% and was more than one year late from the schedule, when it was completed in the fall of 2017 (Länsimetro 2017; Pietiläinen 2017).

According to Sakal (2005, 67–76) the increased complexity and uncertainty also transform the industry to be more dynamic as projects demand more and specific advanced technology. Subsequently, this requires multiple contractors. By using traditional contract models, the parties are attempting to anticipate all upcoming problems, which has proven to be difficult in the changing environment (Rahman & Kumaraswamy 2005, 365; Sakal 2005, 67–68). Rahman and Kumaraswamy (2005, 365) note that allocating risks beforehand is problematic because new risks arise throughout the project and some of the present issues might dissolve. Therefore, traditional contract models have been criticized as a potential source of conflicts, parties' opportunistic behavior and bad business practices (Cheung et al. 2003, 333). Partly for these reasons, interest towards different types of collaboration models has increased (e.g. Bresnen & Marshall 2000, 229).

At the same time, due to globalization and improved technology, competitive advantages do not rely only on a single company's resources, but also its relationships and networks, which it can leverage (Solesvik & Westhead 2010, 844). While aiming

towards better productivity, companies have become increasingly dependent of each other (Lee & Cavusgil 2006, 896; Das & Teng 2001, 1–2). Different forms of collaboration models have evidently indicated for example: better quality, safety and management practices while still leading to less costs, conflicts and delays in schedules (Barlow 2000, 978–987; Lee & Cavusgil 2006, 903–904). Various cooperation models have over time developed and become even closer in terms of relationship proximity. The *project alliance model*, the subject of this study, represents one of the closest types of collaboration models.

In the project alliance model, the client (buyer) and the service providers (contractors and planners) form a coordinated and unified organization, in which risks and rewards are shared jointly within the alliance partners (Lahdenperä 2015, 7). The fundamental motivations for using the alliance relate to the performance issues of the construction industry: the model is intended to increase productivity, cooperation, innovations and to deliver altogether faster, better quality and lower cost projects (Airola & Heikkinen 2013, 6). It is notable that the project alliance model is usually chosen by the client who orders the project (Lahdenperä 2009). The benefits of the project alliance model listed in the literature compared to traditional models are numerous, for example: higher productivity, efficiency in terms of costs, used time and other key performance indicators (e.g. Love et al. 2010; Davis & Love 2010, 459), transfer of skills, learning and better practices for health, safety, community and the environment (Ross 2003, 18). Successful real-world implementations can also be found especially from Australia, where the model is in wide use within public construction (Ross 2003, 37–39). The project alliance model has also spread to Finland during the past few years and has shown some positive results (Rakennuslehti 2017; VR Group 2015).

However, the alliance model has its own weaknesses. The success rate of specifically the project alliance model has not been estimated, but from the figures of strategic alliances, it can be noted that problems in alliances in general occur rather commonly: according to Hugh and Weiss (2007, 122) the rate of failure is around 60 to 70%, and Park and Ungson (2001, 37) claim it is above 50%. Twardy-Duyster (2009) examined more than 80 strategic alliances and computed that 56.8% of them were able to realize initial goals. Many issues are linked to the success of the collaboration and the relationships between the alliance partners: human relationships, establishing a collaborative culture and stabilizing it, weak chances of reimbursement in case of partner failure, insurance claims and chance to evaluate and recruit partner's employees (Lahdenperä 2009, 15). Duisters et al. (2007) add that four out of five of the most common reasons for alliance failure of strategic alliances are caused by unfit partners. Deriving from this and extant literature, it can be argued that the selection of a right partner has a crucial role in forming an alliance (Cummings & Holmberg 2012, 137; Ireland et al. 2002; Twardy-Duysters 2009, 3; Dong & Glaister 2006, 581; Wu et al. 2009; Shah &

Swaminathan 2008, 471; Bronder & Pritzl 1992, 417; Geringer, 1991, 42; Asmar et al. 2009, 1087; Dacin et al. 1997).

The current literature on project alliances focuses primarily on the benefits and basic elements of the model, identifying critical success factors and evaluating motivational factors (Chen et al. 2012). In terms of strategic alliances, academic research has focused a lot on already established teams and their performance, whereas less research has concentrated on partner selection factors (Shah & Swaminathan 2008; Cummings & Holmberg 2012; Twardy-Duysters 2009; Geringer 1991; Glaister; 1996). Project alliances have been examined after they have already been formed (Lahdenperä 2012b).

Although the importance of partner selection has been recognized, the extant literature on partner selection is incomplete also throughout the alliances research (Dekker 2008, 916). Most studies have concentrated in finding the underlying motives to partnering in the first place (Schaan and Kelly 2007; Cummings & Holmberg 2012, 136) but not focused on the issues in partner selection (Hamel 1991; Lambe and Spekman 1997). Even studies on alliance formation have not addressed the importance of finding the right partner (Mellewigt & Decker 2014, 73). Furthermore, Duisters et al. (2007, 775; 2011, 8) state that the literature is lacking a study concerning the selection process itself and how it should be managed. Due to the even closer relationship and risk sharing aspects of the project alliance, it could be assumed that the partner selection has a highlighted importance in project alliances. Nevertheless, the issue has not been discussed in the existing literature.

Furthermore, the report made by the Department of Treasury and Finance of Australia points out that there is only little academic research on the governance of a project alliance (Wood & Duffield 2009, 95). When governance is seen as setting the objectives and strategies to accomplish those objectives, partner selection is an essential part of the alliance governance. Companies establish relationships with each other keeping in mind the mutual future and possibilities from the cooperation. As Ireland et al. (2002, 413) summarize: “Effective alliance management begins with selecting the right partner.” The literature on governance of strategic alliances is abundant (e.g. Gomes et al. 2014; Kale & Singh 2009; Nielsen 2010; Reuer & Zollo 2000), but the project alliance model is different in nature. Airola and Heikkinen (2013) discuss the management of a project alliance in brief, but do not focus on partner selection in particular.

This thesis will provide more knowledge about the project alliance model by examining what could be considered as one of the most important building blocks of the model – the selection of a right partner. The study then aims to add theoretical knowledge on how the partners are selected and on what basis, but also to give managerial implications for companies considering to use or using the project alliance model in the construction industry. The study also aims to create a project alliance partner selection framework, building on the literature on strategic alliance partner selection.

1.2 The objective and research questions

To fill in the research gaps mentioned in Chapter 1.1, the purpose of this study is *to examine the partner selection process and factors influencing it in project alliances*. Research on strategic alliances has explored the factors influencing the partner selection (e.g. Glaister 1996; Cummings & Holmberg 2012; Das & He 2006; Mellewigt & Decker 2013) and described the various aspects of the process (Bierly III & Gallagher 2007; Duisters et al. 2007; 2011; Pidduck 2006), but neither of these issues have been studied in the project alliance literature.

The development of internal relationships within an alliance is depicted with a three-phase model, in which the first phase includes the formation, i.e. initiation and negotiation process (Mistry & Davis 2009, 218–219; Das & Teng 2002, 728). This thesis focuses on the first steps of this phase, which starts from evaluating and choosing the partners and then continues to the actual formation of the alliance. The thesis intends to assess how partners are screened and selected as well as examine which factors are influencing the choices. The thesis aims to answer the following two research questions:

- *How is the partner selection process organized during formation of a project alliance?*
- *Which factors influence the partner selection?*

The first research question aims to understand how companies begin their selection process and screen their prospect candidates in order to make a final decision of which company to partner with. The question attempts to discover which steps are taken during this process. Furthermore, it is examined how formalized and sophisticated the process is and whether the decisions are based of raw facts or rather intuition. The network approach is emphasized to see how different actors within the alliance network are taken into consideration and how their synergies regarded while examining an optimal project alliance group. Is it only one company that tries to gather a group of suitable companies and takes the initiative? Finally, the question looks into how prospect companies are selected and how the final decisions are made and by whom.

The second question seeks to find factors that influence a firm's decision to choose another firm to be their partner and form an alliance. The different types of factors are categorized as task-related, partner-related and learning related factors and are further-discussed in Chapter 4. The main purpose of the question is to find which factors are emphasized and how, when the unique aspects of the project alliance model, such as close cooperation and collaboration, are taken into consideration. These characteristics are different from the other collaborative models such as strategic alliances and require more from a single company while putting pressure on the social synergies. Therefore, these social aspects are emphasized on.

Finally, both questions seek to find managerial implications of how the partner selection is organized and how it could be improved. From the academic perspective, the thesis aims to contribute to the project alliance and strategic networks literature by establishing a framework for partner selection in project alliances by taking in consideration the factors influencing the choice and the process itself.

The study is qualitative in nature and based on theme interviews. The interviewees are mainly director level management from the largest infrastructure companies that have been involved in project alliances in the Finnish infrastructure construction market since it was used for the first time, starting from 2011. The interviews were conducted between November 2017 and January 2018.

1.3 Literature used and the structure of the thesis

The thesis is structured as following: the extant literature will be reviewed in Chapters 2, 3 and 4. The first two sub-chapters of Chapter 2 concentrate first on intentionally built business models in general and then define the most widely used collaboration models and discusses their differences. The project alliance model and its key elements are introduced in Chapter 2.3.

Chapter 3 focuses on the project alliance selection process. It describes the importance of the partner selection in Chapter 3.1 and then defines the various steps of the process used to choose partners in strategic alliances in Chapter 3.2. Chapter 3.3 discusses how external knowledge is attained in order to make decisions. Chapter 4 identifies the various factors influencing partner selection within strategic alliances, namely partner-related, task-related and learning-related selection factors. In the end of Chapter 4, a preliminary partner selection framework, based on the existing strategic alliance literature, is presented.

Chapter 5 describes the methodology used in the research, which is based on qualitative research methods. The chapter justifies the methodology with philosophical underpinnings and discusses the most relevant research method, qualitative interviews. Furthermore, the chapter describes the data collection, data analysis and finally addresses the trustworthiness of the study.

The findings of the study are presented in Chapters 6 and 7, the former focusing on the partner selection process and the latter one discussing the various factors affecting the choice. These findings are analyzed and compared with the existing literature in Chapter 8: Discussion. Finally, the most relevant theoretical and managerial implications are concluded in Chapter 9, which also examines the limitations of the research and suggests further research directions.

The thesis relies on several fields of study, namely: social capital, strategic value nets, cooperative business models and the project alliance model. The research gap is recognized from the project alliance literature, but the existing literature on other cooperative business models and social capital supports the creation of a theoretical framework for the empirical study. Figure 1 depicts the positioning of this thesis in the interface of different research fields:

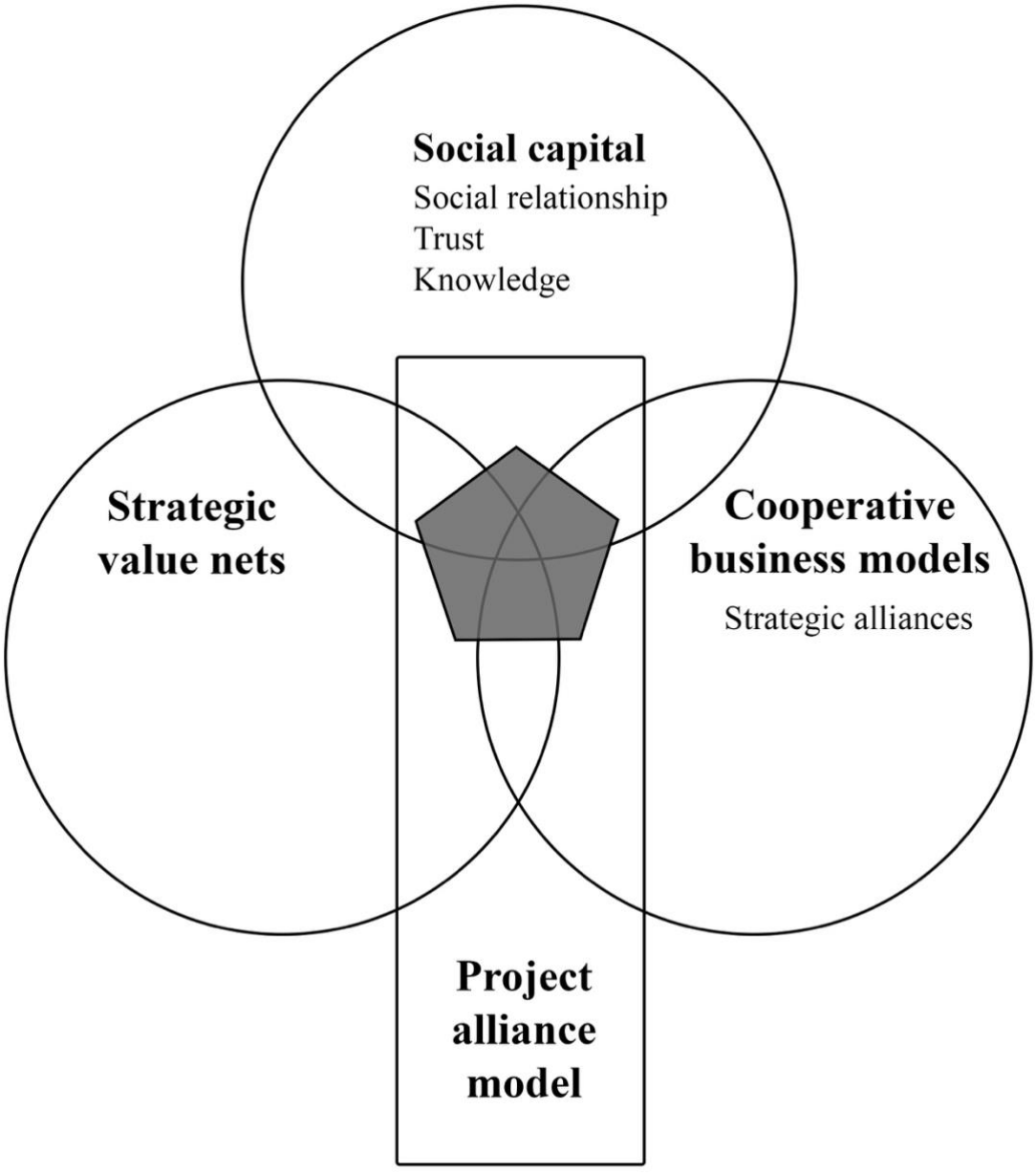

Figure 1 Positioning of the thesis

The main contribution of the thesis is on the literature on project alliances, which is still growing at a rapid pace as the model has become increasingly used, especially in Australia (DTF 2015) and Finland (Nordström 2017). In addition to the project alliance

literature, the thesis discusses the literature of strategic value nets, which acts as a bottom-level literature for establishing a comprehensive view of intentionally built networks. Alliances are in essence intentionally built networks i.e. they are formed voluntarily by two or more companies that seek benefits from cooperation and therefore underlying motives and reasoning for cooperation need to be understood.

Additionally, literature on cooperative business models and especially on strategic alliances, is used widely in the literature review, as the same principles apply to the project alliance model to some extent. The differences are distinguished in Chapter 2.3., which provides the basis on what is relevant and applicable to the project alliance model. Finally, social capital theories are involved as the partners are affected by components such as social relationships and trust, which are discussed in Chapter 4.

The literature discussed in Chapters 2, 3 and 4 have been retrieved mainly from scholarly databases such as Ebsco Complete, Elsevier and ProQuest Abi. The most cited journals include Journal of Management, Journal of Project Management, Academy of Management Review, Academy of Management Journal and Long Range Planning.

2 OVERVIEW OF THE PROJECT ALLIANCE MODEL AND OTHER COLLABORATION MODELS

2.1 The project alliance as a part of intentionally built networks

In order to cope in today's business world, companies have to be increasingly interconnected with other organizations. While the factors of production are globally more accessible than ever before, companies need to focus on assets that give them the competitive advantage over others (see Batt & Purchase 2004, 169). Rather paradoxically that access is the key: having access to knowledge, resources and knowhow via networks and at the same time specializing on the core business makes a company more effective. The project alliance model represents one of the most intense forms of collaboration. In this thesis, project alliances are categorized as strategic nets, which have their roots in intentionally built networks.

Although the existing research on networks is vast and the concept is extensively used in today's business world, its definition is rather ambiguous and varies between academics. No single theory is considered to be prevailing (Galaskiewicz 2007, 1; Kilduff & Tsai 2003, 37–64) and a large amount of different schools of thought provide their approach to business networks (e.g. Araujo & Easton, 1996, 63–107; Grandori & Giuseppe 1995; Datta & Omar 2011; Möller & Rajala 2007), such as economic approaches (Grandori & Giuseppe 1995, 185–186), social network theory (e.g. Gulati 1995) and the Industrial Marketing & Purchasing group school of thought (IMP) (Håkansson & Snehota 1995). A variety of different concepts are used in order to understand the complexity of networks and the body of literature is somewhat fragmented (Moilanen 2008, 64–65). Some authors acknowledge the distinctions of different terms but point out that most of the definitions have very similar basic characteristics (Provan et al. 2007, 481). The roots of all of the most recognized networking approaches stem from the resource dependency theory (Pfeffer & Salancik 1978) and transaction cost economics (Williamsson 1975; Jarillo 1993, 132–135), but these concentrate on dyadic relationships (Provan et al. 2007, 480), from which the more recent literature has started to discuss also other layers.

The macro networks are simply defined as structures, in which nodes (organizations) are interconnected via threads, forming a (macro) network (Håkansson & Ford 2002, 133). Within these macro networks, two different approaches can be distinguished: the Industrial Network Approach (INA) (e.g. Håkansson & Snehota 1995; Håkansson & Ford 2002) and Strategic (Value) Nets (e.g. Jarillo 1993; Möller & Svanh 2003; Ollus et al. 1999). The latter one specifies its target on intentionally structured nets. This approach is

used in this thesis because the purpose of a project alliance is to co-create value through joint actions in an intentionally built net.

While the Industrial Network Approach is aimed to understand the overview of networks' functions and how interaction between companies relate to the entire network (Håkansson & Ford 2002), the strategic net approach focuses on intentionally built nets and their management (Möller & Svahn 2003, 224). Park (1996, 797) argues that the nets are used as tools rather than being solely for understanding organizational actions. The nets are defined as "purposeful and conscious arrangement among distinct, but related profit-seeking organizations" (Park 1996, 797). Möller and Svahn (2003, 213) point out that the nets are not necessarily only for profit seeking organizations but may also include governmental or educational institutions with different goals and thus alter the definition to "intentional structures that firms try to design deliberately for specific purposes". The key difference between the two approaches is that INA considers networks as an already formed structure (Håkansson & Ford 2002; Håkansson & Snehota 1995) whereas strategic nets are seen as structures that can be formed and managed (Jarillo 1993, 124–131). Hence, this thesis regards project alliances as the latter ones, viewing project alliances *as intentionally formed interorganizational nets that have a strategic purpose*.

Möller and Svahn (2003) identify three types of strategic nets: (1) stable and well-established nets that support core value production, (2) incremental innovation and change nets, which combine knowledge and knowhow and (3) radical innovation and emerging nets, which aim to innovate and establish new business possibilities via interaction (see also Möller et al. 2005, 1276; Mittilä 2000, 80). Defining the different types of nets gives understanding of how to manage issues arising in such networks (Möller & Svahn 2003, 224).

Normann and Ramirez (1994) pursued by Parolini (1999) discuss the value-creating systems, which can be seen as intentionally built networks from a broader perspective. Continuously designing and redesigning these systems are seen as vital parts for successful companies and forming alliances with key business partners as a way to gain competitive advantage (Normann & Ramirez 1993, 66–74). Parolini (1999) depicts the value-creating system as an entire network contributing to the creation of value for the customer. Strategic nets and value-creating systems are essentially describing the same phenomena of co-creating value within the network intentionally established by the companies. The disparity between the two is the scope: value-creating systems portray the macro level networks when in turn strategic nets focus on single nets.

Möller et al. (2005) distinguish strategic nets by placing them on the value-creating system continuum and categorizing them as vertical, horizontal or multidimensional nets (see also Ollus et al. 1999, 13; Vesalainen & Valkokari 2014, 14). These types specify which stakeholders the cooperation occurs with. Vertical nets are used to interact with companies in the up- or downstream of the supply chain while horizontal nets include

competitors or other institutions of the same level or part of the value chain. Multidimensional nets include both vertical and horizontal nets combined (Möller et al. 2005). Regarding this categorization of strategic nets, alliances fall under the categories of competition alliances and resource & access alliances with competitors, which are discussed in detail in Chapter 2.2.

2.2 The project alliance among collaboration models

The role of partners is crucial in terms of business survival and thus a decisive part of the company's business model. Therefore, it is relevant to discuss in which ways these relationships can be formed. This sub-chapter identifies a few relevant network business models from the extant literature in the proximity of project alliances.

The concept of a business model became popular during the early 2000s, when it was presented within the context of e-businesses. In more recent cases, definitions have also included traditional businesses (Pekuri 2014, 31; Shafer et al. 2005, 202). Osterwalder's (2004, 15) business model definition regards the business model as "– – an abstract conceptual model that represents the business and money earning logic of a company." This definition is often cited for its comprehensiveness (Alexa 2014, 248), ontological reasoning (Zott et al. 2011, 1026) and intuitiveness (Lund & Nielsen, 2014).

The crucial role of relationships, partners and networks in business models is unambiguous. Most authors include the roles of partnering and networks in their definitions of business models. Of the most widely recognized definitions, Osterwalder and Pigneur (2009, 38-39), who commercialized the widely used Business Canvas Model, suggest 'partners' as one of the nine main blocks of a sufficient business model. Furthermore Hamel (2000, 73), Chesbrough and Rosenbloom (2002), Shafer et al. (2005) and Pekuri (2014), mention partners as a sub element and take into consideration the whole value network as a part of the business model. Also, Heikkilä and Heikkilä (2010) recognize the role of partners and networks in their findings.

The findings of Dwyer et al. (1987) are considered as a corner stone in relationship research as they distinguish the difference between *discrete* and *relational* exchange in buyer-seller relationships. The discrete exchange, also called transactional exchange or arm's length relationship, is characterized as a simple dyadic relationship with limited communication and content. Relational exchange on the other hand includes elements such as trust, communication, joint efforts and increased interdependence.

Since the late 80s, a plethora of different types of partnership and collaboration models have been distinguished and defined. Although they are all based on the same key characteristics mentioned by Dwyer et al. (1987), special characteristics distinguish similar forms from each other. Partnerships, different types of alliances, joint ventures

and vertical integration can all be defined as relational exchange (also referred to as relational contracting in the construction industry). As a result, some authors have used the terms interchangeably (Bresnen & Marshall 2000; Li et al. 2000, 78; Das & Teng 1998a, 22) and some have noted that the terms are often confused with each other (Rowlinson & Cheung 2002, 8; Lahdenperä 2012b, 58; Pidduck 2006, 262). Table 1 gathers relevant types of cooperation and distinguishes their key differences.

Table 1 Comparison of different collaboration types

Collaboration Type / Attribute	**Partnership**	**Strategic Alliance**	**Project Alliance**
Legally binding contract	No	Yes	Yes
Common strategic objectives	Yes	Varies	Yes
Degree of interdependence	Low	High	Very high
Cooperative culture	Less important	Important	Requirement for success
Long vs. short term relationship	Long-term	Long-term	Short-term (project-specific)
All risks/profits are shared	No	No	Yes

Following the Construction Best Practice Program (1998), Rowlinson and Cheung (2002, 3) define partnering as "a structured management approach to facilitate team working across contractual boundaries" whose "fundamental components include mutual objectives, agreed problem resolution methods, and an active search for continuous measurable improvements". One of the most important differences with alliancing is that partnering is not legally enforceable (Hauck et al. 2004) – it is not a formal contract, but based only on soft elements (Clayton 1998, 7), whereas the basis of an alliance is grounded on a contract in addition to the soft elements (Hauck et al. 2004). Yeung et al. (2007, 223) argue that partnerships simply seek to improve traditional contracting methods. Although objectives of the partnership are mutual (Rowlinson & Cheung 2002, 3–4), the companies have their own end-goals, as in a strategic alliance (Inkpen & Tsang 2005).

Alliances, on the other hand, are generally divided into two categories: strategic alliances and project alliances (Rowlinson et al. 2006, 77). While the latter one is the focus of this study, the former one has somewhat same characteristics, which will be

discussed briefly along with key differences between the two. Love and Gunasekaran (1999, 89) conclude the most common definition for a strategic alliance as an "– – establishment of interorganizational relations and the engagement in collaborative behaviour for a specific purpose." Bronder and Pritzl (1992, 412) specify that a strategic alliance exists when "at least two companies with compatible goal structures are combined for sustaining and/or achieving significant competitive advantages." This broad definition remarks the compatible objectives that alliance partners are trying to attain by engaging in cooperation.

Bronder and Pritzl (1992) divide strategic alliances into two categories: collaborative and cooperative. These two groups are distinguished by the time horizon; the former one is used to depict a short-term alliance and the latter one for a long-term alliance (Love & Gunasekaran 1999). Hamel (1989, 135) describes collaborative strategic alliances as relationships, where partners actually try to achieve their *own* objectives, not common goals, although they would be compatible (Bronder & Pritzl 1992, 412). This highlights the difference towards the project alliance.

The paramount characteristic that differentiates strategic alliances from project alliances is similar. While strategic alliances are seen as an approach to achieve long-term objectives (e.g. Das & Teng 1998a, 22–25), the project alliance model is formed for a single, defined project, which has a definite end (e.g. Love & Gunasekaran 1999; Hauck et al. 2004). Nevertheless, this single element changes the nature of the alliance, as the companies can engage into even deeper collaboration in a particular project without risking their independence. Thus, the degree of independence is higher in strategic alliances because the companies continue to be independent throughout the collaboration (Walker et al. 2001, 213; Judge & Ryman 2001, 72; MacDonald 2011, 36). Other key distinctions are the collective risk sharing of project alliances (e.g. DTF 2015; Lahdenperä 2009; Ross 2003, 2) and common objectives, which are not present in all strategic alliances (see Inkpen & Tsang 2005, 155–157). These concepts are further discussed in Chapter 2.3. On the other hand, assumedly due to the similarities, Ross (2003, 19) also sees a successful implementation of a project alliance as a basis for a future strategic alliance.

The most similar models to the project alliance model are other relational project delivery arrangements (RPDA), namely Project Partnering and Integrated Project Delivery (Lahdenperä 2012b, 58–59). Project partnering is described as a "blurred concept" but it involves very similar characteristics to the project alliance model. However, the model neither includes a legally binding contract nor the risk sharing, traits fundamental to the project alliance. Despite this, the project partnering is the oldest RPDA, deriving directly from strategic partnering, but used only in project-natured circumstances. Integrated Project Delivery, described as a philosophy or a project delivery system, is very similar to the project alliance, which it is based on. However, the

integrated project delivery system is more applied for the US market (Lahdenperä 2012b, 61, 73).

Similarly, a concept called the public private partnership (PPP) became increasingly important in the beginning of the 21st century both in the North American market and the EU area (Hodge & Greve 2007). Despite being also a very dispersed concept that is used in a number of different contexts (Marsilio et al. 2011, 764), the PPP shares some key principles with the project alliance model. Both models utilize risk-, resource- and cost-sharing in order to work in a utilitarian manner (Hodge & Greve 2017, 57). Two main differences distinguish the PPP and the project alliance: firstly, the former one is a contract only between *two* parties, a public operator, such as a government or a municipality, and a private company, such as a construction contractor. All other companies involved in such projects, are procured using sub-contracting. Secondly, the contract is often long-term, lasting several years, which means it is not only project-specific (Hodge & Greve 2017, 56–57). Therefore, the PPP is a concise version of the project alliance, which attracts more actors involved in the project to the alliance.

2.3 Key characteristics of the project alliance model

The project alliance model is described as a broad (Chen et al. 2012, 103) and complex (DTF 2010, 10) concept. Ross (2003, 1), in one of the most cited alliance publications, defines the project alliance as: "[an] alliance is where an owner (or owners) and one or more service providers (planner, constructor, supplier, etc.) work as an integrated team to deliver a specific project under a contractual framework where their commercial interests are aligned with actual project outcomes."

A project alliance builds upon the elements of teamwork and common goals (DTF 2010, 10). Risks and rewards are shared mutually by the whole alliance, which means that all parties will either win or lose together after finishing the project (Wood & Duffield 2009, 6; Chen 2013, 18; Heino 2014, 41), whereas in other (project) partnering models, individual companies might end up making profit or loss regardless of the other parties (Walker et al. 2002). In project alliances, cooperation is necessary, as the risks are carried mutually (e.g. DTF 2015, 15), which is regarded as one of the main advantages of the model, as alliances in general tend to fail often because of insufficient risk management (Laan et al. 2011). This, combined with openness and honest communication (Ross 2003, 3), is aiming to take other partners in consideration and thus to develop cooperation even further (Lähdenperä 2009, 10).

Besides readiness for cooperation, the nature of the alliance requires *trust* and *commitment* from all partners (Lähdenperä 2009, 14). In addition to trust, other basic elements can be extracted from the definitions: teamwork and relationship development

are also seen as inherent parts of the alliance. These traits are further discussed in Chapter 4. To enforce these traits, the project alliance model utilizes tools such as open-book accounting and compensation programs (Sakal 2005, 69–72). Open-book accounting is a practice in which cost and accounting data is shared among partners (Romano & Formentini 2012) and compensation programs refer to incentive programs in which the alliance partners are compensated if they perform better than the predetermined criteria, which often are cost- or timeframe-related (Love et al. 2011, 128). In conclusion, Jefferies (2014, 468) states that the project alliance seeks to have unity within project teams and is therefore more embracing as opposed to a partnership.

The alliance aims to make the key decisions in a 'best for the project' -manner to minimize conflicts between parties and working only for own interests (Sakal 2005, 72). To accomplish this, a board, called 'the project alliance board' (Ross 2003, 15), composed of representatives of all parties is the decision-making unit and all decisions have to be unanimous (Ross 2003, 2). Other daily decisions are made by an alliance management team, which includes members from each of the companies (Ross 2003, 15).

Another key trait of the project alliance is the unique contract model. In order to increase the teamwork spirit, parties agree to waive their rights to litigation in most cases (Chew 2004). In essence, this means all conflicts and other disputes are dealt within the alliance, without lawyers (Ross 2003, 13). This promotes the 'no blame culture' (DTF 2010, 24; Jefferies et al. 2006; Hutchinson & Gallagher 2003), mitigates legal and risk transfer issues (Sakal 2005, 68–71), which are common in the construction industry (Black et al. 2000, 423; Cheng & Li 2002, 194).

Rahman and Kumaraswamy (2005, 365) point out that not all companies fit well in flexible contracting methods like the project alliance. Although a functioning alliance is considered as more dynamic compared to traditional models (Sakal 2005, 77), it requires certain qualities of its participating companies. Besides the team working skills, also the top management is required to commit and to take part in the decision-making process (Lähdenperä 2009, 17; Sakal 2005, 70–71; MacDonald 2011, 189; DTF 2010, 20) for the success of the alliance (Akintoye & Main 2007, 599). Additionally, the whole company is expected to adapt a participative and collaborative company culture, which both require resources and effort (Lähdenperä 2009, 17; Walker et al. 2015, 3).

A successful project alliance has evidently helped to achieve cost reductions and tight time constraints (Berg & Kamminga 2006, 3), improved value for money, quality and innovation (Wood & Duffield 2009, 6), enhanced reputation, sustainability and employee satisfaction (Lahdenperä 2009, 17). Assumably because of these recognized benefits, the use of project alliance has been growing in Australia (DTF 2015, 28; Wood & Duffield 2009, 7) and Finland (Nordström 2017).

Negative aspects of the project alliance model include: risk of human relationships failing, reimbursement or insurance claims in case of a failure of one partner, difficulties

establishing the collaborative company culture and stabilizing it (Lahdenperä 2009, 15), and the risk of partners exploiting each other is inherent to the nature of alliances (Davis & Love 2011, 445).

Laan et al. (2011) discuss the possible issues of opportunistic behavior in project alliances. Opportunistic behavior, such as freeriding, misleading and other malicious acts towards partners (Das & Rahman 2010, 56) decrease inside an alliance, if the project alliance utilizes aforementioned compensation programs (Laan et al. 2011). However, Laan et al. (2011) highlight that incentive programs do not work alone – also effort in understanding mutual risks and devoting to working together is crucial. Nevertheless, it is not guaranteed that project partners ever start working together in a cooperative way (Laan et al. 2011).

Most of the prior or ongoing project alliance applications in the construction industry have taken place within the context of infrastructural construction (e.g. Lingard et al. 2007, 809; Walker et al. 2015, 1) or other demanding building (e.g. Jefferies et al. 2014, 469). This is due to the fact that the model is best applicable for complex projects (Fernandes et al. 2017, 3; Sakal 2005; Mistry & Davis 2009, 217; Rooney 2009; Lahdenperä 2013, 12), which are of a high degree of uncertainty (Turner & Simister 2001). Wood and Duffield (2009, 11) specify complexity to include unpredictable risks or complex stakeholder issues, where needs change or contradict easily (DTF 2015). However, Fernandes et al. (2017, 12) studied the project alliance model applied to apartment construction. While the study acknowledges the model's strengths in larger and more complex projects, they conclude the model to be applicable even in smaller sized construction projects. This is mainly due to a demanding selection process and required resources in teaming and collaborative activities.

3 PARTNER SELECTION PROCESS IN AN ALLIANCE

3.1 The importance of the partner selection process

The body of literature lacks accurate figures of the success rate of project alliances, but the success of strategic alliances is low and the alliances often fail to actualize their full potential. In the construction industry, especially in large-scale infrastructure projects, the failure rates are similarly high. Both rail and road projects tend to fail staying within their targeted costs and time schedules: an average cost overrun for rail projects was 44,7% and for roads 20,4% in a study conducted in 2014 (Flyvbjerg 2014, 9). According to Infrastructure Australia (2013, 4), infrastructure projects in the country failed to meet their objectives in 48% of the projects. Although this figure had increased by 10% in the past 20 years, the fail rate remains high compared to other industries. In Canada, less than 50% of construction projects remained within 10% of the planned budget and delivery dates, but after adoption of the public private partnership (PPP) model, a model akin to the project alliance model, the success has increased (KPMG Canada 2016, 5).

The literature on strategic alliances is uncontested that a major reason for many failures is related to partner selection (e.g. Schaan & Kelly 2007). De Man and Duysters' (2002) findings of reasons for alliance failures is presented in Figure 2.

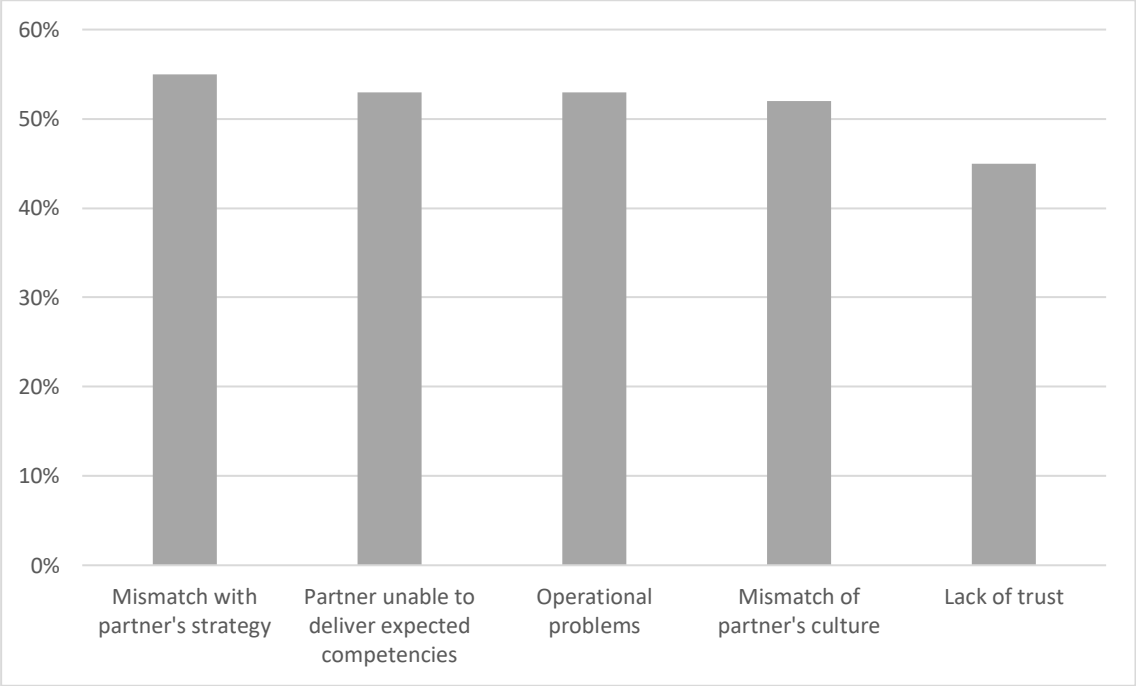

Figure 2 The five most common reasons for alliance failure (Adapted from de Man & Duysters 2002)

When the reasons shown in Figure 2 are examined, it is evident that partner selection can be seen to have an effect on four out of five of the major reasons, when only operational problems may occur despite the right partner (see also Duisters et al. 2007). Furthermore, there appears to be a positive correlation with successful alliances and adequately chosen partners (Schaan & Kelly 2007, 93; Glaister & Buckley 1999; Solesvik & Westhead 2010, 841; Sun 2009, 1492). Dacin et al. (1997, 4) state that choosing wrong partners will cause the alliance to face issues. These issues can, to some extent, be avoided with a 'greater due diligence up front' (Cummings & Holmberg 2012, 136). Managers altogether have understood the importance of partner selection and acknowledge that there is room for improvement in the partner selection process (Twardy-Duysters 2009, 9). When asked what managers should have done differently in the alliance, the most frequent answer is "select a different partner" (Cummings & Holmberg 2012, 141).

The selection process is in general seen as a crucial part of the whole alliance function (Cummings & Holmberg 2012, 137; Ireland et al. 2002; Twardy-Duysters 2009, 3; Dong & Glaister 2006, 581; Wu et al. 2009; Shah & Swaminathan 2008, 471; Bronder & Pritzl 1992, 417; Geringer 1991, 42; Asmar et al. 2009, 1087; Dacin et al. 1997). The findings of Glaister and Buckley (1999) support the claim that partner analysis increases alliance performance. Furthermore, not only does it more likely lead to a more successful alliance, but it also decreases the need for governance and management (Buskens et al. 2003). On the other hand, Cummings and Holmberg (2012, 136) conclude: "even superior alliance management may not be sufficient to overcome poor initial partner screening and selection efforts."

3.2 Partner selection process stages

Structured and formal approaches have been discovered as a successful method of finding a suitable partner (Twardy-Duysters 2009, 2–3; Cummings & Holmberg 2012, 154). A structured and formal approach is essentially a systematic perspective to evaluate prospect partners by screening them against the selection criteria (Nijssen et al. 1998). In the study conducted by Twardy-Duysters (2009), 46% of the companies used a formal and structured process, while at the same time, 39% of the studied alliances could improve their selection process by applying a formal process. The formalized process evidently increased the success rate of alliances (Twardy-Duysters 2009, 5).

However, Duisters et al. (2007) show that despite the formalized process is a frequently used tool within alliances, the process is not used effectively (see also Li & Rowley 2002, 1104) as unfit partners remain as an important reason for alliance failure, affecting four out of five of the most common reasons of all failures (Figure 2). The study of Nijssen et al. (1999) on the other hand notes that formal approaches have a positive

effect on finding trading partners, but few companies make use of it. In conclusion, designing a systematic and formal selection process, which can be analytically measured, is considered as an essential part of the alliance to flourish (Cummings & Holmberg 2012, 154; Duisters et al. 2011, 778–779; Twardy-Duysters 2009, 3).

The literature is concentrated on creating a rational decision-making process, which can be systematically evaluated, but this is considered as a challenging task since the information about partners is often insufficient (Bierly III & Gallagher 2007, 135). Moreover, Ring and Van de Ven, (1994) as well as Das and Teng (2002) point out that due to the complexity and interactive nature of the negotiation process, the decision-making is particularly challenging with many actors. To challenge the view of rational selection process, Pidduck (2006, 263, 269) describes the process only as a *seemingly rational negotiation process*. The findings show that the choice of partners is more based on personal preferences, friendships, prior relationships and reputation of the company. Only in the case of the first option not being available for a partnership, second and third choices are made more rationally.

The whole alliance process can be divided into three main phases, which in this research are called: formation, operation and evaluation (for an exhaustive list, see Wahyuni 2003, 48). The formation phase consists of setting initial goals, deciding the form of cooperation, selecting a partner and finally creating the agreement. The partner selection process in the formation phase should include: necessary steps, criteria, tools and success factors (Duisters et al. 2007, 775, 778). To understand what the company wants and needs, the first step should be a self-assessment, which includes all aspects from the company culture to the vision and strategy (Dent 2004, 181–209). After the assessment, the aim is to understand what would be an ideal partner and which factors the company regards as valuable (see Duisters et al. 2009, 779–781). On this basis, the company can identify what set of selection criteria it uses to examine the prospect partners (Solesvik & Westhead 2010, 843). The two other main phases mentioned by Wahyuni (2003) are operation and evaluation, which distinguish necessary phases in collaboration and how to improve it.

Contrary to a strategic alliance, where a company needs to recognize a need for the alliance, the project alliance process for public sector construction starts officially from either an info session held by the client or a public announcement of the tender (Lahdenperä 2012a, 12). In the project alliance model, typically, the offered work needs to include both aspects of the construction process: the planning and the building. The public announcement also defines the selection type used in the project, which determines what actions are needed from the company's perspective.

Lahdenperä and Kananen (2013), who discuss the project alliance model from the perspective of the client, introduce different approaches to select the most suitable

partners for a project alliance. The two main categories are consortium selection process and separate selection process (Finn. Erillisvalinta).

In the *consortium selection process*, the parties form a group of companies that is capable of delivering a project single-handedly. That is, they take part in the tender already as a pre-formed alliance (Lahdenperä & Kananen 2013, 9). One of the defects of this model is that it may lead to the consortiums to include very capable companies, who have formed an alliance with less capable parties and thus the situation is not optimal. This could be assumed to be a result of insufficient partner selection. Furthermore, companies tend to partner with companies they are used to work with (Lahdenperä & Kananen 2013, 10), but this can be seen as a risk, as a too high level of trust can obscure the actual fit between companies and their capabilities as trust is emphasized over actual characteristics (Bierly III and Gallagher 2007, 137). On the contrary, previous experience from a partner seems to decrease the need for governance and control (Dekker 2008, 938). Nevertheless, this can be seen to emphasize the importance of a sufficient partner selection process, in which different aspects are taken into consideration.

In the *separate selection process*, the owner or client of the project decides all different parties involved in the alliance. This enables finding the best companies in each function (planning and building) and highlights the importance of single companies' input (see Hietajärvi et al. 2017), but on the other hand possibly diminishes the so-called alliance spirit, as the two companies have not chosen each other but rather obliged to work jointly (Lahdenperä & Kananen 2013). However, by pressing companies to work with each other, they need to look outside of their comfort zones and possibly find better fitting partners. Furthermore, the separate selection process is leaner as the companies do not produce a detailed plan of the project as a group and therefore do not concentrate on the partnering process as much early on. For the benefits and defects of each project alliance selection process type, see Lahdenperä and Kananen (2013, 10, 28–29), who do not take a stance on which type is better. However, regardless of the selection process type the client decides to use, the selection criteria and the process can be argued to remain more or less the same because the key difference is only on the point of time and who makes the last decision. In the consortium selection process, the company is in charge of making the decision, whereas in the separate selection process, the client ultimately makes the decision with the assist of the already chosen constructor or planner (whoever is chosen first).

The literature on the process steps is scant and diversified. Fernandes et al. (2017, 7–8) describes the project alliance selection process from the client's perspective, whose basis could be considered similar to the one of a company searching for a consortium partner. This process is divided in two phases: short listing possible candidates against the selection criteria and then inviting the most suitable prospects to present their propositions including the content of the alliance, planning and key result areas. Despite

Sun (2009) describes the process of strategic alliances in the field of e-commerce, the process is somewhat similar: first short listing against performance indicators and then begin more specific negotiations with the most suitable candidates. Shah and Swaminathan (2008) make a noteworthy point that the alliance project type and the alliance's manageability modifies the selection process, as the context changes in each alliance and therefore the process may be only generalized to some extent.

The framework by Schaan and Kelly (2007, 100) offers an overview of what the partner selection in a strategic alliance consists of (Figure 3). The figure, illustrated in a flowchart view, has four key steps: self-assessment, searching prospect partners, identifying a short list of companies and in-detail due diligence.

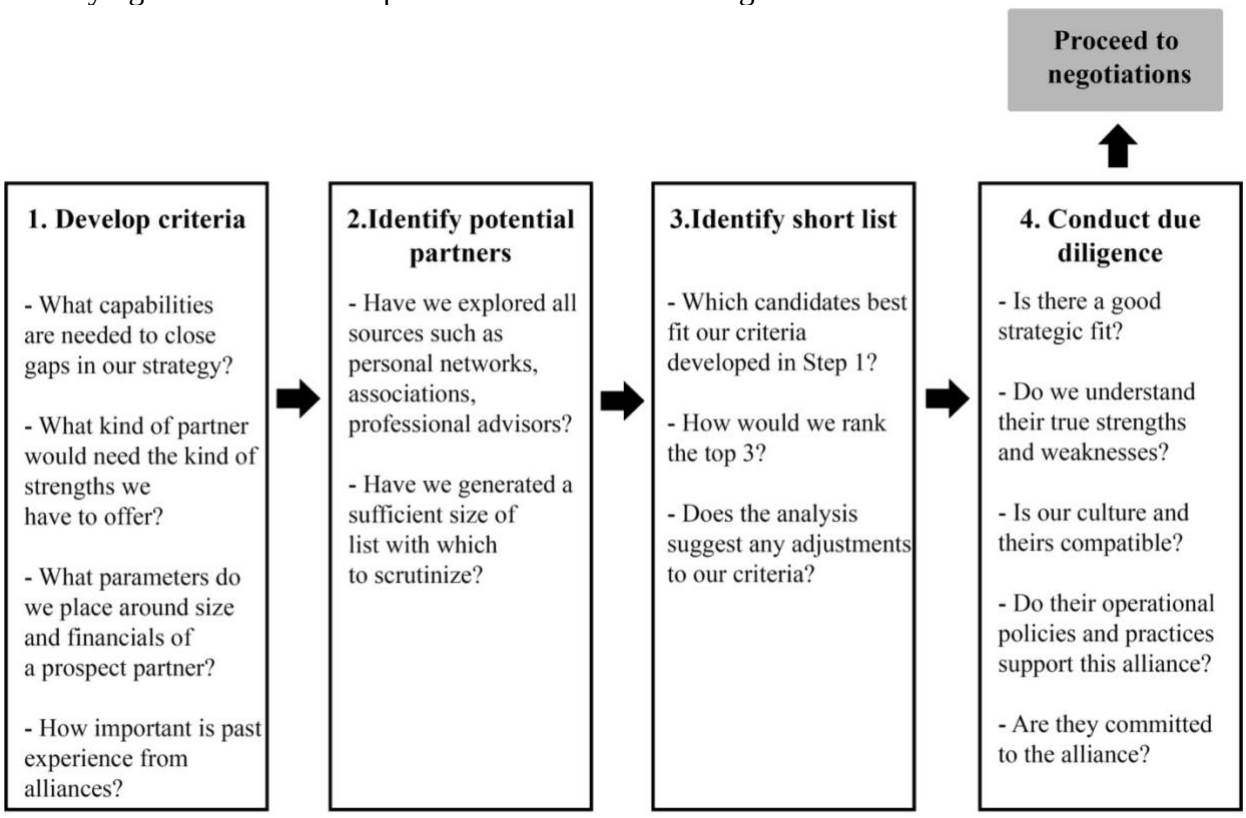

Figure 3 Partner selection process in strategic alliances (adapted from Schaan & Kelly 2007, 100)

The first step is essentially assessing oneself – the wants, needs and key offerings of the firm, which help to understand what type of partner is desired. Step two deals with finding the prospect partners from the social networks of the company, of which alliance partners are indeed often found (Pidduck 2006). These companies are then reflected against the criteria established in step one, evaluating the possible candidates. Once a preliminary list of candidates has been created, in-detail due diligence is conducted, trying to find a match in terms of strategic fit, compatibility and commitment. The process steps presented by Schaan and Kelly (2007) are theorized to suit the selection of a partner also

in the context of project alliances, but it is noteworthy that the framework covers the process only until negotiations, which is not necessarily the last step of the process itself.

Moreover, Cummings and Holmberg (2012) concentrate on closely defining the selection criteria, which are discussed in detail in Chapter 4, but also depict the process as following: identification of the selection criteria, outlining the potential partners and finally using the introduced selection matrix to select a fitting partner. Twardy-Duysters (2009, 5) introduces a highly detailed pragmatic view of the selection process based on the examined companies. This originally 16-step selection process is presented in Figure 4, but needs to be adapted to fit the selection process of a project alliance.

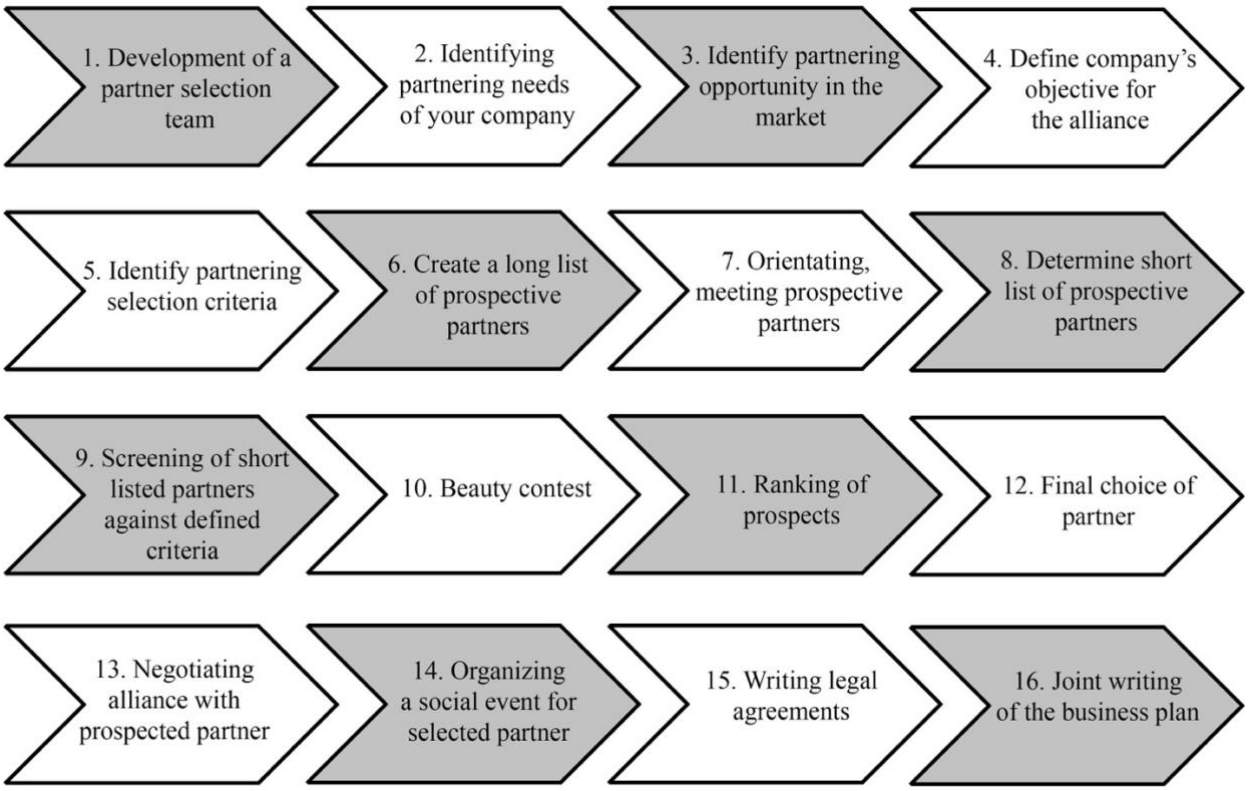

Figure 4 Theoretical steps in a formal, structured partner selection process (adapted from Twardy-Duysters 2009, 5)

Despite being comprehensive, the framework by Twardy-Duysters is not adequate to depict the selection process of a project alliance. As the project alliance is based on single projects, the need for partnering and the objective of the alliance are obvious and thus not considered as process steps. Furthermore, the framework goes beyond explaining the selection process, as the four last steps deal with negotiating and agreeing on specifics of the alliance *after* the decision of a final partner has already been made. Reflecting the framework towards other literature regarding the partner selection process, a preliminary process figure is presented in Chapter 4.4, where various process steps are discussed in more detail.

3.3 The role of knowledge in partner selection

Bierly III and Gallagher (2007, 137–138) point out that the partner selection process has its defects. Time and access to information are limited so decisions are often not based on truly rational choices. Furthermore, the information is often subjective by nature and is difficult to transfer across the company so individual managers have distinctive perceptions of the companies. These can be, to some extent, tackled by the proper use of IT and involvement of individuals, but often decisions are still based on insufficient information (Bierly III & Gallagher 2007, 137–145).

It can be therefore logically reasoned that more knowledge the firm has on its prospect partners, the better decisions can be made. Scarcity of necessary information is naturally an issue, but it can be alleviated through a set of actions that aim towards gathering more knowledge. These actions are discussed under the concepts of knowledge management and competitive intelligence or business intelligence. Knowledge management is defined by Alavi and Leidner (1999, 21–23) as "– – a process of identifying, capturing and leveraging the collective knowledge in an organization to help the organization compete." This definition acts as a broad umbrella term that covers those actions that are intended to promote knowledge and knowledge-based decision-making in an organization.

By this definition, also competitive intelligence is a built-in part of knowledge management (Rodenberg 2007, 46). The word 'competitor' should not mislead a reader, because despite the concept is used in the context of understanding a competitor's characteristics, primarily the same principles apply to searching information of a prospect partner. Undoubtedly, a firm has more opportunities for searching information of a partner: the partner can be expected to share more information with a possible future partner as opposed to a competitor. Only relevant measures are taken into consideration. In American literature, competitive intelligence is seen as a synonym for business intelligence, but other literature seems to make a distinction between the two, claiming that business intelligence is more focused on knowledge-related issues within the company whereas competitive intelligence concentrates on the external actors (Štefániková & Masárová 2014).

According to Rouach and Santi (2001), the purpose of competitive intelligence is to attain information and knowledge and transform it into intelligence, which can then be utilized in decision-making (see also Dishman & Calof 2008). The process is described in four steps: planning and direction, collection of data, analysis and dissemination. The first step is similar to that of a partner selection process: understanding what the company needs and is looking for. Collection of data consists of sources from which the data is gathered and include sources like the Internet, newspapers, public databases, trade shows, publications and even illegally attained material. The goal of analyzing the data is to make

it understandable and comprehensive, which can then be disseminated throughout the company and key decision-makers (Rouach & Santi 2001).

The role of information on prospect partners is evident, as it guides the decision-making process of which partner is chosen for an alliance. Through knowledge management and business intelligence, the selective company may gain more insight of which company offers the desired qualities and thus the best fit.

4 FACTORS INFLUENCING THE CHOICE OF A PARTNER

4.1 Categorization of factors influencing partner selection

The existing research on factors influencing partner choice, selecting criteria and critical success factors in the context of strategic alliances is diversified and rather comprehensive. Brendel[1] is considered as the first academic who studied the partner selection criteria by creating a list of how to choose a channel member in the early 1950s (Wu et al. 2009, 4647). The findings of Geringer (1991) can be seen as a modern corner stone for the research in this field, as they divide the partner selection criteria into two: the task-related critical success factors (CSF) and partner-related critical success factors. This division has been used in the following literature as well (see Glaister 1996; Cummings & Holmberg 2012; Das & He 2006; Mellewigt & Decker 2013; Dong & Glaister 2006). This categorization is also used in this thesis and the factors presented in Chapter 4 are thus divided in respective sub-chapters.

Critical success factors are essentially factors in key areas of activities and by performing well in these areas, the company increases its attractiveness. Shah and Swaminathan (2008, 473) make an exemplary point of integrating the attractiveness and partner selection: when the attractiveness increases, so does the likelihood of selection. Thus, in this thesis the two are understood to describe the same issue, as they virtually describe the very same, the only difference being the perspective. Instead of success factors, this thesis uses the term of selection factors, which is believed to illustrate better the factors that influence the selection. Brotherus et al. (1995, 19–22) divided the selection criteria into categories: complementary skills, cooperative cultures, compatible goals and commensurate levels of risk. This categorization follows that of Geringer (1991) only adding risks as a distinctive group.

Keeping in mind the key aspects of a project alliance: close cooperation, risk sharing and collaborative culture, Chapters 4.2, 4.3 and 4.4 discuss the most important factors that a selective partner is focusing on when examining prospective partners: trust, reputation, strategic fit, company culture, social relationships, technical and knowledge-based capabilities, financial state, size of the partner and knowledge-sharing and knowledge-embeddedness. Finally, a preliminary framework for identifying most suitable partners is introduced in Chapter 4.5.

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[1] Brendel, L. H. (1951). Where to find and how to choose your industrial distributors. *Sales Management*, Vol. 15, 128–132.

4.2 Partner-related selection factors

4.2.1 Trust and reputation

Shah and Swaminathan (2008) gathered data from 40 studies regarding strategic alliance selection criteria and four main elements were identified as following: trust, commitment, complementarity and value. The first one, trust, is examined in detail by Bierly III and Gallagher (2007). It is defined as: " – – mutual confidence that no party to an exchange will exploit another's vulnerabilities, because opportunistic behaviour would violate values, principles and standards of behaviour that have been internalised by parties to an exchange." (Bierly III & Gallagher 2007, 138). Trust has been proven to be one of the most essential parts of any relationship (Cullen et al. 2000, 226) as it reduces uncertainties (Solesvik & Westhead 2010, 841), threat of opportunism (Shah & Swaminathan 2008, 472), conflicts, transaction costs and need for control, while giving more flexibility and improving reputation (Bierly III & Gallagher 2007, 138) and cooperation (Das & Teng 1998b).

The social capital theory discusses trust further. Although social capital and trust are sometimes seen as synonyms (Suseno & Ratten 2007), social capital is mostly regarded as a wider concept: Woolcock (1998, 153) defines social capital as "the information, trust, and norms of reciprocity inhering in one's social networks". Trust is seen as a requirement for alliance partners (Suseno & Ratten 2007, 6) that is built on social judgements such as perceived competences (Inkpen & Tsang 2005, 154) and beliefs of future behavior (Cullen et al. 2000, 225). The findings of Gulati (1995, 109) show that trust is needed to be able to establish an alliance. Nevertheless, in the beginning of a relationship, firms tend to be suspicious of each other's intentions, but trust is known to build with time (Cullen et al. 2000). Suseno and Ratten (2007, 16) describe trust and performance creating an either vicious or virtuous cycle, as one feeds the other: based on earlier performance, the trust either increases or decreases, which affects the following performance. This leads to commitment, which signifies the intention to sustain the relationship and is also seen as an essential part of social capital (Cullen et al. 2000, 224).

In the case of project alliances, trust may be argued to have a highlighted role. Das and Teng (1998b, 499) state that the closer the relationship is and the more a partner needs to invest, the higher the level of trust and confidence needs to be. In other words: "partners need more certainty about cooperation in order to commit substantially to an alliance" (Das & Teng 1998b, 499). Moreover, partners are expected to use the open-book accounting method in all project related documentation (Chen et al. 2012, 107), which further-increases the level of commitment.

Although Bierly III and Gallagher (2007) argue that trust is needed in a successful relationship due to uncertainty in decision-making, they point out that trust can also be used erroneously if given too much significance to. This would lead to the actual fit to be underemphasized and simultaneously possible issues to not be observed as trust is overemphasized.

Notwithstanding, trust affects reputation and image positively, which are seen as factors influencing the selection (Saxton 1997; Das & He 2006, 126; Chen et al. 2012, 107). Pidduck (2006, 268) defines reputation as "– – the perception of quality over time", while (corporate) image is an overall impression over the company (see Stern et al. 2001, 211-213). These closely related concepts are both distinguished as important criteria by a significant number of authors (Hoffman 2005, 133, Geringer 1991; Das & Teng 2006; Hitt et al. 2000; Medcof 1997). Reputation is closely linked to the track record of the company and its previous relationships (Das & Teng 2006, 133) and is therefore mentioned as a risk-related CSF by Cummings and Holmberg (2012). Moreover, Inkpen and Tsang (2005, 152-154) state that trust, and consequently reputation, is increased through behavior, i.e. how the company has performed in the past. Turned upside down, reputation also feeds trust.

For smaller firms, cooperating with larger players may be seen as a boost in reputation and image (Barringer & Harrison 2000, 380). This may evolve to be an issue, if other criteria are neglected due to the reputation boost (Schaan & Kelly 2007). Especially small firms tend to forget the importance of strategic fit, concentrating on the benefits of operating with a large company (Schaan & Kelly 2007, 94)

Contrary to some authors (Cummings & Holmberg 2012; Das & Teng 2006), reputation is not considered as a task-related CSF due to the fact that reputation is seen as an intangible and perspective dependent factor between the two parties. It is perceived differently by different companies and is affected not only by past performance, but also soft values. The comprehensive literature review by Lange et al. (2011) divides the elements of reputation in to three: being known, being known for something and generalized favorability. That is, also beliefs, impressions and familiarity have a significant influence on how reputation is perceived by the selective partner and thus it is not solely based on task-related factors.

Overall, good reputation correlates with alliance success (Saxton 1997). Dong and Glaister (2006, 586) indicated that reputation is the most important selection criteria within partner-related selection criteria. Furthermore, Wu et al. (2009) recognized intangible assets, including reputation, as the second most important selection criteria for Taiwanese technology companies. It is important to note that according to the findings of Saxton (1997, 455) trust does not affect initial satisfaction, but it is realized with time.

4.2.2 Strategic fit and company culture

Strategic fit between companies is highlighted as one of the most important factors in the partner selection process (Bronder & Pritzl, 1992, 418; Medcof 1997, 720–721; Dong & Glaister 2006; Schaan & Kelly 2007, 93). Falling under the branch of complementarity in the division made by Shah and Swaminathan (2008), strategic fit includes not only the strategic aspect, but also structural and cultural perspectives (Duisters et al. 2007, 776). From a strategic point of view, similar goals or objectives are often mentioned as a paramount factor (Brotherus et al. 1995, 21–22; Solesvik & Westhead 2010, 841; Buyukozkan et al. 2008, 155; DTF 2010, 10; Cummings & Holmberg 2012, 147; Bronder & Pritzl 1992). Inkpen and Tsang (2005, 153) point out that the ultimate goals are not necessarily the same but emphasize the compatibility in order to succeed in the alliance. In addition to goals and objectives, the study of Schaan and Kelly (2007, 93) indicates that complementarity needs to cover the strengths, weaknesses and operational practices.

Twardy-Duyster (2009, 7) notes that among the examined unsuccessful alliances, a common denominator was not including strategic compatibility in the set of selection criteria. Bierly III and Gallagher (2008) indicate that the importance would be even higher than that of trust, but also specify that the two alone are not enough to explain partner selection: also strategic expediency plays a role in decision-making as the process is not done in optimal conditions, i.e. time and knowledge are scarce.

Regarding overall fit, similar company culture is prevalently mentioned in the existing literature (Das & He 2006; Buyukozkan et al. 2008; Bronder & Pritzl 1992, 417–418; Twardy-Duyster 2009, 4; Cummings & Holmberg 2012, 147; Duisters et al. 2007, 776). To elaborate the concept, company culture is considered to include all soft factors such as values, norms, characteristics and behavior that stems from the organization (Inkpen & Tsang, 2005). Thus, characteristics such as flexibility (Pidduck 2006, 266), interdependence (Das & He 2006, 126) and commitment (Medcof 1997, 724–725) are also considered as parts of company culture affecting the fit.

Schaan and Kelly (2007, 98) state that company culture has a direct effect on cooperation and its success, although it is largely dismissed while prospect partners are assessed. In general, soft values are found to indicate well the success of alliances. Hietajärvi et al. (2017, 413) list critical project alliance skills and include similar aspects under the categories of behavioral and relational skills. Additionally, Bronder and Pritzl (1992, 417–418) distinguish four possible reactions toward a foreign company culture: *pluralism*, when the different cultures are similar to each other, *assimilation*, when the positive elements can be unified as one culture, *transfer*, when the other partner changes it culture towards the other company and *resistance*, in which the cultures reject one another and the alliance ends up dissolving.

In conclusion, strategic fit and company culture hand-in-hand influence the partner selection by creating a favorable environment for the collaboration to take place. Both strategical and cultural compatibility affect how the partners see one another and how likely it will be the alliance will function.

4.2.3 Social relationships

Social capital theory sees the networks as a tangible and important resource of the company (Nahapiet & Ghoshal 1998). The relationships between companies' leaders and external stakeholders is commonly regarded as external social capital of the firm (e.g. Hitt & Ireland 2002; Yli-Renko et al. 2002). External social capital is largely built upon trust between parties and is considered beneficial for companies because of decreasing opportunism and increased knowledge-sharing (Suseno & Ratten 2007; Cullen et al. 2000, 227). Relationships within the alliance are strong in nature, which enables the knowledge-sharing to happen (Inkpen & Tsang 2005, 155–156).

Social networks and previous experiences in alliances also tend to drive companies to establish new alliances (Gulati 1999, 413). Furthermore, previous experiences in successful cooperative actions between various companies can be seen as an asset (Buyukozkan et al. 2008, 155; Hitt et al. 2000, 462).

Schaan and Kelly (2007) note that personal chemistry among individuals is crucial. In the end, the alliance is based on people, who have to form relationships to cooperate. The role is highlighted specifically among the top management and the authors mention chemistry as a key selection criterion.

Inkpen and Tsang (2005, 152) highlight the role of relationships and resources attained through networks in strategic alliances. The piece of research shows that relationships between individual actors, such as managers, varies according to whether the counterparties are competitors or not. Thus, in a selection process, the nature of a prospect company affects the personal relationships as well. On the other hand, partners are often selected from the social networks of the company (Pidduck 2006, 267), so the selective partner may influence this.

Previous relationships between companies are generally seen as a positive attribute in the selection process (Das & He 2006; Saxton 1997; Chen et al. 2012, 108; Pidduck 2006, 266; Cummings & Holmberg 2012, 147), and result to a less adverse relationship (Saxton 1997). Dong and Glaister (2006) found past relationships between partners to be the fourth most important partner-related criteria between Chinese and foreign firms. The extant literature is also consistent on suggesting that past partners are preferred when searching for new alliance partners (Li & Rowley 2002). Furthermore, Li and Rowley (2002) suggest that the most permanent selection factor is in reality inertia – the fact that

companies do not make changes to the selection process but rather choose the partner they have worked with or have had an alliance with. Similar stance is taken by Podolny (1994), who shows that when under market uncertainty, banks choose to ally with their previous partners.

However, Glaister and Buckley (1999, 128, 143) indicate that prior relationships and alliance success do not have positive correlation. Personal ties between top management may be enough to act as a start for a relationship (Barringer & Harrison 2000) but trusting in one person can be misleading if other compatibility factors are overshadowed or disregarded.

4.3 Task-related selection factors

4.3.1 Technical and knowledge-based capabilities

Capabilities play a significant role while assessing a company and its suitability for an alliance partner. This research distinguishes capabilities into two categories: technical capabilities and knowledge-based capabilities. The former one includes hard factors such as machines (Pidduck 2006, 266), technical expertise and performance (Buyukozkan et al. 2008, 155; Das & He 2006), resources (Solesvik & Westhead 2010, 853), skills and abilities (Das & He 2006; Solesvik & Westhead 2010, 841; Hitt et al. 2000, 452, 462; Chen et al. 2012, 107; Twardy-Duyster 2009, 4), other *unique* skills (Pidduck 2006, 266; Hitt et al. 2000, 462) and communication (Das & He 2006, 133; Pidduck 2006, 266). Technical capabilities can be seen to have a different role in a strategic alliance and a project alliance in the construction industry. The project alliance model is usually required to be used by the client, because the project in hand demands a portfolio of capabilities that is not often possessed by only a single firm (Lahdenperä & Kananen 2013, 13) and therefore capabilities a company is looking in a prospect partner varies according to the skills they do not possess or master. In the case of construction industry, one company usually delivers the planning and another the building itself (Lahdenperä & Kananen 2013, 13).

Knowledge-based capabilities on the other hand consist of market knowledge (Wu et al. 2009, 4648; Pidduck 2006, 266; Suseno & Ratten 2007, 15; Solesvik & Westhead 2010, 845; Hitt et al. 2000, 449), managerial experience and skills (Buyukozkan et al 2008, 155; Das & He 2006; Hitt et al. 2000, 453, 462) and operational skills (Hietajärvi et al. 2017, 413). The importance of knowledge and intellectual capabilities are emphasized by Nahapiet and Ghoshal (1998). Additionally, cooperative skills are considered important (Brotherus et al. 1995, 20).

Dong and Glaister (2006) studied partner selection criteria of Chinese companies which had established strategic alliances with foreign companies and resulted that the four most important *task-related factors* were: product-specific knowledge, capital and finance, international market knowledge, production technology, three of which fall under the category of capabilities. Similarly, the findings of Wu et al. (2009) show the most important selection criteria for Taiwanese technology companies was a category named complementary capabilities, which included managerial capabilities, wider market coverage, diverse customers, and good quality distribution system. It must be noted that these companies already possess the technological capabilities and therefore do not search for them in an alliance, which diminishes the importance of pure technological capabilities (Wu et al. 2009, 4652).

Brotherus et al. (1995), followed by a number of academics (e.g. Ireland et al. 2002) categorize the capabilities and other resources under the concept of complementary capabilities. Although seen rather as a motivator in order to create an alliance (Wu et al. 2009), it can also be viewed as selection criteria consisting of resources and capabilities the selective partner want to acquire or access. The study by Hitt et al. (2000) indicates that complementary capabilities are the most important selection criteria for an alliance partner.

4.3.2 Alliance capability

Although alliance capability is not mentioned in the frameworks of partner selection, the literature recognizes it as a factor affecting the partner selection in alliances. Some companies do have more success than others in strategic alliances and this has suggested to be the result of alliance capability, specifically organizational skills in terms of management (Schreiner et al. 2009). Heimeriks (2005, 85) defines alliance capability as the "ability to capture, share, disseminate and apply alliance management knowledge", but essentially, it may be any skills or features used from alliance management (Gulati 1998, Kale & Singh 2007)

Schreiner et al. (2009) indicate that alliance capability compromises of skills related to the management of coordinating, communicating and bonding. The idea is that sufficient management facilitates the interaction between the organizations results to realizing the value of the alliance (Schreiner et al. 2009). Alliance capabilities are mainly acquired from previous experiences in alliances, which in general drives companies to engage in more alliances (Gulati 1999, 413). Experience from alliances has proven to improve learning (Kim & Inkpen 2005), which further develops the alliance capability.

The findings of Hietajärvi (2017) defines alliance capabilities in project alliances to involve: "(1) the requisite skills to address key issues that arise in initiating and managing

alliance projects and (2) the requisite activities to realize an alliance project.“ These skills are presented in more detail in Table 2.

Table 2 The main skills included in alliance capabilities (Hietajärvi 2017)

Contractual skills	Behavioral skills	Relational skills	Operational skills
The abilities related to writing, negotiating, and monitoring contracts	The abilities related to successfully participating in alliance projects	The abilities related to participating in inter- organizational relationships	The abilities related to initiating and manage alliance projects in practice (i.e., to perform project activities)

Hietajärvi (2017) suggests that contractual skills deal with negotiating, understanding the risks and opportunities and defining the mutual goals. Behavioral skills include interactions between people and how they are handled through communication, social interaction and adaptability. Relational skills are more concerned with trust and coordinating the project as well as sharing information. Finally, operational skills involve managerial aspects, including tools and facilitation of the project. Despite these abilities overlap with some of the factors presented, it is important to note that alliance capabilities are seen exclusively from the perspective of alliances, emphasizing the collaborative aspect on each factor.

Regarding other project alliance literature, Fernandes et al. (2017, 7) point out ‘alliance skills’ as a specific category, consisting of all capabilities concerning the alliance from plan development to organizing the alliance, which are essentially alliance capabilities. Alliance specific capabilities were also included in client’s criteria when assessing different consortiums in an infrastructure in Finland (Lahdenperä 2012a, 19–21).

4.3.3 Financial state and size of the partner

The influence of financial stability is acknowledged by various authors (Buyukozkan 2008, 155; Hitt et al. 2000, 462; Pidduck 2006, 266). Findings of Twardy-Duyster (2009) determine financial resources as the most critical factor influencing alliances to realize their goals. However, these studies do not define what is meant by a somewhat broad concept of ‘financial resources’ or ‘finance and capital’.

Solesvik and Westhead (2010, 853) distinguish financial resources into two: (1) capital for the alliance and (2) overall stable financial position of the partner. Moreover, within Chinese strategic alliances, access to finance and capital was discovered to be the second most important task-related factor in partner selection, and on the other hand, financial

stability to be the second most important criteria among partner-related factors (Dong & Glaister 2006), highlighting the difference between capital access and overall financial stability.

DTF (2015, 85) highlights that in a project alliance, the prospect companies should have enough financial capital to deliver the project, which is reasonable considering that the long-term financial stability is not a particular concern of the one searching for a project partner. Considering the paramount difference in the time horizon between strategic and project alliances, the importance of finance should therefore not be overemphasized if long-term commitment is not the objective of the alliance.

Size of the partner is not considered a major factor in the existing alliance literature and is mentioned by a relatively small amount of academics (Barringer & Harrison 2000; Buyukozkan et al. 2008, 155; Das & He 2006, 132). Nevertheless, in the case of a project alliance in the construction industry, it has been noted that there is a tendency for an alliance to consist of one larger player and a few smaller companies (see Appendix 1 for a list of recent alliance projects and the companies involved). This highlights the role of power among the alliance partners as larger and smaller firms have different motivations to join the alliance in the first place: larger firms are interested in new capabilities possessed by smaller firms and smaller firms want to partner in order to access new market opportunities and resources such as finance and human capital (Fisher 1996). Barringer and Harrison (2000, 380) argue that small firms are interested in intangible assets as well, such as reputation, image and prestige. Larger companies are more likely to establish strategic alliances, and although smaller firms are more suspicious of joining alliances, the outcomes are generally positive (Gibson et al. 2014). Problems may arise if the smaller company is too much dependent on the hub firm (Atler & Hage 1993, 4), or if the reputation of the larger player misleads to neglect the strategical fit (Schaan & Kelly 2007). However, Harrigan (1988) did not find the size as a determinant of alliance success, in other words, the alliances were successful regardless of the size differences.

4.4 Learning-related selection factors

Learning-related selection factors consists of two factors: knowledge-sharing and knowledge-embeddedness. Knowledge-sharing is important in order to achieve the benefits of an alliance (e.g. Grant & Badenfuller 2004) and to be able to work together as a team (Cullen et al. 2000). Knowledge-sharing takes place all the time when partners are involved in the alliance (Ireland et al. 2002, 432). The findings of Dyer and Nobeoka (2000) show that knowledge-sharing indeed affects the cooperation in a positive way as it acts as an incentive to work together and absorb the know-how from the partner. Social capital acts as a facilitator for knowledge-sharing to happen (Ireland et al. 2002, 429).

Ireland et al. (2002) also notify that knowledge-sharing may also be damaging for the companies, keeping in mind the opportunistic behavior of a prospect partner. This is valid in a project alliance as well, and possibly even more risky, as the cooperation is closer. Although another firm accessing knowledge can be seen as a risk, Love and Gunasekaran (1999) claim that it is rather a sign that the companies are cooperating well and accepting each other. Grant and Baden-Fuller (2004) discuss in detail the difference of *exploring* and *exploiting* knowledge in alliances. The former describes the access to knowledge and learning aspects, which are one the primary motivators for an alliance, as it increases the efficiency of data utilization. Exploiting knowledge is purely absorbing it from another company, which is seen as less effective (Grant & Baden-Fuller 2004, 77-78).

On the flip side of knowledge-sharing is knowledge-embeddedness. While a company seeks to find a partner, who is willing to share their knowledge, they also wish to find the knowledge of that partner to be easily accessible. In practice, it is a question of how and how well an outsider (i.e. the selective partner) can access and absorb tacit and embedded knowledge, which is generally more difficult to transfer than explicit knowledge (Argote and Ingram 2000; Cullen et al. 2000; Hitt et al. 2000).

On the background, social capital facilitates knowledge-sharing and learning as well as alleviates the knowledge-embeddedness by making the knowledge more accessible (Suseno & Ratten 2007) to the extent that Nahapiet and Ghoshal (1998, 260) state that it makes the difference in performance. As a part of social capital, trust has an important role, impacting the willingness to share knowledge, as a certain level of trust is naturally required for companies to reveal their ideas (Cullen et al. 2000, 231).

4.5 Conceptual framework regarding partner selection

The findings of Geringer (1991) resulted in dividing different selection criteria into two: task-related critical success factors (CSFs) and partnering-related CSFs. This typology is also followed by Cummings and Holmberg (2012), who added two more aspects: the learning-related CSFs and risk-related CSFs. This categorization is used in the conceptual framework to present the factors influencing partner selection.

The research of Geringer (1991) includes those skill-based and operational aspects that are needed in order to successfully meet the goals of the alliance in the task-related critical success factors (CSFs). These factors are originally derived from the resource-based view (see Barney 1991; Easton & Araujo 1993). Barney (1991, 100–101) identifies three distinctive groups for resources: physical capital, human capital and organizational capital. The first group includes all factors of production and raw materials, while the second group, human capital includes the knowhow and expertise of individuals. The last group, organizational capital includes the systems, structures and relationships among

various stakeholders. Therefore, it consists of mainly the same factors addressed in Chapter 4.2.1: gaining of capabilities, specialization, speed and synergy advantages are the four main categories (Cummings & Holmberg 2012). The significance of the last one is not emphasized in the context of project alliances. Although synergy is important as such, the findings of Cummings and Holmberg (2012) indicate that in this case, synergy signifies a form of reaching critical mass or access to foreign markets. However, filling in specific skills can be needed from the side of the alliance partners. Finally, alliance capabilities are considered to be an integrated part of knowledge-based capabilities, as it has not been highlighted as its own factor in previous literature.

Partnering-related CSFs take into consideration the compatibility and the relational perspective of the alliance partner. It includes all fit-related issues including company culture, trust, cooperative efforts, previous experiences (social relationships) and managerial behavior (Cummings & Holmberg 2012, 147). Above all, bearing these cooperative measures in mind, the company seeks to find an appropriate fit in the partnership when strictly operational tasks are left for task-related CSFs (Dong & Glaister 2006, 582). Geringer (1991) notes that both task-related and partner-related factors need to be aligned well enough. In an example made by Cummings and Holmberg (2012, 148) task-related factors are still put ahead of partnering-related ones, but it seems to depend on the case at stake. As argued in Chapter 4.1.1, reputation is also put under the category of partner-related success factors since it is the result of the actions taken by the company.

Pointing out that learning and risk factors are to large extent neglected, the framework of Cummings and Holmberg (2012) offers a learning-related CSF category, which deals with examining the extent to which a company shares information with its partner and how the embedded in the structures the knowledge is. Knowledge-embeddedness varies and is difficult to manage, but therefore the importance of knowledge-sharing is emphasized as a part of the learning-related CSFs, as it specifically engages in the issue (Hitt et al. 2000). Knowledge-transfer on the other hand is much affected by trust, which enforces partners to share their knowledge (Inkpen & Tsang 2005, 154). This makes learning-related and partner-related CSFs closely linked.

Risk-related CSFs mentioned by Cummings and Holmberg (2012), involve all risks related to the unique nature of alliances, where vital parts of the companies' functions are shared. The issues are relatively covered in other categories, as practically they are opposites of the desired attributes. Ireland et al. (2002, 434) distinguishes relational-risk and performance-risk, but as performance is included in task-related CSFs, it can be seen to already bear the risk aspect: when evaluating the performance of a prospect partner, the risk aspect should be included into the analysis. The same rationale applies for relational-risks, quality-risks and customer relationship risks. Cummings and Holmberg (2012, 149–150) acknowledge the overlap between categories, but justify the addition

with the attempt to achieve an exhaustive listing. In this study, however, risk-related criteria are neglected and considered as an inherent part of the stand-alone factors.

Based on the literature discussed mainly in Chapters 3 and 4, a preliminary framework for alliance partner selection process is seen in Figure 5. The process is derived from the strategic alliance literature on various process stages (Schaan & Kelly 2007, 100; Twardy-Duysters 2009). The framework defines seven steps, offering some modifications while taking in consideration the specific nature of a project alliance. The factors influencing the partner selection follows the typology established by Geringer (1991) and modified by Cummings and Holmberg (2012). Combining these, a framework for the appropriate partner selection is presented in Figure 5. The mentioned selection criteria do not attempt to be exhaustive, as the number of criteria would be overwhelming. On the contrary, only the most important and relevant ones have been selected to serve the purpose of this study.

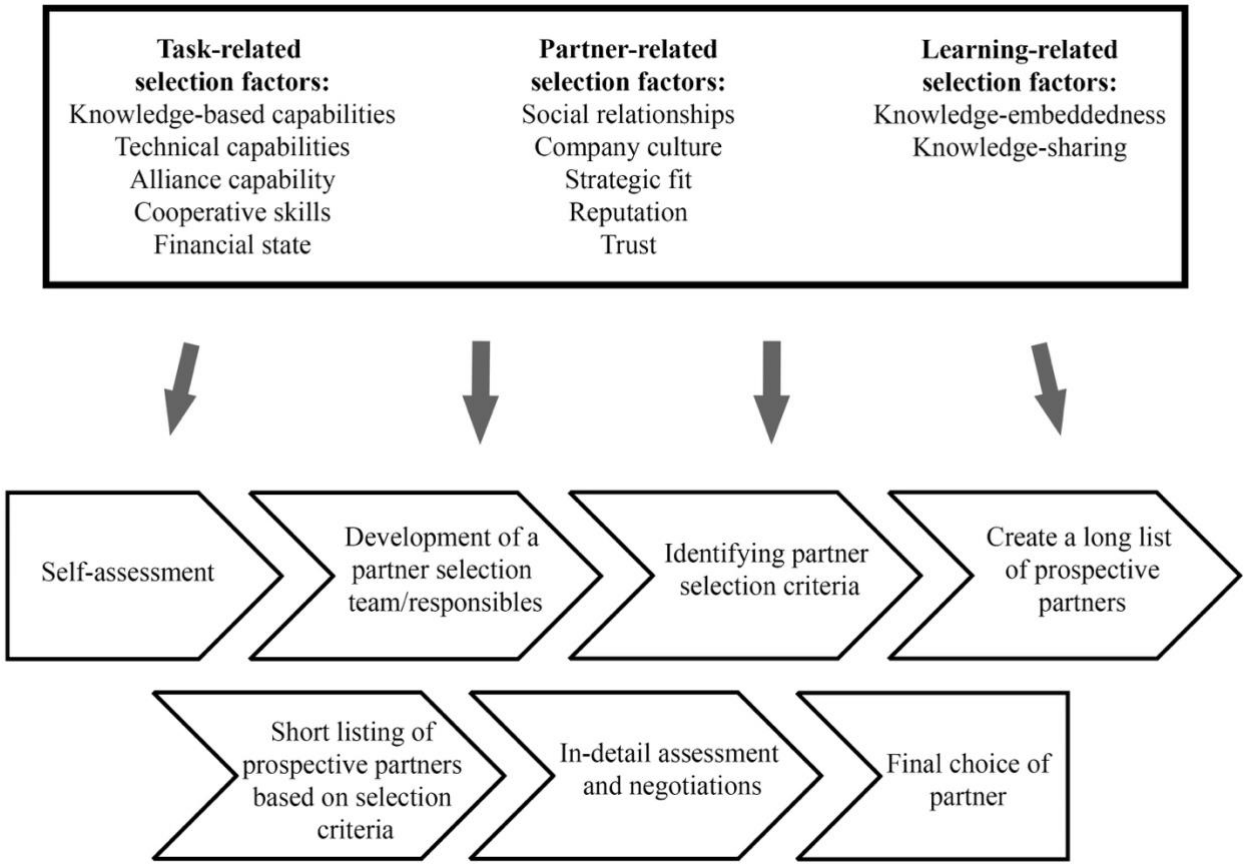

Figure 5 A preliminary framework on how partners are selected for alliances

The process steps are modified mainly from the findings of Twardy-Duysters (2009) and Schaan and Kelly (2007). Twardy-Duysters (2009) introduced a 16-step process for selecting an alliance partner for strategic alliances. This extensive process was abridged as it included steps that go beyond the choice of a partner, as well as modified by taking into consideration the differences between strategic and project alliances.

Referring to Dent (2004), Duisters et al. (2009) and Schaan and Kelly (2009), the first step of the process presented by Twardy-Duysters (2009) is argued to be self-assessment regarding the wants, needs and aims of the collaboration, which then surpasses 'development of a partner selection team'. The logic behind this is that before developing a team of responsible employees, the leaders of the company are required to have some sort of intention of what the company want to achieve through an alliance. From the perspective of the project alliance, however, step three, 'identifying partnering opportunity in the market' and step four, 'define company's objective for alliance' are not relevant, since these are provided by the client who announces the tender and are thus eliminated from the preliminary framework.

Furthermore, step seven is merged with step eight, determining a short list of prospective partners. Steps nine to eleven are merged as well as one evaluation and assessment phase. Finally, the last four steps from 13 to 16 are removed, because they do not contribute to the partner selection process, but go further explaining the negotiations, agreements and joint business plans. This step will follow the final choice of a partner and thus is not an issue of partner selection per se.

The framework established by Schaan and Kelly (2007, 100) is also used as a basis for the preliminary framework. Merged with the findings of Twardy-Duyster (2009) and modified by a number of authors (Sun 2009; Cummings & Holmberg 2012; Dent 2004; Fernandes et al. 2017), the final stages of the process are introduced in Figure 5. Essentially, after assessing one's own situation and resources, the company establishes a team or responsibles to deal with the partner selection. This team identifies on which criteria the partners are chosen and then seeks to find a long list of prospects. These prospects are then compared with the criteria, after which some are chosen for detail assessments and negotiations. The best candidate is finally chosen as a future partner.

The different criteria affect the selection *throughout* the whole process and are therefore depicted on the top of the process stages. After assessing what the company needs or would desire from the alliance, they look for these factors in the prospect partners and how well they perform. The weights of relevant factors seem to vary within different industries and situations but based on literature discussed in Chapter 4, essentially all factors listed in the figure have been found to affect the selection.

It needs to be highlighted that due to the lack of literature on project alliance partner selection, this is a preliminary framework based solely on strategic alliance literature. The preliminary framework is used as a basis for conducting the empirical research in the form of interviews.

5 METHODOLOGY

5.1 Philosophical underpinnings

Qualitative research is subjective by nature as it is difficult to diminish the effect of an individual researcher. Every researcher has their own perspective and departure point, which make the studies research-dependent (Zikmund & Babin 2012, 100). Creswell (2009) introduces framework for conducting research, which consists of three major elements: philosophical assumptions, inquiry strategies and methods. This subchapter will discuss the philosophical assumptions in detail, and the two remaining are discussed in Chapters 5.2. and 5.3. Chua (1986) suggests four distinctive dimensions of research philosophy, which are namely: ontology, epistemology, axiology and methodology. For selecting a suitable methodology, ontology and epistemology are seen as sufficient factors (Guba & Lincoln 1994) and thus axiology, the source of values in a research, is not further discussed.

By Merriam-Webster definition, ontology is "a particular theory about the nature of being or the kinds of things that have existence". Nadim and Goulding (2007) argue that ontology can be seen either from the perspective of realism or idealism, or something in between. This thesis is more subjective in nature as it focuses on finding underlying and varying reasons for partner selection. The partner selection process itself is a subjective process and its implementation is dependent on the subject of the study. Thus, the thesis positions itself rather on the idealistic side, if realism and idealism are viewed on a continuum

Epistemology seeks to understand what we can know and understand of the knowledge (Gray 2009). The chosen epistemological stance is constructivism over positivism. The constructivists believe that the reality and meanings are constructed in individuals' minds, binding past experience and knowledge and new knowledge (Rockmore 2005, 30; Denzin & Lincoln 1998, 221–222). Knowledge is seen as being constructed from social interaction and also the recipient perceives it differently, reflecting the knowledge through his or her own values and social point of view (Hirschman, 1985). This thesis attempts to find deeper understanding of human behavior, which is linked to the social interactions between different actors partaking in the selection process. Furthermore, the thesis attempts to describe this relatively new phenomenon based on how people interact and experience it, and thus constructivism is appropriate. Constructivism is chosen as opposed to positivism, which focuses typically on large sample observations (e.g. Nonaka & Peltokorpi 2006). In terms of the project alliance, such large samples are not available as the model has been used in relatively few number of projects.

In conclusion, Yin (2011) states that the distinction between quantitative and qualitative studies are either based on philosophical underpinnings such as what is discussed above or on the basis of evidence and results. Finally, also the research questions presented in Chapter 1.2. steer the choice towards qualitative research approach as they are descriptive in nature.

Table 3 presents the distribution of different research strategies defined by the existing research problem and the used research paradigm.

Table 3 Distribution of research strategies (Meredith et al. 1989)

Research Problem / Resreach Paradigm	**Direct observation of object reality**	**People's perception of object reality**	**Artificial reconstruction of object reality**
Logical positivistic/empiricist	Field Studies Field Experiments	Structured Interviewing Survey research	Prototyping Physical modelling Experiment Simulation
Interpretive	Action Research Case Studies	Historical analysis Delphi Expert panels	Conceptual modelling Hermeneutics

Inspection of the research strategies framework suggested by Meredith et al. (1989, 317) reveals that artificial reconstruction methods, such as experiments, can be discarded as in this thesis the conditions are not allowing the method to be reasonably implemented. From the direct observation column, case study could also have fitted to the purposes of the study, but after the first interviews it was noted that the selection process is somewhat similar regardless of the project at hand. Therefore, the case study method was discarded.

The most appropriate method to attain data was concluded to be qualitative interviews. 'People's perception of object reality' fits the constructivist approach as it describes the selection process from the interviewees' perspectives. Furthermore, qualitative interviews are found to be the best fitting method for capturing such convoluted and subjective issues as a partner selection. Bonoma (1985, 202) summarizes that business phenomenon cannot not be studied outside of their social context due to their subjective and complex nature, which supports the argument over examining interpretive research methods.

Overall, qualitative methods are the most suitable for in-depth studies about broad issues (Yin 2011, 6). Therefore, from both the ontological and epistemological

paradigms, and the most suitable methods, qualitative interviewing, is recognized as the most relevant method for conducting the research.

Eisenhardt and Graebner (2007, 25) divide knowledge building into inductive and deductive research. Inductive theory building creates new theories while deductive theory focuses on testing theories with the use of data. The third knowledge-building approach is the abductive approach, discussed by Dubois and Gadde (2002). Abductive approach, which is also called systematic combining, *combines* inductive and deductive approaches to create new theories while exploring aspects new to the body of literature. The key principle of abductive research is constantly reviewing the theory and returning to the empirical phenomena: "going back and forth" between the theoretical and empirical realities (Dubois & Gadde 2002). This systematic combining is then expected to result in deeper understanding of the subject.

This thesis utilizes an abductive approach as it aims to define a partner selection framework while at the same time discovers new aspects and factors affecting that process. It is noteworthy that when using the abductive approach, the research process is distinctive from the traditional inductive and deductive approaches (Kovacs & Spens 2005). The process starts with prior theoretical knowledge, which in this study, was the researcher familiarizing himself with both the project alliance literature and literature on partner selection in strategic alliances. This assisted in identifying the relevant research gaps, defining the research questions and giving a comprehensive overview over the project alliance model.

The next step in the research process is the interplay between theoretical and empirical worlds. Kovacs and Spens (2005, 139) indicate that in the abductive approach, "[the] reasoning starts at the point at which an observation in the empirical research does not match these prior theories", which was the case in the present thesis. Finally, the last step after going back and forth the theoretical and empirical findings is to suggest a new theory as well as presenting final conclusions, which in this study, are presented in Chapters 8 and 9, discussion and conclusions.

5.2 Research approach and method

Since the partner selection of a project alliance has not been examined in previous academic literature, this thesis aims mainly to develop a new theory and describe the existing phenomenon. In general, qualitative research has been identified to be most relevant when prior research is scarce, and the purpose of the study is to explore new issues (Gerring 2004). Qualitative research methods are recognized as optimal for producing detailed understanding of new phenomenon (Patton 1988, 9), which is then the logical choice for the topic of this thesis.

Furthermore, qualitative research is holistic by nature. This means that the data is gathered from real life situations, which highlights the role of the researcher. The researcher collects data and through his or her own reflection, uncover real standpoints of the respondents. This is linked to constructivism, in which the belief is that understanding of an issue is based on personal experiences.

The data for this thesis was collected via face-to-face qualitative interviews. Qualitative interviews were chosen as the method for various reasons. Firstly, qualitative interviews give the opportunity for two-way interactions, which offers a chance for prompt follow-up questions and hence deeper understanding. Secondly, with open-ended questions, the answers are rich and detailed and finally, the social interaction between the researcher and the interviewee allows taking into consideration the setting and the environment. All reasons aim towards the same fundamental objective of qualitative research, describing a complex social reality from the participant's perspective in a rich way (Yin 2010, 134–135).

Generally, three types of qualitative interviews are identified: structured interviews, semi-structured interviews and unstructured interviews. Structured interviews were not considered to capture well the many-faceted nature of partner selection since the process is complex and includes of many soft values that were considered pivotal. Furthermore, structured interviews do not encapsulate the meanings of the participants in the similar way as a qualitative interview, which is contradicting to the main task in interviewing, which according to Kvale (1996, 31) is "to understand the meaning of what the interviewees say." Unstructured interviews, on the other hand, was discarded as the comparison between interviewees would not have been as comprehensive as with semi-structured interviews.

Semi-structured interviews with open ended questions is a method referred to as in-depth interviews (Carson et al. 2001, 73). The concept of convergent interviewing is seen as most suitable for this thesis. In convergent interviewing, the process starts from unstructured general questions and then specifies more to in-detail questions to provide rich data on the key issues (Carson 2001, 85–86).

The idea of convergent interviewing is integrated in semi-structured interviews, which was thus chosen as the interview method. Considering the aim of the research and the nature of the topic, semi-structured interviews were seen as the most adequate choice. The semi structured interviews were structured by various themes. These themes were derived from the preliminary theoretical framework and were categorized as following: (1) the selection process: how does the firm go about partner selection in practice, (2) about the process: what is it based on and how significant it is, (3) the selection criteria: what are the criteria and which of them have more weight than others and (4) access: how does the firm gather information and knowledge of prospect partners. Although ready-made questions were formed before the interviews (see Appendix 2 for the body of

interview), these were not followed in detail. Instead, the relevant areas of interest were first probed and then followed-up by more specific questions to get the most out of the interviewee's perspective.

Table 4 presents the operationalization table of the thesis. The two research questions are matched accordingly with the existing literature, the first question relying on research about the selection process within the context of strategic alliances and the second on the different factors influencing the choice of a partner. The factors are derived from literature on strategic alliances and they follow the typology used by a number of authors. The interview questions were formed from these theoretical starting points.

Table 4 Operationalization table of the thesis

Purpose of the research	**Research questions**	**Theoretical framework**	**Interview questions**
To examine the partner selection of a project alliance	How are project alliance partners chosen?	Alliance partner selection process	How do you go about finding an alliance partner? How do you find the best partners? Do you consider the partner selection process as an important for alliance success? Are you open to new partners or use easily to the old ones? Who is responsible for making decisions about who to form an alliance with? Do you often make the initiative to find an alliance partner for a tender? Do you systematically screen all candidates or do they go through a certain process? How do you find the data about the prospect companies? Do you try to understand what partner would be the best fit for you? How can the process be improved?
	How are different types factors influencing the selection of a partner?	Task-related alliance selection criteria Partner-related selection criteria Learning-related selection criteria	What are the most important factors you consider when selecting an alliance partner? Who decides the selection criteria? What are you looking for in an ideal candidate? How do you weight the importance of different criterion? (task-, partner-, learning-) Do you change your selection criteria with time? Do you assess the strategic fit of the prospect partner? How much do you rely on old competitors' capabilities? Which task-related capabilities are the most important ones? How much does previous experience from alliances matter? Do you check the financial stability of the prospect partner?

			Do you consider the fit or task related competences to be more important? How much do you know about the other alliance partners?

The list of question is not exhaustive, but the idea is rather to give an idea what type of questions were asked from the interviewees. As the interviews were semi-structured and based on themes, not all questions were asked from all participants and also follow-up questions were asked promptly during the interviews. The researcher attempted to ask questions to get the most realistic description of the partner selection and therefore first questions were intentionally broad to make the respondent describe the selection in his or her own words.

Significance of the process and access for information were not divided as separate themes in the operationalization table as they are not the main focus of the thesis and previous literature on the issues were scarce. Yet their role in supporting the main findings can be noted further in Chapters 8 and 9.

5.3 Interviewee selection and data collection

The project alliance model has so far been implemented in Finland almost solely in the construction industry. According to Nordström (2017), between years 2011 and 2017, the project alliance was used in 29 projects in Finland, accounting for 2,63 billion euros in total. Of these projects, 18 were general construction, such as public and private buildings, and 8 were infrastructure projects. The remaining three were other types of service project alliances.

Despite a relatively small number of projects, in terms of monetary value, the infrastructure projects were more meaningful, accounting for 1,15 billion euros in total (43% of all alliance projects). These projects are shown in Table 5 (The Crown Bridges excluded from the value). The general construction projects were mainly schools, hospitals and other real estate, accounting for less than 50 million euros each.

Table 5 Infrastructure projects in which the alliance model was used, is in use or will be used in Finland

Name of Project	Value (M€)	Starting Year (building)
Lielahti-Kokemäki railway renovation	100	2012
VT 12 Tampere Tunnel	180	2013
Highway 6 renovation (VT6), Taavetti-Lappeenranta	76	2015
Äänekoski railroad renovation	80	2016
Tampere Tramway (Tampereen raitiotie)	280	2017
Suomenlinna maintenance tunnel, Helsinki	7	2017
Southern Lahti Ringroad (Lahden Eteläinen Kehätie)	150	2018
Jokeri Light Rail (Raide-Jokeri, Helsinki capital region)	275	2019 (expected)
The Crown Bridges (Kruunusillat, Helsinki)	259 (preliminary)	2020 (preliminary)

The importance of the project alliance within the infrastructure industry is high and has increased in the past. In 2016, the estimated valuation of the total road- and railroad construction reached 1,649 billion euros in Finland (KKV 2017). The figures presented in Table 5 show that project alliances accounted for 0,425 billion euros (26%) in the same time period. When taken into consideration that the model was used for the first time in 2010, the market penetration is significant and therefore infrastructure building offers an interesting industry to examine the project alliance.

The next step was to investigate the relevant players in infrastructure construction. The industry in Finland consists of seven large construction firms (in order by size): Lemminkäinen Infra Oy, Destia Oy, YIT Rakentamispalvelut/Infra Oy, VR Track Oy, Skanska Infra Oy (and Skansa Asfaltti Oy), Helsinki Stara Oy and NCC Roads Oy (Vainio & Nippala 2013). Lemminkäinen has recently made a decision to acquire YIT Oyj and the deal is under its way of being accepted by the Finnish Competition and Consumer Authority (KKV 2017).

The planning aspect of infrastructure construction is more diverse and consists of enterprises ranging from small to large sized enterprises. Among the largest companies are (in order by size): Sweco Oy, Ramboll Oy, Pöyry Oyj, Grandlund Oy and A-Insinöörit Oy (Rakennuslehti 2015).

However, not all companies have been involved in the project alliance. Appendix 1 summarizes project alliances and which companies and consortiums have applied for which projects. Of the large contractors, all have been partaken in project alliance tender processes except for Helsinki Stara and NCC Roads. Destia Oy has participated in two alliance tenders, but never chosen to deliver a project. Thus, Lemminkäinen Infra Oy, YIT Rakentamispalvelut/Infra, VR Track Oy and Skanska Infra Oy were chosen as companies of interest regarding the contractor perspective.

Concerning planning offices, the range is wider. Multiple companies have applied for single projects and only a few have applied for two or more project alliances. The ones that have experience from more than one tender process are (in alphabetical order): A-Insinöörit Suunnittelu Oy, Pöyry Oyj, Ramboll Oy, Sito Oy, WSP Finland Oy. Of these five companies, WSP Finland Oy has not been chosen to deliver a project using the alliance model and thus the four first mentioned ones were chosen for the focus of this study.

All of the four contractor companies and four planning organizations involved in project alliances were contacted. The initial contact was sent via email usually to project leaders or higher executives, explaining the content of the research and requesting for a one-hour interview from them or another person that they think is the most appropriate to answer the questions related to partner selection. In some cases, the project leaders forwarded the messages directly to higher executives, which led to contacting the executives directly. Furthermore, to gain more insight, the interviewees were asked if other employees in the company have more information regarding the subject, but due to the rather small number of employees involved in the partner selection process, this led only to one additional interview.

Of the eight companies contacted, six agreed to participate the study and in total seven interviews were conducted in the following companies: Lemminkäinen Infra Oy, Pöyry Oyj, Ramboll Oy, Sito Oy, Skanska Infra Oy and VR Track Oy. YIT Oyj and A-Insinöörit Suunnittelu Oy were the ones not partaking the interviews.

The small number of interviews can therefore be reasoned by the small number of players active and successful in the market. Furthermore, as the partner selection is conducted by a relatively small number of directors, the added value of having multiple interviews within the participating companies was seen as redundant. Overall, the access to information can be evaluated as good as 75% of the companies involved in project alliances were interviewed.

The data was collected through theme interviews with various level employees of the companies. Table 6 presents all interviews, their dates, lengths, type of organization and position of the interviewee.

Table 6 The profiles of the interviewees

Interviewee	Date of the interview	Contracting or planning (main function)	Length of the interviewee	Position of the interviewee
Interviewee A	21.11.2017	Contracting	47 minutes	C-level
Interviewee B	27.11.2017	Planning	52 minutes	Director-level
Interviewee C	30.11.2017	Contracting	44 minutes	Director-level
Interviewee D	30.11.2017	Contracting	57 minutes	Mid-management
Interviewee E	1.12.2017	Planning	57 minutes	Director-level
Interviewee F	15.12.2017	Contracting	50 minutes	Director-level
Interviewee G	5.1.2018	Planning	36 minutes	Director-level

The interviews were held at the offices of the companies and lasted 49 minutes on average, the shortest one being 36 minutes and the longest one being 57 minutes. All interviews were recorded using a smart phone and transcribed immediately after the interview in order to remember and include certain tones and nuances. Five out of seven respondents were director level management such as department directors or industry directors. Interviewees A and D were from the same company, one being the chief executive officer and the other in a mid-management position having vast alliance experience. Overall, all of the interviewees had extensive knowledge of the project alliance model in Finland, each of them having participated in at least three alliance projects.

Each interview was started by explaining the context of the thesis. The thesis being part of a larger research project, DigiPro, the project was also described briefly and then explained what the purpose of this thesis was. The interviewees agreed on having their

names mentioned in the thesis, but it was specifically mentioned that no direct citations would be made.

5.4 Data analysis

The goal of data analysis in qualitative research is identifying, examining, comparing and interpreting patterns and themes (Hair et al. 2016, 301). Hence, the first suitable step after generally familiarizing oneself with the data is systematically organizing the data by coding. The data was coded using NVivo, a qualitative data analysis software, which enabled organizing the data points under certain themes. The codes were derived ultimately from the research questions, which guided to find appropriate themes from the theoretical framework. This way, the coding was linked to previous literature, but there was room for new knowledge to emerge.

This organized data was then analyzed keeping in mind the interpretive nature of the study. In essence, the purpose of coding is to "retrieve and categorize similar data chunks so the researcher can quickly find, pull out, and cluster the segments relating to a particular research question, hypothesis, construct, or theme." (Miles et al. 2014, 79). Strauss (1987, 33) describes the two perspectives of coding: 'in vivo' -coding and sociologically constructer coding. The former one is deriving from the themes and concepts directly used by actors. More granularly, the data points, such as terms, factors and steps the interviewee uses are organized under the nodes when examining the source material. In sociologically constructed coding, on the other hand, the coding is "based on a combination of the researcher's scholarly knowledge and knowledge of the substantive field under study", which means that the nodes are derived from elsewhere by combining previous and new knowledge (Strauss 1987, 34).

For this study, both approaches were used. In vivo -coding was used in the first phase of coding, but when more knowledge on the subject accumulated, further nodes were established based on one hand on the theoretical framework and on the other hand on the analyzed data.

Other than these approaches, there seems to be no one universally accepted way of this type of coding based on different themes. Nevertheless, in this piece of research, the coding was relatively straight-forward. This is because both process steps and factors influencing the partner selection are relatively easy to distinguish from one another. However, after the initial coding, similarities between some factors were noted and therefore reorganized in a more concise manner. In addition to process steps and factors, the importance of the process and data access were coded in distinctive nodes.

Along with the theoretical framework, also the operationalization table was utilized to analyze the transcribed data. The typology established by Geringer (1991) was noted to

function as a basis for organizing the different factors and therefore the literature was also reviewed while assessing the empirical data. Additionally, the process steps introduced in the preliminary framework acted as a starting point to distinguish the various phases in the project alliance selection process. Nevertheless, as new factors and process steps were identified, they were grouped as their own distinctive categories.

Finally, the results of the interviews were written down by consulting the original material constantly. The results in Chapters 6 and 7, are presented as objectively as possible by choosing the most relevant quotes and exemplary illustrations given by the interviewees. The interviews were conducted in Finnish to be able to catch small nuances in the language, but later translated in English.

5.5 Trustworthiness of the study

The trustworthiness of a qualitative research is crucial for the study to offer new knowledge about the subject in a reliable manner. Eriksson and Kovalainen (2008) highlight that instead of evaluating the research once it is already finished, the evaluation should take place constantly throughout the whole research process, which has been recognized while conducting the research.

The trustworthiness of qualitative studies is generally divided into four different criteria: credibility, transferability, dependability and confirmability (Lincoln & Guba 1985; Denzin and Lincoln 2000). Each of the four factors are discussed separately, followed by the actions taken by the researcher to facilitate them into the study.

Credibility is referring to the truthfulness of the data, its interpretation and presentation (Cope 2014, 89). Credibility arises from having sufficient data in sense of quality and quantity and from making logical links between the data points. Furthermore, other researchers should be able to interpret more or less similar results from the same material (Eriksson & Kovalainen 2008, 296). From the epistemological point of view, it is noted that all results are derived from social interactions in a world where multiple realities coexist. This emphasizes the role of the interviewer and the interviewee, who have their own subjective views regarding the topic at hand. Thus, interviews and interpretations are always unique. However, the credibility of the research is evident through measures taken to improve transparency. All of the interviews were recorded and the transcriptions of these interviews are available for examination. The profiles of the interviewees are displayed in Table 6 and the results are directly inferred from examples and citations made by the interviewees. Moreover, example interview questions can be found in Appendix 2.

Transferability indicates the extent to which the results could be applied in different contexts (Cope 2014) and whether there is linkage between the present study and previous

research (Eriksson & Kovalainen 2008). Furthermore, transferability deals with the generalization process of the results (Miles et al. 2014, 274). The linkages to previous research are evident. As it will further become apparent, the final results follow the preliminary theoretical framework and the typology, adding new information to them as the context of project alliances differs from literature on strategic alliances. Although the methodology and methods used for evaluating the partner selection of project alliances could be used in other contexts, it must be kept in mind that the Finnish infrastructure industry has its own characteristics, mainly due to small size and small number of active players. Despite this, similar themes are assumed to arise in other markets if their basic characteristics are close to those of the Finnish infrastructure industry. Thus the results can be generalized to a certain degree. .

Dependability is "concerned with your responsibility for offering information to the reader, that the process of research has been logical, traceable and documented." (Eriksson & Kovalainen 2008, 294). Gummersson (2000) further states that the study should be possible for other researchers to replicate. By documenting the process in as granular details as possible, this study is replicable. A researcher should be able to conduct the research again as the study provides the literature review with correct citations, transparent discussion over the methodology chapter and finally the interview themes discussed with the respondents. The process follows standard procedures regarding qualitative research.

Finally, *confirmability* deals with demonstrating the results and logical conclusions in a manner, which is easily understandable and shows linkages between results and interpretations (Cope 2014; Eriksson & Kovalainen 2008, 296). The structure of the thesis provides the reader a comprehensive understanding of the subject, by having the results presented in two separate chapters, followed by the interpretation itself in Chapter 8, Discussion. Chapters 6 and 7 are ultimately as objective documentation of what the interviewees responded as possible, followed by interpretations written in easily understandable language.

6 PARTNER SELECTION PROCESS IN PROJECT ALLIANCES

The findings indicate that the selection of a partner for a project alliance differs from what was theorized from the existing literature on the partner selection in strategic alliances. In addition to the setting being rather different between the two models, the process is very fast-paced and emphasizes the importance of having knowledge of prospect candidates before the projects are announced. Furthermore, as the selection is based only on preliminary information on the project, the process is done on the assumption that the project will be a project alliance. Because of this, it has also proven to be difficult to select a right partner. Chapter 6 elaborates on these issues and answers the first research question of how the partner selection process is organized for a project alliance.

6.1 Beginning of the partner selection process

The partner selection process begins as soon as information of a possible forthcoming project starts to spread in the market. The beginning of the process is distinctive from strategic alliances due to the nature of a project alliance. Project alliances within public construction are formed for individual and large projects and thus the partner selection starts more or less unexpectedly, when information on a new project begins to spread. In practice, this happens between 6 to 12 months before the official contract notice is announced by client. Clients for large infrastructure projects are mainly municipalities and the Finnish Transport Agency. Because the information is not official yet, the companies rely on their sources and instincts of which projects might end up being project alliances. Interviewee F described the beginning of an alliance process: “when we get even a small clue that a project might be a project alliance, the partner selection starts.”

> *When we are building partnerships and we know that an alliance project is going to start at some point, we know that the consortium has to be built much in advance [of the contract notice] (Interviewee B)*

> *When the actors in the industry start to sense that a project could be an alliance or a Design and Build -project, they kind of get engaged, although we do not know if the project will be either one. (Interviewee D)*

The Finnish market for infrastructure construction is small and information spreads easily to all major actors. This emphasizes the importance of being active in information search since the actors who get information on new projects first, can start evaluating the

situation and the prospect partners first. The best partners are obviously chosen first, which puts pressure on getting the information first.

> *It is always power that you receive information that a project is going to be an alliance before any kind of contract notices or other [plans] have been done. So you have to be very early on the move and obtain information beforehand to make contracts [with partners]. At the time the contract notice is published, the most alliance capable planners and contractors have already chosen their teams. (Interviewee E)*

Generally, the client gives unofficial information here and there before anything is decided officially. Some interviewees argue that planning companies have a slight advantage since they are involved in the general planning of different areas and therefore have access to more details via their contacts. From these details is may be possible to infer which contracting method will be used for specific project.

> *Quite often the planners are slightly better knowledgeable of when and with what contract model certain projects will be procured. This is because […] the planners are always consulting the client with the general planning so they can start picturing that this project will probably be an alliance [project] (Interviewee F)*

Consequently, all interviewees highlight the importance of being early to choose partners. The Crown Bridges (transl. Kruunusillat), a Finnish project alliance starting in 2019 in, more than a year from now, is used as an example:

> *Now is the time to lay out the plans for The Crown Bridges, although apparently the project is postponed to 2019. But now is the time the partners are selected. We know broadly what it will include: the client has told what is going to be ruled out and what will be included. (Interviewee C)*

> *In practice, we would never wait that a contract notice is published. As an example, if the Finnish Transport Agency knows that the Crown Bridges are going to start soon, all actors in the market know it. There is not going to be a contract notice for a long time, but obviously the teams have already been established and thought on that basis. (Interviewee B)*

At this point, companies know only the basic information of what the project will look like, what parts of the project will be ruled out and what will be included. The official contract notice will not be published in a while, but the client has given some information out for the public.

Table 7 Summarized findings of the first phase: preliminary information on a project

Phase	**Findings**
Preliminary information on a project – beginning of partner selection	- Basic information on new project comes early and is scarce - Gathering information about forthcoming projects and possible partners is essential - Partner selection starts based on the early information - Any company may initiate the process when it has received sufficient information - Selection is based on assumptions and forecasts of upcoming projects - The official contract notice is published around 6 to 12 months afterwards

Table 7 concludes the main findings of the beginning phase of the project alliance partner selection. Knowledge is power, as the earlier and the more information a company can gather on an upcoming project, the faster they can reach out to prospect partners and the better they can assess the situation: what is needed and what is not? The partner selection starts as early as there is information available, but usually this happens more or less a year in advance of the contract notice. Based on the information the companies receive, they start assessing themselves, which is discussed further in the following Chapter 6.2.

6.2 Self-assessment

Firms that possess enough resources seek to assess first whether they could deliver the project without a partner, relying solely on their own resources. For companies that

possess both building and planning capabilities, this means evaluating whether they could be the only company in the alliance – creating a two-fold alliance with only the client's representatives.

Also, companies that possess only building *or* planning capabilities evaluate whether they need another company to succeed in the tender and the project itself. In other words, planning companies try to forecast their own resources at the time of the project and assess whether they have the adequate capabilities to successfully perform the planning phase of a project. Similarly, the building companies assess if they need additional allies for the construction.

> *"Could we be alone?" is the first question. "If we are alone, are we stronger or weaker alone?" Sometimes you want to be strong alone, because you get to go everything according to your own game plan and you do not have the fourth-liners at all, but instead you can trust [your own employees]. But sometimes it is not enough. (Interviewee C)*

> *The first question for us is of course: "Do we need a planning partner or can we compete with our own resources?" (Interviewee E)*

Especially smaller planning firms do not usually attempt to be the single operator, as the project alliance tends to be used only for large projects. However, in all of the cases, the need for self-assessment remains. Also smaller companies need to evaluate how much resources they need from their partners and how much do they have themselves. It may be also that for example employees that would normally be a key resource in the project, are tied to other work and therefore more capacity is needed from partners.

> *If [the project] is very large, it means that we should choose more of similar planning resources. For example, our city planners are well employed, so it is actually positive that we get more planning resources to the consortium. (Interviewee G)*

In general, companies that have vast resources, seem to favor being alone. Being alone provides the freedom to do things in your own way and diminishes the risk of having inadequate performance in the team.

However, as the project alliance model is used mainly for large projects, few companies possess enough resources to succeed without a partner. Examining previous project alliances from Appendix 1 shows that usually the planning side has at least two companies, while the building side consists of either one or two players, depending on the size of the project.

Table 8 presents the main findings of the self-assessment step, which is the second step of the partner selection process.

Table 8 Summarized findings of the self-assessment phase

Phase	**Findings**
Self-assessment – alone or with a partner	- Own assessment of resources and capabilities - Companies need to assess: o If they can deliver the project alone o If they need only a contracting or planning partner o If they need both a contracting and planning partners - Companies favor being alone

Before firms start to evaluate the prospect companies, they need to see what they have and what they need for the new project. Depending on the company and its concentration area, the company has to resolve what resources they need and in which areas. Large companies may want to deliver the project solely in an alliance with the client, but more often companies ally at least with a partner not from their field, i.e. contracting or planning. Smaller firms need to see if their resources are enough to deliver the planning *or* the contracting alone or if they need a partner to succeed.

6.3 Evaluating prospect candidates

If the company decides that they do need a partner for the project, they start analyzing and evaluating which company or companies they would partner with. The ways to analyze prospect partner companies differs between companies. Especially the attitudes towards a systematic evaluation of an optimal partner varies among different companies.

All examined companies utilize some sort of analysis to find well-fitting partner, but the analysis may be more of a subjective listing of strengths and weaknesses than any type of mathematical analysis or score boards. The decisions are still based more on facts than feelings and intuition.

> *Do we have an Excel sheet that we use to analyze each project, no, but naturally those [project alliances] are such large challenges […] that we do not choose anyone from the street with us. […] But yes, we analyze every time, just not with a standardized model. (Interviewee F)*

> *We do not use mathematics, no scoring or similar, but we list the pros and cons, go through certain key people and have a subjective evaluation among 2 to 4 directors to decide who would be the partner we would like to partner with the most. (Interviewee E)*

The analysis itself is done case by case, since the content of the project varies. Companies analyze which would be the optimal partner for this project, taking in consideration their own strengths and capabilities. Knowing the capabilities and available resources of the prospect company are crucial so that the competences that are needed can be fulfilled.

> *I did an analysis, where I had the players in the infrastructure market and I tried to find the strengths and weaknesses of each. This way I created a ranking of the primary players, some companies I could cooperate with and some I would avoid. Then from there one was filtered. (Interviewee C)*

Nevertheless, others strive for a more systematical analysis in terms of details and giving scores based on different factors and see this trend growing in the future. The inspiration has been sparked by the clients, who use a criteria-based score board to assess consortiums attending the tender. In addition to own capabilities, the companies have assessed what kind of additional value would be gained from selecting a specific partner and how it would affect the points of the consortium in the tender process.

> *We have been trying to shift from partnerships that are based on a gut feeling of 'with these guys, things work' towards a systematic selection […] We have clearly changed and the process will change even more for sure. (Interviewee A)*

> *We should probably also start creating those score boards and make it [the process] more systematized. We could take example how the criteria of the alliance workshops [by the client] have developed. From there we could actually find clues also for the systematization of the partner selection. Of course, we have used colors to indicate with what you get which points. We have had them on our wall when we have evaluated the*

> *capabilities of our own team, and if we were to take a partner, how much would it increase our points. (Interviewee A).*

On the other hand, some see it as redundant at least for now as most of the selection is not quantifiable or comparable among other cases. Interviewee E refers to the complexity of the analysis in the following manner "I would not say that [the process] should be systematized in anyway – it is not that straight-forward". As the content of each project and the current environment define what the companies emphasize at that time, it is argued that the analysis cannot be systematically reviewed. Others keep the options open and state that if the project alliance as a model will become even more common, they will start selecting partners much more carefully. Interviewee G argues that there is no need for systematic approaches as the list of prospect companies in the Finnish market is short and thus easy to go through without specific analysis.

However, it must be highlighted that the two assessing phases, self-assessment and evaluating of prospect candidates, are often short in time as choices are made quickly. This is due to the fast-paced nature of the partner selection after preliminary information on the project has spread out and the fear of losing a good alliance partner to some other consortium. Interviewee E, the director of a planning company indicates that sometimes also luck is involved: "it may be a matter of hours! If you do not answer a single phone call, the partner can already be calling a next company. The one who is the first in contacting, has the advantage. It is all in everything."

The beginning of the process being so fast-paced emphasizes the need for market knowledge, but also the importance of evaluating the prospects well ahead of time. Interviewee E responded that "you need to do your homework and think who would be the number one contact and then first contact him or her."

The main issues regarding evaluation and negotiations are gathered in Table 9.

Table 9 Summarized findings of the evaluation and negotiation phase

Phase	**Findings**
Evaluating prospect candidates: systematic vs. non-systematic comparison	- Evaluating and analyzing prospect partners - Decisions are based on facts more than feelings - Systematicness varies: o Some see it as redundant as the criteria are subjective

	○ Some see giving scores and ranking partners is beneficial - The evaluation process is fast-paced and thus emphasizes on previous knowledge

Evaluation is obviously vital to understand which partner would be optimal to a specific project. The way companies analyze prospect partners differ among the interviewees, but some type of analysis based on facts is made by each participant company. The usefulness of systematic evaluations is questioned, but some companies claim that they believe it is the most advantageous model. Yet it must be notified that the evaluation process is fast and based on previous knowledge about the prospect companies and their strengths and weaknesses.

6.4 Contacting and negotiations

When the project requirements and assessing phases are completed, companies start contacting each other and discussing the possible cooperation. Although there is no evidence of some specific companies being more active in contacting others, the planning companies usually have better knowledge of upcoming projects. Anyone might still take the initiative in contacting and usually it depends on who has received the information first and who is the fastest to start contacting.

It is probably only a matter of coincidence which way it goes: who is the first one and when we receive information on which project. (Interviewee C)

The client normally organizes a ‘market discussion’ a few months ahead of the official contract notice being published in order to hear opinions and recommendations from the companies that are interested in the project. In this event, all operators have the chance to influence the project and its content in an unbiased manner. Although parties at this point aim already to have selected their partners, it may still change the situation, if the content of the project changes.

> *Preliminary negotiations and even contracts have been discussed, but the content of the project may change after [the market discussion], so it clearly affects everything. (Interviewee G)*

Companies seem to contact only one prospect partner at a time and depending on the response, continue searching for another company or agree on further discussions. Interviewee E states that tendering prospect partners would not be beneficial in long term: "we strive to have one conversation ongoing at a time. If we are the ones starting to contact companies, we do not contact more than one company. Tendering partners would be short-sighted."

Some companies are more desired partners than others and receive requests from a number of companies. Interviewee A describes their experiences: "maybe it is this alliance success we have had that has added the number of contacts we receive." This brings the companies in a desirable situation where they have the power to choose the best partner from many alternatives:

> *Sometimes we are even in a blissful situation in which we can choose with whom we partner. (Interviewee E)*

> *Usually it is like in a disco: good looking girls and boys are looking at each other and the less good looking are looking whoever they can. (Interviewee F)*

After the initial contact, the negotiations are kept rather short, only a day or two, as usually at this point the details of the upcoming project are still scarce. Top management goes through negotiations among themselves and between the companies.

The top management of the firms negotiate between each other and […] half a year to a year beforehand the plan is created: if a project will later become an alliance, the partner has already been chosen. (Interviewee F)

On the other hand, in some cases the selection process is even lighter, especially when two companies have formed an alliance for a project and then receive information on a new upcoming project.

> *I discussed with the top management of Company One and we had similar views on the matter and decided that we partner for this one as well. So that project was pretty effortless. (Interviewee D)*

> *We had a contented situation when we were in the Project 1 with Company Two: we could basically use the same core people of the two companies to participate the tender of Project 2. That [earlier collaboration] was then seen as great alliance capability. (Interviewee E)*

When examining the previous project alliances in the Finnish infrastructure building sector (see Appendix 1), some companies seem to have continued working with the same companies in a number of alliance projects. This, however, is not a sign of the companies having formed longer partnerships, it merely shows that the previous alliances have been working in a desired manner and that they still see the potential for another project. In addition, it is seen as an easier alternative since the teams are familiar with each other.

> *I believe you continue gladly with a partner you have already been collaborating with. Or at least it is easier: you know analysis from the previous project so it is easier compared to starting a new partnership. (Interviewee C)*

> *[Previous partners] clearly have an effect. The alliance is more or less based on the fact that people in the team and inside the big room function well together and companies trust each other. So if you have the right partner and nothing dramatic has happened, why would you start making waves. (Interviewee D)*

> *It is true that we easily choose companies we have worked with before. But it comes down to how good the partnership has been. Not only the end result, but also how collaboration during the tender process has been. It is not always that simple. (Interviewee B)*

Although previous successful relationships are influencing the choice of a partner (discussed in detail in Chapter 7.2.4) and evident pairs have been formed to some extent, all interviewees claim that they examine all possible partners and go through the same process each time a new project is beginning.

> *Of course we check all alternatives because it depends a lot on the project. Some planners are strong in some projects and some are in others. (Interviewee D)*

Project-specifity clearly affects the choice of a partner, and companies also want to be open for new opportunities they can engage with new partners.

Summarizing findings on contacting and negotiations are presented in Table 10.

Table 10 Summarized findings of the contacting and negotiation phase

Phase	**Findings**
Contacting and negotiations	- All companies try to contact companies they desire to work with - Short negotiations are made with one partner at a time - If the prospect partner is already familiar from ongoing projects, the negotiations are made during those projects o Yet all options are examined despite being in an earlier alliance

It is found out that all companies are active when searching for a partner and all companies interested interact with each other. Once contact is made, the negotiations are kept short with one partner at a time. In the case of an existing project alliance finds out information on a new project, the companies tend to start discussing whether the following project would also be delivered mutually. In this situation, the negotiations take place during the projects. However, all companies claim to evaluate all options and not limit themselves to the partner they function with at the time of the project.

6.5 Final choice and discussion about other alliance partners

If the two companies are both satisfied after the negotiations have taken place, a letter of intent to work jointly in the alliance is agreed upon. In smaller projects, the letter of intent might not be a written formal agreement, but rather an oral 'gentleman's agreement'. One interviewee concludes the different phases of a selection in the following manner:

> *When someone contacts us asking if we will partner with them, we will usually attempt to take a small time out so that we will not respond during the first discussion. First, we negotiate. We go through a small debate among the directors if this partner would be suitable and be sure that no one else has agreed on anything else. We usually use one to two days to go through all discussions and then we respond. (Interviewee E)*

Interviewee G sees the letter of intent sometimes as too restricting and challenging as the details about the project are not known. Therefore, they attempt to include contract terms that give the right to terminate the letter of intent if the content of the project changes drastically. Furthermore, although the final decision of a partner has been made 6 to 12 months in advance, it is still based on the assumption that the project will be a project alliance in the first place, because if not, the letter of intent loses its meaning.

When the two parties have decided to work together, they start evaluating whether they need more partners for the consortium. If two planning companies have decided to form an alliance, they will need a building partner to join their alliance in order to deliver the project. Similarly, the situation is the same if two construction parties have agreed on becoming partners and start searching for a planning party. As the alliance is now formed, rest of the decisions are made jointly.

> *If we partner with another planner, we usually contemplate together if we start contacting other firms or do we already have a contractor. Or on the other hand, a contractor may reach out to us and after that we may conclude that we need a planning organization, and then we make the contact. Bottom line, when you have agreed to partner with someone, you make the rest of the decisions together. (Interviewee E)*

The partnering has no standard procedure in the sense of how many parties finally end up in an alliance. This is because after a dyadic relationship is formed, this consortium may then conclude that they need more partners and find another consortium with two or more partners, resulting in an alliance with multiple partners. Interviewee G describes one example of this:

> *For example, one contractor and one planner may have agreed amongst each other and decided that it would be good to have a few companies more for reinforcement. Then the contractor contacts the planning companies. Or, it could be for example what we had: we had partnered with a contractor and at the same time, another planner had partnered with a contractor. When we then contacted the contractor, we had four companies in the consortium. So it can go any way around. It is more about who has agreed on what amongst themselves first. (Interviewee G)*

Synergies, capabilities and needs are assessed together among the directors of the companies, but it is still highly important that all parties are able to work with each other. Cooperation skills are regarded pivotal also outside of the dyadic relationship, because in the end all parties need to be able to work together to ensure the success of the alliance.

The ability to cooperate outside of the dyadic relationship is valued high also because at a later stage, the client needs to be integrated into the already existing alliance.

> *It needs to work along all axis […] if there are problems among two other parties, the whole consortium may not work as a whole and we obviously cannot afford that, it needs to work. Then on the other hand we have to remember that the client will be part of the alliance and if there are conflicts between them and one of the companies, it will naturally affect the whole situation. We have to consider these things too, for sure. (Interviewee B)*

In general, the aim is to keep the number of alliance partners as small as possible, because later on integrating a team consisting of too many different companies is seen as a troublesome issue.

> *When we have had two or three [companies in an alliance], there has been a great amount of work to facilitate the collaboration so that it works like a team. So how can you fit eleven different company cultures together… you cannot succeed, the group cannot be united. So, the minimum amount of companies required is what I would go for. (Interviewee C)*

> *There are easily already five operators in addition to the client and then the number of partners becomes challenging. It is not really the aim to be so many. The most natural way is to have two contractors and two planner organizations that complement and match with each other. (Interviewee A)*

Additionally, one interviewee claims that they have lost a tender because they had too many building partners in the alliance. The same interviewee sees that they are moving towards having one main contractor and one main planner, who form the alliance and rest is acquired via sub-contracting, i.e. outside the alliance.

After one partner has been chosen, the two companies jump back to the self-assessment stage to evaluate whether they have enough resources for the project or if they need more partners to join the alliance.

Table 11 describes the main findings of the last process step and concludes the main issues in final choice and what happens after the choice has been made.

Table 11 Summarized findings of the final phase: final choice and discussion about other alliance partners

Phase	**Findings**
Final choice and discussion about other alliance partners	- After mutual agreement has been found, parties agree to a letter of intent - The letter of intent is invalid, if the project will not go through or other models are used for procurement - After the choice is made, the alliance consortium beings to assess whether they need more resources i.e. another alliance partner - From this point, all decisions are made mutually within the consortium - Small number of alliance partners in a consortium is preferred

The parties agree on writing a contract, a letter of intent, to bind them together in the case the assumed project will in fact utilize the project alliance model. After agreeing on collaboration, the current alliance consortium starts to mutually assess themselves: if they need more alliance partners or whether they have sufficient amount of resources to succeed in the project.

7 FACTORS AFFECTING THE SELECTION OF PROJECT ALLIANCE PARTNERS

The findings show which factors affect the partner selection in a project alliance. It is noted that the factors that influence the selection of a partner are distinctive from previous literature. Of the factors theorized from literature on strategic alliances, many were found to affect the project alliance partner selection, but in addition, four new factors are presented: alliance capabilities, willingness and commitment, choosing the winning team and previous reference works. These factors are combined under project alliance specific selection factors and are discussed in detail in Chapter 7.4. Following the typology of Geringer (1991) and the theoretical framework, the factors are categorized under task-related, partner-related and learning-related selection factors. These categories are discussed closer in Chapters 7.1., 7.2. and 7.3. respectively.

7.1 Task-related selection factors

The findings show that importance of task-related selection factors in the partner selection is significant. Both technical and knowledge-based capabilities are often mentioned as one of the most important selection criteria. However, it is crucial to distinguish different types of capabilities.

The factors under the category of task-related selection factors are derived from the resource-based view. Barney (1991) indicated that human capital, organizational capital and physical capital belong in these resources and thus the findings are organized under the following groups: technical capabilities, people, knowledge-based selection factors and cooperation skills, resources and size. Table 12 summarizes the findings of task-related selection factors and which factors the category constitutes of.

Table 12 Summarized findings of task-related selection factors

Task-related selection factors	**Findings**
Technical capabilities	- Capabilities and know-how in construction/planning - Project-specific skills may be enough for a company to be chosen
People	- Suitable candidates that are open to teamwork and cooperation - Emphasis on the project leader - The best employees
Knowledge-based capabilities and cooperation skills	- Leadership skills - Market knowledge - Previous knowledge about the project - Cooperative skills not only between the alliance partner, but also the client
Resources and size	- Intense projects require a lot of resources, commitment and key people - Small firms carry risk due to the lack of resources - Large firms may be more expensive and less agile

The interviewees mention technical capabilities often as one of the main criteria, since regardless of the project, companies want a partner that has competence to succeed in the task itself. To succeed, they need to evaluate what are the strengths and weaknesses of the company regarding skills and how they fit with the ones the firm already possesses. Ultimately, technical capabilities differ greatly case by case, but they are always among the most important factors.

People are identified to vital to the success of the alliance and thus it is a factor evaluated when choosing a company. Especially the manager positions such as the project leader are emphasized since the leader is expected to utilize motivational and inspirational skills to weld the group together and increase the so-called alliance spirit – the atmosphere of working together to be successful in the project

Knowledge-based capabilities are also categorized under task-related factors. This group includes leadership skills, market knowledge, previous knowledge on the projects

and cooperative skills. Especially leadership skills are highlighted by the interviewees as a crucial factor because good leadership is required to enforce both cooperation and motivate to exceed in terms of results.

Lastly, resources and the size of the prospect partner company were found to affect the choice of a partner. Resources, which in this thesis are regarded physical resources and other factors of production, play a paramount role as the project alliance is an intensive collaboration model. The alliance demands not only more physical resources, but also the full focus and physical presence of the key people involved – distinctive from traditional procurement models.

7.1.1 Technical capabilities

The interviewees brought up actively the importance of technical capabilities in construction or planning. Some interviewees see it even as a prerequisite without which an alliance could not even be considered. If the core capabilities of a prospect company do not suit to the project at hand, they are unlikely to be selected as a partner.

> *Obviously technical capabilities are important: it is a prerequisite in a way. We could not even consider a company that would embarrass themselves regarding technical issues. (Interviewee F)*

> *We need to evaluate the capability of building and planning so that the technical content of the project matches the contractor's technical abilities. If we think about large alliance projects, they have had tunnels and telematics, which already limits with whom we can partner and who is technically strong (Interviewee E)*

> *I would perhaps say the technical capabilities [as the most important factor for partner selection] and after that the people. People you can find later, so probably capabilities first. (Interviewee C)*

Sometimes the importance of technical capabilities is even more relevant, if the alliance is for example lacking a specific skill that will be required in the project. As an example, one interviewee mentioned that they included a small niche company to a large project due to their high-skill level in a specific field. This company was selected solely based on their technical capabilities.

Project-specifity in general is underlined since the needed capabilities, especially technical ones, vary from project to project. Companies have a good overview on which

actors in the market are the best in specific fields of constructing and what type of projects they have experience from.

> *If we have for example an alliance in purification plant within rock construction versus a traffic project within rock construction, they would probably be with different partners although we speak about rock construction in both. So, it is important that we can build a capable team, when we're talking about such specific projects. (Interviewee B)*

> *We have to get a company, which has the best capabilities for what the project requires. Of course, if you have the right partner, the capabilities will be found. But you always have to think a while about who it could be. (Interviewee D)*

The importance of project-specific technical capabilities is also emphasized in Chapter 7.2.1, where strategic fit is discussed. These factors clearly overlap, since when the selective partner searches for a company to partner with they look for a company that fits not only in terms of intangible resources, but also capabilities and physical resources: "from there we get these kinds of reinforcements, which completes our competencies." (Interviewee B).

7.1.2 People

Employees and leaders are most often mentioned and given prominence to regarding all selection factors in alliance partner selection. The team is considered to be all and end all and therefore finding the right and best-fitting people is the key for alliance success. Due to the high importance of large project alliances, multiple interviewees state that they have, and they require the best workers to be on project alliances.

People is a factor separately underlined by the interviewees. People as a factor could in theory also be included in resources in Chapter 7.1.4, which means that the distinction between the two needs to be addressed. In resources, people are referred to as units of production, where a certain amount of time and input is required from the company in order to achieve the objectives. Meanwhile in this factor, people are seen as an leveraging factor, where the employees' knowledge in the field, team working skills and experience are taken into account.

Certain types of people are more suitable for project alliances due to its high emphasis on cooperation and team working skills and therefore these types of people are usually

searched for. More often than not, young people are chosen for alliances because they possess these characteristics according to the interviewees.

> *The firms bring certain types of people to the alliances, to start with. Which means that the team and the key people are already chosen to some extent. You need the best of the best. […] We have tried to find slightly younger people, who are ready for this type of group work mentality, collaboration and integrated organizations. (Interviewee F)*

Since the importance of people is so big, most of the firms seek to know beforehand which employees would be involved in the possible alliance – only one of the interviewees choose the company based on the company-level, evaluating the people after choosing the partner. In the cases where future employees are assessed beforehand, the selective company may even ask to ensure that a certain person will be available for the project alliance before any final decisions are made.

"What people would you have for this? If we would choose this person, could this person come from your side?" and so on. Then we start finding these people from the organizations and there we might realize whether we have all key people. (Interviewee C)

Interviewee D also stated that their company listens to their own team while judging which company would be best fitted for them. "Especially the tender process culminates to the chemistry within the team and the fact that people can work together in a large team." Interviewee C, on the other hand, indicated that the company relies on assessing beforehand what type of people would be most suitable for others from a psychological perspective.

Previous experience from alliances has been noted to help the team to ensure the right atmosphere. However, the teams always include people who have not worked in a project alliance before. These people can be taken in consideration, but if the team is overall inexperienced in project alliances, the starting point is already troublesome.

> *We always have involved people who have not been before working in alliances. But if the core structure [people] have that experience, we can get the single employees to join as long as there is a collaborative atmosphere. That is not a problem. But if the alliance does not have a clear direction, one cannot save is. You cannot go there to practice, you need to have that experience with you. (Interviewee B)*

The importance of a good project leader candidate is stressed by all interviewees. Finding the right leader candidate needs to be clear although he or she might change during the process. The name of the leader candidate is asked even before agreeing to the alliance letter of intent, which shows its importance. If competitive project leader candidates, who are trusted both within the alliance and would assumedly be trusted by the client, are not found, the whole partner maybe wrong.

> *We need to directly be able to find for example a project leader. If he or she is not found, the partner you have is a wrong choice. In that situation, you can simply state that this does not work, because the best leader, who can be 100% with the alliance, needs to be found immediately. (Interviewee B)*

> *We might have asked beforehand that who are your project leader candidates or your main planner. We have asked that before we have said that let's partner together. (Interviewee F)*

> *We might make sure who would be the leader of the planning and who is the project leader, only the key people. (Interviewee E)*

All in all, interviewee D sees the project alliance as "more as an organization formed by people rather than formed by companies", which encapsulates why people are seen as such an important factor, when looking for the most suitable alliance partner.

7.1.3 Knowledge-based capabilities and cooperation skills

Apart from technical capabilities, also managerial skills, project leading skills and other knowledge-based capabilities are highly valued. In fact, when a large share of the used machinery is sub-contracted, the project leading skills are emphasized. The leader of the alliance is usually selected from (one of) the main contractor(s) and is therefore a major influencing selection factor for the planning party as he or she needs to understand the significance and possibilities of construction planning.

> *The alliances are, to a large extent, project leading. For example, own equipment is not used in larger projects, only the larger contractors have drilling machinery and everything else is more or less sub-contracted. The share of own work is rather small, so what the contractor brings is more about project leading, work supervising (Interviewee E)*

> *When we discuss building and planning, you need to have, regardless of the model used, the diversion of planning on the behalf of the contractor […] So once we have contractor that understands the significance of planning, the opportunities it offers and the goals it aims to, the collaboration can be facilitated, which then again helps you in the tender competition (Interviewee B)*

Moreover, leadership skills are seen in a bigger role compared to other contracting methods and even other collaborative methods. Soft skills such as motivating and pushing the employees to their best performance through suitable leadership. This aspect is scored also by the client and as the client will join the alliance afterwards, they want the best project leader, which further highlights its importance.

> *When the management of an alliance is done correctly, it is in my opinion done very differently compared to the management of a traditional model […] Instead of traditional project management, softer skills come forward. […] soft skills such as how you motivate people and how you get them to work longer hours and exceed their normal level of work. Here the leadership skills are valuable, because you get to better results with encouraging than intimidating (Interviewee E)*

Knowledge-based capabilities can also arise from different sources, for example local knowledge. For example a partner can be chosen because of their specific local knowledge of an area, which is paramount in for example track works, where certain type of rocks are needed in a location to which it would be cost-wise inefficient to transport.

> *The location affects as well: [for example to] Kuopio you should probably choose someone who is familiar with the environment […] Now you do not need the volume of 100 million, when 10 million is enough [when talking about a small project]. Locality and project size are essential. If for example an alliance would begin in Rovaniemi, I am not quite sure that someone from the capital region would be the best to do it. (Interviewee C)*

Knowledge-based capabilities are also linked to the project-specifity similarly to technology-based capabilities. Certain competencies are needed in certain types of

projects and these competencies are desirable when assessing which fit best the selective party.

Last aspect of knowledge-based capabilities is the earlier knowledge of a specific project. Despite project alliances are generally not tied to previous projects, planning firms are usually also involved in earlier plans than the actual building part. This can be plans regarding the general plans or needs analysis, which are done much earlier than the alliance project itself.

> *For example, the choice of a partner for one project was influenced by another planning organization, who had done the needs analysis, so they had sufficient knowledge on the details of the project. Tt was easy to create a tender group relying on someone who is already familiar with the project. (Interviewee G)*

As an integrated part of knowledge-based capabilities is also cooperative skills, which are essential in a model, which is based on many organizations merging for a single project over a relatively short period of time. The ways employees work differs from the traditional models in terms of close cooperation, big room working and various workshops with the client, all of which highlight the need for cooperation skills.

> *Although you would be an exceptional planner, if you cannot present there within a couple of hours or two days, you cannot be chosen [for a project alliance team] If you are so shy that you cannot bring forward your own ideas, you are not suitable. (Interviewee F)*

> *Everything stems from the people: they need to be people, who I know, can assimilate and adapt and is not set in their own ways. (Interviewee F)*

Team working and presenting skills are essential in order to be competitive in the tender, which is the first focal point of the alliance. Therefore, employees chosen for the alliance need to possess not only technical capabilities but also cooperative skills. Both are assessed when evaluating an ideal partner.

7.1.4 Resources and size

Resources are also an integral part of capabilities the firms possess. Project alliances are fundamentally very intense tasks that require a lot especially from the leaders of the projects. Since companies recognize that the projects are intense, they are forced to

evaluate whether a prospect partner would have sufficient resources to fully engage in the project. Resources are here regarded as factors of production of which the interviewees mentioned employees, financial resources and physical resources.

The most important resource is an adequate number of capable employees, which here are seen as a physical resource to underline the factor as a factor of production as opposed to the human capital of people, which was discussed in Chapter 7.1.2. Unlike in other collaborative models, the project alliance requires physical presence in for example a big room and since the market is small and the number of professionals is limited, this issue needs to be addressed.

> *Naturally the available resources affect [the choice] and they need to be considered. If someone has too many alliance projects at the same time, suitable employees are probably occupied. (Interviewee E)*

> *The tender processes in the alliance model are very intense and heavy and thus consumer a lot of resources. They also use employees' time in a different way. If for example we have an ongoing project, in which it is impossible to remove people from, we need to also assess what is the situation of the alliance partner. […] these organizations are very slimmed, we do not have additional people working here. And only the best will do. (Interviewee B)*

> *What kind of team the partner has to offer due to other simultaneous projects? And how committedly can they work? So that we are not in a situation in which the best employees are promised, but they cannot come because they are working on other projects. Team leaders, project leaders and good team members need to be found from the company. (Interviewee A)*

Interviewee G on the other hand argues that the existing projects and resources of another companies may be impossible to evaluate from the outside.

> *We cannot judge on their behalf so well […] of course if we are worried that do they really have the resources for this, we may ask that who have you thought for this alliance. But usually they do not promise anything because situations change. (Interviewee G)*

Resources are obviously linked to the size of the company as well: the smaller the company, the higher the probability of resources being insufficient for an alliance,

which ties up a lot of capital, employees and machinery. It can be seen as a risky choice to ally with a partner that, despite the capabilities, is so small that even sick leaves might jeopardize the success. These companies are usually then selected to sub-alliances or as sub-contractors, where the risk is diminished. In conclusion, size is therefore affecting the choice of an alliance partner.

> *Of course if a small company has great workers, the size is not a limiting criteria. But the fact is that when there is a sick leave or something else, it is a problem. If you are involved with a company that relies on one person, it is always a risk. So in a way, we do prefer to partner with larger companies. If there would be otherwise equal prospect partners, I would choose the larger one. (Interviewee F)*

> *A special characteristic [of the project alliance] is that it will require momentarily a large amount of resources. We are not talking about tens, but hundreds of people so we need choose the heavy weight operators. (Interviewee B)*

On the other hand, it is stated that large size can also be a negative aspect since large companies can be seen as inflexible especially for smaller projects. Furthermore, the cost structure can be heavier than that of small company, which drives up the cost component in the tendering process. “In the end, both have their pros and cons”, interviewee F sums up.

Size plays a role also when considered the power balance of the alliance. Typically, 95% of the project costs accumulate from construction and only 5% from the planning costs. When looked at the cost structure between two construction parties in an alliance, one interviewee concludes that they always strive to be an equally large or the larger of the two within the alliance and thus opt for smaller companies as their partners if possible.

> *In the end, this is business for us too and we want to be either an equal partner or rather even slightly more dominant in an alliance. If we woud have only a share of 20% and the other would account for 80%, there is a sort of an imbalance. And we always want pretty much equal shares in the alliance. (Interviewee C)*

Resources also are related to financial state and stability of the prospect partner. The financial status of a partner is not necessarily inspected by the companies searching for a partner, as it goes hand in hand with resources they have to offer. Small companies are

often neglected as both their financial and other resources are too scarce for an intense alliance.

> *Certainly in some cases, where there is a small planning company, the long coaching period and the effort is too much. Especially because their revenue model is based on billing hours and all of this is not billable. Therefore, it has been difficult to find common ground with small planning companies, because they cannot commit in a way the alliance requires. (Interviewee A)*

However, financial resources are not highlighted as much as other resources such as people. Interviewee A suggests that "in a project alliance, risks [regarding financial status] are technically limited due to the short timeline of the project." Other interviewees also mention that existing large construction companies in Finland have not been in trouble with finances lately, so these types of problems have not occurred.

7.2 Partner-related selection factors

Partner-related selection factors include all aspects that are involved with the compatibility and relational issues regarding a prospect project alliance partner. This study organizes strategic fit, trust and reputation, company culture and previous relationships under the category of partner-related selection factors. This typology follows the one of Cummings and Holmberg (2012) but differs by excluding managerial behavior from the category. The logic behind this is that managerial skills are considered to be part of task-related selection factors as are also other type of skills.

Table 13 summarizes the different partner-related selection factors and presents the main findings in each factor.

Table 13 Summarized findings of partner-related selection factors

Partner-related selection factors	**Findings**
Strategic fit	- Complementary skillsets - Minimal overlapping so that firms can be open and honest with each other
Trust	- Crucial building block for alliances - Emphasized role compared to other collaborative models - Reputation in the eyes of the client
Company culture	- Contradicting views of the importance of company culture: - Seen as beneficial for the collaboration to work - Others see as insignificant, as the alliance builds its own culture
Previous relationships	- Past relationships between the companies and the employees affect the choice - Personal histories are assessed - Previous partners are chosen more easily - After a few mutual alliances, firms desire new ideas from new partners

Strategic fit relates to the complementarity of capabilities. Strategic fit is desired so that the prospect alliance partner has capabilities that the other party is lacking, and on the other hand so that the companies can remain open and share information without the fear of a competitor accessing the core knowledge of the company.

Trust is considered as a building block without which the alliance cooperation could not function. The role of trust in a project alliance is even more important than in other collaborative models and is thus emphasized. Similarly, reputation, stemming from the same sources as trust is considered pivotal although it is underlined that only reputation among the company and the client is noteworthy.

Company culture arises diverging views among the interviewees. Some see similar culture as a benefit for alliance success whereas other see that a completely new culture is established inside the alliance and therefore original company cultures have a limited effect on the selection.

Finally, previous relationships, including the ones between companies and their employees, are regarded as a factor having an impact on the alliance partner selection. Previous relationships are in some cases assessed in beforehand to ensure that previous conflict do not affect the cooperation, and on the other hand positive experience may have a positive impact. Although previous alliance partners choose more easily to partner again, interviewees suggest that a saturation point is reached at some point, which leads eventually to the search a new partner.

7.2.1 Strategic fit

A major partner-related selection factor is strategic fit, not only in terms of what capabilities the firms possess, but also how the interaction within the alliance functions. Interviewees indicate that it is crucial that these skills and capabilities complement each other and do not overlap too much. Not only do partners need added value from the other party's capabilities, but they wish to have a partner that is not too similar with themselves.

> *Our partners need to complement our own capabilities. Project X is a good example: there we had a partner who had [capabilities removed due to anonymity], which no one in our company possesses. Similarly, in Project Y, we had a firm for [capabilities removed due to anonymity], which we do not have ourselves. (Interviewee F)*

> *Our capabilities with Company Z fit pretty conveniently: they do not have [capabilities removed due to anonymity] and we do not have [capabilities removed due to anonymity], what they on the other hand do. Our capabilities overlap only in [capabilities removed due to anonymity], which both of us have. In this way, we complement each other – we are not competing or eating their lunch, so to speak. We have a good mutual trust and we can for example very openly share information. (Interviewee C)*

One interviewee sees that although one of the partners would be strong in certain technological aspects, it is important that the alliance still works mutually in these areas as well in order to ensure fully functioning cooperation and alliance spirit. This can be seen as a strategic choice to add both fit and learning within the alliance.

> *Although we would have technological strong points, we have tried in alliance projects to avoid sharing work so that we do this and you do that. We have rather organized the teams across the company boarders. At a*

> *construction site, we're talking about sections, so we do not have our own sections: the leader of the section might be from us and the next one from the partner. Therefore, if our partner would strongly favor the separation of work, the whole of idea of mutual success and doing together of the alliance is jeopardized. (Interviewee A)*

On the other hand, it is mentioned that they could not be involved in an alliance, where a partner, which would in other projects be a competitor, would have a complete overview of one's business.

> *If we were to partner for example with Company Q, it would be a situation where both would have [capabilities removed due to anonymity], so we would probably not reveal everything we do in that situation. I do not know if for example two land builders could be open with each other although they would assure that this is best for the project. They are still competing in that situation. (Interivewee C)*

In conclusion, interviewee C states: "in general we try to find a partner which A) does not compete too much with us and B) fits in to our business: what capabilities for example are we lacking and what do we need?"

It is also mentioned that the assessment of strategic fits extends to all consortium partners, not only the partner that is selected first. When an existing alliance evaluates the need for more partners, the importance of strategic fit in terms of capabilities and other fit is highlighted as usually at this point there is a specific need for one type of capability that the consortium is lacking. "We think about the alliance as a whole." (Interviewee G)

7.2.2 Trust and reputation

Trust is seen as an integral part of a successful alliance, as interviewee D summarizes: "The alliance model is based on trust. If there is no trust, you cannot start an alliance in the first place." Trust is not only shown by the companies among themselves, but it needs to be evident for the client as well as they give scores based on the overall trustworthiness. Additionally, trust is seen as a two-way street: one needs not only to be trustworthy, but also be able to trust others to gain trust in exchange.

Interviewee B claims that trust has a special kind of role in a project alliance because its practices differ from traditional contracting: as the processes include different parties, they need to be more formal and organized. When processes are organized,

everybody must to do their part. If someone does not do what he or she promised, the trust starts to falter, and the alliance loses its efficiency. In addition to this, the role of trust is also emphasized because decisions in the alliance board need to be unanimous.

Trust among top management is especially affecting the choice of a partner, but as interviewee E stated that trust is essential within the team, because without that trust, also trust among top management derogates.

> *There [among the team] is exactly where the trust needs to be, because if not, it will crumple. It is more built from the employee level: a firm generates the setting, opportunities and resources for it, but the collaboration on the employee level is crucial. (Interviewee E)*

Reputation is closely linked with trust as trust usually builds from good reputation. In fact, as interviewee F stated, they stem from the same source: "How do you evaluate those… they are both based on previous relationships". The general consensus still seems to be that previous relationships and especially successful collaborations in any form increase the reputation and thus the probability of future cooperation.

Solely brand reputation or familiarity, however, do not play a role in partner selection. But if a company is known to have bad reputation, especially within alliances, it acts as a warning sign for the selective party.

> *It is more about own experiences […] not the reputation as such, because the contractors are reputation wise pretty much equal. (Interviewee E)*

> *If there is some type of reputation, which is detrimental for the success of the consortium or something else, you need to think again. Is it clever to partner with this company – is there a reason why they have gotten insufficient scores always and are there some key people that are not capable? (Interviewee B)*

Some companies have, to some extent, ruled themselves out of the project alliance scene by enforcing the traditional contracting models and their adverse practices, as interviewee C claims. Their reputation has made them unattractive as alliance partners, and it would be surprising to see them changing their practices suddenly.

Interviewee G notifies that reputation among the public crowd does not affect the choice, but the reputation of a company in the eyes of the client does have an impact on who they choose to partner with for a project alliance.

> *We are not interested in the general opinion, but the opinion of the client. If we know for example that someone has completely failed in a previous project, it makes one think if someone else would be better in the eyes of the client. (Interviewee G)*

Ultimately the client is the one consortiums need to please, and if a company or its representatives have had conflicts with the client, it may not be beneficial to partner with such a company.

7.2.3 Company culture

Regarding company culture, interviewees have contradicting opinions: some see that the alliance needs to build its own company culture, but others seem to think matching company cultures do help the formation of the alliance. The former ones claim that the impact of a company culture on partner selection is small, as it would be bad business practice to try to force your own company culture to others. Interviewee G claims that the company bases its decisions mainly on technical and alliance capabilities and that they could operate with any player regardless of the culture.

Despite this, it needs to be noted that the definition of company culture is broad and therefore the answers were diverse.

> *The idea is that the company culture of Company One or Company Two is not going to be there [in the alliance]. The aim is that you bring the culture of the alliance. It is a very bad practice that someone announces that this is what we are going to do, you all follow. It is all about the people. (Interviewee F)*

Variously, some see that a company culture that is not based on cooperation and sharing risks and profits could not be fitted together with the nature of alliances and thus a company that possesses this kind of culture could not be chosen as an alliance partner. If the company culture is from the other end of the spectrum, they do not see cooperation taking place because of different cultures.

> *It [company culture] does actually influence the selection, yes. We have some contractors, even large ones, with whom we would probably not partner for an alliance […] there is company culture that stems from the traditional models, which means the 'culture of wrangling', which is based on extra work: you find faults in papers and the client suffers for this. This*

> *is not part of our culture or the culture of with whom we have partnered. (Interviewee C)*

Also, the international aspect is brought up since in some countries the openness and degree of commitment that a project alliance requires, is unimaginable. This is largely due to the unfamiliarity of the model in for example Central Europe, where construction industry is not in general built upon trust and goodwill. In many countries, lawyers are always present to hedge against in adverse cases, which unarguably are common within the industry.

> *We could not have partner with some international partners with whom we had negotiations because we acknowledged that this is not going to become anything if we need to explain Central European lawyers what a project alliance is as a model. And the aim would be to work according to the alliance spirit. (Interviewee A)*

> *Some large European operators, there are others, but especially in Germany: the company culture is totally different from Finland. And I mean towards a more rigid way. The alliance should be based on trust, barriers between companies should be low, it should be agile and fast and all of that, so when you partner with an enormous global operator, the language will change to English or German and they have a sales person to represent the company – it does not build trust. Or especially the fact that they bring lawyers to each negotiation. […] In the negotiation phase, it is not the best and they acknowledge it themselves – they cannot take any type of risks in Finland because of their company culture. (Interviewee C)*

The respondents have noted that since the company culture is so different between the Finnish and Central European companies, foreign firms have had difficulties to enter the project alliance market in Finland and they still have not been very active in the market because of this. One barrier that can be seen as a part of company culture is also language, which understandably hinders the seamless cooperation.

7.2.4 Previous relationships

Previous relationships overlap clearly with people and cooperative skills discussed in Chapter 7.1.2. regarding task-related selection factors. Previous relationships are still considered as their own factor due to the fact that it is separately underlined by the

interviewees. Evaluating relationships between employees from different organizations to form a team that is tightly-knit and well-coached is seen as the key for a successful tender process and ultimately the project itself.

Previous relationships of the employees are examined in order to ensure that previous work history does not affect the competition of the project in a negative way. Previous relationships eventually have a significant impact on trust, which is crucial in a project alliance.

> *Of course we go through the work and reference history of the team members to see if they have performed well with the client and with other people. Or is there something that could harm the situation? The Finnish market is small, so there certainly are love-hate relationships in the work histories between the clients and the service providers. (Interviewee A)*

How well the company searching for a partner knows the other party's employees is naturally based on previous relationships, which plays a significant role in the selection as well. Successful alliance projects are often continued by applying for successive projects. Nevertheless, it seems that after a few projects, the relationship is seen as saturated, which drives companies to search for alternative companies: "Of course some contractors and planners are partners in two or even three times, but then there usually will be some conflicts and then the companies want to circulate the employees as well." (Interviewee F).

If the teams are familiar with each other, the possibility of continuing with the same partner is still high, as is seen from the list of previous alliances and what the interviewees conclude:

> *The baseline is that we search for a partner who we are familiar with […] for example in the case of Project XY, we had another ongoing partnership with Company One, which we had chosen in Project ZY. So we had more or less the same people in both projects. (Interviewee D)*

Interviewee G sees previous relationships as a positive factor for an attractive partner, but highlights that it is not beneficial to create longer relationships with only one company. The reasoning behind this is that if they accustom themselves in partnerships with only single operator and make long-term commitments, they would have issues to create alliances with other partners when needed as the cooperative skills would be restricted. In addition, relationships to other would be difficult to maintain in this situation.

> *We do not want to limit ourselves to work with only the same partners we always would work with. It would strike back at some point if you have committed to only one company. […] If we would have 10 alliances and we would always partner with the same one, we could not collaborate with any other ones anymore. (Interviewee G)*

In some cases, the alliance may consist of the same companies as in the previous alliance, but the teams themselves can be completely new. In these alliances the trust between top management has naturally continued, but as the previous relationships do not extend to the teams, it needs to be "critically and analytically assessed", as interviewee C states, whether the partner then is the correct one.

7.3 Learning-related selection factors

Selection factors related to learning specify on the aspects that deal with how companies transfer knowledge between each other in an alliance. To be able to develop the relationship between the alliance partners and within the consortium, the firms are required to share information. To further benefit from the alliance, working openly provides learning opportunities for all parties involved. Table 14 presents the two factors within the category: knowledge-sharing and partner novelty.

Table 14 Summarized findings of learning-related selection factors

Learning-related selection factors	**Findings**
Knowledge sharing	- Essential for the alliance to function - All project-related data needs to be open - Close competitors are not seen as the best partners because they might benefit too much
Partner novelty	- New partners are favored as they bring new insights - Maintaining relationships with all possible partners, not only one

Knowledge-sharing is one of the main issues in an alliance, as the cooperation is close. For a project alliance to fully function, the firms need to be open (Ross 2003) and therefore all project-related information should be accessible by both parties. Knowledge-

sharing can be seen from two perspectives: firstly, it needs to be fully open within the alliance, and therefore secondly, close competitors are not considered as the optimal partners, because the potential risk of losing one's competitive advantage.

Besides knowledge-sharing, partner novelty is introduced as a new factor impacting the partner selection. Partner novelty discusses the benefits of having a partner that is known to be adequate, but the operators have not cooperated in a project alliance before. The reasoning behind trying to seek these type of partners is learning new practices and on the other hand maintaining relationships with all parties to ensure that all options are open.

7.3.1 Knowledge-sharing

Knowledge-sharing is not mentioned as a selection criteria per se, as it seen as a prerequisite for the project alliance cooperation. All interviewees claim they have complete openness throughout the project and that they could not consider a partner, which would not do the same. Knowledge-embeddedness is not either examined in project alliance partner selection since all knowledge within alliances is assumed to be open. The idea of not sharing all information regarding the project is not regarded an issue as it is so obvious and one would get caught immediately if they were to withhold information.

> *We have always kept everything extremely open, especially during the tender process. During the project, we have never declined a planning partner to come if they want to inspect what are our salary expenses in a certain section. In theory, it is possible, but in reality, no one has ever come and asked. (Interviewee F)*

> *We always share and you would get caught if you would hold back to information. When you start cooperating, it is always all in. […] I could not even imagine an investment like this, where someone would not give out information to win the project – that is unimaginable in a case where we put hundreds of thousands on one project. And I believe it is the case for everyone else as well. At least those consultants we partner with. If there was to be a case where a planning partner or a contractor would not give all information out, that would be the first and the last time we work with them. (Interviewee E)*

On the other hand, because of this openness and wide knowledge-sharing, some interviewees shun alliances with companies that they believe will learn greatly from their own capabilities or skills and thus bridge the gap in terms of competitive advantage. Companies too close to own core business and competitive advantage were also mentioned in Chapter 7.2.1., when strategic fit was discussed.

> *There are things that a smart competitor can learn in an alliance from the other party, because it is a lot about how the process is managed. And that is an issue we have to evaluate: we have had a policy that – because I know we are ahead of competitor in some things – we do not partner with a contractor that is clearly behind us. Because then in the future they would be equal with us. (Interviewee F)*

Interviewee B has experience on other type of collaborative models, in which the partner has tried to inquire unrelated information from the company. These situations are naturally considered as unacceptable.

> *This [model] is a transparent view through the operations of the company. Therefore, if there is some kind of risk that sharing risks jointly will lead to something harmful, we have to consider it. […] if we have experiences of a company trying to attract and ask [information], it will make the open collaboration and the formation of an alliance more difficult. Because the collaboration is so intimate in the future, there is an unwritten rule that if during an alliance one starts to entice people or other things, we will not partner with them again. (Interviewee B)*

Nevertheless, some argue that it is natural that knowledge-sharing happens and that in the end one might give something but also get something back in order to achieve continuous improvement. In this way, interviewee E sees knowledge-sharing in an alliance as modern sharing economy, where you give something an except something in return.

> *Abilities will spread anyways. […] although we share our abilities in joint tenders to others, we also receive them when we cooperate with others. This is kind of a sharing economy throughout the process: we work with multiple contractors and planners and give information, but we also receive information and we have to trust that. You have to collaborate with a number of companies to get as much as you give. It is an old-fashioned*

> *way to think that we would not do something because they will see this and that. (Interviewee E)*

> *You sort of have to accept that the partner will learn things from you and on the other hand, you learn something from the partner. As one of the basic alliance themes is continuous improvement, you need to be able to share information, evaluate your own action and improve during the tendering process. Therefore, you have to accept that in projects where you are competitors that both are stronger – and that is the best scenario. (Interviewee A)*

Furthermore, as mentioned also in the Chapter 7.2.1. on strategic fit, the companies have been trying to avoid choosing companies that are in favor of situations where knowledge-sharing would not happen, since it would not fully utilize the potential of a project alliance. This is where knowledge-sharing takes place in the best possible way as both parties have the opportunity to learn from each other. Interviewee HL summarizes: "we have tried to avoid splitting the jobs by capabilities, so we rather organize the teams in a way where that they are mixed."

7.3.2 Partner novelty

Similarly, because of the open knowledge-sharing, some companies favor new partners in alliances and even consciously search for partners they have never worked with before. The reason for this is that they are seen as an opportunity for learning. From new partnerships, the company can absorb new knowledge in terms of practices, skills and effectivity. It is noteworthy that the prospect partner still needs to be familiar and similar in terms of company culture and cooperation, which in basically means that the cooperation still needs to be running smoothly.

> *We have actively tried to find contractors that have been involved in alliance projects, but with which we have not cooperated with them. Companies we are familiar with and we have the same company culture and cooperative skills. We gladly want to work with as many contractors as possible to get all information from there – on the other hand bring everything we have, but on the other hand learn from there and see everything we have not seen. (Interviewee E)*

Additionally, it is pointed out that there needs to be something to learn, i.e. the relationship cannot be based on one partner sharing its knowledge and the other one not giving anything worthy back. Interviewee F sums this up: “We cannot partner to just be the teacher in an alliance.”

After completed two alliances with the same partner, interviewee D states that something new is eventually needed. However, this does not necessarily mean changing the whole partner, as the trust between top management is still good. But as project alliances are built on continuous improvement, the development of one team cannot last indefinitely – a saturation point is reached sooner or later. Another respondent, interviewee F concludes: “You always learn something new from a new partner.”

Besides the learning aspect, new partners are also seen as beneficial in order to maintain relationships with all companies in the market. If limited to only a few companies in terms of partners, there is a risk that it will be difficult to partner with someone new if no previous relationships have taken place. Therefore, the companies want to keep all opportunities open if an alliance requires specific skills: “In a way we want to have all possible partnerships open, because it looks bad if we are always with the same partner.” (Interviewee G)

7.4 Project alliance specific selection factors

The project alliance specific selection factors are presented in this thesis to describe the distinctive factors affecting the choice of a project alliance partner. The project alliance is essentially a unique and original model in the infrastructure industry and therefore it requires also different ways of working. Such distinctive factors are alliance capability, willingness and commitment, allying with the winning team and previous references to meet the project requirements. These factors are presented in Table 15 together with the main findings of each factor.

Table 15 Summarized findings of project alliance specific selection factors

Project alliance specific selection factors	**Findings**
Alliance capability	- Unique qualities learned from previous project alliances - Workshop skills, close cooperation skills, big room working - Understanding of the model - Working for the mutual goals - Presenting, writing and concluding project related work
Willingness and commitment	- Understanding of what the alliance requires - Willingness to learn and commit - Longer relationships
Allying with the winning team	- Finding the partner or consortium that could win the tender - Stressed by smaller planning firms that have smaller impact on winning the tender
Previous references to meet the project requirements	- Client requirements are met by acquiring references from firms that have been involved in similar projects

While technical skills and resources are needed in all infrastructure projects, the alliance model emphasizes certain unique qualities that are learned only from previous alliance experience. The tendering process is different in terms of forming consortiums of existing companies and the project alliance specific skills are frequently highlighted by the interviewees as a selection factor for the partner selection. Alliance capability takes into consideration these aspects of the partner.

Willingness and commitment to the project alliance measures how committed the prospect partner is towards the ways of working in a project alliance and how willing it is to learn more. Full commitment is required, as the project is more intense than other collaborative models. Despite being a model used in short-term projects, some interviewees see one project as a base for starting further cooperation. On the other hand, others consider this to be difficult and therefore do not put weight on long-term commitment.

Allying with the winning team seems to be an influencing factor especially for smaller planning firms that need to rely a lot on the resources of their partners since their contribution is small in the bigger picture. These firms aim to partner with the company or consortium they think will have the best chances in the tender and therefore have the opportunity to deliver the project. As the number of competent firms in the market is limited, it may also be resourceful to partner with a firm that is competent only to avoid other consortiums of benefiting of that competence.

The last project alliance specific selection factor is previous references to meet the requirements of the project requirements. The client tends to require some specific references from previous projects and if the selective party is lacking these references, it may select a partner solely based on the fact that this company has worked in such project and therefore acquire the needed requirements. All of the four project alliance specific selection factors are discussed in Chapters 7.4.1 – 7.4.4.

7.4.1 Alliance capability

Alliance capability overlaps with some previously factors presented, but due to its high importance, it is often cited independently by the interviewees. A number of interviewees also regard alliance capability as the most important criteria for partner selection. Alliance capability includes all aspects, especially in the tender process, which makes one team stand from the crowd. Such attributes mentioned by the interviewees are workshop skills, close cooperation skills, understanding of the model, working for the mutual goals, big room working, presenting and writing, summarizing plans and other work.

It is seen even as a worrying issue that all alliance capability starts to compile on certain companies that have been involved in and won several tendering processes and alliances. Interviewee B describes it in the following way: “It simply is such a great advantage when you have experienced [the whole process].” Before being involved in an actual alliance, the tender workshops and presentations for the client are based on what the consortium would intend to do, but after experiencing one, they have a far more realistic yet sophisticated view of what alliance working actually is. In this sense, working in an alliance “has evolved from an idealistic model and spread to become a tested and special way of working for the whole team.” (Interviewee E).

Alliance capability is naturally also developing further, when new project alliances are completed, which diminishes the chances of winning for those who have not partaken alliance tenders before or have not been successful in them. Interviewee B depicts the issue: “Those actors, who have not been involved in alliances until the end – not even on the appalling second space – start having minimal chances winning the tender, because now there are a lot of actors who are familiar with the model and can function according

to the alliance spirit." Familiarity goes hand in hand with the understanding that a project alliance needs a certain level of commitment and it requires intense resources throughout the project.

The project alliance requires indeed also what the interviewees refer to as "alliance spirit", the atmosphere of collaboration and overcome issues together. This leads to the situation where even companies that would possess a great variety of capabilities, might not be chosen since they do not have either the cooperation skills required for an alliance or the experience from a project alliance.

> *Although you would have the most capable contractor of Finland, if the team does not work, it will never win the tender. No matter the experience level of our planners either. This is a very unscrupulous situation. Of course, for the industry as a whole, it is good that adequate operators are found in both planners and contractors, but we can clearly see a situation where you can distinguish who have alliance experience and who do not. (Interviewee B)*

From a more negative perspective, interviewee F sees that it is not beneficial that the tender process emphasizes collaboration as much as it does. The interviewee sees that some companies are used to alliance tenders, which has trained them to be familiar with the workshops and "show time action", but suggests that they still may not be the most competent team for the project itself. In this way, the alliance capability shown in tender process might be beneficial for the tender, but it may also mislead the client to not choose the most capable consortium, but the one which merely presents the idea in the best way:

> *The fact that there are people who have gone through a few tender processes, helps significantly winning the tender. For example, those who were in Project ZY, knew precisely how the alliance really works. We won one the first alliances and there nobody had competed in alliance tender processes: they were not accustomed to the work shops and 'the show time' act. They are accustomed to real working. And then they compete against people who have necessarily never been implementing an alliance, but they have been four times taught how to act the whole show. This makes you consider which weighs more in a way. (Interviewee F)*

Alliance capability has therefore undoubtedly improved through previous alliance experience that certain companies have had the chance to have more, some less. The overall direction is that some sort of alliance experience is required from a prospect partner or at least some of the employees need to possess that experience. Here,

interviewee claims that they do not want to choose a partner who is unfamiliar with the project alliance, since they again do not want to teach a new partner how the project is done in an alliance.

> *Previous alliance experience is of course pivotal. […] if we were to compete for a new alliance at the moment with a planning partner who has never before been in an actual alliance, it would be required that they have some people who have. People who have come from other companies. […] if you have an operator that has not been in an alliance before, there will be complications. (Interviewee D)*

Interviewee C gives highest priority to previous alliance experience, when considered the most important factors impacting partner selection. This is largely due to the fact that these companies possess the desired level of alliance capability.

Nonetheless, some interviewees indicate that we are moving away from emphasizing so much alliance capability, mainly due to the fact that all major players already possess enough experience to know how to function in an alliance.

> *I believe before it was more about presenting alliance capability and now it is more about the technical innovations in the tendering process. It is because alliance capability is more prevalent nowadays. So you have to be able to present various options and inspections to the client. (Interviewee E)*

> *Alliance capability is clearly at a high level at many companies already. We do not start from the basic level issues, but already think in a more advanced way. Which also means that in the partner selection, the importance of alliance capability has decreased. (Interviewee A)*

It may be then argued that alliance capability and experience are excluding factors to some extent: companies that do not have them, are weak from the start, but between companies who have been involved in project alliances, the capability is assumed to be learned and therefore the weight of the factor diminishes.

7.4.2 Willingness and commitment to the project alliance

With understanding the model, the interviewees signify also understanding what the tender process is going to be like, and moreover, how much it will require from each

company. This is linked with willingness and commitment that the project alliance demands. Not all companies in the industry want to participate in alliances for a number of reasons: not only its heaviness and intensity, but also because knowledge-sharing and lack of alliance capability.

> *First and foremost, the willingness to put effort to the tender because it is a large effort and not all companies possess the state of mind. You have to find that state of mind. […] on the other hand, if we recognize that the contracting partner is not motivated enough and ready to put all the effort, we start considering if we should go for this. (Interviewee E)*

> *It is crucial that during the tendering process, the partner with whom we are building a consortium, has understood the alliance as a practice, otherwise we will not go with them. (Interviewee D)*

General interest and readiness to invest in the alliance is highlighted, since from the start, some companies have been more open towards the idea of the project alliance. Some considered the model to be a short trend that will pass and thus also prefers other type of models – something that does not attract selective partners to contact these companies despite their capabilities. Additionally, it needs to be clear that the prospect partner really understands to what extent the openness and 'best for the project' thinking reaches.

> *If the partner has not presented any type of understanding of the alliance when we go through negotiations with the top management [it is not a favorable situation]. How committed they really are to the ways of working in an alliance, the open book principles and best for the project kind of thinking. Sometimes we have been forced to end the conversations about partnering if no such mutual understanding has been formed. (Interviewee A)*

On the other hand, these companies have afterwards started to give more value to the model and even openly asked that they would now want to partner in order to learn more about the model.

Interviewee B also mentioned that when selecting a partner, they look for a company with which they could commit in long term as well and work also in a number of other projects.

> *If we are assessing an alliance partner, we do not only consider them for this single alliance or even another one. Because the working practices in*

> *an alliance are the way they are, although we would not win the tender, we have been welded together, so we can use the same group even for other procurement models. There is a long-term view and it is crucial that we keep in mind the long-term view. (Interviewee B)*

Despite this, "long-term commitment and agreements have also proven to be difficult" states Interviewee F. This is because while just a small amount of information on new projects is available, the agreements cannot be made effective or binding. Agreeing on contracts may be a waste of time, if later it is revealed for example that the project is implemented using a different collaboration method than the project alliance. In addition, interviewee F states that it is not a good starting point for a partnership either, if both parties are not willing to partner at the time of the project: "You cannot force anyone to partnering."

7.4.3 Allying with the winning team

Some interviewees took up tactics when choosing a partner by trying to select partners and teams that they see most likely winning the project in the tender. The tender requires a lot of capital and resources, which makes the winning of the tender extremely important, as otherwise no profit is gained. Therefore, some of the interviewees emphasize that they want to ally only with partners they see are capable of actually winning the competition. As interviewee F concludes: "It is pointless to choose a team with which the project would be easy or pleasant to work with, if the team never wins the tender. It is such an expensive process." This leads to the tender process of having more of the focus than the project itself, as otherwise the partner only needs to be capable enough to actually perform the project, if won.

Finding the winning team seems to be underlined especially by the smaller planning firms. Interviewee G clarifies the logic behind this: as the cost share of the planning is only about 5% of the complete project, the contractor and their competence, knowledge and resources also weight more in the tender process as well. Therefore, for the planning party, it is crucial to find the best company or consortium to be able to succeed, because with an incapable contractor, even the best planners cannot win.

> *Naturally we want a partner with whom we can win the tender […] If you are in an alliance with a contractor, they have the main role [in the alliance tender]. Therefore, if the contractor has a good group of people working, they have good references, suitable capabilities and good relationships with the client, it is what matters the most. (Interviewee G)*

On the other hand, if two skillful parties, for example the planning parties have already partnered, the consortium becomes possibly the winning team and thus highly desirable for the contractor as well:

> *On the other hand, if we think that we negotiate with a strong prospect partner and form an alliance consisting of planners, it is very tempting for the best contractor, when they notice that this group has the best planners. Then they want us. (Interviewee B)*

This is clearly also a very tempting situation for the planning parties as well, since they usually are in a position to choose the contractor of their choice as they are aware that they are desired. When seen from the contractor's perspective, the consortium is therefore most likely the winning consortium, a factor that is underlined by interviewee B.

If the winning consortium is not found or the project seems uncertain, the company might even consider not trying to find a partner and therefore taking part to the tender. This is due to the heaviness of the tender process and the possibility of losing a significant amount of capital.

> *When the contractor comes along and the project includes for example tunnels and special type of work, which this contractor is not familiar with – where is their competitiveness then? […] Therefore, to an alliance to be worthwhile to participate, you need to have the confidence and belief that you can also win it. And that is the big difference in the tender process [compared to other collaborative models]. (Interviewee B)*

Similarly, it is pointed out that one needs to examine the market situation as a whole: it may be beneficial to add a partner that would not necessarily be needed, but if left out, the competitor team could perhaps benefit substantially of partnering with the same company.

> *We need to look at the bigger picture so that we need to remember to try to see that the potential competitive teams are […] You need to recognize if a good company is better to be chosen into your group rather than leaving them out. We need to assess the whole competitive situation and the resources. (Interviewee B)*

The formation of the alliance consortium can therefore be seen as a competition of trying to join the winning team and also making sure that others do not get the competitive advantage from companies that are left out.

7.4.4 Previous references to meet the project requirements

Finally, partners are chosen on the basis of what type of references they can bring to the table. Typically, in large projects, the client has a list of required experience from similar previous projects and to even get accepted to give in the tender, the companies and the consortiums need to fulfill these reference requirements. Therefore, companies try to acquire missing references and key people via selecting partners that possess these requirements. "We bought a reference, in a way.", interviewee C sums up.

> *For example, for Project XX we took Company One because of their good references. They [the references] are important. When we are tendering, the people aspect is important as well: if we cannot find the people with suitable key people [within our company], we need to starting partnering at latest. (Interviewee E)*

Obviously the fact that we have sufficient references so that we are able to participate the tendering process is important. […] In project XYZ […], only 3 or 4 companies got to the assessment level. The scoring was based on the contract notice and the reference requirements and they were so enormous that Finnish companies did not have such references. We could have taken a European partner that would have had vast references and hence great scores in that phase, but we knew that the final choice in project alliances is based on alliance capability, not the references per se. (Interviewee A)

Furthermore, the clients might evaluate key people that are required from the consortium, which makes the partner selection to be influenced by selecting companies on the basis of who would be their key people.

> *The client poses requirements for the employees as well. So, in some cases, we have chosen to partner with someone assuming that a planner would have this and that person to be the project leader and then we have chosen a contractor partner so that they have this specific person. Then the client publishes the contract notice and these types of employees or those roles are not given any weight on. This is a very challenging situation. (Interviewee F)*

The issue here is that as partner selection is made based more or less on expectations and previous experience of what the client might require, the references and key people that have been acquired, can turn out to be unnecessary, if this time these types of references are not evaluated.

8 DISCUSSION

8.1 The partner selection process steps

The findings show that five distinctive phases can be distinguished from the partner selection process. Based on the results discussed in Chapter 6, Figure 7 presents a framework of the process phases in a project alliance partner selection. The purpose of Chapter 8.1. is to discuss each of the phases in detail and compare them to the existing literature.

Figure 6 Project alliance partner selection process phases

Unlike in a strategic alliance, where a need or an opportunity for a strategic alliance initiates the partner selection process (Dent 2004; Schaan & Kelly 2007), the initiator in the project alliance environment is the *preliminary information* about a new project, which is the first step in Figure 7. Lahdenperä (2012a, 12) mentions that the formation of a consortium should *at latest* be started when the contract notice is made, but the results show that none of the companies wait until the announcement. Instead, the formation of the consortium starts immediately once reliable preliminary information on an upcoming project starts to spread.

Depending on the project, the formation may then begin even a year before the contract notice is published. The source of information is typically the client itself, with whom companies clearly have various type of relationships with. Nevertheless, at this point, everything is based on the assumption that a client finally chooses to use the project alliance model. But since the companies want to choose the best partners, they cannot risk *not* allying with someone from the beginning, unless they are confident that they will find a competent partner elsewhere. Because companies partner so much in advance, the importance of receiving information early is highly emphasized. The interviewees criticize the clients of giving too broad and inconsistent information, as they need to select partners based on these vague terms. As an example, the company does not know what roles are given emphasis on in the tender scoring. Therefore, although companies do not have an idea of what kind of people the client has, it still needs to choose a partner.

Resources are linked to the second phase of the selection process – *the self-assessment*. In strategic alliances, companies start by assessing themselves in terms of for example resources, strengths, culture and then start identifying a suitable partner (Schaan & Kelly 2007; Dent 2004; Duisters et al. 2009). This is similar to the project alliance, in which the company performs a self-assessment phase as well. However, due to the scarcity of information and time limits, the assessment includes merely an educated guess on how much resources would be needed for the project and what are the capabilities the company possess for this particular project. This affects the choice of partners greatly, since if the company sees that it can win the tender and deliver the project alone, it will not partner with another company. In case it evaluates that more resources are indeed needed, it seeks to partner with another company, either from its own expertise sector (a contractor – contractor or a planner – planner dyadic consortium) or from the other sector (a contractor – planner dyadic consortium).

The authors of strategic alliance literature suggest that the selection process is based on short-listing prospect candidates against a list of criteria (Schaan & Kelly 2007; Cummings & Holmberg 2012; Twardy-Duysters 2009; Sun 2009) or simply examined on the basis of distinctive aspects (Duisters et al. 2009; Solesvik & Westhead 2010). Within the context of the project alliance, the *evaluation* phase is similar to the latter option. Companies tend to analyze prospect companies by listing various factors and ranking the

firms accordingly, which indicates that the process is also based on facts rather than a gut feel. Most of the companies do not utilize any type of systematic approach, which has been identified as a successful method in finding a sufficient partner in strategic alliances (Twardy-Duysters 2009, 2–3; Cummings & Holmberg 2012, 154; Nijssen et al. 1999). Equivalently to Ring and Van de Ven (1994) and Das and Teng (2002), some respondents argued that the complexity creates challenges in examining and choosing the correct partners. Bierly III and Gallagher (2007, 135) suggests that systematic evaluation of partners is difficult due to the insufficient amount of information about the prospect companies, but this does not seem to be the case with project alliances in Finland, as the actors are familiar with each other.

The findings of Pidduck (2006) indicated that the evaluation would be only seemingly rational, as the decisions would in fact be based more on factors such as personal preferences. The present thesis does not support this view as although the companies would already be partners in one alliance, they examine all alternatives for another upcoming project. Furthermore, old partners are not seen automatically as superior to new partners, as explained further in Chapter 8.2.

The evaluation phase in a project alliance varies greatly depending on the case as it defines which factors are valued. Moreover, the evaluation phase in project alliances is short because of the fear of losing a preferred partner to a competitor. This highlights the importance of having sufficient information of the capabilities, strengths and weaknesses of possible prospect partners. This information is largely based on market knowledge the directors and the company as a whole possess. Previous experiences as well as public information of the prospect partners steer the evaluation process. Finally, while some argue that a systemizing this evaluation phase would be redundant, others predict that more systematical processes would lead to a better result in terms of partner selection and they will implement it in the future.

The fourth phase of the project alliance partner selection is *contacting and negotiating*. Despite this process phase is not widely mentioned in previous literature, its importance in project alliances is noticeable. While the negotiation phase is mentioned by Sun (2009), Twardy-Duysters (2009) and Schaan and Kelly (2007), the content differs between strategic and project alliances. In terms of the former ones, the negotiations are depicted as more specific negotiations between the parties. This is natural as both parties need and want to discuss the details of the possible collaboration. With the project alliance, on the other hand, the negotiations are short since they are mainly based on assumptions. Also the contacting phase is different from strategic alliances. In project alliances, companies contact only one company at a time to see if the consortium for a particular project would be feasible. Meanwhile with strategic alliances, the selective company tenders the prospect partners and chooses the one they evaluate as the most suitable one.

Further emphasizing the significance of being early in the market, also the contacting phase relies on companies acting fast and starting to communicate with the prospect companies. It is not unusual that a company who has chosen a preferred partner, contacts them only to find out that they have already agreed to join or create another consortium.

However, existing consortiums may or may not continue their collaboration if information on another similar project arises while working on the previous project. Lahdenperä and Kananen (2013, 10) stated that companies have a tendency of choosing companies they are used to work with. While this may hold true, the interviewees did not see previous relationships as a major positive factor when considering new alliances. Bierly III and Gallagher (2007, 137) highlight that the trust accumulated from previous relationships may mislead a company to not assess actual difference-making factors, but this does not seem to be the case within project alliances, as the participating companies claim to assess all options based on this particular project.

If both are satisfied with each other after the short negotiations, the companies make the *final choice of a partner* at phase number five and agree to form an alliance. This is the case only if project alliance will become the procurement model in the project discussed. This letter of intent is therefore only applicable in some situations. As more information is received, the companies also start engaging into closer collaboration by beginning to discuss the project and organize themselves in order to be competitive in the tender. This phase naturally differs from the strategic alliance model, in which after the negotiations, the parties form the alliance and start making the necessary agreements and fulfilling them (Twardy-Duysters 2009).

Simultaneously when agreeing on forming a consortium, the companies start assessing whether they now possess enough resources and capabilities or if more partners are still needed. This is why the partner selection process is depicted in a form of a cycle. Since the companies, which now form a dyadic consortium, may need more resources or capabilities, they will start the process again from phase two: self-assessment. After assessing whether the consortium now has sufficient means for the project, they will either stop searching for partners or evaluating new prospect companies. At this point, all decisions are made mutually within the consortium in order to function for the benefit of both companies. After evaluating and choosing the preferred prospect company, they contact it, go through negotiations and finally possibly make a final decision of adding a third player into the consortium. In this manner, the cycle continues until at the self-assessment phase the consortium sees that it possesses enough resources to participate the tender and deliver the project.

It is noteworthy, however that the number of companies in a consortium is aimed to be as small as possible. Integrating employees into an alliance organization is seen as a challenging task even between two companies and the more players there is involved the more difficult it is to form a unite and effective alliance organization.

8.2 Selection factors influencing the choice of a partner

Chapter 8.2 discusses the different factors influencing the choice of a partner in a project alliance. The results introduced in Chapter 7 show that in addition to the three groups derived from previous literature, a fourth group has been found to affect the choice in a project alliance environment. Table 16 summarizes the key findings: four main categories in which there are 15 factors that influence the choice. The purpose of Chapter 8.2. is to elaborate the key findings and compare them to previous literature to discuss them further.

Table 16 Selection factors influencing the selection of a partner in a project alliance

Selection factor group	**Specific factors**
Task-related selection factors	• Technical capabilities • People • Knowledge-based capabilities and cooperation skills • Resources and size
Partner-related selection factors	• Strategic fit • Trust • Company culture • Previous relationships
Learning-related selection factors	• Knowledge sharing • Partner novelty
Project alliance specific selection factors	• Alliance capability • Willingness and commitment • Allying with the winning team • Previous references to meet the project requirements

Each of the four categories presented in Table 16 are discussed in detail in Chapters 8.2.1 – 8.2.4. By highlighting the most important findings and linking them with the existing literature, the contribution of the thesis on selection factor literature is made evident.

8.2.1 Task-related selection factors

Technical capabilities are widely underlined by the interviewees, many of whom regard it as the first factor the company looks at while evaluating prospect partners. The industry stakeholders have been worried that the weight of technical capabilities in alliance projects is too small when choosing a consortium to deliver the project. This stems from the idea that the tendering process would emphasize personal relationships too much (Rakennuslehti 2018). In terms of project alliances, the project-specifity plays a crucial role as in finding an adequate partner depends on having the correct capabilities for this particular project so that they possess the skills to actually deliver the project.

The knowledge-based capabilities that are assessed in project alliances are akin to those theorized from previous literature (see Wu et al. 2009; Pidduck 2006, 266; Soleswik & Westhead 2010, 845; Hitt et al. 2000, 453, 462; Hietajärvi et al. 2017; 413). Leadership skills (managerial experience and skills) are recognized to be of even higher importance than in other collaboration models since the task of the project leader requires uniting employees from different organizations to work for the best of the project. Motivational and inspirational skills are hence valued.

The project alliance model requires more resources in a short period of time compared to other collaboration models. This resource-intensity guides companies to choose partners that they believe to have sufficient resources in terms of for example machinery and people. It was theorized that size would affect the choice of a partner in project alliances, and this seems to be validated by the respondents. While the underlying motives for large and small companies are different (Fisher 1996), both engage in alliances from their perspectives and thus have doubts of each other (Gibson et al. 2014). In project alliances, large companies choose small companies to have access to specific and unique skills and small firms choose to ally with larger players to access larger projects, finance and resources. However, it is noted that small companies are often left outside of the alliances themselves for the benefit of both of the parties and rather chosen as subcontractors so that the risks are minimized.

People could be categorized under resources, but as explained in Chapter 7.1.2, it is placed as a standalone factor due to the fact that different aspects of employees are emphasized: resources refer to people as an unit of production while the standalone factor refers to the individual experise. People is not a factor mentioned widely in the existing literature on strategic alliances, but it may be because the role is distinctive to that of a project alliance. However, the findings of Schaan and Kelly (2007, 101) indicate that personal chemistry is one of the key selection criteria, as the alliance are based on personal relationships. Personal chemistry among not only the partners, but also among the clients is mentioned to be essential by the interviewees. Moreover, the findings of Hietajärvi (2017) constitute that besides finding a partner, companies involved in project

alliances do emphasize the importance of selecting individual people for alliances. In essence, finding the correct people is seen as pivotal for the alliance to succeed as not all people perform well in the alliance setting, which require outstanding team work, presentation and cooperation skills.

Also related to resources, the financial state of a partner was left out of the factors affecting the choice of a partner in project alliances. Despite being the most critical factor in the findings of Twardy-Duyster (2009) and acknowledge by other authors as well (e.g. Buyukozkan 2008, 155; Hitt et al. 2000), the factor has a different nature in the strategic alliance setting. This has to do with the long-term orientation of the strategic alliance, where it is obvious that the financial stability of a prospect partner needs to be sufficient to fulfill the objectives of the alliance. For the project alliance partner selection, it is only relevant that the prospect company has sufficient resources to deliver the single project – something that has not been an issue among project alliances in the Finnish infrastructure industry. In general, Solesvik and Westhead (2010, 853) divide financial resources into two separate factors: *capital for the alliance* and *overall financial stability*, which is related to this issue. In a situation, where companies engaging in project alliances would have more challenges with financials, the capital for the alliance would still be the only worry of the selective partner. In the project alliance context, the risks are always limited, as the contract covers only a single project, as mentioned in the results of this study.

8.2.2 Partner-related selection factors

As to the *partner-related selection factors*, strategic fit, trust, company culture and previous relationships are identified as factors affecting the choice of a partner. Strategic fit has recognized to be a major influencing factor by a number of studies (Bronder & Pritzl, 1992, 418; Medcof 1997, 720–721; Dong & Glaister 2006; Hitt et al. 2000) and the respondents of this study agree that the relative importance is high. Strategic fit is both related to technical capabilities and partner-related capabilities, as the capabilities need to be aligned with the ones the company possesses and on the other hand, the compatibility in terms of strategic objectives and practices needs to be adequate. The interviewees indicate that too much overlap between the partners is seen as a risk as close collaboration will reveal possible competitive advantages to the partner, which in another procurement model would be a direct competitor.

Trust is seen both in this study and in the previous literature in a decisive role. When choosing a partner, the interviewees would not even consider a partner that they do not trust. Although previous literature emphasizes the role of trust (e.g. Suseno & Ratten 2007, 6; Bierly III & Gallagher 2007; Shah and Swaminathan 2008), the interviewees state that in a project alliance, the importance is even higher. This is hypothesized to be

because of the closer collaboration – as partners need to rely on each other more, they need to trust each other more as well. This is in line with the findings of Das and Teng (1998b, 499), who suggest that the closer the relationships, the higher the level of trust and confidence needs to be.

Reputation and trust are claimed to have a correlation as both stem from previous relationships and the track record of the company (see Das & Teng 2006, 133). However, reputation per se is not regarded as an influencing factor as the source is rather previous relationships and knowledge of the company. Dong and Glaister (2006, 586) as well as Wu et al. (2009) suggested reputation to be one of the most important selection criteria, but the local nature of the Finnish infrastructure industry may have an impact on the fact that external reputation is not held of high value. In an international setting, as companies have less information of one another and possibly no previous experiences of collaboration, reputation can be argued to have a higher relevance. Instead, the interviewees discard the external reputation such as brand name and concentrate on the reputation of the prospect partner in the eyes of the client. If the company is known to have bad scores in previous alliance tenders, information that is publically available, they may hesitate to select such a partner.

Company culture is an interesting factor as the respondents have diverging views on its importance. Similar company culture, which is seen as all values, norms, characteristics and behavior that the company promotes (Inkpen & Tsang, 2005), is widely recognized as a positively influencing factor in the literature concerning strategic alliances (Das & He 2006; Buyukozkan et al. 2008; Bronder & Pritzl 1992, 417–418; Twardy-Duyster 2009, 4; Cummings & Holmberg 2012, 147; Duisters et al. 2007, 776). The findings of Bronder and Pritzl (1992, 417–418) introduces various attitudes towards an unfamiliar company culture: similarity, assimilation (unification), transfer and rejection. On this basis, it is noted that the discrepancy of views presented in this study may reflect the company cultures the interviewees present. Furthermore, the experiences they have had in project alliances may skew what they think is the optimal attitude towards the issue of different company cultures. Therefore, while some companies have positive experiences of having a similar company culture, they may want the future collaborations to be similar to this. Meanwhile, others stated that the baseline is that the companies build their own culture, leaning more towards unification of two different cultures. Thus, company culture is argued to have an impact on the choice of a partner, but it remains somewhat uncertain what kind of impact it is and where it stems from.

The last partner-related selection factor is previous relationships, which are referred to as external social capital of the firm in the literature on social capital (e.g. Hitt & Ireland 2002; Yli-Renko et al. 2002). Previous relationships have been noted to impact the selection process positively (Das & He 2006; Saxton 1997; Chen et al. 2012, 108; Pidduck 2006, 266; Cummings & Holmberg 2012, 147; Li & Rowley 2002), and lower the

adversity of a relationship (Saxton 1997). Additionally, as mentioned, previous relationships have a positive effect on trust (Das & Teng 2006, 133). The results of this study indicate that previous relationships do have an effect on partner selection. The quality of the past relationships determines whether the effect is positive or negative. However, previous relationships are not considered to be a decisive factor, but rather a facilitator that mitigates the barriers for starting a new alliance for another project. This relates to the findings of Pidduck (2006, 267), which suggest that prospect partners are often found via the social networks of the company. Therefore, if the connection is already present and everything works well, a relationship encourages to continue on a new project.

8.2.3 Learning-related selection factors

The learning-related selection factors consist of two factors: knowledge-sharing and partner novelty. Learning-related factors were first introduced in the framework of Cummings and Holmberg (2012). However, knowledge-sharing was introduced as a selection factor already in earlier literature as it was found to be useful for the alliance as a whole (e.g. Grant & Badenfuller 2004). Knowledge-sharing has been noted to happen constantly within alliances (Ireland et al. 2002, 432) and thus also promoting team work and mutual learning (Dyer and Nobeoka 2000). The results of this study do not indicate that companies involved in project alliances would evaluate the knowledge-sharing of prospect partners. Instead, it is seen as such a natural way of working in an alliance that it is not even doubted that a company which is chosen as a partner would not be completely open regarding the knowledge-transfer inside the alliance.

On the other hand, because of this openness and knowledge-sharing, some partners are not considered, as they are believed to learn too much from the cooperation when thinking about the long-term competitiveness of the company. Therefore, knowledge-sharing does affect the selection, even if it is partly overlapping with strategic fit.

Partner novelty is a factor that has not been presented in previous literature. Partner novelty indicates the willingness of companies wanting to work with a partner they have not had previous alliances with. The idea of choosing such a partner, stems from the learning perspective. This is because the belief is that new partners always have something to learn from and hence the selective company can develop while working in an alliance. Learning points can be related to new insights, practices and ways of working. Furthermore, another motive to choose novel partners is to maintain relationships among all companies in the market. A company does not want to sustain collaborative relationships to only one or a few partners, because it is possible that these partners do not possess capabilities needed for future projects and the company is not capable of

working with other companies than the one they have. When choosing novel partners, the option to collaborate with all companies is kept open.

The results highlight that partner novelty is not a decisive factor, but rather something that could break a tie if two companies would otherwise be as compatible. Moreover, the choice of a novel partner has to be supported by sufficiency in other selection factors as well in order for the selective partner to actually have learning points.

Knowledge-embeddedness was the only factor that was mentioned in previous literature but was not found to affect the choice of partner in project alliances. Among others, Argote and Ingram (2000) discuss the extent of how well a company can access the knowledge in an external company. Additionally, Nahapiet and Ghoshal (1998, 260) indicate that knowledge-embeddedness affects the performance of alliance. The results of this study do not show evidence of knowledge-embeddedness being evaluated by the selective parties. This may be theorized to be the emerge from the companies not being able to assess the embeddedness, or alternatively, the companies trusting on that full openness required by the project alliance model diminishes the issue.

8.2.4 Project alliance specific selection factors

Finally, the fourth category is determined as '*project alliance specific selection factors*'. This category was formed on the basis of this thesis, as it was discovered that there are specific factors affecting the choice of a project alliance partner that had not been emphasized in existing literature. The project alliance specific selection factors consists of four factors that derive from the uniqueness of the project alliance compared to other collaborative models. These four factors that companies focus on, are: alliance capability, willingness and commitment, allying with the winning team and previous references to meet the project requirements. The uniqueness of the project alliance model has been noted by other authors as well (Walker & Lloyd-Walker 2015). Hietajärvi (2017) constitutes that "there is no doubt that working in alliance projects demands new capabilities from the participating organizations and actors."

The project alliance emphasizes on issues such as close cooperation, common goals, risk sharing and collaborative culture (DTF 2015, 10; Wood & Duffield 2009, 6; Walker et al. 2002; Ross 2003, 3; Sakal 2005, 72). In real life, these aspects arise from practices and methods used both while tendering and while delivering the project. Practices include for example big room working, open-book accounting, workshops with the client, aligning common goals, working in the interface between construction and planning, presenting, writing, summarizing plans and other work within the team. To address these skills, the companies evaluate the alliance capability of a prospect partner.

Existing literature on strategic alliances has discussed alliance capabilities as an integral part of capabilities but the frameworks for partner selection have neglected the factor altogether. Literature on project alliances on the other hand, have recognized its importance (Fernandes et al. 2017; Hietajärvi 2017). Moreover, the results of this study indicate that alliance capabilities consist of skills that are mainly learned from previous project alliance experiences. All interviewees highlight previous project alliance experience as an important factor, since the skills are essential to be able to compete in the tender and ultimately win the project as a consortium. This is aligned with existing research, which has evidently noted that previous alliance experience improves learning within the companies (Kim & Inkpen 2005).

The findings of this thesis shows that the selective firms also assess the willingness and commitment of the prospect company. More specifically, commitment is firstly needed to be involved in the intense process of forming a team for an alliance project and willingness to learn contemporary ways of working. A number of companies in the market are unwilling to be involved in the project alliance model and do not want to learn the logic behind the model. The projects are time-consuming for the companies because the projects require presence due to the methods of working and thus full commitment is expected. Moreover, commitment refers also to collaborate in future projects, which was brought up by one of the interviewees. This follows the description of Ross (2003, 19), in which project alliances are seen as a possible source for longer partnerships, such as strategic alliances.

Allying with the winning team is as well a project alliance specific selection factor. Especially smaller firms, which cannot influence the success of the project as much as larger companies, tend to search for a consortium or a single firm they assume possesses the best chances to win the tender and thus be selected to deliver the project. Companies want to ally with someone they think is capable and could be selected by the client and therefore they need to assess, which players have the best overall capabilities. Furthermore, allying with the winning team includes other tactics in choosing partners so that a competitor does not acquire them. The overall market situation is evaluated to not only pick the companies a consortium needs to win, but possibly also some in order to diminish the chances of competitive consortiums.

The final factor included in alliance specific selection factors is selecting companies based on their previous references to meet the project requirements. A unique aspect to the project alliance is that the client may require certain types of references to ensure the capabilities of the companies. Therefore, if the consortium has sufficient resources but is lacking references, they cannot participate the tender. In this situation, the consortium ‘acquires’ references by partnering with a firm that has adequate references.

8.2.5 The relative importance of the selection factor categories

The relative importance of each factor category was probed. Although the purpose of the study is not to determine which factors weight the most in selecting a partner, the interviewees were asked which factors they saw to be the most important. Despite the interviewees had difficulties to respond which category they would appreciate the most, analysis of the data shows that people, technical skills and alliance capabilities were most frequently mentioned among the most important factors. Additionally, the interviewees mentioned that people chemistry and trust play in a highlighted role in the project alliance context, when compared with traditional procurement models.

Previous literature is contradictory regarding the relative importance of different factor categories. Dong and Glaister (2006, 582) discovered that technical capabilities are more important than partner-related factors. However, it must be noted that the authors examined international alliances and thus the results should not be generalized for domestic alliances. On the other hand, other research suggest that no strong argument can be made of which category would be the most important. Cummings and Holmberg (2012) carefully suggested task-related selection factors to be slightly more important. Wu et al. (2009) indicated that factors similar to those of partner-related would have greater weight than task-related factors, but the study was conducted with Taiwanese technology firms who sought for internalization and thus cannot be overly generalized. Similarly, Arino et al. (1997) suggested that partner-related selection factors would have been of higher importance than task-related factors, but this study was conducted with European companies searching for a partner in Russia, a situation where compatibility, culture and other soft values are rated high.

No consistency can be generalized from the previous research and as the purpose of this study was not to explore the relative importance, no arguments are made for either case. The respondents also argued that the weight of different factors depends case by case and that multiple factors have similar weights.

Findings of Hietajärvi (2017) do propose that softer values, such as ability to reflect and to interact, are valued more in Finland compared to Australia, where the emphasis is on business skills and competence requirements (Walker & Lloyd-Walker 2015). However, Interviewee E made a point by stating that the weight is shifting back towards the traditional view of technical capabilities being valued more. The reasoning behind this is that when the market actors did not have experience of the project alliance model, which valued very contemporary skills, such as alliance capability, those soft factors were overvalued. Now, as all major companies already possess alliance capability at some level, technical capability is again increasing its importance. Australia has implemented the project alliance in infrastructure for already a longer period of time, which could illustrate the similar learning curve as what the Finnish market is experiencing.

8.3 The project alliance partner selection framework

Combining the proposed framework for the project alliance partner selection presented in Chapter 8.1. and the factors influencing that process, presented in Chapter 8.2., the thesis suggests a complete framework for choosing partners for project alliances, depicted in Figure 7.

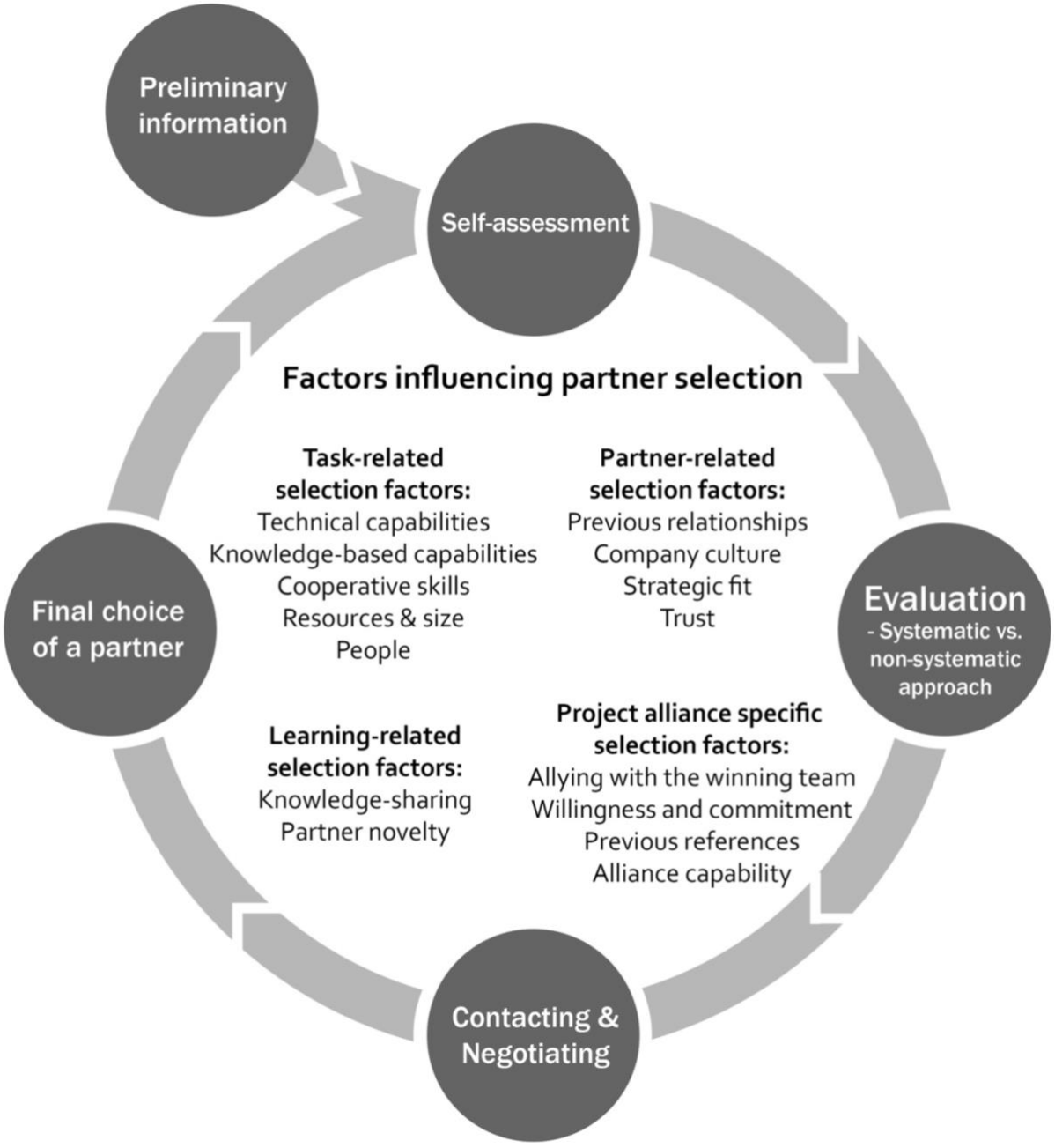

Figure 7 The framework for project alliance partner selection

The proposed framework synthesizes the answer to the two research questions presented in Chapter 1.2. The process is illustrated with five different phases, answering the research question of how the partner selection process is organized during formation

of a project alliance. The process with all its details is described in in Chapter 6, followed by an in-depth discussion in Chapter 8.1. Furthermore, the second question of which influence the selection of a partner, is illustrated with the four categories of selection criteria. The results of Chapter 7 represent the interviewees' outlooks, which are further discussed in Chapter 8.2.

Compared to the preliminary partner selection framework in Figure 5, the difference appears to be significant. The preliminary framework is based mainly on the frameworks established by Twardy-Duysters (2009) and Schaan and Kelly (2007) and it depicted the process to be linear. This thesis discovered that a cyclical process describes more sufficiently how partners are chosen, as companies continue the search until an adequate number of companies have been partnered with. It is emphasized that after two companies have decided to partner with one another, they make the choices of future partners mutually.

Furthermore, the number of steps in the process is five, while the preliminary process presented seven steps. This shows the simplicity and fast pace of the partner selection in a project alliance, as the time to choose a partner is limited as well as the information of a forthcoming project. The five steps include preliminary information, self-assessment, evaluation, contacting and negotiating and the final choice of a partner. The first step initiates the partner selection, as the client distributes preliminary information of what the forthcoming project may include. Based on this information, the selective companies start assessing what capabilities they possess and what additional resources they may need from other companies to deliver the project. In the third phase, prospect companies are evaluated and compared, followed by contacting and negotiating with the one that is seen as the most adequate one. After negotiations, the selective company make a final decision whether to partner or not. If a dyadic project alliance is formed, the companies start to assess together whether they need a third party to deliver the project, and the process starts over.

Any firm that wants to pursue project alliances, may initiate the partner selection process. In general, this company has either received the information first or is the fastest to begin the selection, which can be seen as giving an edge to it. Some interviewees point out that planning organizations usually receive the information first as they work in close cooperation with the clients regarding related projects.

As to the selection criteria, the basic categorization remains similar to the theoretical framework, but an additional category is presented. The factors are split to task-related, partner-related and learning-related selection factors, but a novel category, the project alliance specific selection factors, was found to influence the choice. This category new to the body of literature consists of four factors: allying with the winning team, willingness and commitment, previous references and alliance capability.

It is noted that the categories overlap with one another, but in order to present the different factors affecting the choice as accurately as possible, factors are divided in categories that stem from existing literature. It is noted, however that the typology by Geringer (1991) and Cummings and Holmberg (2012), which is in practice the only existing categorization for selection factors, is fundamentally troublesome in categorizing various factors without overlapping. This is especially true with the project alliance model, as its characteristics differ from other collaboration models (as presented in Chapter 2.2) and thus some factors do not fit under only one category. For example, alliance capability deals with not only task-related factors, but also partner- and learning-related factors, as in addition to knowledge-based capabilities, it emphasizes new ways of working, unified strategic goals and knowledge-sharing. These factors were specifically emphasized by the interviewees under alliance capability, so it was lifted as its own factor and included in the project alliance specific selection factors, which highlight the distinctive aspects of the model.

9 CONCLUSIONS

9.1 Theoretical implications

This study has examined the partner selection of the project alliance. It has extended the current understanding of how companies pursue the selection of a partner for an alliance and which different factors influence the choice of a partner. This chapter provides the theoretical implications of the study based on the findings and discussion, presented in Chapters 6, 7 and 8. The theoretical findings and contribution of this study are summarized in Table 17.

Table 17 Research questions and theoretical findings

Research question	**Theoretical findings**	**Contribution**
How is the partner selection process organized during formation of a project alliance?	Determining the different phases in the project alliance partner selection process. Determining a cyclical process, in which partners continue the search until adequate number of partners have been found. Describing the special characteristics of the project alliance partner selection process.	A model for project alliance partner selection process.
Which factors influence the partner selection?	Division of 15 factors that influence the partner selection in four different categories. Determining four project alliance specific selection factors. Determining which factors are emphasized when choosing partners for project alliances.	A list of factors that influence the partner selection in project alliances.

Firstly, the thesis provides *a deep and detailed understanding of what kind of process companies undergo when choosing a partner for a project alliance*. Previous research has not portrayed the selection process of the relatively new form of collaboration, the project alliance. The findings show that partner selection process in a project alliance consists of the preliminary information -phase, which initiates the cycle, and four distinctive phases performed by the company: self-assessment, evaluation, contacting and negotiating and final choice.

The project alliance model distinguishes clearly from strategic alliances as a more intense, short-term project, which emphasizes collaboration, as the profits and risks are carried mutually. The differences between the two models also affect the partner selection process. The process phases presented in this thesis differ from previous literature in four essential ways: the initiation of the selection process, simplicity, time consumption and circular process.

The difference in the initiation of the selection process stems from the different setting between the two. Whereas the strategic alliance begins with identifying a need for a partnership in order to fulfill a certain task, for example access to resources, expansion or economies of scale (e.g. Glaister 1996; Bronder & Pritzl 1992), the project alliance begins with information on a new market opportunity, i.e. a new project. Any company in the market may initiate the selection process as it receives the sufficient information.

The selection process of a project alliance is significantly simpler than that of a strategic alliance. The process has essentially one step that initiates the process and four steps conducted by the company itself. Compared to the strategic alliance, this is a straight-forward model. There are two apparent reasons for this: firstly, as the request comes from a client, the selection process is not based on fulfilling a certain objective. Secondly, there is not enough information to evaluate all candidates and their fit extensively and finally, time is scarce due to the fast-paced nature of the partner selection

This time consumption is linked to the simplicity of the process. While the complete selection process in a project alliance continues somewhere between one day and two weeks, the selection process of a strategic alliance is more intense and longer in terms of time used. The reason for a fast-paced selection process in the project alliance is the fact that companies partner fast in order to create a contract with the most capable company concerning a particular project.

Finally, the partner selection process of project alliance is depicted as a cycle as more often than not, the number of partners is not limited to one. The project alliances tend to be large in size and as the clients require capabilities that one or two firms do usually not possess, the companies are forced to form larger consortiums. Thus, it is logical to depict the complete process of choosing partners for a consortium. The main finding here is that after one partner is chosen, the two companies are essentially one organization in terms of the single project, which dictates mutual selection for the other partners to come.

The second major contribution of this thesis is *illustrating which factors have an influence on the selection of a partner*. The findings of the research identify four categories of factors that consists altogether of 15 factors that have an impact on which partner the selective company chooses.

The findings related to selection factors are categorized similarly to previous research. Task-related, partner-related and learning-related selection factors are all represented, following the research of Geringer (1991) and Cummings and Holmberg (2012). However, the study indicates that certain factors within those categories are valued in the context of project alliances. The most apparent distinctions can be found with partner novelty and knowledge-embeddedness.

Partner novelty is an aspect that is not mentioned in existing literature, but the findings of this research suggest that companies, in some cases, prefer partners they have not cooperated before with in order to facilitate learning from new perspectives and to maintain good relationships to all potential companies in the market. It needs to be highlighted that partner novelty affects the choice only in a situation in which the prospect partner is otherwise adequate, i.e. possesses necessary capabilities, has previous alliance experience and is suitable in terms of fit.

Knowledge-embeddedness remains as the only factor mentioned in the prior literature that was not shown to have an effect on partner selection within project alliances. The reason remains unclear, but it can be hypothesized that the openness and collaborative culture diminishes the issues concerning knowledge tacitness and embeddedness.

Furthermore, interviewees highlight the importance of people chemistry and trust as opposed to traditional models. Both of which stem from the nature of the project alliance. As the cooperation is closer, team working emphasized and risks are shared, the need for people chemistry and trust is highlighted compared to other types of collaborative models.

Final major contribution of the research is *the fourth category of selection factors, the project alliance specific selection factors*. The findings demonstrate that companies choosing partners for project alliance take into consideration a set of factors, which is not presented in previous studies. Project alliance specific selection factors include four factors: alliance capability, willingness and commitment, allying with the winning team and previous references to meet the project requirements.

Alliance capability is mentioned in a few pieces of prior research, but its role is regarded even more important in this study. The present study highlights the practices, which are learned from previous alliance experience to be one of the decisive factors when choosing a partner. By definition, alliance capability deals with appropriate management of an alliance, in which coordinating, bonding and communication between organizations is seen as the key (Schreiner et al. 2009). Hietajärvi (2017) distinguishes the factor to consist of four skillsets: contractual, behavioral, relational and operational

skills. These skills overlap with other categories, but the essential difference is the implementation of the skills between the employees that come from different companies.

Willingness and commitment are not addressed in previous literature, but its importance within project alliances is found to be evident in this research. As a new procurement model, all of the firms in the market are not aware of what the project alliance requires from its participants and how it differentiates from traditional models. Furthermore, not all companies want or are able to commit as intensely as what the model requires, which makes them unattractive partners for projects.

Allying with the winning team is an additional factor that has not been discussed before, as it serves its purpose only within project alliances. When a smaller operator chooses its partner or a consortium, its aim is to select a partner that it believes to win the tender. As the affluence of the small firm is limited, it needs to do its own evaluations of which is the best partner or consortium. With large companies this is less relevant as they are in a decisive role to affect the end result themselves.

Lastly, companies choose their partners on the basis of their previous references if they fit the requirements of the client. This factor is irrelevant in other collaborative models as usually the firm has full control, but when the requirements are listed by the client, the companies need to respond by acquiring adequate references if they do not possess them themselves. In some cases, relevant references may be the only selection criteria a company needs to choose a partner.

Overall, the new factors can be seen to arise from the special characteristics of the project alliance model. As the model is based on intense cooperation, chemistry between people, interorganizational teamwork and sharing all risks together, the companies want to assure that these are qualities the partner possesses. Therefore, alliance capability, commitment, trust and people are all emphasized, as they determine whether a company is fit to deliver a project jointly.

9.2 Managerial implications

This research provides managers with more knowledge of how to implement partner selection in a project alliance. Through using the proposed framework, the managers have the opportunity to follow the process step by step and address issues that are critical in their particular case. By consciously structuring the partner selection process, the managers have a clearer overview of how the process is undertaken. The thesis does not attempt to propose guidelines of action, but rather depict what phases take place in order for companies to find the best practices to undergo each phase.

Early involvement in the selection process is vital, since in order to find sufficient partners, the companies need to start the process immediately once new information

arises. This underlines the importance of contacts towards the clients as well as knowledge management within the firm. To establish an overview of what the type of partner the company should look for, managers need to emphasize the role of self-assessment, in which is determined what strengths and weaknesses the company possesses for a particular project.

Evaluating is a natural phase for all companies selecting a partner, but managers need to improve their analysis on the basis of what is needed in an alliance and what the company wishes from a partner. Systematical analysis has evidently helped the success of strategic alliances (Twardy-Duysters 2009, 2–3; Cummings & Holmberg 2012, 154; Nijssen et al. 1998) and despite seen as a subjective assessment, it may provide detailed answers supporting the decision making also in the project alliance environment.

Managers then need to consider how they go about the negotiation phase, in which they need to convince the company to become a partner. Taking into consideration the factors that companies value in partner selection, the managers have a better understanding of what relevant skills they possess and what can they improve.

Finally, after making the decision to partner, it is emphasized that further partners are more or less of the same importance as the within the consortium all companies need to be able to work together. Therefore, the managers need to focus on the synergies not only between themselves and the other companies, but also synergies between the other partners.

The factors described in this thesis provide managers an insight of what could be valued when choosing an alliance partner. Furthermore, the factors help to understand what factors are expected from a firm engaging in project alliances. This helps managers to further improve those factors they do not seem to perform as well as in others. All companies do not utilize all of the factors, but the complete overview of the industry aids in creating more detailed analysis.

9.3 Research limitations

This piece of research has limitations that are acknowledged by the author. The limitations arise mainly from the methodology used, the narrow empirical data, and the industry and market chosen for inspection. In addition, limitations concerning the scope of the project alliance model is discussed.

Firstly, it is recognized that the thesis is based solely on one method, which is qualitative interviews. To describe the phenomenon in greater detail, the research could have provided closer inspection via for example a case study. Qualitative interviews are based on interviewees explaining their views on the matter and as the study follows a constructivist perspective of reality, which means that multiple realities are believed to

exist and that none of the ones described by interviewees is the factual truth, but rather their interpretation of how the selection process is organized within the company.

Furthermore, there is no single correct way to analyze data gathered from interviews. A researcher always sees the world through his or her own paradigm and reflects his or her thoughts through the analysis and thus objectivity cannot be reached. To address this, the analysis was conducted by using a software dedicated for coding material such as interviews, which gave the researcher tools to be as objective as possible. Moreover, the researcher has attempted to be as transparent as possible and additionally evaluated the trustworthiness of the study in Chapter 5.5.

Secondly, the data gathered can be seen as narrow to establish a framework for the partner selection of a project alliance. The empirical part of the study is based on seven interviews, representing six different companies. Although the number of interviews is acknowledged to be small, there are clear reasons why only seven interviews is sufficient to describe the phenomenon at this point. As the Finnish infrastructure market is rather small and the project alliance model has been used in only eight infrastructure projects, the amount of potential companies that have been involved with alliances is eight, which is small to begin with. More interviews could have been conducted within the companies that did participate, but due to the small amount of people involved in the selection of a partner, both the interviewees and the researcher concluded that additional data would not have provided further knowledge. During the last interviews, the amount of new knowledge decreased drastically, which may mean that saturation point had been reached. Yet, the usage of the alliance model has stretched for almost a decade in Finland without the partner selection being examined, which provided a lucrative research gap for this thesis. Final remark on the narrow empirical data is the fact that only companies that had experiences of winning an alliance were considered. There are around 30 companies altogether that have applied for alliance projects as a part of a consortium, but most of these companies have never actually been part of an alliance project and thus they were not considered to discuss the model in more detail.

Thirdly, the industry and cultural aspects limit the generalization of the findings of the thesis. The chosen industry was the infrastructure industry, and more specifically road and railroad construction within public procurement. The industry has its special characteristics, such as: small size, a few large operators controlling the market, large companies owned by the government, clients are mainly being public stakeholders and the market consists of mainly domestic businesses. Moreover, the companies are all from Finland and operate mainly in the same market. Thus, generalization for other industries needs to be carefully applied. However, in addition to the infrastructure industry, the project alliance is used mainly in real estate building, in which its importance is relatively smaller than in the infrastructure industry. Also, the project alliance model is not used

widely in other parts of the world than Finland and Australia, which can be seen as the pioneers of the model.

Lastly, the project alliance model being relatively new, it is under constant change. Lahdenperä and Kananen (2013) investigated potential alternatives for the consortium selection: a selection process, in which the parties form the alliance independently and take part in a tender. In addition to the consortium selection, the separate selection process has been used and in fact two of the large projects have been utilizing this version of the model, where the contractor party and the planner party are chosen separately and then 'forced' to cooperate when delivering the project. Due to the fact that more projects have still been delivered using the consortium selection, it is the primary focus of this thesis.

9.4 Suggestions for further research

The implications for further research are diversified. As the topic of project alliances has gained relatively little attention among researchers, there are different perspectives, which could lead towards new knowledge.

Firstly, this study, being qualitative in nature, offers the framework that should be tested in a quantitative study. Although this may require some more time to pass in order for data to accumulate, there are no existing research on which partner selection factors contribute the most to the selection, when discussing project alliances. Similar research has been carried out with the focus on the strategic alliance.

Secondly, since the study focused on interviewing companies that had experience of delivering an alliance project, not companies that had been rejected, it would be interesting to see if there are differences in practices of choosing an alliance partner.

Thirdly, the phase right after selecting a partner is somewhat unknown. The interviewees explained the team building processes in detail, but as they are not part of the focus of this study, they were not considered further.

Finally, as the project alliance model as a whole has been adopted by both the infrastructure industry and real estate business, it would be noteworthy to examine the opportunities in other construction sectors, in for example the manufacturing industry. The model has gained some attention among project management in general due to its practices that facilitate team working, but this perspective could be studied to find more uses for the model. Furthermore, the reason for why the project alliance has not gained popularity elsewhere in Europe remains unanswered. Other Nordic countries utilize an early engagement model, which has some of the attributes of the project alliance model, but the collaboration is not as close as in the project alliance model, which is seen as one of its strengths.

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APPENDIX 1 ALLIANCE PROJECTS IN THE FINNISH INFRASTRUCTURE INDUSTRY

First row, which is in *italics*, indicates the consortium the client chose to deliver the project. Companies in grey are contractors, companies in white are planners. Companies in dark grey have been both contractors and planners.

Lielahti-Kokemäki railway renovation:			2012
VR Track Oy			
YIT Rakennus Oy	WSP Finland Oy	Leonhard Weiss GmbH	
Destia Oy	Destia Rail Oy	Pöyry Finland Oy	Sito Finland Oy
Lemminkäinen Infra Oy	Proxion Oy	FINNMAP Infra Oy	
Strabag Rail GmbH	Graniittirakennus Kallio Oy	A-Insinöörit Suunnittelu Oy	

Tampere Rantatunneli			2013
Lemminkäinen Infra Oy	*A-Insinöörit Suunnittelu Oy*	*Saanio & Riekkola Oy*	
YIT Rakennus Oy	YIT Kiinteistötekniikka Oy	Pöyry Finland Oy	Sito Oy
Destia Oy	Skanska Infra Oy	Ramboll Finland Oy	Kalliosuunnittelu Oy
Graniittirakennus Kallio Oy	Strabag Sverige Ab	VR Track Oy	WSP Finland Oy
NCC Rakennus Oy	NCC Construction Ab	FCG Oy	

Highway 6 Taavetti-Lappeenranta (VT6): Contracting		2015
Skanska Infra Oy		
YIT Rakennus Oy		
Destia Oy		
Kesälahden Maansiirto Oy	Insinööritoim. Seppo Rantala Oy	
Graniittirakennus Kallio Oy	Plaana Oy	

Highway 6 Taavetti-Lappeenranta (VT6): Planning		2015
Pöyry Finland Oy	*Ramboll Finland Oy*	
VR-Track Oy	A-Insinöörit Suunnittelu Oy	
Pöyry Finland Oy	Ramboll Finland Oy	
FINNMAP Infra Oy	WSP Finland Oy	
Destia Oy		
Sito Finland Oy		

Äänekoski railroad renovation	2016
VR Track Oy	
Destia Rail Oy	

Tampere Tramway (Tampereen Raitiotie)			2017
VR Track Oy	*YIT Rakennus Oy*	*Pöyry Finland Oy*	
Lemminkäinen Infra Oy	A-Insinöörit Suunnittelu Oy	Alstom Transport SA	Ramboll Finland Oy
Destia Oy	Siemens	Sito Finland Oy	

Suomenlinna maintenance tunnel		2017
YIT Rakennus Oy	*Pöyry Finland Oy*	
Kalliorakennus-Yhtiöt Oy	Saanio & Riekkola Oy	
Destia Engineering Oy	Kalliosuunnittelu Oy	
Skanska Infra Oy	WSP Finland Oy	

Southern Lahti Ringroad			2018
Skanska Infra Oy	*Pöyry Finland Oy*		
Lemminkäinen Infra Oy	WSP Finland Oy		
YIT Rakennus Oy	Sito Finland Oy	Ramboll Finland Oy	
Destia Oy	A-insinöörit Suunnittelu Oy	Saarnio & Riekkola Oy	

Jokeri Light Rail (Raide-Jokeri): Contracting		(expected) 2019
YIT Rakennus Oy	*VR Track Oy*	
Destia Oy	Destia Rail Oy	
Skanska Infra Oy	Skanska Talonrakennus Oy	
Lemminkäinen Infra Oy	Eltel Networks Oy	

Jokeri Light Rail (Raide-Jokeri): Planning			(expected) 2019
Ramboll Finland Oy	*Sito Finland Oy*		
Destia Oy	A-Insinöörit Suunnittelu Oy	Saanio & Riekkola Oy	Finnmap Infra Oy
Sweco Rakennetekniikka Oy	Sweco Ympäristö Oy	Arkkitehtitoimisto CJN Oy	
Pöyry Finland Oy	WSP Finland Oy	Ratatek Oy	

APPENDIX 2 THE INTERVIEW BODY

The selection processs	How do you go about finding an alliance partner? How do you start the alliance partner selection process? Do you often make the initiative to find an alliance partner for a tender? Or are you usually contacted first? Who is responsible for making decisions about who to form an alliance with? Do you have a special team to make the decisions? Do you attempt to assess yourselves to understand for example the company culture and what partner would fit you the best? Do you systematically screen all candidates or do they go through a certain process? Are the decision based more on the gut feeling or factual analysis? Are you open to new partners or use easily to the old ones? What other companies did you consider for projects you have been involved in? Would you be ready to change partners or work with new companies in project alliances? How do you see the relationships between the other parties, do you consider them? Or do you concentrate on that your own relationships function well?
About the process	How important do you consider the partner selection to be for the alliance success? Does the partner selection play a more important role in a project alliance if compared to traditional models? How can the process be improved?

The selection criteria	What are the most important factors you consider when selecting an alliance partner? Who decides the selection criteria? What are you looking for in an ideal candidate? How do you weight the importance of different criterion? (task-, partner-, learning-) Are capabilities more important than the strategic fit and other managerial issues? Do you change your selection criteria with time? Do you consider case by case which would be the optimal partner for this particular project? How important do you think the strategic fit of the prospect partner is? How much do you rely on old competitors' capabilities? Which task-related capabilities are the most important ones? How much does previous experience from alliances matter? How would you evaluate the importance of trust and where does the trust stem from? Does reputation or general familiarity affect the choice of a partner? Would you say you rather work with larger and familiar companies? / does it feel like large companies dictate what will be done within the alliance? How much weight do you put on previous successful alliances? What kind of role do social relationships and contacts have regarding the choice? Is it important to know someone from the partner company? Do you check the financial stability of the prospect partner? How do you evaluate its importance? How much information do you share in an alliance? Do you learn new ways of working from alliances?
Access and information gathering	How do you find the data about the prospect companies? How wide is your analysis regarding prospect partners, how many companies are involved in this? How much do you know about the other alliance partners?

	Would you think you need more information on prospect partners to make decisions?