Public-Enterprise Collaboration: Overcoming Challenges To Scale Up Social Innovation

Master’s Thesis
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Researchers on both fields – social innovation and cross-sector collaboration have emphasized the critical role of small and medium-sized enterprises (SMEs) in promoting the social-oriented and sustainable solutions. However, despite that positive fact, literature review has shown that SMEs were understudied. In particular, there is a lack of in-depth research on the process of SMEs collaborating with other sectoral actors and on the process of SMEs innovating with social purpose. Therefore, the aim of this thesis was to research under both spectrums - social innovation and cross-sector collaboration, collecting novel insights to shed light into the involvement of SMEs. The research object was to investigate in-depth the challenges attached to the collaboration for social innovation involving SMEs.

This thesis presented the data from a collaborative social innovation involving three research institutions and three SMEs. The process of collecting the data was longitudinal. Researcher was able to immerse into the research setting, working as a group member for a period of time. This has allowed the researcher to conduct both individual interviews and group’s observations.

The synthesis of the theoretical framework suggested that the study of the collaboration for social innovation ought to be analyzed under multiple dimensions: Initial conditions, process dimension and outcome dimension. Each dimension has various driving factors that intertwine and influence each other, both inside and outside of the dimensions. Since the thesis focused on an in-depth study of the processes, the researcher reviewed the process dimension in scrutiny with four main driving forces – mutual understanding, membership and power structure, leadership, and finally trust. These factors are concluded based on reviewed literature as well as the empirical data.

The finding part was structured in accordance with the theoretical framework. The case’s insights have reinforced many theories of reviewed literature. At the same time, there were many noble insights, resulted from the characteristics of the SMEs and the conditions of this particular social innovation. These emerging insights have indicated there were four main specific challenges attached to the process of collaboration for social innovation, with SMEs’ involvement.

The outcomes of this study provided a more in-depth look into the SMEs management field. Actors in the cross-sector collaboration and social innovation are suggested to utilize these empirical results to overcome their own underlying challenges. Other researchers in the future could as well apply these insights into other management cases so as to increase the relevance and create a comprehensive theoretical framework in the SME’s collaboration and innovation management field.
Keywords  PE collaboration, social innovation, cross-sector collaboration, SMEs, collaborative leadership, collective trust, knowledge sharing
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1. INTRODUCTION

“When we bring greater harmony to bear through our relationship with others and the world, we generate a vast creative power for accomplishment for ourselves and others.” – (Posner, 2009)

1.1 Background and research problem

Recently, the majority of literature has developed around the concept of social innovation, which occurred across multiple forms of organization, from for-profit, non-profit to hybrid model and governmental institution (Sam Boutilier et al., 2006; Phillips et al., 2015). Social innovation is defined as “an innovative activity and service that is motivated by the goal of meeting social needs” (Mulgan G., 2006: 146). In C.K. Prahalad and his colleague suggest that social innovation could fundamentally transform the current business practices.

Regardless of the increasing considerations by policy makers and scholars, the number of academic research on social innovation is rather small (Majumdar et al., 2015). The meaning and concept have been discussed in not only social enterpreneurial context, but also in much broader contexts. It could be concluded that social innovation is conceptualized differently in a diverse range of sector and location (Caulier-Grice et al. 2012). This diversity of meanings and uses of the term is suspected to influence the increasing attempts to formulate strategies and road maps so as social innovation can be created and thrived in diverse contexts (Majumdar et al., 2015).

Social innovation could be undertaken by a lone organization. However, it is seen more often as the result from a collaboration of cross-sector organizations (Phillips et al., 2015). Ziegler (2010) highlighted that social innovation is about fostering partnerships that transcend sectoral boundaries, to create new combinations of capabilities that can ultimately benefits to the public as a whole—rather than private value—gains (Phills et al., 2008). Authors such as Crane and Matten (2007), Hess, Rogovsky, and Dunfee (2002) emphasized cross-sector partnership as a channel to leverage the core competencies to address social opportunities and thus engender social innovation.
In the cross-sector collaboration research field, a significant body of academic studies has been focusing on creating the conceptual frameworks for understanding the nature of collaboration (Austin et al., 2012; Bowen et al., 2010; Googins et al., 2000; Stadtler, 2012). By studying numerous cases, researchers have made critical contributions on explaining how authority structures and systems affect the value creation process (Getha-Taylor, 2012). Simply, when partners decide to collaborate, they move beyond from the responsibility for independent results to shared responsibilities, interdependency and organizational transformation (KPMG International, 2016).

Despite the increasing recognition and number of research on social innovation and cross-sector collaboration, I have identified two prominent research gaps in both study fields. Firstly, the process leading to social innovation has not been thoroughly researched, in particular, how social innovation is managed through the collaboration. Secondly, most of the research in the field of cross-sector collaboration and social innovation have neglected the participation of SMEs. Instead, the corporations have been the center of attention. Meanwhile, the collective “grandness” created from the “smallness” of the individual SME is overlooked. Indeed, SMEs create the most jobs in the market (European Commission, 2001; Spence et al., 2001), and are the dominants to the GDP (Morsing & Perrini, 2009). It is important to note that the management theories which traditionally served inside large corporations may not apply to the business of SMEs (Jenkins, 2004), due to the differences in the informal structure and strategic orientation (Hammann et al., 2009). Therefore, collaboration involving SMEs in the study of social innovation deserves more attentions from scholars.

### 1.2 Research questions

This thesis aims at exploring those two gaps in the literature. First, social innovation will be studied in-depth through the process of collaboration. Second, new insights from SMEs involvement in cross-sector collaboration for social innovation will be explored. I would like to emphasize that since the participation of SMEs in the collaboration for social innovation is the key characteristics of the thesis, I would like to name the research object in this thesis as public-enterprise collaboration (PE collaboration) for social innovation. I decided to not use the existing terminology such as cross-sector collaboration or public private partnership because they often
refer to the engagement of big corporations. The term PE collaboration is coined for the cross-sector collaboration for social innovation with the involvement of SMEs.

Taking into account the background review, the thesis needs to answer the following main research question:

**What are challenges related to the process of PE collaboration?**

By answering to this question, I hope to search for interesting new insights about the gaps outlined in the previous section. The social innovation will be examined comprehensively in the collaboration. At the same time, close attention will be paid to the interaction between SMEs and other organizations. Since the literature on this topic is relatively few, I want to focus on understanding the challenges adhered, rather than developing a management guideline.

PE collaboration is a broad topic which can be approached in various way. Therefore, I supplement the main question with a sub-question with hope to guide the research in the direction.

**What is the assessment framework for the collaboration for social innovation?**

This question aims to identify the dimensions and factors that constitute and affect the process of collaboration for social innovation. At first, it appeared to me that social innovation and collaboration were two separate and distinguish processes. However, the literature review has shown that these two are closely influentially intertwining and overlapping each other. The factors influencing the social innovation also are parts of the collaboration’s process. Nevertheless, they are named differently and can easily cause confusion and duplication in the research. Therefore, I need to concise the management literature in order to obtain the most relevant and non-duplicating concepts for the research framework.
1.3 Definitions

The specific terms using in this thesis will be shortly defined in the following.

**Social innovation**

In this thesis, social innovation is defined in accordance with Seelos et al. (2007). Social innovation is about using the innovative capability to address social needs. Thus, the world has observed various innovative types of collaboration. Many authors suggested that one of the best ways to stimulate and scale social innovation was through the deployment of collaboration between cross-sector organizations, such as entrepreneurs, NGOs, academic institutions and governments (Seelos et al. 2007; Osburg & Schmidpeter, 2013).

**Cross-sector collaboration**

In this thesis, the definition of cross-sector collaboration is combined from various scholars. In cross-sector collaboration, actors from two or more sectors voluntarily co-imagine and co-create complex systems of value (Dahan et al., 2010) to solve a mutual concern (Waddock, 1991). The collaboration allows sectoral partners to join alliances and benefitting each other resources and assets (Ählström, Sjöström, 2005). The terminologies such as collaboration, partnership used in the thesis are referred to as cross-sector collaboration. Partners, members are used interchangeably to illustrate the organization participating in the collaboration.

**Small and medium enterprises (SMEs)**

SMEs’s definition used by Spence (1999) will be used in this thesis. He described SMEs as enterprises that besides employ fewer than 50 people, they also have owners acting in the role of managers (Spence, 1999). Through these multitask positions in the organizations, SMEs manage to have a high degree of informal and interpersonal relations with the external environment or communities in which SMEs often act as benefactors or local activists (Enderle, 2004).

**Knowledge sharing**

Knowledge is regarded as the key asset for any organization to achieve innovation performance. Knowledge sharing has been viewed by various scholars as a social-relational process. Through
this process, the knowledge possessed by individuals will be made available to others in order to yield performance. (Boer, 2005; Ipe, 2003)

1.4 Thesis structure

I divide the thesis into five different chapters. In the first chapter, I present the underlying research questions and objectives that guided the whole research process. After that, I will explain in detail the theories behind the research framework. This framework was built based on previous studies in the field of social innovation and cross-sector collaboration. A new factor that brought the novel dimension to this research was the study of SME’s characteristics and involvement will also be investigated. Consequently, I introduce the research methodology in chapter three. Finally, I unveil the findings and discussion from the empirical, the NET collaboration. At the end of the chapter five, I will discuss the research limitations and suggest further research directions.
2. LITERATURE REVIEW

This part presents the research framework that was constituted from current studies on relevant fields. First, an overview of the research context, research gap and research object will be discussed. Second, a concise theory on the collaboration for social innovation process will be presented. Finally, the theoretical framework for this research will be summarized.

2.1 SMEs - the promising but neglected social actor in the collaboration for social innovation

In this section, I will first define the concept of social innovation, cross-sector collaboration. After that, I will open up the topic of how SMEs’ role is important but has been neglected in both fields.

2.1.1 Social innovation and its process

The term “social innovation” could be understood easily by defining each element in this concept, Social and Innovation. Social innovation implied the normative approach of an innovative product or activity that is created to address a social need (Mulgan, 2006). According to EU Commission (2013), social innovation also drives “new social relationships and collaborations”. It has been proven to be true since we have seen occurring across the continents many new forms of organizations, businesses, and new type of collaborations.

Innovations can be categorized as radical or incremental innovations. This categorization is applicable to social innovation. Commonly, people often mistake innovations must be groundbreaking. Those are called radical or disruptive innovations. Indeed, majority of innovations are just constant improvements of a product or service and they could be small change. This type of innovation is called “incremental innovation”. In a product development cycle, radical innovations are believed to be found in earlier phases. On the contrary, incremental innovations tend to be seen towards the end of the product’s cycle (Garcia & Calantone, 2002).
In the past, innovations were often created or studied in a closed environment. It was partly because of strong intellectual protection policies from organizations. However, in today’s world, the fierce competition has pushed innovation to a new level that makes the indoor ecosystem obsolete and inefficient. Open-innovation “the use of purposive inflows and outflows of knowledge to accelerate innovation” has become so popular (Chesbrough, 2003: 1). Open innovation results in collaboration, inside the industry and outside the industry. Indeed, cross-sector collaboration has become a crucial source of open innovation (Edwards-Schachter et al., 2012).

Social innovation, under different concept views, is either tangible and intangible innovation (Choi & Majumdar, 2015). According to Choi & Majumdar, social innovations are unquestionably aiming at the formation of social value. It means creating new product and technology to address the urging social needs and to well-being of both human and environment. Therefore, social innovation is tangible. Simultaneously, they also acknowledge other researchers’ views on social innovation not being manifested as a material object. Rather, the word “social” emphasizes that it happens on the level of social interaction and social practices. Hence, social innovation is intangible (Choi & Majumdar, 2015; Howaldt & Schwarz 2010).

Social innovation shares many similarities with the concept of social entrepreneurship, social enterprise and social business. They are all driven by the existence of social problems unsolved. According to Bhatt and Altinay (2013), there are three phases in the social innovation process. Diagnosing and propose initiative solutions is the first phase. The second phase is about the development of social innovation. In this stage, social innovation requires obtaining further commitments and resources, either through philanthropy, or strategic partnership. These new resources will assist with directions, exchange of experiences, knowledge sharing, and financial development. The last phase of the social innovation process is called expansion of operations. This stage includes activities that can expand and scale the level of performance and social value creation. There are two ways of scalability: scaling up and scaling deep (Smith & Stevens, 2010). In order to scale up a social innovation, it requires the expansion to other geographical regions. In order to scale deep, the social innovation is improved to enhance the creation of social value in the place of origin.
In Mulgan et al.’s report, they described three similar stages inside the process of social innovation: generating ideas; developing and piloting; and lastly scaling up. The report extended the understanding of this process by finding the similarities and differences in various sectors. Each sector has distinct patterns, drivers and consequently, the processes of innovation. It is vital to seek the understanding in order to promote the social innovation.

**Social organization and enterprise**

There are many successful social innovations which have been promoted by social and business organizations. The process often starts with an individual or community’s problems and passions. After that, the prototypes are built alongside with securing resources through angel investors and donors. Scaling up social innovation in social organization and enterprise often takes longer time because of the need to align a more complex set of allies and a more complex economic base. (Mulgan et al., 2006)

**Academia**

Social innovations developed in academic environment go through different route. Usually, it involves universities research, academic evaluation and peer recognition. After that, the innovation can be spread. In Mulgan et al.’s report, academia was believed to lack mechanism for cultivating and disseminating good ideas. Universities mainly think about employing social laboratories to connect users and innovations, and incubation to find ways to deliver to social values to designated beneficiaries. And this might not seem the best way to scale up the social innovation. (Mulgan et al., 2006)
2.1.2 Cross-sector collaboration

Government, the nonprofit sector and the profit sector are increasingly recognizing the shortcomings of standing alone in solving increasing social problems (Wilson, 2011). As discussed above, each sector meets its own difficulties when trying to scale the social innovations (Mulgan et al., 2006). Therefore, in the face of skill deficits and scarce resources, multiple parties have come together, contributed complementary capabilities in order to deliver a mutual value in better and more innovative ways, while minimizing risks and costs (Dahan et al., 2010). This cross-sector collaboration model is at the moment receiving great promotions in the belief that it increases the possibilities of tackling the social, economic and environmental challenges (Jørgensen, 2006).

In cross-sector collaboration, actors from two or more sectors voluntarily co-imagine and co-create complex systems of value (Dahan et al., 2010) to solve a mutual concern (Waddock, 1991). There is a great amount of study in the literature, trying to examine how motivations affect the cross-sector partnerships. The motivations could be short-term, self-interest oriented, or larger-term, largely common-interest oriented (Selsky & Parker, 2005). Selsky and Parker have identified 3 different platforms for understanding cross-sector partnership’s motivation. These 3 platforms are resource dependence, social issues and societal sector.

*Resource dependence platform*

Nonprofits and businesses nowadays are seeing more common interests which allow them to join alliances and benefitting each other resources and assets (Ählström, Sjöström, 2005). In the resource dependence platform, partners in different sectors are believed to focus on acquiring expertise and accessing to needed resources (Barringer & Harrison, 2000) that could help them solve their own needs and problems (Macqueen, 2014). The partnership becomes a tool with which the organizations gain critical competencies that they cannot develop on their own (Child & Faulkner, 1998).

According to Selsky and Parker, in the resource dependence platform, the organizations act upon fixed sectoral roles and contribute the resources according to those fixed roles. For example, the
role of business is to maximize the benefits of shareholders, the role of nonprofit is to pursue a social mission or strengthen a social value, the role of government is to respond to interest-group demands, etc. In summary, this type of motivation behind the cross-sector partnership is considered narrow, instrumental and short-term oriented (Selsky, Parker, 2010). Partners join the co-creation with the self-interest to resolve the resource and capability deficit with the added benefit of solving a social issue. The outcome of the transactional, short-term co-creation intention would only result in hardening the distinction between sectors, promoting “organization’s autonomy” and minimizing the “interorganizational dependencies” (Gray & Wood, 1991).

**Social issue platform**

Society is facing increasing severe issues related to unsustainability. Most of these unsustainable matters manifest as “wicked” problems (Armistead, 2007) that exceed the scope of single organizations. Wicked problems have no provable solutions, in which the implementation pathway can lead to “different consequences for different groups of people over an extended period”, and possibly generating other equally wicked problems (Macqueen, 2014). Governments and nonprofits traditionally work in this area. However, as the rapid information exchange increases, public expectations (Post et al., 2002) and external pressures (Andriof, Waddock, 2002) have been shifted with the belief that business actors should also address the wicked social issues (the main argument is that business contribute its big part in causing the problems). As such, multi-collaborations across sectors are more and more seen as viable options to address the social issues successfully (Selsky, Parker, 2010).

The motivations of partners joining this type of platform are considered more normative than the resource dependence platform. In another way of saying, organizations in the partnership are seen to have social responsibility (Selsky, Parker, 2010). Yet, many scholars criticized that social responsibility from businesses arises from short-term intention and selfish gains (Fitch, 1976). They suggested that the social issues or partnerships are often selected because they support strategically the shareholder’s value (Elbers, 2004; Utting, 2002) and help gain social legitimacy in markets which businesses are viewed with suspicion or skepticism (Dahan et al., 2010).
Societal sector platform

The motivations behind this platform are considered as the most normative and long-term oriented (Selsky, Parker, 2010). Departing also from the contemporary social challenges and arising resource deficit, the sectoral partners in this platform has decided to seek partnership as a new way to look at their roles, functions and values. The relationship formation between governments, businesses and nonprofits is increasingly blurring the boundaries between sectors (Prakash, 2002; O’Riain, 2000).

There are several factors that promote the sectoral blurring in our present world. With nonprofit and government sectors, the economic downturn has brought the increase in unemployment and the reduction in funds for social welfare system. Unfortunately, the number of social needs is escalating and thus, they are left unserved or badly served. (Bacchiega, Borzaga, 2001). Together, those factors have forced governments to rely more on nonprofits and businesses to provide public goods and services (Klitgaard, Treverton, 2003). Meanwhile nonprofits also have taken on the entrepreneurial working model in order to cope with the reduction in foundation supports (Perrini, Vurro, 2006). With private sector (businesses), the growing number of complex problems has proved that business and society are “embedded within the others” ..., and “the boundaries cannot be clearly drawn, as each is intertwined with the others” (O’Riain, 2000: 191). If society is not healthy then the business cannot be healthy. Solving social issues has become a part of the business operations. Being a greater citizenship is a new role of businesses in the society (Waddock, Smith, 2000).

The boundaries between sectors are getting blurred when an organization in one sector starts to adopt and capture the traditional roles or functions from other organizations in other sectors. The sectoral partnership allows sectors to learn not only skills, but also mode of operations and values from each other. Many researchers claimed that this is an on-going absorptive learning process where partners continuously enhance their new way of thinking about their mission and sectoral identity (Waddock, 1991; London et al., 2005). As the result, they will be more inclined to form
cross-sector partnership in the future when dealing with emergent social issues (Linder, Rosenau, 2000; Young, 2000).

2.1.3 Social SMEs and corporate CSR, similar but different

Innovation differs from invention or creativity because it is more than just discovering new things and create novel ideas. It is about making the ideas practical so that they can be implemented successfully in the market (Brown, 2006; Burns, 2011; Down, 2010). Thus, it is reasonable to see the involvement of for-profit organizations in the social innovation creation. Innovation and collaboration are more frequently studied with big corporations (Jenkins, 2004). However, the knowledge which applies successfully in corporation environment, does not have the same consequence applying to SMEs.

There are several fundamental differences which can be found between corporation and SMEs. They can differ significantly over financial turnover, resources, numbers employed, management style and personal relationships (Burns, 2001; Curran & Blackburn, 2001; Jenkins, 2004). Scholars with their research recognized that sustainability related practices of the larger firms simply cannot rescale and apply as a miniature version on SMEs (Jenkins, 2004). Even the SMEs community itself is very heterogeneous in size and structure. Each factor creates a distinct behavior (Lepoutre & Heene, 2006) and therefore, SMEs’ practices are diverse.

Moreover, in corporations, every decision often goes through a rigid and formal process, which involves several members of the board. The code of conduct and climate of the office also affect strongly on the final outcome. On the contrary, in SMEs, especially SMEs where owners are acting as the managers, the decisions are mainly influenced by the disposition, engagement and personal orientation of the owner-manager (Spence, 1999). Spence (1999) identified that the individual personalities, personal relationships, freedom of decision-making and individual responsibility for the business are the main drivers behind owner-manager’s strategy. According to Hammann et al. (2009), the limited resources and few formal internal processes allow owner-managers to reflect to a great extend their personalities, values, attitudes, education background in their daily operation.
Decision making might be smoother and faster in SMEs which could eventually act as supporting factor for the collaboration and innovation process. Nevertheless, the limitation in resources such as financial, technical, human resources and time creates barriers for SMEs to have a long-term thinking. Eventually, SMEs are discouraged to nurture the technical and market-led innovations (O'Gorman, 2006). Acs et al. (2010) discovered that small firms inherently face a shortage in knowledge assets. This type of shortage can easily hinder the production of innovation outputs. From a similar research, Bullinger et al. reaffirmed that SME’s methods in transforming the innovative ideas to actual products and services were problematic and inefficient. (Bullinger et al., 2007).

The purpose of this section is to provide an overview of the research background of this thesis. The conceptual understanding of social innovation and cross-sector collaboration is relevant for the next chapter, where I will discuss in more detail the collaboration for social innovation as a united concept. The research gap on the involvement of SMEs is also introduced. Since there is a lack of literature on the topic, I could only discuss SMEs’ role and characteristics based on previous studies from broader field such as innovation and corporate social responsibility. These insights are vital in guiding me with the analysis, which will be presented in the findings section.
2.2 Assessment framework for the collaboration for social innovation

This chapter aims to summarize the existing literature that is used in this thesis. The objective in this thesis is to understand the challenges adhered to the process of PE collaboration. In order to identify the challenges, it is relevant to first understand the link between its process and outcome. The link is created through a set of driving forces, the initial conditions construct the process that either enhance or hinder the outcome. A framework to understand the collaboration for social innovation is needed to order to identify the challenges and its causal interactions among SMEs and other sectoral partners. In the next part, I will first provide an overview on different existing frameworks. After that, I will make comparisons and benchmarking to finally build up the suitable framework for the studied PE collaboration.

PE collaboration has three main essentials: cross-sector collaboration, social innovation and SMEs’ participation. The SMEs’ participation is more like an attached condition to the main process of cross-sector collaboration for social innovation in my understanding. Therefore, I decided to build the core framework around the concept of cross-sector collaboration for social innovation.

The united concept of collaboration for social innovation requires me to actively seek and combine knowledge from both fields. The previous section has introduced the fact that both cross-sector collaboration and social innovation are not well researched and understood. We know little of the dynamics and process inside cross-sector partnerships; and even less of that concerning the social innovation. Whilst reading through the research articles in the social innovation field, it appeared to me that a majority of the contributions were practice-oriented and explorative in nature. There was hardly any constituted and systemic theory other than the three-staged process: generation of ideas, development and expansion. I have explained this theory in the previous section. Nevertheless, most of the contributions emphasized on the acquiring of resources and knowledge from collaboration as successful factor in social innovation. From here, I switched to look for more systemic theories inside the cross-sector collaboration field to support my study. And while going through the studies on the cross-sector collaboration, I encountered more profound and generalized frameworks on the process. Taking into consideration that fact and the objective of this thesis,
which is to focus on the SMEs involvement in the collaboration, I see it is relevant to adjust the cross-sector collaboration process framework to the main framework of this thesis.

2.2.1 Multi-dimensional model

One of the very first researchers attempted to design a cross-sector collaboration process framework is Thomson (2001). Based on a cross-disciplinary review of the existing literature, he defined five key dimensions that were embedded in the cross-sector collaboration’s process: governance, administration, organizational autonomy, mutuality, and trust and reciprocity.

Figure 1: Adapted cross-sector collaboration process framework from Thomson (2001)
Governance. This dimension is defined by the rules and structure that will govern the behaviors and relationships of partners inside the collaboration. The set of rules and structure helps set up the participative decision making and shared power arrangement. Cross-sector partners need to understand that reaching an agreement that goes along with everyone’s interest is not necessarily a group-think process. A member who might not agree on the final decision, but needs to support it once it is made.

Administration. The administration dimension refers to the administrative structure that moves from governance to action. In order to do that, Thomson suggested five main groups of supportive function. These were the establishment of clear roles and responsibilities, the establishment of a good leadership, the abilities to establish clear and helpful boundaries, the ability to make realistic goals and lastly, a good channel to commute information.

Autonomy. Though, the collaboration implies that group’s interest has the highest priority, it does not mean that self-interests should be omitted. The tensions between self and group’s interest are escalated once partners feel that they are losing sight of their own organizational missions and identity. The suggestion that Thomson made was to promote accountability among organizations while achieving the collective goals.

Mutuality. This dimension represents a foundation for forging common views out of differences. Cross-sector partners have conflicts institutional logics, interests and goals when forming the collaboration. Therefore, negotiation is a necessary process to ensure that shared interests, commitments, and commonalities among organizations be embraced, instead of agenda’s differences.

Trust and reciprocity. This dimension emphasizes the repeated interactions among partners based on the foundation of trust and reciprocal exchanges. A partner is willing to bear initial cost because they expect other’s, either duty or goodwill to equalize the distribution of cost.

(Thomson, 2001)
After Thomson, Bryson et al. (2006) also tried to develop another framework to understand the cross-sector collaboration. In this framework, the structure and activities of the collaboration can be analyzed through five dimensions. They are initial conditions, process dimensions, structural and governance dimensions, contingencies and constraints, outcomes, and accountability issues. Bryson et al.’s model resembles with Thomson’s model on many aspects. However, the biggest differences lie in the two novel additional dimensions, which are the antecedent conditions and outcomes; and the allocation of aspects inside each dimension. Even though, Bryson et al. claimed to not attempt to capture the extent of interaction among or within dimensions. The overlapping nature in the description and categories inside the model has reaffirmed the linear collaborative relationship of these dimensions.

![Figure 2: Adapted cross-sector collaboration process framework from Bryson et al. (2006)](image-url)
Initial conditions. This dimension emphasis the importance of the general environment and preconditions that are embedded in the cross-sector collaboration. These conditions have direct links to the formation, (etc. purpose, structure) as well as the outcomes (etc. level of resource dependence, transaction cost and stability) of the collaboration. The general understanding of the problem and the interest to combine resources to prevail sector failure can greatly affect the level of effort put to achieve final outcomes.

Process. This dimension focuses on six aspects: forging initial agreements, building leadership, building legitimacy, building trust, managing conflict, and planning. The aspect of agreement in the process overlaps with the one in initial conditions dimension. Both dimensions mentioned agreement manifested in different forms, ranging from mission, leadership style to responsibilities, decision-making structure, and even the flexibility characteristic. Trust is another essential aspect in this dimension, which is built through sharing information and knowledge and demonstrating competency, good intentions.

Structure and governance. Cross-sector organizations need to both differentiate and integrate across structural components. Otherwise, the tension can spill over the allocation of tasks, the division of roles and responsibilities, the power distribution and rules bounded in the daily operations.

Contingencies and constraints affecting process, structure, and governance. This dimension draws attention to three aspects: the type of collaboration, power imbalances among members, and competing institutional logics, that are believed to have great influence on the collaboration’s process, structure, and governance.

Outcomes. The ultimate purpose of the collaboration among cross-sector partners should be the creation of “public value”. That is the ultimate outcome of it. However, on the road to achieve this final outcome, there are other intermediate outcomes that collaboration ought to seek to maintain the right collaborative path. They are the resilience and reassessment – ability to
regroup and reframe after failure, accountability –tracking of stakeholder’s roles, responsibility, inputs and outputs.

(Bryson et al., 2006)

These two models, in my opinion, have their own strengths and weaknesses. For Thomson’s model, the categorization of dimensions is neat and well structured. However, the definitions of components inside some dimensions, in particular governance and administration dimensions, are vague and abstract to use as guiding framework for analysis. On the other hand, Bryson et al.’s model is more comprehensive, it defines concrete components inside each dimension. This helps in tracking the hinderances and enablers inside the collaboration process. However, its biggest weakness lies in the repeating nature of those aspects. Leadership, mutual agreement, power structure and some others can be found from two or three dimensions. The collaborative nature of the interactions seems to be rather messy from this framework.

Therefore, I continued to look beyond these two frameworks in the literature. I compiled the list of articles dealing with cross-sector collaboration process and outcomes. Following this, I analyzed their fit and decided to synthesize my own framework, based on Bryson et al.’s model. The new framework will take into consideration the initial conditions and outcomes, alongside with four main process’s driving forces: mutual understanding, power and membership structure, leadership, and trust.

In the following sections, I will consequentially explain in depth each components of the new framework, including initial conditions, process dimension with four driving forces and outcomes dimension.
2.2.2 Initial conditions

The initial conditions include environment factors, sector failure and other direct antecedents of collaboration formation.

*Environmental factors*

Collaboration is subjected to the pressures coming from the environment where collaboration is formed or worked in. That takes in account the competitive and institutional environment. The institutional environment consists of normative, legal, and regulatory elements that organizations must follow to guarantee their legitimacy and survival (DiMaggio and Powell 1983). Meanwhile, competitive environment means the ecosystem of other competitors inside or outside the field, in which they need to form the collaboration in such a way to win the competition. In general, the environment factors are essential in forming the collaborative purpose, structure, and outcomes. (Thomson, 2006)

*Sector failure*

This factor refers to the motivation of organizations joining collaboration to solve problems that they would have failed doing on their own. Though the cross-sector collaborations, the for-profit, nonprofit and public organizations rely on the differential strengths to successfully deliver a common social value. Therefore, the understanding of its own sectoral shortcoming will shape the characteristics and structures of potential partners in the collaboration. For instance, in the case of collaborating with SMEs, one is advised to understand the SME’s characteristics and what is the nature of their shortcoming in order to reduce the duplication in tasks and over-expectation. The characteristics of SMEs have been discussed in the previous section.

*Direct antecedents of collaboration formation*

Waddock (1986) called these antecedents the “linking mechanisms” of the cross-sector collaboration. They are either places, channels or even people that help bring the set of organizations into one organization. Thomson (2006) identified the importance of an actor called
“boundary spanner”, not only in the preset of the collaboration, but also within the process to keep all partners in touched and relationship bonded. Linking mechanism can be found through initial agreement of the problems that collaboration tried to solve, or simply an understanding of what benefits all partners can achieve through the group interaction. Past working experience is also a necessary antecedent for the emergence of collaboration (Thomson, 2006). It helps either reduce or increase for trust and legitimacy needed to enable exchanges.

2.2.3 Process dimension

I chose those four forces based on two reasons. Firstly, they are the aspects mentioned repeated inside both Bryson et al.’s and Thomson’s model, just under different categorization. Secondly, a lot of academic articles examined separately the relationship between collaboration outcomes and a single driving force. There are an extended number of research focusing on how leadership or trust, etc. affects the performance, instead of using the whole framework. Lastly, I conducted my research in abductive manner, which means that my literature review guides as well as is shaped by my data analysis. During the analysis part, I encounter mostly these four topics from the data. Therefore, in order to have the most thorough literature review, I will seek review and analyze these four key driving forces.

*Building mutual understanding*

In many cases, mutual understanding is considered as the key driver for success in the collaboration (Mattessich et al., 2001; Thomson & Perry 2006). However, creating mutual understanding is not an easy task. Often, partners inside collaborations have their own agendas why they want to be involved, what they want to achieve, etc. The motivations could be short-term, self-interest oriented, or larger-term, largely common-interest oriented (Selsky & Parker, 2005; 2010; Austin, 2000). Partners, disregard the motivation’s differences, might feel highly eager to collaborate at the beginning. However, in the long run, they feel exhausted by trying to create synergy from differences (Huxham & Vangen 2006). Not only at organizational level, individual level also shares differences when it comes to personal interests or reasons of joining the collaboration. If this multi-level understanding is not resolved from the beginning, the collaboration is more likely to fall apart (Thomson & Perry 2006).
Many scholars, while studying about the cross-sector environment, have recognized that “the clash of cultures” was a source for misunderstanding and a potential cause of conflicts (Fulop & Couchman, 2004; Bryson et al., 2006). The cultures here could be understood as the knowledge in nature of each sector of how they think about themselves, their ethical rules, their approaches and logics to certain issues. These ideological clashes can be seen most clearly through the enacting of competing institutional logics (Bryson et al., 2006). Institutional logics were framed as macro-level historical patterns, that set up the formal as well as informal rules and interpretation of actions and games (Friedland & Alford 1991).

Arrangement of power and membership structure

Gray (1996) has examined the relation between power and performance in collaboration environment. He found out that power issues were the prime sources of conflict and performance failure. As the nature of the collaboration, partners work and make decisions together such as shaping the agenda, sharing the relevant information, attributing the credits and allocating the resources (Gray, 1996; Huxham & Vangen 2006). However, partners may hold unequal positions as well as distribution of power in the collaboration (because of their size, reputation and funding). Mouzas and his colleagues (2007) argued that partners were constantly seeking ways to increase their power in order to influence other actors and control the collaboration environment. These dynamics can cause severe scandals of political lobby, which ultimately affect the trust among partners. It is interesting to note that the partner who is in charge of finance often do not have all the power in the collaboration (Huxham & Vangen, 2003; 2006). Meanwhile, the partners which have lower profiles, when they feel that they are not respected, and their ideas are not valued equally (Bryson et al., 2006), they tend to hold on to their “power of exit” to participate in various types of decision making (Huxham & Vangen 2003; 2006).

Similar to power, the structure of the collaboration can lead to the ability to control or affect other partners. In case of lacking explicit roles and responsibilities, members of the collaborations tend to feel ambiguous, lost and finally demotivated. Unfortunately, in the condition of collaboration,
the role of the partners keep shifting and therefore, the importance of the membership structure is likely bypassed. (Huxham & Vangen, 2003).

Power and membership structure imbalance can be prevented through strategic planning and scenario development where partners are clearly informed about their roles as well as the shift of authorities throughout the process (Bryson, 2004). Strategic resource deploying is another useful practice to put all partners on a more equal footing, such as training partners about the same concepts, information and tools that are the keys to the co-creation work (Keast et al., 2004). Active listening is advised to be applied in order to detect any inequalities and to assure that all interests are taken into account (Gray & Stites, 2013).

Leadership management

Leadership study in general and in the collaborative environment, has been criticized by many scholars for being too ambiguous and too context-dependent to be applied efficiently (Yuki, 2006). The foundational approaches to leadership has changed through various periods of time. Many scholars stressed the importance of having “heroic” leaders with certain traits and characteristics that can lead people in the presence of change. On the other hand, other scholars strongly believed leadership as a “collaborative endeavor” where leadership practices were multi-level, multi-directional, dynamic and relational processes, embedded in context, and often centered on teams (Sullivan et al., 2012).

Concerning the practices or styles of leadership, Allen et al. (1998) suggested the following practices for collaboration leadership: facilitating, supporting, consulting and sometimes teaching. Bardach (1998) grouped practices into two contrasting styles: facilitative and advocacy.

Facilitative style. It is all about bring partners, actors in an open and equal process. In order to do that, the leader should be diplomatic, inclusive, consensual and neutral. Bardach suggested this style would work best in the collaboration environment where partners are sensitive about resource contributions and political vulnerabilities.
Advocacy style. Applying this style, leader must prepare to say no to certain strongly held view of a partners in order to come to a conclusion. This style is more suitable for an environment where reaching consensus is unrealistic. The reason behind could be because of not reaching mutual understanding or the conflict in power and management structure (mentioned in the previous chapter).

Focusing on the role of the “heroic” leader’s role, Feyerherm’s (1994) stressed the importance of leader’s sense-making to understand different views; building consensus through problem-solving and facilitation; and, initiating collective action to form structures and develop proposals. Similarly, Linden (2002) was more specific with leader’s traits when suggested four specific qualities for leaders. First, it is the ability to be resolute, focused and driven especially about collaboration. Second, the leaders need to have a strong but measured ego. Third, the position of the leaders in the collaboration needs to be inclusive and thus, their approach should be ‘pull’ rather than ‘push’. Finally, leaders who have a collaborative mind-set which makes connections to something larger can reach resolutions of tasks faster and simpler.

Building Trust

In collaboration research, trust was found to be a precondition and the core force for a successful collaborative outcome (Thomson & Perry 2006). Researchers commonly defined trust in association with the willingness to be vulnerable, the reliance, and the confidence in the just, fair intentions and behaviors of the partners. It is critical to note that trust is frequently accompanied by risk and reliance (Luo, 2002). Risk means the negative outcomes originated from partner’s actions. Meanwhile, reliance is the chosen intention to put one self’s fate into partner’s hands. Hence, trust is the underlying condition which boosts the interactions among partners and the outcomes of the collaboration. Other scholars also suggested that trust is developmental and changing through various stages (Fukuyama, 1995), influenced by economic and social factors, ranging from organizational environments, market dynamism, resource interdependence (Rousseau et al., 1998; Sheppard & Sherman, 1998) to social norms, values and individually behaviors assumptions (Doney et al., 1998).
Trust involves in different stages of a relationship, such as developing, building, and declining stage (Fukuyama, 1995). In addition to that, the nature of trust possesses a deeper social orientation (Zaheer et al., 1998). When it comes to assessing trust, researchers suggested a multidimensional framework. In this thesis, the framework proposed by Boyer et al. will be used. There are 4 levels of trust, ranging from contract-based trust as the lowest level to fairness-based trust as the highest level. The level indicates how strongly trust can influence a relationship. The higher the level, the stronger the bond among partners.

Contract-based trust. The rationality behind this is the belief that both partners will act according to the contract and for the mutual beneficial outcomes of the contracted collaboration. Hardin (2004) refers to this as “encapsulated interest”—the collaborator’s interests align with governments because it is in the collaborator’s interest to accomplish what it agreed to accomplish.

Competence-based trust. Experience, education and a wide network can contribute to the trustworthiness. For example, hospitals, universities, including all employees working in those organization are considered to have high ethics and good educational background. Therefore, they have high trust propensity. Although this is not yet a partnership, there is genuine collaboration and a respect for each party’s expertise and judgment, a necessary condition in any successful collaboration.

Goodwill-based trust. However, this emphasizes more on the long-term orientation purpose or mutual objectives of the relationship. With the value focus in mind, organizations find it easier to establish trust with a wider range of partners and have the rational assessment towards long-term strategy.

Fairness-based trust. this type of trust is mostly found in organizations of public sector. The trust derives from the confidence that the public organizations act on behalf of the whole society, not just a few prioritized ones. If the collaboration possesses the fair-based trust, what can be expected from that is the openly shared information. And when partners are willing to share even sensitive knowledge, they find it easier to reach complicated decisions.
The importance of trust in strategic collaborations has been explored in many studies, which further validates a positive link between trust and collaborative outcome (Mohr & Spekman, 1994; Saxton, 1997; Tsai & Ghoshal, 1998). In specific, trust can lead to resolving conflicts, restricting opportunism, saving transaction cost, improving capacity and flexibility, and finally more efficient governance (Bromiley & Cummings, 1995; Mayer et al., 1995; Luo, 2002). As the result, many scholars considered trust as a moderator in a relationship, that fosters the spirit of a collaboration and replaces control mechanisms (Robinson & Sousseau, 1994; Das & Teng, 1998).

When trust pre-exists, organizations in the collaboration are more likely to be more tolerant towards doubts, risks and to give a greater leeway in mutual dealings. Simultaneously, trust is believed to reduce the opportunistic behaviors (Bromiley & Cummings, 1995). Mutual understanding could result or be resulted from trust building. Because of mutual understanding, the collaboration reaches higher efficiency when it comes to negotiation and decision making.

Once trust is lost, the entire collaboration can be dissolved (Seabright et al., 1992) and unfortunately, the cycle of losing trust is studied to be a self-reinforcing downward spiral (Zaheer et al., 2002). Therefore, building trust should be constantly in place throughout the collaboration. How can trust be built? Practical cases showed fostering trust is related to building social capital. Social capital here can be time and resources (Larson, 1992). The process of spending time together and having interactions on a frequent basis are among the easiest ways. Sometimes, trust can be reinforced by simply having the same physical space to work together (Carlee, 2008).

In conclusion, different studies have proved the importance to have trust as the precondition of a collaboration. They also suggested the tendency of seeing suspiciousness rather than trust at the beginning, due to hidden agendas, different interests, personalities and power difference (Huxham & Vangen, 2003; 2006). To build trust, organizations and individual are advised to share information, being open, offering help, making commitments and being trustworthy (Linden, 2010).
2.2.4 Outcome dimension

The ultimate purpose of cross-sector collaboration is to deliver public value (Moore, 1995). Sectoral partners, in search of ways to overcome each other’s weakness, benefit each other while making the world a better place. However, on the way to achieve that outcome, there are other performance milestones that the collaboration needs to obtain first. They are the creation of social intellectual, joint action, joint learning, and even new norms and heuristics perceptions from sectoral partners. The reason why these performances are important is because they guarantee the accumulation of small wins to bigger wins in the collaboration effort (Crosby & Bryson, 2005). Resilience and reassessment are important characters for any collaboration to collect small wins.

After resilience and reassessment, accountability is a critical index for collaboration’s outcomes. The collaborative nature is complex. Partners get tie up in their own activities and lose track of what is happening around them. Collaboration cannot work if there is no coordinating and co-working among partners. Therefore, keeping partners informed about the roles and responsibility arrangement is fundamental. Accountability is also about keeping track of what is the input and what is the output. The system to manage the results can lead to performance improvements (Page, 2004) as well as conflict resolution (Sullivan et al., 2002).

Finally, knowledge sharing is the last outcome measurement that I want to discuss here. In Bryson et al.’ model, knowledge sharing was not treated as a distinct aspect in outcome dimension. But they did mention it in the first effect from the collaborative effort. In the systems of innovation approach, scholars emphasize the diffusion and sharing of knowledge between a variety of organizations and institutions as the key driving force of social innovation in a collaborative environment (Boer, 2005; Ipe, 2003; Phillips et al., 2014). Therefore, I would like to add to the outcome dimension a more thorough discussion on this key performance measurement – knowledge sharing. In addition to define knowledge sharing, I will also present studies about what promotes and hinders partners to share the knowledge.

Knowledge is regarded as the key asset for any organization to achieve innovation performance. Unlike other types of resource, it does not get diminished when get shared with others (Antikainen et al., 2010). The common categorization of knowledge was developed by Polanyi
(1958). According to him, there are two types of knowledge: tacit knowledge and explicit knowledge. However, knowledge often is combined from both sources. It is hardly seen any knowledge that truly tacit or explicit. Explicit knowledge is defined as the knowledge that can be formalized and transferable under the format of documents or systematic language. Meanwhile, tacit knowledge is hard to formulate or communicate. (Nonaka, 1994). Due to that fact, tacit knowledge is more likely to become competitive advantage and being hard to imitate by others (Foong et al., 2004).

Knowledge sharing is a social-relational process through which individuals make their knowledge available to others in order to yield performance (Boer, 2005; Ipe, 2003). In Boer’s study, he identified four levels of tension that could create obstacle for managing knowledge:

Primary level: According to Boer, the first layer of tensions can be easily triggered with the different understanding of subjects, the unsettled agreements about objects, identity and completions of components, etc.

Secondary level: After the primary level, the second level usually derives from the incident of new elements enter from the outside of the ordinaries, such as a new technology introduced into the work style, the new members involved into the team, or new communication channel used, etc.

Thirdly level: The third level of tension arises when there are new processes or structure involved such as the new motivations behind the activities or a new culture of work environment, etc.

Quaternary level: The last tension levels can be found in the relationship between the activity system and the environment, such as the unwillingness, the disagreements, and the incompatibility among partners of the collaboration. (Boer, 2005).

Besides the tensions, there are other factors that create impact positively or negatively on the ability to share the knowledge. First, partners have different scheme of intrinsic and extrinsic motivations. Intrinsic motivations come from the psychological-emotional reasons of the individuals inside the collaboration. Those reasons could be either aspiration to express individual creativity, sense of membership, fund and entertainment and sense of efficacy and
compensation. On the opposite to intrinsic motivations, extrinsic motivations are the reasons coming from the external environment that affects the decision to share the knowledge. They could be reputation and expertise from other organizations in the collaboration. Monetary rewards in many cases are considered as the most effective extrinsic motivation. Second, partners need opportunities to share. The opportunities here could be either formal channels, such as training programs or technology-based systems; or informal, such as personal relationships or informal social interactions. Studies showed that explicit knowledge often get shared through formal channels, meanwhile tacit knowledge get shared through informal channels. Lastly, the culture of the organizations which manifests in the values and norms can influence the process of sharing. If the cultures from two partners inside the collaboration do not fit, individual will easily find it irrelevant to share the information. (Ipe, 2003).
2.3 Summary of theoretical framework

The review of management studies in the cross-sector collaboration and social innovation has shown many similarities. In particular, a lot of driving forces, or elements were repeated mentioned as successful factors for the performance. Based on the concepts and framework from both fields, I construct the following framework for this thesis, presented in the following. This framework takes into account the relevant viewpoints of the existing literature, while at the same time, being explicit to apply to the empirical research case.

![Diagram of theoretical framework]

**Figure 3**: Modified theoretical framework (own illustration)
3. **RESEARCH METHODOLOGY**

In this section, I introduce the methodology used for this study. The section begins with introducing the philosophical approach of the research, after which I move on to justifying the strategy of single-case study for this research topic. The analysis process is explained consequently. Finally, I will briefly introduce the case study.

### 3.1 Philosophical orientation

Saunders, Lewis and Thornhill (2009) presented a research strategy onion which illustrates the relations among research elements, techniques and procedures (see FIGURE 2). The outer layer of the onion is the philosophical viewpoint. Going forwards are the details for a research strategy such as research approach, research method and analyzing method.

![Figure 4: Research strategy onion (Saunders, Lewis & Thornhill, 2009: 138)](image-url)
A research philosophy is “an overarching term relating to the development of knowledge and the nature of that knowledge in relation to research” (Saunders et al. 2009). There are four typologies of research philosophy: positivism, realism, constructionism (interpretivism or relativism) and pragmatism. In positivism viewpoint, all phenomenons, including social ones can be analyzed with scientific research. Similar to positivism, researchers under realism realm believe that objects exist independently of our knowledge of their existence and that what we experience sensations instead of things directly. Constructionism, on the other hand argues that there is a natural, interactive link between researcher and participants, and researchers, in the role of social actor help construct the understanding of the world. Pragmatism suggests there are multiple realities and the collection and interpret data should integrate different perspectives. (Saunders et al., 2009)

This thesis most closely represents the philosophical viewpoint of constructionism. In constructivist paradigm, each individual maintains their own reality, their own perspective of which is true to them (Potter, 1996). The basic assumption behind this thesis is that both the innovation and collaboration processes are dynamic, context-laden and strongly socially constructed. Furthermore, the research context is not a single dimension. It is comprised of several partners tackling several wicked issues. Their perceptions and behaviors alter a lot through practices and communication.

### 3.2 Research strategy

Due to the viewpoint of research philosophy, it can be stated that the nature of this thesis is qualitative. Within the collection of qualitative methods, case study was employed for this thesis. According to Yin (2004, 2009), case study is a method that investigates on a real-life phenomenon within its real-life context. This method is best fit for the research with aim at understanding the complex real-life activities and it fits very well with the research objective of this thesis. Employing case study, I hope to explain why and how social innovation happens in the context of PE collaboration. The design for the case study is single case study. This allows me to achieve the ideal results of in-depth investigation. At the same time, I acknowledge the limitation of generalizability of this choice.
In order to improve the above-mentioned limitation, I applied two techniques. The first technique was to study the case in a longitudinal manner. That means I followed the empirical case over an extended period of time. This allowed me to observe the changes influenced by different factors. My conclusion thence is less short-sighted. The second technique I used for this thesis was the abductive research approach. With this approach, it allowed me to choose between deductive and inductive research in different situations. This abductive approach is considered to be useful in filling the gap between the realities of the researchers and the reality that he is researching on (Tamminen, 1993). I followed closely a process that included three steps. First, I worked with the deductive approach when I tested of the hypothetical theoretical framework which I suggested precisely. After that, I evaluated the findings and used my creative thinking to point out if the data validated the framework, and what was different, novel and interesting. Lastly, I adopted the inductive approach on the new insights to conclude on my contributions to the literature, through my research case.

3.3 Data collection

The data collection was carried out in three phases. The first phase was carried out when I worked inside the collaboration as a business research student. The second and third phases concentrated on analyzing the changes and followed closely the start-of-art of the innovation process inside the collaboration.

Data was collected from personal experience, documents and reports, 13 semi-structured interviews and finally, observations from three project meetings. The table below summarizes the detail of data collection:
<table>
<thead>
<tr>
<th>Phase</th>
<th>No. of manager</th>
<th>No. of researcher</th>
<th>No. of meeting</th>
<th>No. of hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>20</td>
</tr>
<tr>
<td>Phase 2</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Phase 3</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>9</td>
<td>3</td>
<td>29</td>
</tr>
</tbody>
</table>

Table 1: Collection of NET collaboration research data

During the meetings, I paid attention to how partners in the collaboration had communicated with each other formally and informally on various project’s topics. Notes were recorded immediately after each session. As any provisional theory or phenomenon emerged, the interviews were utilized to investigate for further insights.

Interviews were carried out in the two last phases of the research. The third phase, the interviewees from the second phase were revisited with purpose to observe the changes and consequences. The motive behind this interview setting was acknowledgement of the ever changing and dynamic of the innovation process. Interviews were lasting between 20 minutes and 1 hour 20 minutes. The average length of the interviews in the second phase was longer than the ones in the third phase.

There was no fixed script for the interviews. Rather, a few pre-planned questions with a guideline of how to follow the conversation with interviewees were provided. The interview questions were open-ended, focusing on interviewee’s experiences in the collaboration. Critical following questions were raised when there was an interesting theme appeared. I used the interviews as inductive evidence to repeatedly test against the deductive assumptions emerged from the
previous observation. All interviewees were willing to describe stories, events and incidents from the past experience. They also shared their interpretation on the meaning and influence of those experiences. Since the interviews were carried out in two periods, it has allowed me to at best understand the causal connections between the circumstances and their consequences.

3.4 Analysis process

In this thesis, I collected and analyzed the data simultaneously. After documenting the experience received from the first phase, I familiar myself with the collaboration’s context. I used that knowledge to design the first interview round. While analyzing the first interviews, I picked up important themes and designed the second interview round for additional data collection. By doing that, I increased the reflections about the findings.

The data was obtained from the in-depth interviews that I conducted with each partner of a real-life PE collaboration for social innovation. In my opinion, partners would feel much more constrained in disclosing the authentic experiences about the collaboration, knowing others can read and know who states the opinions. Therefore, my first priority in presenting the data is to keep a high level of confidentiality. In order to maintain the confidentiality, I removed all identifying information such as real names of the organizations and interviewees in the findings and analysis section. I replaced the real names with the alphabet characters. Nevertheless, I still distinguished the SME’s statements from public organization’ statements. I marked them by stating if the quotes were from a researcher or a manager. This detail is critical for the analysis part because the sectoral difference is one of the research focuses in my thesis.

The analysis was the most complex and time-consuming part of the research. After each interview, I needed to transcribe from audio files into text files. After that, the text files were read multiple time to ensure that I familiarized with the narratives of each interviewees before making the cross-sector comparison.

I used thematic analysis to make sense of the data. Firstly, I tried to understand the whole sense and used inductive approach to find key themes. Important information was coded and marked down in specific color in excel file. The color-coding technique was useful in grouping and
giving connections to codes. In the end, the bigger categories emerged, and they were compared to the theoretical framework. In this phase, I adjusted the literature review in order to make it correspond with the findings of the analysis. Due to the fact that I selected the case before reviewing the literature, it was relevant to modify the literature review based on the emerged data from the case.

3.5 Introducing the case: NET collaboration

The studied collaboration in this thesis will be called the PE Net collaboration. This name comes from the social innovation inside the collaboration. The partnership was formed by SMEs and research institution with purpose to develop an innovative net trap for mosquitoes. The social purpose of this innovation is to help the poor by eradicating malaria in developing countries.

There are a numerous of specific terms concerning the stages and incidents happened inside the PE Net collaboration. They will be mentioned in the findings and analysis part. In the interest of the reader’s understanding, I will further explain them in the followings.

- **Project Alpha**: PE Net collaboration applied funding from TEKES through the project Alpha in 2014. The requirement for the fund was that the collaboration should have at least three private companies. Each company needed to pay 6000 Euros as the joining fee as well as payment for the right of the research results.

- **Consortium**: the binding contracts for all partners inside the project Alpha, where it stated the rights companies own after paying the 6000 Euros fee.

- **Project Beta**: another project unit inside PE Net collaboration in form of a competition. Project Beta happened in 2016 and was believed to be inspired by funding regulations attached to project Alpha.

And below are the short descriptions of the all partners involved into the collaboration for social innovation:
<table>
<thead>
<tr>
<th>Organization</th>
<th>No. of member interviewed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution A</td>
<td>2</td>
<td>Organization is responsible for the usability and material design of the innovative product. Institution A applied to TEKES to get project Alpha funded and going.</td>
</tr>
<tr>
<td>Institution B</td>
<td>2</td>
<td>Organization is responsible for the usability and medical validation of the innovative product. Institution A brought the product to the competition and started project Beta.</td>
</tr>
<tr>
<td>Institution C</td>
<td>1</td>
<td>Organization is responsible for the market research and business model development of the innovative product. However, institution C is official partner only in project Beta, however, they have joined and contributed unofficially to project Alpha from the beginning.</td>
</tr>
<tr>
<td>Company A</td>
<td>1</td>
<td>Company A is the potential producer of the innovative product. Through the connection with institution B, company A was invited to join the collaboration. Company A also has connection with institution C.</td>
</tr>
<tr>
<td>Company B</td>
<td>0</td>
<td>Company B is a potential buyer and distributor of the innovative product. Through the connection with institution C, company B was invited to join the collaboration.</td>
</tr>
<tr>
<td>Company C</td>
<td>1</td>
<td>Company C is a potential producer of the innovative product. Through the connection with institution A, company C was invited to join the collaboration.</td>
</tr>
<tr>
<td>Company D</td>
<td>1</td>
<td>Company D joined the collaboration towards the last stage of the collaboration, is a potential distributor of this product. Through the connection with institution B, company D was invited to join the collaboration.</td>
</tr>
</tbody>
</table>

Table 2: List of partners inside PE collaboration for social innovation
4. EMPIRICAL FINDINGS

The empirical findings from the case study will be presented in this section. In accordance with the theoretical framework, I will identify, analyze the initial conditions, process and outcomes of the case – the NET collaboration. After that, based on the analysis, I will identify and discuss the link between those initial conditions, driving forces in the process and the outcome of the NET collaboration. Finally, this finding section aims at answering the questions of what challenges are there in the process of PE collaboration.

4.1 NET collaboration dimensions

First, I applied the theory framework into the NET collaboration. After that, I collected the data according to three main dimensions: initial conditions, process and outcomes. I analyzed the common and unique patterns in each dimension. The below titles were named after the outstanding features or characters of each dimension and further, driving forces inside the dimensions.

4.1.1 Restraining pre-conditions from the starting point

As being discussed previously, the preconditions are essential in setting up the structure and relationships among partners in the collaboration. In this NET collaboration, these conditions manifested in the internal reasons why partners wanted to join the team. At the same time, the manifestation was external, found from regulations, customs from the specific sectors and the collaborative contract that legally bound the partners together.

The social innovation – nets to eradicate malaria was invented by a joined effort from two academic research institutions. The research institutions understood themselves the short-coming if they chose to scale the innovation in isolation. They wanted to have partners from different sector. The ultimate purpose of this innovation is to be consumed by a vast population from malaria affected region, which helps eventually deliver the designated social value – eradicating malaria. Therefore, involving a business partner in the development was a necessity.
According to Mulgan et al. (2006), social innovation in academia usually starts from university. Then, the idea will be tested in larger scale to give scientific proof for recognition from the academic discipline. Once it is evaluated and recognized, the idea will be promoted and adopted widely through institutions to community. Since NET innovation was created from university, it was expected to follow that path. The product testing at the beginning was only university-scale, however, the small size has failed to provide adequate scientific proof to spread the idea. Therefore, researchers sought various funding opportunities to support the scientific testing. Collaboration turned out to be a channel for it. By observing the collaboration in the longitudinal timeline, I have noticed that seeking funding was one of the main reasons from academic institution side to form the collaboration. Alpha project was created to have access to TEKES funding, meanwhile, Beta project was created to gain access to competition’s prize. This finding has reaffirmed the conclusion from Mulgan et al.’s report (2006) that academia meets difficulties cultivating and disseminating innovation, in terms of scientific testing and users reaching.

From SMEs’ point of view, when being asked about motivation of joining this collaboration, they always mentioned at first the desire of doing something good. And though they did not invent the idea, its alignment with their individual passion has motivated them to believe in the idea. Moreover, the legitimation coming from a scientific team has leveraged the chance of success of the innovation. Besides intrinsic motivation, they also expressed the expectation that this scientific innovation would give them a profit turned up or a new venture started.

Even though the collaboration started from the foundation of good wills. There were other preconditions regarding the institutional customs that counter-stimulated the collaboration. First to mention, it was the sensitivity towards the intellectual property right from the academic institution. In technological invention, patent is famous because it secures the return for the research investment. Therefore, it is totally relevant when universities want to protect their research. However, patenting a social innovation could be difficult. From the case of NET collaboration, it took a year and half for the universities and the SMEs to sign a contract regarding the commercialization right of the invention. Even after the contract, it was uncertain
whether the innovation would be patentable, and whether it should be patented since social innovation is meant to be widely spread for a common good.

Besides the commercialization contract, within Alpha project’s partners, they had to sign a consortium to receive TEKES’s funding. This consortium required all SMEs to pay 6000 Euros to the universities for their research. This money meant to cover the administration cost such as the salary of the researchers in the collaboration. However, it omitted the fact that SMEs had to pay salary for themselves while joining the team. Not to mention, they had to pay other expenses such as travelling to meetings, testing at their premises to further the idea. Therefore, the 6000 Euros looked more as the payment from SMEs for the innovation, while they themselves partially developed it. Admitted by many partners, this consortium has acted as a restraining force for the collaboration to go forward.

The institution norms and funding regulation were not the only restraining preconditions. The characteristics of SMEs played its part in influencing the process and outcomes. Firstly, the lack of the resources and time from SMEs demotivated them to accept risks. Innovations carry risks. The earlier the stage of innovation is in, the risker it gets. NET innovation was an early development stage where testing was still the main process. Therefore, SMEs reported to have difficulty in finding the willingness to invest, to balance the long-term vision and short-term interest.

“...and in a small company you have thousands thing to do...if there is a way to be more flexible…” - Manager

“...it [the expectation] has never been materialized in this project… perhaps, it depends case on case but... it should be clearly more business and business plan oriented, even though there is always a scientific team behind…and for the consortium, we should be able to see what is the return on that investment...” - Manager
4.1.2 Hidden agenda: reality or illusion

One of the main reasons to join the collaboration from all partners was to cater the needs of the poor and to solve a social pressing issue.

“This is something that I have been wanting to do for a long time because this is doing business for people, not focus on profit so much…it’s for the people. And we are spending the money from TEKES and University so we should do right…the money the universities have paid is huge, it amazing what they have paid for…” – Manager

“…let's say I am pleased to read in the paper [in the future] that these years malaria is expected to go down by using this kind of product…We just trying to make the knowledge if this idea functions… We are just a tool to help them. My role at least I think…” – Researcher

When asking about the motivations of joining, all interviewees expressed their excitements when they first joined or got invited to join. Initially, partners shared the same expectation and positivity in the future. Consequently, the sympathy has stemmed the cooperation among partners.

“At the beginning… I just heard about this… somehow, I think that it is interesting and intriguing…the timing of it … like you know it is happening and I joined some of the meetings, some of the earlier meetings… We spend many hours discussing with another partner about what we could do in this project and I invited people to discuss…there is a risk-taking williness and also there is a kind of willingness to work for it, without compensation....” - Researcher X

“I was thinking OK it [the product] might be possible. And when we discussed this with [other partner] together and then we had some brainstorming here…and we grew these ideas and threw them in the air and we came up with about 30 different ideas…” - Manager H
It is essential that everyone is informed about other’s motivation and good will. It helps stimulate the commitments and overall enthusiasm of the collaboration, just like how it happened at the beginning of the case study. However, in the long run, Net collaboration partners often did not understand other partners’ thought and therefore inclined to assume their motives. The data I collected have showed that many assumptions were not correct.

The first assumption regards the expectations for the next activities of this project. Many started to think much further ahead with greater details compared to the rest. At the same time, there were interviewees showed the understanding of long-term plan but insisted on staying focused for the short-term plan.

“…We need to have a long term thinking to make better result… a lot of energy has been putting in… the project should not be about whether who should or should not own what…” – Manager

“…personally, I have progressive nature, I go step by step, I don’t think far ahead…we need to make sure the product works first…after that, we can think of the business model or such kind of thing…” – Research

All partners mentioned the necessity of having the field test, the validation study, source of funding and finally business plan. Source of funding and field testing received consensus on being the most urgent actions in the project, and business plan could get less attention at the present. They all reasoned their choice based on a similar strategy plan, for a greater good of the innovation development, However, the data showed that partners assumed that who was in favor of business plan or fielding testing had personal interest instead of group interest.

The assumption on other’s motives and course of actions has created hesitation to share opinions inside the group. Partners felt skeptic about other people’s motivation and feared that everyone was not on the same page. They mentioned the lack of communication as the main cause for the ambiguity. They also shared stories on their actions in improving the situation. Nevertheless,
miscommunication still existed, and it gradually deteriorated the level of mutual understanding within group.

“...it was kind of ... difficult then... what should you do when ... there is this phase where we kind of should work together but then the aims... do we really work towards the same thing... I have no idea what they are doing at all...if someone has finished the report so that’s work we know...but there is no monthly report, it is actually difficult to know what is going on...” – Manager

“...on the other side...they are quite busy with other things, because this kind of innovative product is not [yet] bringing in any money to them at this point...So they would need to be probably convinced very strongly that this is going to be a good business for them in the future. So I'm not entirely sure...” - Researcher

Corresponding with the existing literature, I noticed that the interviewees encountered conflicts with having two identities in the project, oneself and representation of a group (institution, company). When there was this conflict between individual understanding and organization’s understanding, one struggled to choose side and take actions. This has happened several times in the project, which held up the process and created confusion.

“...And in that sense, I got a little bit more involved. And I was ... to me sometimes it was difficult to think what kind of roles do I have. So I do a little bit of project management and this is the company [I know] and then should I... you know... sort of be doing the right thing to make the connection... I tried to look at it objectively... being cautious about misusing my position to benefit somehow myself, but it is not really myself, somehow to that...Because this is still governmental risk, so it supposed to benefit the whole Finland...” - Researcher

“...[companies] they don’t like to buy something they have invented themselves, of course...But I don’t know.... It is not an easy thing [the consortium]. This is something we need to solve... I think their [partner’s] expectation should be right...but usually in
research funding… the results are owned only by the universities…Sometimes the research could have value in millions, which of course university would like to do that kind of research. Because they can put money in other research that cannot make money that much…” - Researcher

In conclusion, the data has shown that the partners in PE collaboration reported to have unclear goals and future responsibilities of themselves and others. It is a natural challenge in the collaborative environment. Previous research has identified that partners from different fields, academic institution and SMEs disagreed on the interpretations on specific industry knowledge (Friedland, Alford 1991; Thornton, Ocasio 1999). These differentiation in understanding and ways of working created a barrier in communication. And the lack of communication only worsens the condition. The findings from the case study has further support Huxham & Vangen’s research (2006) that in the absence of mutual understanding, partners described the exhaustion in creating the synergy from differences. In addition to that, the lack of mutual understanding potentially led to false assumptions about hidden agendas inside the collaboration. This is undoubtedly detrimental for the cross-sector collaborative atmosphere.

4.1.3 Power sensitivity

It is clearly shown that partners have great concern for their role and power in the PE NET collaboration. They showed enthusiasm and devotion when describing their contributions and other’s contributions to the development of the innovation.

“Our part, we supposed to do the commercializing, business plan… You can contribute with your knowhow of the condition in Africa…and the idea is to do something good and nice… and I have some contact in South Korea for biodegradable materials and quite a lot of other materials…” – Manager

“…we have this material knowledge, textile structure, we thought that we could find out some possibilities to use today textile, to find out if we do this we can make this work, and of course about manufacturing, different type of textile or nets like structure…” – Researcher
“…one partner can design a concept and the other one can maybe utilize it in the nets and there's universities who are doing the design...biological testing of the products...doing the academic study part of the project and coordinating the activities of this group...” - Researcher

At the same time, they consistently linked their contributions to the question of equal share for what they brought, or if they could benefit at all.

“...And there is this part that could be interesting concerning the conflict [of interest]. Since we have three companies and the roles of them, at first they have to pay 6000, don’t get paid, just to be part of the project...not to mention that I actually spend in this project...” – Manager

“.... We have to be careful about what we bring. We all bring something and we also have expectation of what we can get...” - Manager

“...Because of course [our organization] is paying, be part of this research, they are very willing to get some money back of their investment for this project...” - Researcher

One more time, this has shown that the group has never had an open communication about the roles and responsibility, and consequentially the benefits. Many interviewees admitted that they did not know the roles of certain members. But at the same time, many interviewees thought the reason for the unclarity of roles as the nature of the project, in which specific partners can only find their roles in the long term.

“...I mean there are concept [for the product] is very good and exciting but I just don’t see how the product could be integrated in their work...The companies, some roles are very obvious now, some are not, but it might be obvious in the near or far future...” – Researcher
“I don’t know what is the role or functional of [this partner] overall or in the future… Their role is not clear until now but yeah maybe they contributed by ideas or some other effort…” - Researcher

The rush in group formation when applying for funding was mentioned as the main reason that led to the unclear structures and roles for all members. Some members did not know each other well enough to divide the roles. There was a lack of communication at the initial phase. And this continued happening in the later stage of the collaboration. Partners have false assumptions about people having favorites in the group. The idea of being isolated and had the need to lobby inside the group constantly appeared in the interviews.

“…I don’t feel that I am engaged that much in the project because I have no information about the production, how the cone has been made… now we have the [partner] side and the other side and next meeting I hope that someone from my side will come…or I will try to persuade…” – Manager

“… you need to look at this kind of collaboration, what it is actually needed…If you want to bring someone new, it somehow makes sense to discuss among the group…maybe arrange a meeting… If we want the collaboration, we need to find the people actually want to work with each other…” - Researcher

The concern regarding polarization accompanied with the fear of being treated equally and not having their voice heard. According to one interview, any decision that had impact on the collaboration must be approved by the steering group: three academic institution and three companies. However, many times in this collaboration, decisions were made by a subset group of members.

“…to me, the communication wasn’t clear at all…somehow just [one partner] is concentrating on that… And I don’t know if they are doing some work with someone. But I tried to focus on my work because it is not good thing to have this kind of thinking in the project…how do I know what they have done…” - Manager
“…It is the way that [partners]…it is just their way of working. They induce polarization into the teams…Sometimes, there is information, certain important news, it did not reach me…Yeah it is something wrong…” - Researcher

The case study confirmed the conclusion from Gray (1996) and Huxham & Vangen (2006) that the power sensitivity had direct influence on the partner’s motivations to contribute and after all, the level of contribution. This sensitivity has bred the assumption of polarization. Partners assumed that subgroups were intentional created by individuals in the collaboration. As a consequence, these subgroups generated boundaries that prevented the flow of knowledge and information. Partners did not want to share information beyond either their individual or group’s boundary. Afterwards, resentment and disappointment were stemmed by the low level of contribution from isolated individuals or groups. Similar to what Mouzas & Naude observed in their research in 2017, there was a dynamic of political lobby and inclination of finger-point when conflicts and incidents happened.

4.1.4 The difference between a leader and a coordinator

As mentioned earlier, the roles and responsibilities of the partners were not well-defined. To many interviewees, the roles and responsibilities were not necessarily well-stated from the beginning. They could develop in parallel with the collaboration. Partners who might not see their distinct roles now, would start to see and pick up their competences in the long run.

However, the view on the leader role was different. Partners treated leader role as a must-exist role at all time in the collaboration. Though, it could be taken up by different people during different period. The currently leadership style in the collaboration was stressed as weak by interviewees. What missing from the style, according to several partners were the interdisciplinary, interorganizational factors that can connect cross-sectoral members beyond their differences.

“…I feel that the partners are not well-connected at this stage yet…but actually they should be...” – Manager
“…[the lead], it could be the companies, who bought the commercialization right and hence would lead. But now it was sort of like…a bit unclear and [companies] have no funding actually to do this…There is then university has funding… but then they are not really leading…And in a sense, they do not have the band with to lead this…They very much look at some detailed parts…not the big picture…” – Researcher

“…there is this kind of, lack of leadership interdisciplinary aspect… that would require that kind of understanding, the kind of vision…The more partner involves, the more difficult…it [current leadership style] is not strategic, it is not synergic…The vision should be based on strategic knowledge...” – Researcher

Besides suggestion to improve the leader roles, many partners wanted to have a new role - a coordinator for this project.

“…I feel the group hasn’t been working good either…There is this lack of enthusiasm in the group which should be promoted…and unfortunately that’s the catching issue…” – Manager

“…I think there is a need for someone acting as coordinator between partners…” – Manager

“……somebody should coordinate all the time... I have this mixed feeling that I could take that role. But I don’t know if I really have the time. And it is not what I should be doing…” - Researcher

There were a lot of issues regarding the leadership aspect in the NET collaboration. The data suggested that there was more than one leader in the project. The leadership style was described as weak and sporadic. Indeed, when asking about who partners thought as the real leader in the collaboration, each gave a name in their favor. Connecting all the data, I realized that this different perception derived from the sympathy and number of interactions that partner had with
the perceived leader. In each subgroup, there was a leader. And that leader role was supposed to lead and communicate members within that group. Therefore, a coordinator was wanted to connect all the subgroup together. This coordinator does not replace a leader, but rather he/she will manage the tension between the collective interest and individual/subgroup interest.

4.1.5 Trust is not a constant

At the beginning, the formation of this collaboration depends greatly on trust. From the interviews, there were two common types of trust found: competence-based trust and goodwill-based trust.

“[Company] was asked by [institution]…and there was no time so I said ‘I trust you’…” – Manager

“… small companies…they have the sense of value… the values can take a bigger role…might be more suitable [for the collaboration] …” – Researcher

“…And on the other hands, we know that in reality, in these kinds of processes [connection establishment], people are seldom think about it and then we sort of build on trust network…So that’s for me is like something I think about…” – Researcher

“…What attracts [me] is [that] it is the science project which is done by scientific team. I think that gives it a heavyweight in terms of credibility and worthiness…” - Manager

I also came across contractual-based trust in a couple of interviews.

“…And one measure of this trust is the commitment [organizations] are giving when they sign the agreement, so ranging of 10 000 to 15 000 Euros, so it is not very much but for small companies, even that kind of money can be wasted if they do not get anything back…” – Researcher
“…it is good if the agreement can be signed soon…I think we can trust that organizations will be more active and more actions will be taken…the money is paid and people get truly committed…” - Researcher

Trust needs to be nurtured constantly inside the collaboration. Unfortunately, the data showed that there were missing activities that could build up social capital, which eventually reinforced social trust overtime. Partners rarely met each other. A group meeting was not a common practice. Partners met each other every three or four months in the steering group meeting. However, that meeting was not the best platform to cultivate the social capital. In the last two steering group meetings, the group had to follow a fixed agenda. Each meeting lasted approximately three hours. There were a lot of topics to be covered. During the observation, I did not see the active participations and discussion between members. Critical topics such as roles and responsibilities never got brought up.

Not only members had few chances to meet up, indirect communication such as reports and emails were also poorly managed.

“…I also ask them to make the monthly report of what have been done…but it is somehow difficult…” – Manager

“…Communication could be done better or let’s say, too many times I sent emails but I do not get answers…So not pleased with that of course…It seems that ok we should have done already more. But everything is delayed somehow…” - Researcher

Many comments from interviewees could be interpreted as the lack of trust in fairness. The polarization is the apparent evidence for the erosion of confidence in ability to act and judge fairly. Lower trust in fairness destructed the open and transparent communication, which further developed the political sensitivity in the environment. In this environment, the relationship fell apart because contributors began to focus on the achievement of their own short-term goals without recognizing the achievement of wider social goals (Eric Boyer, James (Jed) Kee, John
Forrer, 2014). And that might partially explain why the consortium has been prolonged for much longer than expected.

“…Of course, until now I don’t trust [organization] very much because of this [the incident]. And they know… everybody knows and I don’t forgive easily…” – Researcher

“…I have lost trust after different events…” - Researcher

In summary, there were various reasons for the lack of trust in this case. First, it came from a weak foundation of mutual understanding, starting from the formation of the team. Second, the imbalance in power and membership structure caused doubts and envy among partners. Lastly, a weak leadership failed to motivate, coordinate and disseminate the knowledge transparently and equally. The case study suggested that in the condition of lacking trust, partners were apt to assume that others had opportunistic behavior. Bromiley & Cummings (1995) and John (1984) in their studies suggested similar findings. My study also further support conclusion drawn by Zaheer et al. (2002) that losing trust is a self-reinforcing downward spiral.

4.1.6 Performance matters only if it gets seen

Since the social innovation is still at the development stage, the delivery of public and social value to the users cannot yet be measured. Therefore, the intermediate outcomes/performances are important measurements to see if the collaboration is going on the right direction, what needs improving and promoting, and so on.

In term of accountability, it is clearly seen that this is one of many weakness areas of the NET collaboration. A closed, sporadic communication style has induced the prejudice and mistrust in partners. The lack of accountability has also weakened the resilience of the collaboration. This fact can be found from partner’s inability to let go of the past experience in making decisions. When an incident happened in the past, partners did not get a good explanation and felt the lack of sincere apology. They developed the cautiousness, which acted as a barrier in communication and interactions among each other. All in all, the lack of accountability contributed to the continued closed communication and the downward spiral of losing trust.
Knowledge sharing is essential in further innovation in collective environment. Unfortunately, this performance index was also poor. Both tacit and explicit knowledge were found to be in exchange in the PE NET collaboration. In accordance with the literature, explicit knowledge was more recognizable. Meanwhile, when it comes to tacit knowledge, partners did not share the common acknowledgement of it. Partners felt harder to give credits for the tacit knowledge contribution. The examples of explicit knowledge in this project are field testing reports, prototype of the products. Tacit knowledge examples were the academic knowledge, networks, planning knowledge.

Similar to the literature, I identified 3 levels of tensions that hindered the knowledge sharing process: primary level, secondary level and third level.

Primary level: I observed that partners from different fields understand certain subjects differently. The communication problem might have arisen because of this variations in vocabulary, worldviews. Partners deliberately suggested to define the boundary of working knowledge.

“…this is the balance when everyone can comment on everything but then, people need to stay in their roles…So if I go talking about how this project should do the field test, which I have no idea of how we should do it, then it is gonna go wrong… So this kind of like you know…recognizing one zone and the others and get interplay with that.” - Researcher

“…one of the problem I saw in this meeting with all companies is that there were some misunderstandings related to the science part in the field trial…We were asked to discuss in groups and people are saying things that are not really…has nothing to do with science and so on …And my opinion, this thing has to be left to the expert. So just not to allow anyone to discuss if they don’t have any background about it…” - Researcher

Secondary level: the collaboration has developed into different smaller projects. New research structures and new actors were introduced each time. In details, unclarity of the project Beta’s
management has led to the reluctance to share knowledge in the collaboration, even though it cannot represent the whole collaboration.

“…this kind of unclarity...how should I evaluate the amount of resource [time and knowledge] that I put into this…and the experience that I put is not used and then the knowledge, that is not recognized…it feels irresponsible to put further resource into it…” - Researcher

“…it is unclear about the possible winning prize from the competition…where would it be spent? It will not make sense for me to join further if it is not gonna be spent in this innovation product…” - Manager

*Third level:* Before the project Alpha and the introduction of the consortium, the project was described to have processed smoothly and nicely. After that, the matter of intellectual property right, contribution-benefit became more sensitive and inherently, it gave partners more reasons to be careful with knowledge sharing.

“…[partners] don’t like to buy something they have invented themselves, of course…there is some pressure on companies that are … ‘ok we have something in our mind… but we are not sure … do we want to bring it to your knowledge, or do we use it, I do not know’…” - Research

As we have seen, many small issues together have intensified the reluctance to share the knowledge. The three levels of tension have deteriorated the intrinsic motivation. Meanwhile, there was no the monetary reward system in place, even for the short term.

“…because this kind of innovative product is not [yet] bringing in any money to them at this point…So they would need to be probably convinced very strongly that this is going to be a good business for them in the future…” - Researcher
Recognition, giving credits can be done easily to influence the extrinsic motivations. However, partners failed to recognize the tacit knowledge contributed by certain organizations in the PE NET collaboration. The incidence of being careless in giving and taking credits for project’s work has generated misunderstanding and mistrust in the long run.

“…. It was one time, after I did experiences on many prototypes. The partner asked my result and they presented it in some university or so…They put their name, they didn’t put my name… It was a disaster…” Researcher
4.2 SME’s characteristics and involvement

In this section, I will present the collection of findings related to the SME’s specific characteristics. At the same time, I will analyze the causal relationship of those traits regarding SME’s interactions in the cross-sector collaboration for social innovation.

4.2.1 Heterogeneity

The purpose of NET collaboration was to find complementary skills and resources. Therefore, all SMEs involved in this collaboration are distinguish from each other, in terms of industry, business structure and even business’s geographical origin. The SMEs were invited into the collaboration through different personal contacts. The utmost thing they have in common is the passion for social contribution.

From SME’s interview, the owner-managers acknowledged the differences in their business expertise and the kind of contribution they could provide in this collaboration. One was meant to produce the final product, one had the knowledge and channels to distribute it and one can be the product development consultant, as well as a potential buyer. Not only diversity existed in the business function’s expertise, but also the local market’s expertise. Three SMEs are operating in different countries.

This heterogeneity had both good side and bad side. From one side, the diversity was good for level of knowledge and resource exchange. Partners did not do the same task, and therefore, the process was leaner and more efficient. One the other hand, the heterogeneity inflated the tensions regarding the level of contribution. Some SMEs might find their expertise to be in use right away. Others might need to wait until the next steps of the innovation to put their knowledge in practice. Unfortunately, the group’s communication has failed to explain that. It induced an image of unequal participations and treatments. Lastly, the heterogeneity generated conflicts and tensions in group due to industrial and company’s culture, language differences.
4.2.2 Lack of resources and time

From the case study, I can observe that the SMEs has no designated personnel for managing the collaboration. Owner-managers needed to travel for meetings and communicate with other partners in addition to their daily business tasks. Yet, academic institutions were not satisfied with the level of interactions with SMEs. Indeed, the SMEs themselves admitted the difficulties in keeping up with all activities because of the lack of time.

It is understandable that SMEs cannot provide the same amount of resources compared to the big corporations, not only in term of human resource, but also financial resource. The signing of TEKES consortium has been prolonged for more than two years. The main reason behind it was believed to be the unsettled terms concerning the 6000 Euros payment. SMEs were not satisfied with their rights and benefits attached to the payment. Academic institutions initially drafted the contract. They regarded this fee in the interviews as small. However, this amount was not considered small by the SMEs. Therefore, the expectations towards the benefit attached with the 6000 Euros were different from two sectors. This mismatch in understanding seemingly resulted in the unsatisfactory terms of the consortium.

One SME’s owner-manager clearly admitted this lack of resources has inhibited the active participation in the NET collaboration. The manager had to travel for the business often and cannot attend the NET meetings. Furthermore, the condition of the business was instable, which made the availability of the 6000 Euros consortium fee challenging. All SMEs had to divide this sum into several payment installments.

The data in the NET collaboration has supported the conclusion from O'Gorman (2006) that the limitation in resources has discouraged SMEs to nurture the technical and market-led innovations. In the case, the social innovation needed validating through several stages, from lab testing to market testing. The qualification as well as the success probability of it would be built up over time. Interestingly, SMEs struggled to accept this fact. The low level of outcome prediction has induced hesitated decisions and eventually disengagement with the innovation.
4.2.3 Strong personal orientation

It seems to me that the personal orientation of the owner-manager played a vital role in the whole process. Firstly, it can be seen from their motivations of participating. Despite the uncertainty in benefit returns and limitation in resource, SMEs still decided to stay with this project and determined to make it work. Their determination lied in the willingness to travel a long distance for the meeting, active participation in product testing, and actively seeking for new partners for the next steps. It could be concluded that the personal passion and goodwill have strengthened the commitments to the collaboration.

The personal orientation of the owner-managers acted as the enabler for the collaboration process. At the same time, it acted as the hinderance and source of conflicts. From the interviews, what I discovered was that the managers relied greatly on personal trust to make decisions. Apparently, there was not enough evidence and concrete support for many actions in the project. For example, SMEs did not know each other in advance. They did not have pass experience and cannot tell based on the other’s reputation to judge the success of the collaboration. Therefore, they relied on trust and personal feelings. Nonetheless, the collaboration failed to build a personal connection among SMEs and this has resulted in multiple tensions among them.
5. CONCLUSION

In this chapter, the conclusions of this study will be presented. I will compare them to my initial literature review, while simultaneously pointing out the new insights obtained through the research. Next, I will move onto the limitations of this study. After that, the recommendations for future research will be proposed. Lastly, the concluding remarks will briefly summarize the research objectives, research process and outcomes of this thesis.

5.1 Discussion

The findings and analysis presented in this research has indicated that PE collaboration is a complex entity. The study of cross-sector collaboration and social innovation are proliferated, yet, many of the current studied focus on collaboration with corporations. Through the case research, I have attempted to demonstrate the need to appreciate the uniqueness and differential challenges attached to SMEs when studying about cross-sector collaboration for social innovation.

During the case analysis, I investigated the three dimensions to understand the collaboration for social innovation. Simultaneously, I searched for the influences from SME’s characteristics to the dimensions. I combined all findings and found that although there seemed to be countless number of obstacles and thresholds that partners need to overcome in the PE collaboration, it was possible to group them in four main clusters of challenge. These clusters interplayed in a dynamic causal scene where the driving forces and collaboration conditions corresponded accordingly to. They were complex bureaucracy in the public sector, asymmetry between organization resources, dilemma of reciprocity and trust, and fragmented collaborative sub-systems. I will discuss in detail these challenges in the following.

*Complex bureaucracy in the public sector*

The funding under the project Alpha were believed by many partners to be complex and unevenly distributed among the group. Both SMEs and research institutions needed to pay an amount of fee for their participations. While research institutions considered the fee as an investment, the
SMEs regarded it as more of an expense. After paying the fee, SMEs would have the right to the results of the social innovation research. However, this consortium contract did not guarantee the ownership to the potential patents related to the innovation. Since the PE collaboration was at the early stage where most of the activities were product design and quality testing, conducted by research institutions, it has raised up a fence towards sharing knowledge between SMEs and the other organizations, and even among SMEs.

Furthermore, there were many conditions in using the fund. The product design and field testing could not be carried out as planned and the PE collaboration had to reallocate the focus on finding different sources of funding. Gradually, this incited the skeptics into the interactions where research institutions doubted if SMEs were the right partners and SMEs grew suspicious of the misusing the fund by research institutions.

From specific SME’s point of view, the complex bureaucracy in the public sector which were the rules and funding process has obscured the interactions among SMEs and between them and other partners. For example, because of SME’s limitation in resources and time which creates barriers for market-led innovations and long-term thinkings (O’Gorman, 2006), it is not relevant to involve them in an early stage of the social innovation where the business case is not apparent. Even though, SMEs are quick to accept the invitation due to the fast decision making based on the owner’s manager personal value orientation (Hammann et al., 2009), many of them struggle in the later stage to rationalize the cost/benefit ratio, the short-term/long-term outlook. In addition to that, the rules did not anticipate the difficulty in enforcing early ownership for social innovation. Unlike technological innovation, the division of contribution and outcome is vaguer and more complex. Instead of promoting active participation, the emphasis on ownership introduced skepticism and reluctance to contribute to the advancement of the social innovation.

Asymmetry between the organization’s resources

The first phase of the PE NET collaboration was complicated in terms of power and membership structure and trust. In the case study, SMEs and research institutions realized the unequal footing already at the group formulation stage. The inequality firstly derived from the deficit in resources and time of SMEs. Secondly, it came from the nature of the social innovation.
The lack of time and resources to contribute to the research phase restricted both knowledge sharing and disseminating. SME’s managers admitted that due to the nature of their businesses, they could not commit fully and expected to have greater flexibility in the collaboration. At the same time, due to the nature of the social innovation, the contributions among partners were not proportionate. The current innovation stage was carried out mainly by academic researchers, meanwhile SMEs struggled to find their short-term roles. As the result, partners, who managed to realize their roles in the earlier stage felt unfair and disappointed, meanwhile, those who were incapable of deliver short-term contributions, felt ambiguous, powerless and rejected.

The disappointment and resentment which were upheld among partners eventually degenerated mutual understanding and trust in the collaboration. Finally, the asymmetry replaced the collaborative environment with polarization where groups constantly sought ways to increase their power in order to influence other actors.

**Dilemma of reciprocity and trust**

Another challenge found in PE NET collaboration is the dilemma of reciprocity and trust. Reciprocity is the willingness to share knowledge and to understand the shared information. Trust is the willingness to be vulnerable; the reliance, and the confidence in the just, fair intentions and behaviors of the partners (Luo, 2002). The case showed that the form of trust changed during the collaboration, and was varied among partners.

Goodwill-based trust was found to be the foundation of all interactions. Between SMEs and academic institutions, competence-based trust was found to be the main bonding attribute. SMEs were attracted to the collaboration by the qualification of the scientist team. Meanwhile, academic institutions wanted to have smaller business’s participation because of their belief in the agility and ability to act upon personal ethical values. Among academic institutions, competence-based trust was identified. However, among the SMEs, the type of trust was found mostly contract-based trust. According to Forrer, John, et al. (2014), contract-based trust is the lowest level. It suggested that the bond between SMEs were the most fragile in the PE NET collaboration.
This finding reinforced the importance of the owner-manager in relationship building and decision making in collaborative environment (Hammann, Habisch, Pechlaner, 2009). It is essential for SME’s manager to meet up and get to know each other well before discussing about the business. This can leverage the trust from a lower level to a higher level; from contract-based to competence-based and further enhance the goodwill-based trust among SMEs.

Although literature suggests that trust can be gained in the later stage by sharing information and knowledge and demonstrating competency, good intentions (Huxham & Vangen, 2005), it is not easy to implement in all cases. SMEs in the case study, because of the confusions in roles and responsibilities, were under a competitive atmosphere, rather than collaborative. There was a lack of trust. Partners were not willing to share knowledge in the fear of losing negotiating power. The asymmetric resources and short-term focus hindered SMEs to have an open communication to gain further trust. Without further trust, it was much harder for partners to work together. This is a dilemma loop that was enhanced by the complex bureaucracy in the public sector.

**Fragmented collaborative sub-system**

The last challenge in the PE collaboration is the fragmented collaborative sub-system. Due to the imbalance in resources and the lack of trust, the collaborative environment was enthroned with power sensitivity and political lobbying. The appearance of collaborative sub-system was not only in knowledge sharing but also in decision making.

The collaborative sub-system allows greater efficiency in decision making and knowledge dissemination. However, if there are too many smaller groups and the role of “boundary spanner” is missing (Hoe, 2006). The collaborations yield fragmentation and asymmetry of power and degeneration of trust. At the moment, specific types of information were circulated in different sub-groups. On the one hand, partners claimed that they preferred others to stay in their own sectoral expertise in order to minimize the decision-making cost. On the other hand, they felt irritated and angry when they did not receive all information. This has again indicated that PE collaboration is likely to meet this challenge because of the notable sectoral difference between SMEs and public organizations. The further result from here is the lack of open communication
among groups. After all, the appearance of collaborative sub-system could intensify the lack of trust and power imbalance of the collaboration.
5.2 Theoretical contributions

The first contribution of this thesis is the research on social innovation process within a collaborative environment. The findings had validated an ongoing process where multiple driving forces influence each other. This interrelationships between the forces - mutual understanding, power and membership structure, leadership, trust - are embedded in a dynamic nature of collaborative interactions. The relations between collaborative driving forces and social innovation which were mentioned in the literature were also identified in my case study. The findings suggested the importance of an open exchange of information that could foster the mutual understanding, redistribute the power and increase the trust. This study also joins other research on emphasizing the direct impacts of the leaders in the collaborative innovation. The leader could facilitate the process with establishing network systems to facilitate the communication, and decision-making. Leader, simultaneously minimizing power and structure imbalance by clarifying roles and responsibilities, while making sure long-term and short-term contributions are equally valued.

The second contribution of this study lies in the documentation of four specific challenges that derived from the involvement of SMEs. Due to its specific context (SMEs engagement), this study could be used as a guideline for effective PE collaboration for social innovation. The challenges are complex bureaucracy in the public sector, asymmetry between the organization’s resources, dilemma of reciprocity and trust and fragmented collaborative sub-system. The data of the study showed that the present challenges are related strongly to three SME’s characteristic: (i) heterogeneous community, (ii) the limitation in time and resources, and (iii) the strong personal disposition of owner-manager in decision making. The existing literature as well as the case findings indicated the significances of independent interactions among owner-managers to the success of the collaboration. Unlike corporations, SMEs might need longer time to develop personal-business relationship. An intimate relationship was seen from the study as the most effective method to stimulate trust and collaboration.
5.3 Limitation of the research

The study was conducted under single-case research method. There are several critics with this method. One of the biggest limitations lies in the generalizability. However, it is important to acknowledge that in qualitative research, the generalizability does not come from a large population. At the same time, my purpose in this research was not to validate existing framework or data. Rather, I wanted to explore the robust and novel insights of a new context, through a comprehensive understanding of interactive individual experiences (Hycner, 1989). Furthermore, with other limitations of a master’s thesis such as time and resources, the single-case object allowed a greater control of the research environment and promoted a deeper understanding of the subject.

Social constructionism was the main philosophy influenced the research. That means the analysis I proposed based on my own pre-understanding and interpretation (Saunders et al., 2009). Because of that, other researchers when look at the same data, they might interpret them differently and hence, have their own meaningful images of the subject. I consider this undesired based is inevitable and essential. Because instead of undermining my work, it enriches the corpus of findings with extra dimensions, colors and possibilities, while simultaneously adds a unique value to my own study.

5.4 Future research directions

The study focuses on understanding the managerial challenges of the social innovation inside the Public-Enterprise collaboration. Closer attention was given to interactions between SMEs and public institutions and how they enable the process of knowledge sharing. Even though it gave interesting and novel insights into the PE context, more is needed to study how to overcome the challenges. A lot of constraints come from the characteristics of SMEs. Leadership was repeatedly recognized as a strong influence for the collaborative outcomes. My research also touched on the leadership topic, however from the angle of the causal relation. The future study could focus on finding the most suitable leadership styles and what type of practices in a specific set of conditions have more positive influences for the involvement of SMEs.
The owner-manager’s values and beliefs was also identified as the main influence on SMEs’ decision-making. An interesting research for future studies could be exploring the interactions among different SMEs’ owner-managers and how they play out in the collaboration context. The currently study also took into account those interactions. However, due to the limitation of interactions between SMEs and myself, I do not feel confident enough to draw a concrete conclusion on this subject. A longer research period and the ethnography research approach are strongly suggested for this topic.
REFERENCES


