

An exploration of the characteristics of co-creation in the B2B service business

This dissertation is for the degree of Doctor of Philosophy

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Declaration

This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text.

It is not substantially the same as any that I have submitted, or, is being concurrently submitted for a degree or diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text. I further state that no substantial part of my dissertation has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University of similar institution except as declared in the Preface and specified in the text.

It does not exceed the prescribed word limit for the relevant Degree Committee.

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Abstract

The emergence of the service economy challenges companies to understand co-creation, as this seems to be a central notion in service marketing and management, service design and service innovation. Additionally, businesses are increasingly interested in developing service operations together with their customers and in order to do this they need to work more closely with them. Furthermore, existing knowledge challenges companies to understand how they can engage with their customers' value creation and become value co-creators.

Reasons for the emergence of co-creation might be the changed business landscape of having services as a dominant factor fostering communication and interaction between companies and customers. Moreover, companies are finding it difficult to keep up with the competition and to meet customer demands through traditional business approaches so co-creation can offer a powerful mindset for businesses to tackle the challenges they face not only today but also in the future.

Thus this study seeks to understand co-creation within service marketing and management, service design and service innovation, based on qualitative empirical enquiry into B2B service businesses. The findings of the study indicate that certain characteristics of co-creation are needed in order to co-create and which can create potentiality for strategic thinking. The study contributes to academic knowledge by introducing a co-creation framework: The characteristics of co-creation in the B2B service business. The framework aims to clarify what co-creation is. As a practical implication the study increases the awareness of co-creation and the framework supports companies in adopting a co-creation approach.

Publications

Briscoe, G., Keränen, K. & Parry, G., 2012. Understanding complex service systems through different lenses: An overview. *European Management Journal*, 30(5), pp.418–426.

Keränen, K., 2013. CoCo - From co-production to co-creation. In *Tutkimusprojektijulkaisu 2013*. Helsinki: Tekes, pp. 26–34.

Keränen, K., Dusch, B. & Ojasalo, K., 2013a. *CoCo Tool Kit - A co-creation workbook and collection of tools for service businesses*, Espoo: Laurea University of Applied Sciences.

Keränen, K., Dusch, B., Ojasalo, K. & Moultrie, J., 2013b. Co-creation patterns : Insights from a collaborative service design tool. In *Conference proceedings. 2nd Cambridge Academic Design Management Conference, 2013*, University of Cambridge, pp. 1–14.

Keränen, K. & Ojasalo, K., 2011. Value co-creation in b-to-b-services. In *Campus Encounters - Bridging Learners Conference*. Porvoo: Campus Encounters - Bridging Learners Competences, Developing Competences for Next Generation Service Sectors, April 13-14, 2011, pp. 1–13.

Ojasalo, K. & Keränen, K., 2011. Designing a tool for analysing the current state of a company's co-creation approach. In *1st Cambridge Academic Design Management Conference, 2011*, University of Cambridge, pp. 1–12.

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"To know the road ahead, ask those coming back." (Chinese proverb)

This has been an exciting, challenging, enlightening and rewarding journey. It has been so because of the unpredictable nature of a doctoral thesis. People might say that there is nothing unpredictable about it and that it has all been done before by other people and the process is quite clear. So I thought too, at least to begin with. Yet once you enter the process and it becomes your personal learning and everyday way of life, the picture changes. It is no longer a technical process but one of personal learning involving many people, where the researcher is an explorer walking a tightrope between what is known and what is not known.

I have been extremely lucky to have many people tirelessly supporting my steps and coping with my excitement, frustration, distress and enlightenment. This study would not have been possible without the support of the University of Cambridge and my colleagues at the Institute for Manufacturing and at Laurea University of Applied Sciences, as well as my family and friends.

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1 Setting the scene

The emergence of the service economy (Ostrom et al. 2010; Spohrer & Maglio 2008) challenges companies to understand co-creation as it seems to be a central notion in service marketing and management (Grönroos & Voima 2013; Vargo & Lusch 2006; Vargo 2011), service design (Mattelmäki & Visser 2011; Meroni & Sangiorgi 2011; Sanders 2008) and service innovation (Chesbrough 2003; von Hippel 2005b; Magnusson et al. 2003). Additionally, businesses are increasingly interested in developing service operations together with their customers and in order to do this they need to work more closely with them. Furthermore, existing knowledge challenges companies to understand how they can engage with their customers' value creation and become value co-creators (Grönroos 2011a). Adding value through comprehensive customer solutions and getting new or changed services effectively into the market has become an important competitive advantage for companies.

Reasons for the emergence of co-creation might be the changed business landscape of having services as a dominant factor (Grönroos 2006a; Ostrom et al. 2010; Spohrer & Maglio 2008; Vargo & Lusch 2004) and Web 2.0 as an engagement platform fostering communication and interaction between companies and customers (Ostrom et al. 2010; Ritzer & Jurgenson 2010). Moreover, companies are finding it difficult to keep up with the competition and to meet customer demands through traditional business approaches. Based on management stream of co-creation literature, co-creation can offer a powerful mindset (tools) for businesses to tackle the challenges they face not only today but also in the future. (Prahalad & Ramaswamy 2004a; Prahalad & Ramaswamy 2004c; Ramaswamy & Kerimcan 2013; Ramaswamy & Gouillart 2010.)

Thus this study seeks to understand co-creation within service marketing and management, service design and service innovation based on qualitative empirical enquiry into B2B service businesses. The findings of the study indicate that certain characteristics of co-creation are needed in order to co-create and which can create potentiality for strategic thinking. The study contributes by introducing a co-creation framework embedding these characteristics, combining

the knowledge of co-creation within the fields of service marketing and management, service design and service innovation.

Before continuing the discussion it is important to clarify what is meant by co-creation, to avoid misunderstandings. Co-creation seems to be an ill-defined and confusing term and there appear to be many different, overlapping and even contradicting definitions (Chesbrough 2011; Grönroos 2008; von Hippel 2005a; Maglio et al. 2010; Roser et al. 2013; Vargo & Lusch 2006). The title of a recent article by Mattelmäki and Visser (2011), where the nature of co-creation and co-design is discussed, succinctly exemplifies the tangled nature of co-creation: “Lost in co-X”.

The literature on service marketing and management, service design and service innovation within the scope of service science defines co-creation in the following ways. A broader view in service science sees “service as value co-creation” where the “value is co-created by the interaction of the two” (Maglio et al. 2010, 2), and service science as the study of value co-creation (Maglio et al. 2010). Moreover Vargo and Lusch (2006) sees that “customer is always a value co-creator” (Vargo & Lusch 2006, 284). On the contrary, Grönroos (2011c, 290) indicates that only “during the direct interactions with customers, firms get opportunities to engage with their customers’ value creation and become co-creators of value”.

Related to co-creation in service design there appear to be two overlapping terms: co-design and co-creation (Sanders & Stappers 2008). Sanders and Stappers (2008, 6) see co-design as a “collective creativity as it is applied across the whole span of a design process” and co-creation as used “to refer any act of collective creativity, i.e. creativity that is shared by two or more people”, co-design being a “specific instance of co-creation”. According to Mattelmäki and Visser (2011, 11) co-design in relation to co-creation can be defined in two different ways. The first definition is that “co-design is a process and the planning, adjusting tools and facilitation is built on a mindset based on collaboration”. “Co-creation can take place within co-design processes but focusses much more on the collective creativity of involved users and

stakeholders”(Mattelmäki & Visser 2011, 11). The second definition is “when looking from another perspective outside design research and practice co-creation appears as a bigger trend and deals with openness, collaboration and partnership. From that perspective co-design is among the practices in which co-creation is concretized” (Mattelmäki & Visser 2011, 11). Innovation research sees co-creation as involving people and combining knowledge in order to co-innovate (Kristensson et al. 2008; Mannervik & Ramirez 2006).

Although there is still little agreement among academics seeking to explain co-creation, one prerequisite on which most researchers seem to agree is that there needs to be two or more parties involved in co-creation activities, meaning the actors in the co-creation process. In the B2B service business this would mean the company and its stakeholders (Grönroos & Ravald 2010; Prahalad & Ramaswamy 2004c). The parties, i.e. actors, of this study are suppliers and their customers. Moreover, there appears to be a connection between co-production and co-creation and these terms are also often used mutually (Payne et al. 2008). This study sees co-production as a series of actions performed within the parameters defined by the provider while jointly producing a service together with a customer at the moment of delivery, i.e. the customer is seen as a co-producer (Bendapudi & Leone 2003; Grönroos 2006a; Payne et al. 2008; Vargo & Lusch 2006; Grönroos & Voima 2013).

When combining the knowledge of co-creation in the literature with the assimilation of co-creation as a word as presented in chapter 1.5 (Key definitions), this study sees co-creation as *a joint value creation process* (Grönroos & Voima, 2013) *of developing services including co-design* (Mattelmäki & Visser 2011; Sanders & Stappers 2008), *influencing on the strategic level and business as usual* (Grönroos & Voima 2013; Vargo & Lusch 2006) *and facilitating innovations* (Kristensson et al. 2008; Roser et al. 2013).

The evolution of co-creation can be said to have commenced in 1979 (Moraczewski 1979) when the first article focusing on co-creation was published, according to the findings of a Scopus literature search for the word “co-creation/cocreation” in the title, abstract or keywords of articles from 1960 until

2011. The number of such articles was 428. Based on this primary search, it was not until 2000 that the first article (Sheth et al. 2000) was published with the word “co-creation/cocreation” in the title, abstract or keywords related to business activities within the fields of marketing and management, design or innovation. Thus the research of co-creation is still young.

Next, the evolution of service marketing and management, service design and service innovation is explored to better understand co-creation and its relations within these fields.

1.1 The evolution of service marketing and management, service design and service innovation related to co-creation

In the literature on service marketing and management, service design and service innovation are positioned in service science. Service science applies scientific understanding to advance the ability to design, improve, and scale service systems for business and societal purposes (Spohrer & Maglio 2008). Service science aims to integrate elements of business strategy, management sciences research, computer science operations, industrial engineering, social and legal sciences and others in order to encourage innovation in how organisations create value for and with customers and stakeholders that could not be achieved through such disciplines in isolation (IfM & IBM 2008).

According to Bitner et al. (2008, 228), a working definition of service science is “an emerging discipline that focuses on fundamental science, models, theories and applications to drive innovation, competition, and quality of life through service(s)”. Recently Arizona State University (ASU) researchers have been working across disciplines on a “Services Science Initiative” that will provide an umbrella for bringing together much of what is currently being done within the broad definition of service science on their campus. Ostrom et al. (2010) define service science as an emerging interdisciplinary field of inquiry that focuses on fundamental science, models, theories, and applications to drive service innovation, competition, and well-being through the co-creation of value. It involves service innovation, which creates value for customers, employees,

business owners, alliance partners, and communities through new and/or improved service offerings, service processes, and service business models (Ostrom et al. 2010). Next this evolution and its relation to co-creation in service marketing and management, service design and service innovation is discussed separately to maintain clarity, although they partly overlap. Service marketing and management seems to have the main role in this discussion and it seems that service design and service innovation both partly date back to service marketing and management (see figure 1.1).

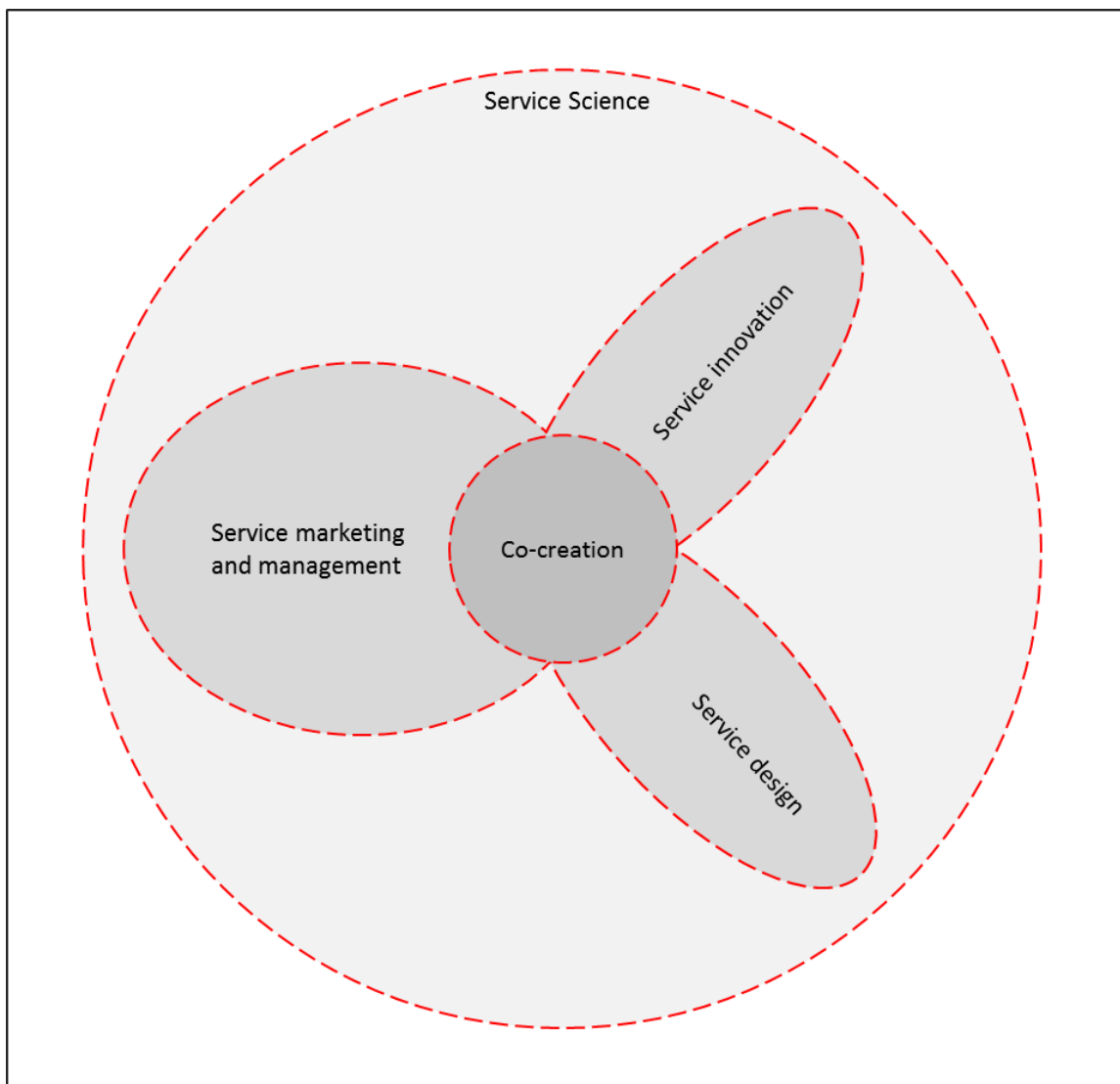


Figure 1.1: Service science and co-creation

1.1.1 The evolution of service marketing and management

The evolution of multidisciplinary service marketing and management can be characterised in six periods: Crawling out, Scurrying about, Walking erect, Making tools, Creating language and Building community (Fisk et al. 1993; Spohrer et al. 2010; Dickson & Ford 2010) (see table 1.1) .

Table 1.1: The evolution of service marketing and management (Fisk et al. 1993; Spohrer et al. 2010)

1st period 1953-1979 Crawling out	2nd period 1980-1985 Scurrying about	3rd period 1986-1992 Walking erect
Service marketing and service operations became distinct from goods marketing and operations Introducing two marketing models: The servuction model and the interaction model	Introducing of dyadic interactions between a supplier and a customer Introducing relationship marketing More focus on designing services	Models describing the process of new service development Issues such as service quality, design, management of service production and encounters, the role of customers, intangibles and the physical environment in the customer's evaluation of services
4th period 1993-1999 Making tools	5th period 2000-2010 Creating language	6th period After 2010 Building community
More quantitative research including measurement, statistics and modelling which supports decisions More multidisciplinary research Introducing co-creation as a word	The concept of a service system is beginning to take hold, uniting many perspectives The field is expanding rapidly with an expansion of literature worldwide Publications on service design Service-dominant logic/ Service logic is gradually replacing the traditional view of goods-versus-services The emergence of co-creation	Focus on building the interdisciplinary community that includes a variety of disciplines interested in services Research should address the customer perspective across the disciplines rather than taking a narrow view of one discipline

The first period, from 1953 until 1979, is called the *Crawling out* period (Fisk et al. 1993), during which service marketing and service operations became distinct from goods marketing and operations. Much research and discussion focused on the question of how services differ from goods. The classic distinctions between services and goods were: intangibility, heterogeneity, inseparability (simultaneous production and consumption), customer participation and perishability (e.g. Shostack 1977). Additionally, two internationally recognised schools of service marketing were established (Berry & Parasuraman 1993): one

in France (Eiglier & Langeard 1976) and one in Scandinavia, the Nordic School of Marketing (Gummesson 1987; Grönroos 1983). During this period these two schools of service marketing introduced two different models emphasising interactions with customers, the servuction model (Eiglier & Langeard 1976) and the interactive marketing model (Grönroos 1978), which could be seen as foundational models for value co-creation in marketing although the term “co-creation” was not used. Furthermore, during this period of time customers were already seen as co-producers, taking part in the production of services (Eiglier & Langeard 1976; Grönroos 1978; Gummesson 1979).

The second period, from 1980 until 1985, is called the *Scurrying about* period (Fisk et al. 1993). A core group of service academics and business practitioners was developed. Services research moved beyond articulating and identifying the distinction between goods and products while still being mostly conceptual. The literature highlighted, for example, the classification for services (Lovelock 1983) and quality in services (Berry et al. 1985). It was during this time that the service encounters were presented, acknowledging the dyadic interactions between a supplier and a customer as an influential factor in the customer’s overall satisfaction with the service provided (Fisk et al. 1993; Solomon et al. 1985). Additionally, relationship marketing (Berry et al. 1988) and designing services were introduced (Shostack 1984).

The third period, between 1986 and 1992, is called the *Walking erect* period (Fisk et al. 1993). Several models describing the process of new service development emerged (e.g. Kelley et al. 1990). Other emerging topics included, for example, how to measure service quality (Parasuraman et al. 1988), the design and management of service production and encounters (Solomon et al. 1985), and the role of customers, intangibles, and the physical environment in the customer’s evaluation of the services (e.g. Larson & Bowen 1989; Hui & Bateson 1991). In addition to new service development, this period of time includes interesting research topics that could be viewed as roots of co-creation, such as research on service encounter, focusing on interaction between the supplier and the customer (Czepiel 1990); service design research introducing service blueprinting and service mapping, focusing on incorporating suppliers

and customers activities in the same flow chart (Shostack 1984; Shostack 1987; Shostack 1992); and customer relationship marketing, focusing on retaining and attracting existing customers (Berry 1983; Fisk et al. 1993; Grönroos 1990).

The fourth period, from 1993 until 1999, is called the *Making tools* period. During this time service research was broadened, deepened and sharpened and it became more quantitative, including measurement, statistics and decision support modelling (Fisk & Grove 2010). There was more multidisciplinary research in research areas such as service design, service experiences, service quality and customer satisfaction, connecting operational factors that affect quality to customer loyalty and service orientation, service supply chains, service recovery, technology infusion and service computing (IfM & IBM 2008). Additionally, it appears that the first articles were launched which included co-creation as a word in service marketing (Bitner et al. 1997; Cova 1996). Cova (1996, 498) discusses postmodernism and its influence on marketing managers, proposing that marketing should focus on creating interactive links between the suppliers and customers, adopting “an interactive experience of co-creation of meaning for the customer”. Moreover Bitner et al. (1997, 199) demonstrates a case where customers of Weight Watchers International “actively work to co-create the service product”, seeing the customers’ participation in service productions as a compulsory activity.

The fifth period, from 2000 until 2010, is called the *Creating language* period (Fisk & Grove 2010). New models of service were emerging and the concept of a service system began to take hold, uniting the many perspectives. The field was expanding rapidly with an expansion of literature worldwide. In relation to the emerge of service design, many publications emerged which focused on service design from the designers’ point of view (e.g. Kimbell 2011; Mager & Sung 2011; Moritz 2005; Zomerdijk & Voss 2009). The service-dominant logic view (e.g. Vargo & Lusch, 2004) and service logic (e.g. Grönroos, 2006a) were gradually replacing the traditional view of goods-versus-services, with a view of service as “value-creating support to another party’s practice” (Grönroos 2011c, 285). It seems that co-creation as the central phenomenon in service-dominant logic and service logic will “continue to be a catalyst for important research in the

future” (Ostrom et al. 2010, 3). Moreover, from the management perspective, Prahalad and Ramaswamy (Prahalad & Ramaswamy 2004a; Prahalad & Ramaswamy 2004c) introduced co-creation building blocks named DART, focusing on interactions between company and customer to support co-creation activities, involving managers in the paradigm shift from conventional value creation to co-creation of value.

The last period, after 2010, is called *Building Community and* describes the future planning of service research. The main focus in future activities seem to be on building an interdisciplinary community which includes a variety of disciplines interested in services. It is pointed out that research related to services should address the customer perspective across the disciplines rather than taking a narrow view of a single discipline. (Fisk & Grove 2010) Next, the evolution of service design literature is explored.

1.1.2 The evolution of service design

The evolution of service design in relation to co-creation in the design paradigm is concise and can be divided into three periods: Early steps, A new design agenda and The emergence of service design (see table 1.2).

Table 1.2: The evolution of service design

1st period 1970-1989 Early steps	2nd period 1990-2000 A new design agenda	3rd period After 2000 Emergence of service design
Participatory design (PD) emerges as an opposite paradigm to user-centered design, having its roots in Scandinavia The idea of user involvement	Paradigm shift from manufactured goods to services Service design in design paradigm is introduced in the early 1990s	Highlighting co-creation, participation and engagement Growing attention to the role of design for innovation i.e. design innovation Users seen as co-designers and co-creators

The first period, from 1970 to 1989, can be called Early steps. It seems that service design has its roots and reasoning both in participatory design, rooted in the 1970s in Scandinavia, and in service marketing and management. Participatory design can be understood as an opposite paradigm to user-centred

design (Holmlid 2009; Sanders 2006; Sanders 2008; Schuler & Namioka 1993) (see figures 1.2 & 1.3).

Service design and its research activities in marketing and management were explored in the previous section, but to further understand the nature of participatory design and its relation to co-creation in design paradigm Sanders (2006, 2008) has designed a Map of Design (see figure 1.2). The horizontal axis of the map includes two extremes: an expert mindset which sees users as reactive informants, and a participatory mindset which sees users as co-creative partners. The vertical axis of the map demonstrates both the design-led approach and the research-led approach. The map is divided into four sections between the two axes: design-led with expert mindset, research-led with expert mindset, design-led with participatory mindset, and research-led with participatory mindset.

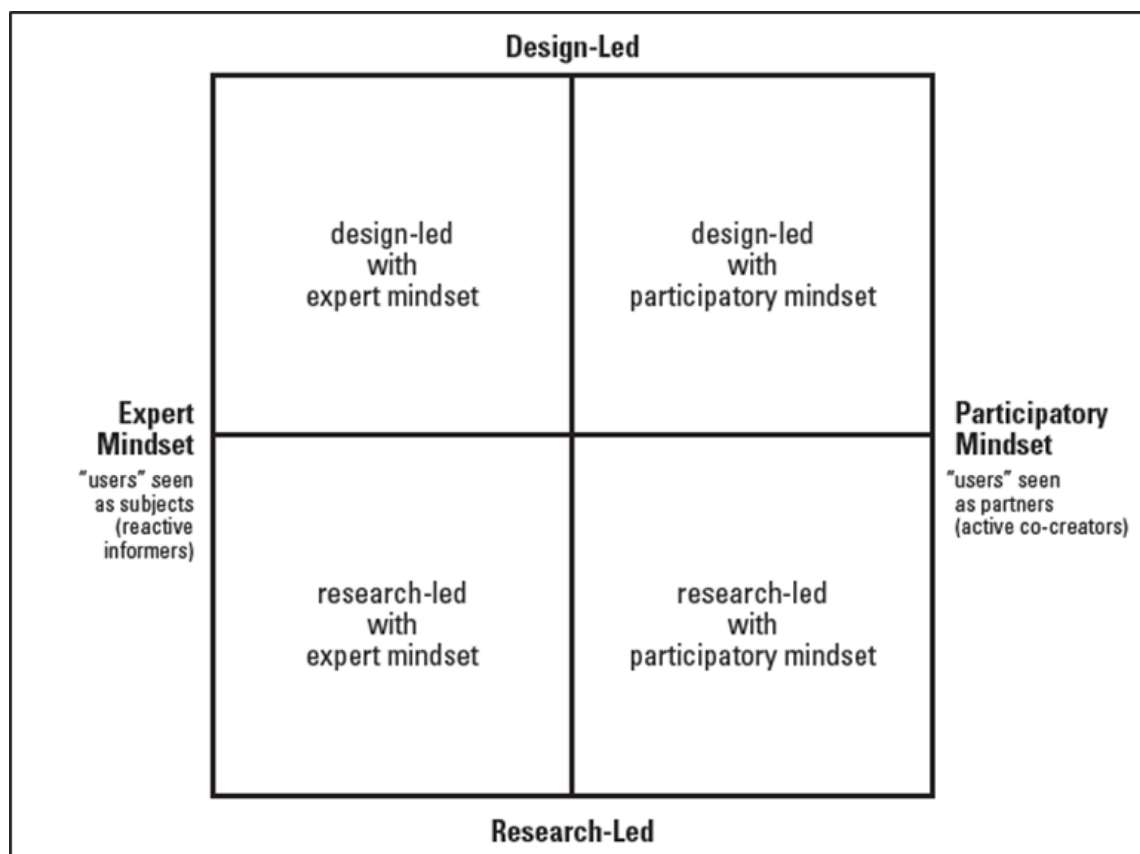


Figure 1.2: Map of Design Research – Underlying Dimensions (Sanders 2008, 14)

Next, light-coloured circles are added to the map (see figure 1.3) describing the different design zones to display the mindsets and approaches of different design disciplines including co-creation. An additional blue circle demonstrates how people-centred innovation covers lead user innovation in user-centred design. Moreover, applied ethnography and participatory design seems to be located mostly in the research-led participatory mindset area. The map also indicates how broadly co-creation seems to overlap with both the participatory mindset and people-centred innovation, including a notion that users are seen as partners, i.e. active co-creators. Furthermore, the map demonstrates the overlap of disciplines (Sanders 2006; Sanders & Stappers 2008).

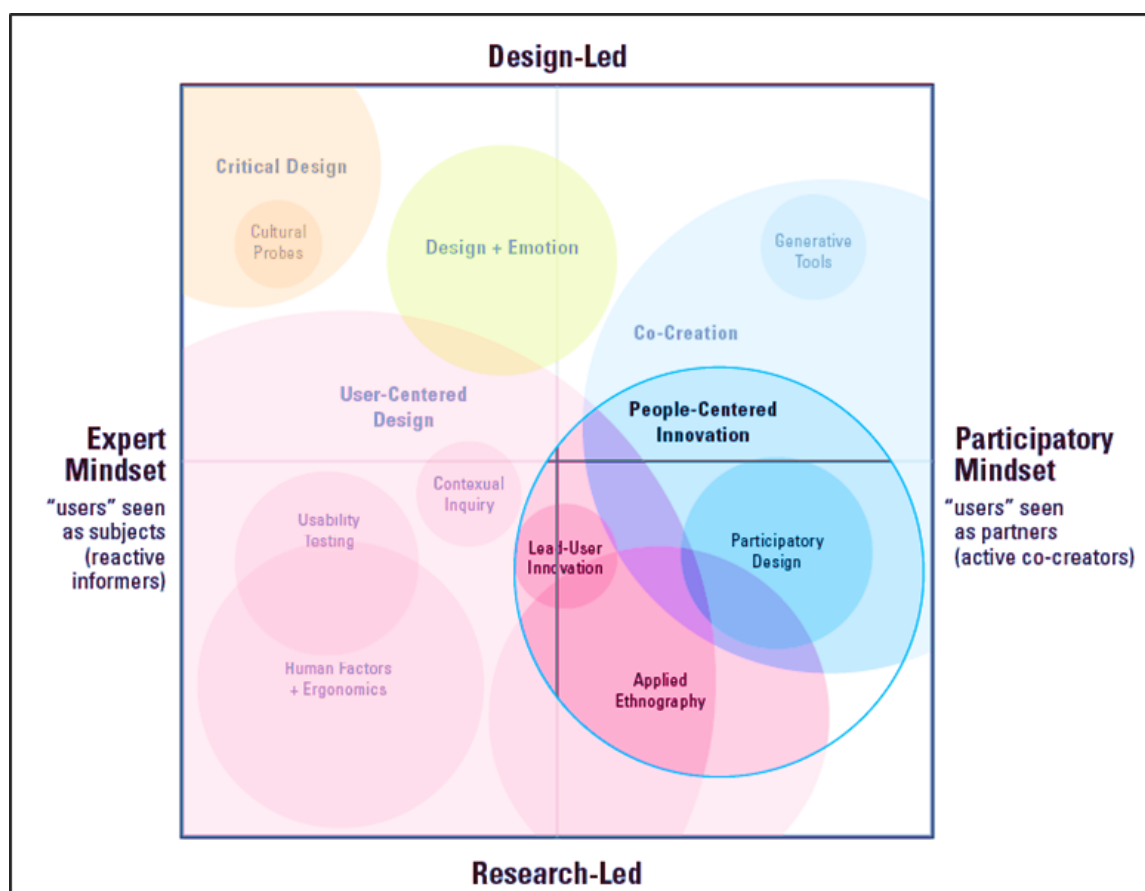


Figure 1.3: People-Centred Innovation Overlaid on the Map of Design Research (Sanders 2008, 14)

The second period, from 1990 to 2000, can be called A new design agenda. During the early 1990s service design was first introduced in design paradigm, mainly by a group of design thinkers such as E. Manzini, G. Hollins and B. Hollis,

within a new design agenda originating from the growing service economy embedding a paradigm shift from manufactured goods to services (Hollins & Hollins 1991; Meroni & Sangiorgi 2011). However, it took about decade before it could be called an emerging paradigm (Saco & Goncalves 2008; Mager & Sung 2011; Moritz 2005;).

The third period, from 2000 until today, can be called The emergence of service design. Kimbell (2011) has conceptualised service design to enable better understanding of the field and its relation to design and service (see figure 1.4). The figure is two-fold, in which the horizontal axis demonstrates design approach and the vertical axis service approach, including two ways of considering design and service. Regarding services, differentiation is made on the basis of goods-dominant and service-dominant logic (Vargo & Lusch 2004), meaning that services can be seen separately from goods or service as a “basic unit of economic exchange”, or as a sub-set of them. Regarding design, “problem-solving” is seen to comprise expert-led design or “design as enquiry”, meaning that design implements an exploratory mindset including end-users and other possible stakeholders. To understand service design better, four different aspects are included in the figure: engineering, service engineering, non-engineering design disciplines and designing for services. Based on this figure, service design is placed in the fourth quarter i.e. designing for services including exploratory user-involvement and seeing services as a fundamental unit of exchange. Here, designing for services is seen as “one specific way of thinking service design”, demonstrating the idea that service is an on-going process which can only be designed for, as the end product includes customer input (Kimbell 2011, 45.)

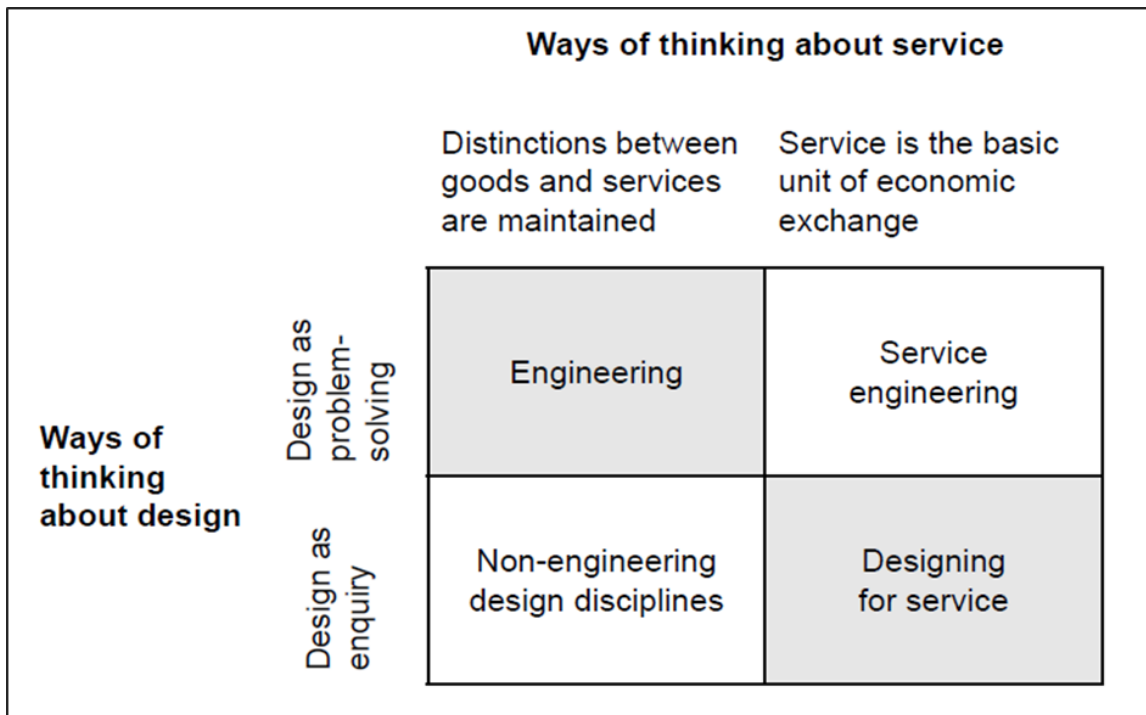


Figure 1.4: Approaches to conceptualising service design (Kimbell 2011, 45)

Additionally during this period, service design literature highlighted co-design, co-creation, user participation and engagement, which will be further discussed in the Chapter 3. Moreover, there was a growing recognition of design for innovation” (Meroni & Sangiorgi 2011; Prendiville 2009). Next, the evolution of service innovation is explored.

1.1.3 The evolution of service innovation

The evolution of service innovation is concise and can be divided into four phases: Formation, Maturity, Multidimensional, and Future (Carlborg et al. 2014) as in Table 1.3.

Table 1.3: The evolution of service innovation

1st period 1986-2000 Formation phase	2nd period 2001-2005 Maturity phase	3rd period 2006-2010 Multidimensional phase	4th period After 2010 Future
Challenging the existing product-expert-technology-centric view	The paradigm shift from manufactured goods to services	Call for more multidisciplinary research also including products	All-encompassing service innovation concept
Expert-driven innovation as a dominant perspective	The driving force can be seen in service marketing and management research, seeing customers as active participants and co-creators of value	Design innovation	How to continuously adapt, redesign and develop new services including products
The first service innovation model is introduced	Open innovation and new service development is introduced including customer involvement	Users seen as co-innovators or co-creators	The interplay between NSD and NPD and developing a one integrated development process

The first period, from 1986 to 2000, can be called the Formation phase (Carlborg et al. 2014). Because of the emergence of service economy there was a growing interest in service innovation and a core group of researchers focused on creating theories for service innovation (e.g. Barras 1986; Gallouj & Weinstein 1997; Sundbo 1996; Sundbo 1997). Before this period, innovations were mainly driven by technological development (Toivonen & Tuominen 2009), emphasising expert driven research and development (R&D) in which separate R&D departments were responsible for innovative practices and innovations. The first service innovation model, the “reversed product cycle” model, was created during this time and demonstrates a reversed innovation cycle which starts by improving the service processes and quality and leads to product innovations and generating new services (Barras 1986, 166). In this regard, this period partly focuses on the same topics as the third and fourth periods in service marketing and management.

The second period, from 2001 to 2005, can be called the Maturity phase (Carlborg et al. 2014). Here, the driving force can be seen as service marketing and management research, seeing customers as active participants and co-creators of value (Carlborg et al. 2014). During this period customer involvement (Alam 2002; von Hippel 2005b; Magnusson et al. 2003; Matthing et al. 2004) was the topic of discussion, introducing open innovation (von Hippel 2005b) and the new service development (NSD) (Alam 2002; Magnusson et al. 2003) which focused on how to learn from and with customers (Carlborg et al. 2014). Open innovation and NSD will be discussed in more detail in Chapter 3.4.

The third period, from 2006 to 2010, can be called the Multidimensional phase. During this period of time there was a call for more multidisciplinary research also including product innovation. The research emphasised that technological and non-technological innovations should not be viewed as separate but as connected (Carlborg et al. 2014.)

The fourth period, after 2010, can be called the Future, which calls all-encompassing research on service innovation. Additionally, because of the dynamic changes in the environment, the research should focus on how to continuously adapt, redesign and develop new services including products. Thus the focus should be not only on understanding new service development and new product development but also on developing a single integrated development process. (Carlborg et al. 2014.)

To conclude, it seems that the early seeds of co-creation thinking in the fields of service marketing and management and service design were already planted in the 1970s. In service marketing and management, the idea of co-creation was embedded in the early marketing models (Eiglier & Langeard 1976; Grönroos 1978). In service design, co-creation seems to be rooted both in service marketing and management and participatory design including the notion of seeing users as partners and active co-creators. In service innovation, co-creation can be seen as a part of the open innovation and new service development discussion involving users, thus overlapping with the service design approach to co-creation. In current service marketing and management, co-

creation is seen as a driving force within service-dominant logic (e.g. Vargo & Lusch 2004), service logic (e.g. Grönroos 2006b) and co-creation building blocks called DART (e.g. Prahalad & Ramaswamy 2004a). In the chapter 3 these topics will be discussed further.

1.2 Knowledge gap

As we see in the previous chapter, the notion of co-creation seems to be embedded in the discussion in all three fields. It could be even espoused as “the next big thing” (von Hippel 2005a; Ostrom et al. 2010; Prahalad & Ramaswamy 2004c; Ramaswamy & Gouillart 2010; Spohrer et al. 2010). Yet co-creation seems to be a rather abstract term and ill-defined theoretically and empirically (e.g. Grönroos 2011c); thus there seems to be a need to empirically research the nature of co-creation.

In order to initiate empirical study, the exact knowledge gap in co-creation must be defined. Consequently a primary literature review was conducted using Scopus to find the word “co-creation/cocreation” in the title, abstract or keywords of articles before the end of 2011. The number of such articles was 428.

As well as this primary search, an additional literature search was performed in May 2014, before submitting the thesis, to underpin the contribution of this study to the latest literature. This second Scopus literature search was made for the word “co-creation/cocreation” in the title, abstract or keywords of articles between January 2012 and May 2014, and 396 instances were found. Complementary searches were made during the study using the references of the articles detected in Scopus searches.

Having more than 900 articles altogether (after two Scopus searches and the complementary ones) meant having to narrow the focus to define the most seminal articles, focusing on the core development of co-creation within businesses and in the fields of this study. Only articles were finally selected which: a) had co-creation as one of the core topics, b) were within the fields of marketing, management, design, and innovation, and c) related to the business

activities. As a result, 21 articles published in 2011 or earlier were chosen as a first set (see appendix 1) and 30 articles between January 2012 and May 2014 were chosen as a second set (see appendix 2). The first set of articles is used to define the knowledge gap and discussed more detail in Chapter 3. The second set of articles is discussed at the end of this study (see chapter 6) in relation to building the final framework and the contribution of this study.

Although the notion of co-creation had been discussed in the literature since 1979 (Moraczewski 1979), it was not until 2000 when the first article (Sheth et al. 2000) was published with the word “co-creation/cocreation” in its title, abstract or keywords related to business activities within the fields of marketing and management, design or innovation. The table demonstrates the co-creation research in numbers until the end of 2011. It analyses the research from three different perspectives: 1) conceptual or empirical, 2) focusing on supplier’s and/or customer’s co-creation activities or having no specific focus, and 3) focusing on transactions in business-to-consumer (B2C), business-to-business (B2B) or having a generic approach. Table 1.4 demonstrates that 13 out of 21 articles are conceptual and only eight empirical. Furthermore, the red squares indicate that there seem to be no empirical studies focusing on co-creation from the B2B perspective and only three with either a customer or both supplier and customer focus.

Table 1.4: The nature of co-creation research in marketing and management, design and innovation until the end of 2011

1	2				3		
	Supplier focus only	Customer focus only	Both supplier and customer focus	No specific focus	B2C	B2B	Generic
Conceptual 13	0	0	0	13	4	0	9
Empirical = 8	=5	=1	=2	=0	=7	=0	=1
Qualitative 6	4	1	1	0	6	0	0
Quantitative 2	1	0	1	0	1	0	1
Qualitative & quantitative 0	0	0	0	0	0	0	0
Altogether 21	5	1	2	13	11	0	10

The articles detected encompass the following perspectives on co-creation:

- Comparing conventional (i.e. traditional) approaches to co-creation (Prahalad & Ramaswamy 2002; Prahalad & Ramaswamy 2004b; Prahalad & Ramaswamy 2004c; Ojasalo 2010; Witell et al. 2011)
- Demonstrating the evolution of design research in relation to co-creation and comparing co-design and co-creation (Mattelmäki & Visser 2011; Sanders 2008)
- Seeing co-creation as a part of the movement toward customer-centric marketing (Sheth et al. 2000)
- Seeing co-creation as a central notion within service-dominant logic (Vargo & Lusch 2004; Vargo & Lusch 2007; Vargo et al. 2008) and service logic (Grönroos 2006a)
- Seeing co-creation as a part of customer involvement in innovation (Hoyer et al. 2010; Kristensson et al. 2008)
- Discussing rationalisation in adopting co-creation thinking (Gebauer et al. 2010; Ngugi et al. 2010; Nuttavuthisit 2010; Prahalad & Ramaswamy 2004a; Zhang & Chen 2008)
- Discussing the challenges in adopting co-creation (Cova et al. 2011; Echeverri & Skalen 2011; Fisher & Smith 2011; Zwick et al. 2008)
- Introducing co-creation frameworks (Payne et al. 2008; Prahalad & Ramaswamy 2004a; Prahalad & Ramaswamy 2004b).

Consequently it seems that there is a knowledge gap in co-creation research related to B2B service business and that in the B2B service businesses it is more crucial than in B2C (business-to-customers) business to know customers, their business models and their processes (Ojasalo & Ojasalo 2010). Grönroos (2011a) also suggests that adopting service logic including value co-creation into B2B business requires further research. Additionally, the literature indicates that the supplier can only create value for itself through supporting the customer's value creation (Grönroos 2011a) and that co-creation is seen as a dynamic way to create value (Prahalad & Ramaswamy 2004a; Ramaswamy & Guillard 2010).

Moreover, as co-creation seems to be a rather abstract and theoretically ill-defined term, more empirical research is needed to establish a better theoretical clarity in order to support B2B companies in adopting co-creation activities. In other words this complexity needs to be turned into something more rigorous and which companies can understand. Additionally, it seems that there are no frameworks which look at co-creation from three different perspectives: service marketing and management, service design and service innovation. In conclusion, it seems essential **to explore the characteristics of co-creation in the B2B service business** to foster both the supplier's and the customer's value creation.

To conclude the priority of this research is not to address whether co-creation is a new or old phenomenon or why it is has become so popular. Instead it attempts to establish theoretical clarity about co-creation in the B2B service business from both a supplier and a customer perspective by integrating current knowledge about co-creation within the fields of service marketing and management, service design and service innovation.

1.3 Research objectives and questions

This study aims to establish theoretical clarity about co-creation in the fields of service marketing management, service design, and service innovation through in-depth case studies of B2B service businesses (i.e. suppliers) and their customers. Therefore, this study begins by defining current theoretical positions in literature, before generating an understanding from praxis. The empirical research is executed in two rounds: an exploratory case study followed by a descriptive case study. From this, the characteristics of co-creation will be mapped in the context of the B2B service business.

Gaps in the literature are identified as:

- 1: A need for clarification of co-creation in the B2B service business.
- 2: A need to provide a more comprehensive theoretical framework of co-creation.

This leads to an overall objective which is to understand co-creation in the B2B service business. The leading research question of this study is: How to understand co-creation in the B2B service business? (RQ1)

The study is accomplished in three different phases (see table 1.5), each with a specific objective and sub-question. In Phase 1 the specific objective is to translate current theoretical insights into a conceptual framework of co-creation, and the related sub-question (RQ 1a) is: What is co-creation, based on current theory? In Phase 2 the specific objective is to understand co-creation in the B2B service business based on empirical findings and to synthesise empirical findings into a refined co-creation framework. The sub-question (RQ1b) supporting Phase 2 is: How are the theoretically derived principles of co-creation applied in the B2B service business? In Phase 3 the specific objective is to deepen understanding of co-creation, based on empirical findings, and to synthesise empirical and theoretical findings into a final co-creation framework. The sub-question (RQ1c) supporting Phase 3 is: What are the characteristics of co-creation in the B2B service business?

Through these research objectives and questions this study aims to understand co-creation in the B2B service business by capturing the status quo, embracing both the theoretical and the practical side of co-creation. This study contributes to academic knowledge of the B2B service business research by constructing a co-creation framework introducing the characteristics of co-creation in the fields of service marketing and management, service design and service innovation. In turn, the co-creation framework: The characteristics of co-creation in the B2B service business aims to clarify what co-creation is and to increase awareness of it.

Table 1.5: Research objectives, questions, methods and contribution

Overall objective	To understand co-creation in the B2B service business		
Phase	Phase 1 Building a conceptual co-creation framework	Phase 2 Exploratory study: Understanding co-creation	Phase 3 Descriptive study: Detailed case studies of co-creation
Timetable	October 2010-June 2011	January 2011-August 2012	September 2012-April 2014
Related chapters	Chapter 3	Chapter 4,6,7	Chapters 5,6,7
Specific objectives of each phase	To translate current theoretical insights and understanding into a conceptual co-creation framework	To understand co-creation in B2B service business based on the empirical findings To synthesise the empirical insights into a refined co-creation framework	To deepen the understanding of the co-creation based on the empirical findings To synthesise the empirical and theoretical insights into a final co-creation framework
Research questions	RQ1 How to understand co-creation in the B2B service business?		
	RQ1a What is co-creation based on current theory?	RQ1b How are the theoretically derived principles of co-creation applied in the B2B service business?	RQ1c What are the characteristics of co-creation in the B2B service business?
Research method	Literature review	Case study <ul style="list-style-type: none"> ▪ 3 cases ▪ 21 semi-structured interviews 	Case study <ul style="list-style-type: none"> ▪ 9 cases ▪ 18 workshops ▪ 18 maps of customer-supplier relationship
Academic contribution	Conceptual co-creation framework	Refined co-creation framework	Final co-creation framework exploring the characteristics of co-creation in the B2B service business

1.4 Research scope

This study began by searching the different options within the service field, which was chosen because of the background of the author in both service business and service education. Beside an educational background in services the author has spent over 20 years as an entrepreneur (SME) in the service field and has also worked in academia in relation to service marketing and management, service design and service innovation. Thus it was a personal passion and know-how that led to the choice of the service field. Furthermore, as an entrepreneur, the author knew the importance of working more closely with customers to

understand their value creation in order to create/co-create solutions for their challenges. When the literature proposed that co-creation is an emerging notion in the service field and an actual knowledge gap was detected, research on co-creation in the service field was an ideal topic.

The results of the primary literature search suggested enquiry into B2B services, where no research on co-creation could be found, rather than B2C services where some research already existed (Echeverri & Skalen 2011; Gebauer et al. 2010; Edvardsson et al. 2010; Payne et al. 2008). As it would not be possible to look at all kinds of service companies, the primary literature search and the background of the author led to a decision to focus on SMEs and their customers rather than large service companies. More specifically, the focus of this study is threefold. It is to understand co-creation in the fields of service marketing and management, service design and service innovation.

In service marketing and management, specific attention is given to how co-creation is seen through the lenses of service-dominant logic and service logic as drawn from the marketing theory of having value co-creation as their central phenomenon (Grönroos 2006b; Vargo & Lusch 2004). Additionally, the well-established managerial co-creation mode of Prahalad and Ramaswamy (Prahalad & Ramaswamy 2004c; Ramaswamy & Guillard 2010) is explored.

In service design the focus is on understanding how co-creation should be understood through the lenses of service design and how co-design is seen in relation to co-creation, thus taking only a narrow view of design theories (Mattelmäki & Visser 2011; Sanders & Stappers 2008; Meroni & Sangiorgi 2011).

In service innovation the focus is on how co-creation should be understood through the lenses of customer involvement in service innovation and how co-innovation is seen in relation to co-creation, thus taking only a narrow view of innovation theories (e.g. von Hippel 2005b; Magnusson et al. 2003; Russo-Spena & Mele 2012).

To conclude, this study focuses on co-creation in B2B service SME businesses from both supplier and customer perspective in the fields of service marketing and management, service design and service innovation.

1.5 Key definitions of this study

Co-creation terminology

To understand the meaning of co-creation, the relevant terms must be clarified.

Co- involves “doing something with someone else as an equal or with less responsibility” (Longman Dictionary of Contemporary English 2003, 285).

Creation is understood as “the act of creating something” (Longman Dictionary of Contemporary English 2003, 368).

To **create** means “to make something exist that did not exist before or to invent or to design something” (Longman Dictionary of Contemporary English 2003, 368).

A **creator** is “someone who made or invented a particular thing” (Longman Dictionary of Contemporary English 2003, 368).

Thus on a generic level *co-creation* means *creating something that did not exist before or to invent or to design something with someone else as an equal or less responsibility* and a *co-creator* is *someone who made or invented a particular thing together with someone else as an equal or with less responsibility*.

Co-creation based on the current literature

Co-creation is a *joint value creation process* (Grönroos & Voima, 2013) of *developing services including co-design* (Mattelmäki & Visser 2011; Sanders & Stappers 2008), *influencing on the strategic level* (Grönroos & Voima 2013; Vargo & Lusch 2006) and *facilitating innovations* (Kristensson et al. 2008; Roser et al. 2013).

Other definitions

Co-design is seen as a joint design practice among experts and users in designing (new) value propositions, i.e. in this study a practice among suppliers and their customers. Moreover, co-design is seen as a sub-set of service design and co-creation (Mattelmäki & Visser 2011; Sanders & Stappers 2008).

Co-innovation is seen as a joint innovation practice among experts and users innovating new value propositions, i.e. in this study a practice among suppliers and their customers (Kristensson et al. 2008; Mannervik & Ramirez 2006).

Co-production is a series of actions performed within the parameters defined by the provider while jointly producing service together with a customer at the moment of delivery, i.e. customer is seen as a co-producer (Bendapudi & Leone 2003; Grönroos 2006a; Payne et al. 2008; Vargo & Lusch 2006).

A conventional approach is understood in this study as the opposite to the co-creation approach. It is a business approach in which the business thinking in marketing, design and innovation is built on a company-centric view rather than a customer-centric view (Gummesson & Mele 2010; Michel et al. 2007; Ojasalo & Keränen 2011; Ramaswamy 2009; Ramaswamy 2011).

A phenomenon is understood as “something that happens or exists in society, science, or nature, especially something that is studied because it is difficult to understand” (Longman Dictionary of Contemporary English 2003, 1229). Thus this study sees itself from the research perspective as being part of the larger co-creation phenomenon, including activities related to co-creation.

Service science is an emerging interdisciplinary field of inquiry that focuses on fundamental science, models, theories, and applications in order to drive service innovation, competition, and well-being through the co-creation of value (Ostrom et al. 2010, 2).

Services are defined “as processes that consist of a set of activities which take place in interactions between a customer and people, goods and other physical resources, systems and/or infrastructures representing the service provider and

possibly involving other customers, which aim at solving customer's problems" (Grönroos 2006a, 323).

Service is "the application of competences (knowledge, skills, resources) by one entity for the benefit of another entity in a non-coercive (mutually agreed and mutually beneficial) manner" (IfM & IBM 2008, 16)

Service design is a participatory design-originated approach for designing services emphasising user involvement as a driving force in service development and service innovation (Meroni & Sangiorgi 2011; Vaajakallio 2012). Service design tools are design tools which enhance service design activities and whose purpose is to involve users in designing for services.

Service innovation combines innovations in technology, business model, social organisation and demand with the objective of improving existing service systems (incremental innovation), creating new value propositions (offerings) or creating new service systems (radical innovation). "Service innovation can also result from novel combinations of existing service elements". (IfM & IBM 2008, 17.)

1.6 Thesis structure

The structure and flow of the thesis are important. The purpose of this chapter is to demonstrate the structure and flow of this thesis (see figure 1.5). Arrows and dotted lines convey the nature of the qualitative research, where activities and the understanding gained in one phase affect the other phases. To help the reader, a variant of Figure 1.5 is displayed at the beginning of each main chapter with the relevant chapter number and title in bold.

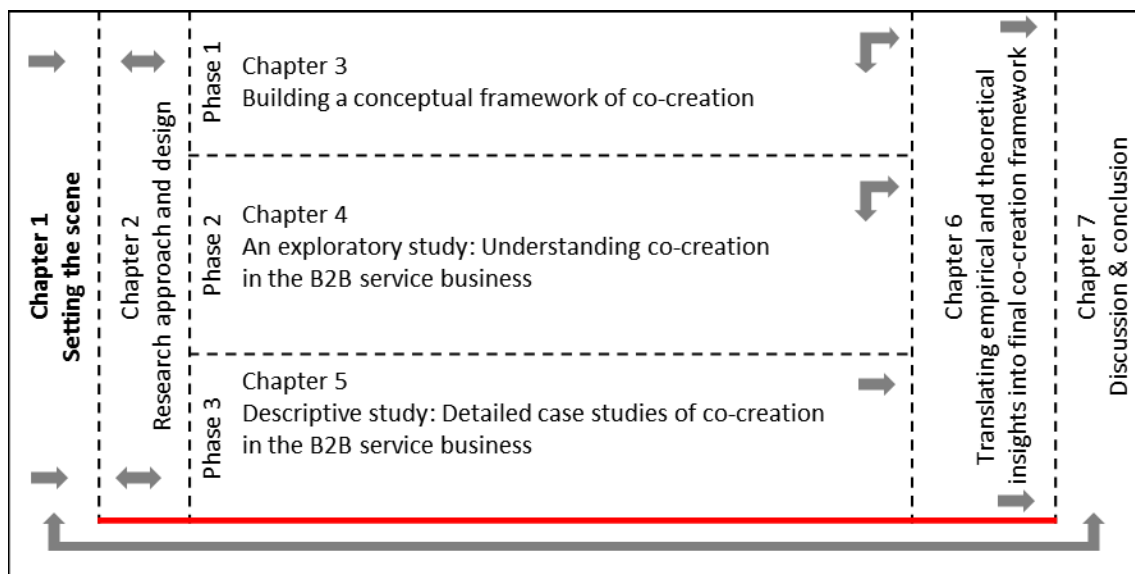


Figure 1.5: Thesis structure

Chapter 1 focuses on introducing not only the background of the study but also the knowledge gap and the objective, including the research questions, the key definitions, the scope and the structure of this study.

Chapter 2 describes the philosophical approach and research design of this study.

Chapter 3 explores the current frameworks and models related to co-creation in the fields of service marketing and management, service design and service innovation, based on literature until the end of 2011. As a result of the exploration a conceptual co-creation framework is presented.

Chapter 4 introduces an exploratory study to understand co-creation in the B2B service business based on empirical findings. As a result of the exploratory study a refined framework is presented.

Chapter 5 deepens the understanding of co-creation through the descriptive case studies in B2B the service businesses.

Chapter 6 synthesises the empirical findings of the descriptive study and current theoretical insights into a final co-creation framework introducing the characteristics of co-creation in the B2B service business.

Chapter 7 concludes the study with a discussion and conclusion, including its limitations and future research.

2 Research design and approach

Chapter two elucidates the overall approach and research design of this study. The purpose of research design is to find and describe a strategy that allows the researcher to gather the information needed to answer the research questions in the best possible way. It provides a framework for accomplishing the research including what kind of data is collected, how it is collected and how it is analysed. Moreover, this chapter provides a description of the philosophical approach of this study, which allows the reader to understand the research procedures subsequently taken (Ghauri & Gronhaug 2010; Yin 2009.) Figure 2.1 shows the overall structure of this thesis and the overarching nature of this chapter.

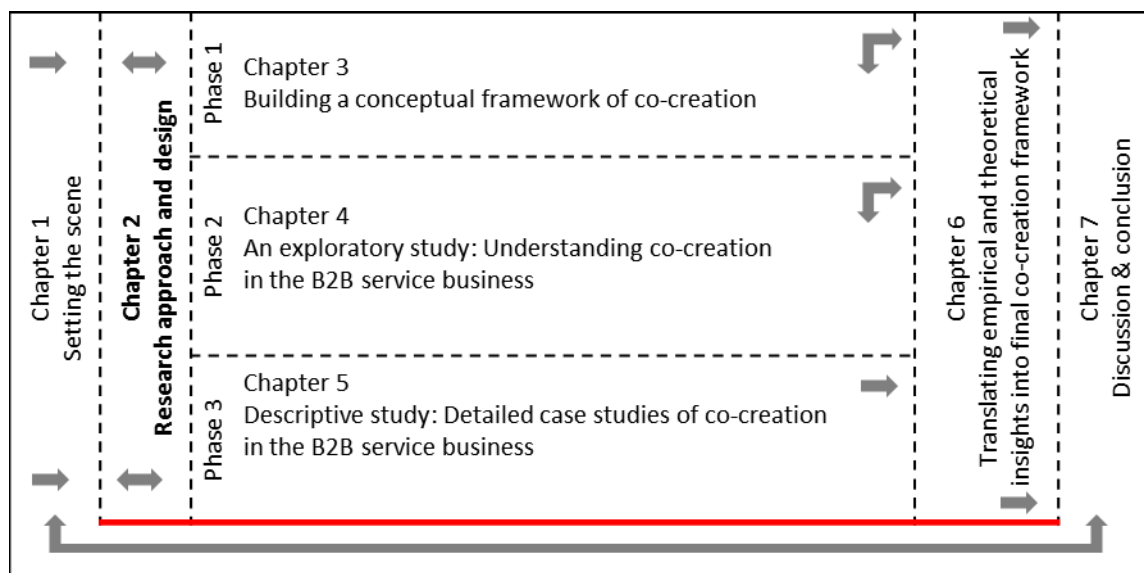


Figure 2.1: Thesis structure – Chapter 2

2.1 Philosophical approach

The philosophical approach adopted indicates the way the researcher views the world and it will also guide further decisions in research design (Saunders et al. 2007). This study is part of the funded research project CoCo (From co-production to co-creation). The study has been guided by the practicalities and timetables of the CoCo project and there were also existing expectations and promises regarding the timetable and future publications which needed to be

considered when constructing the research approach and design. Before starting the study I not only had preconceived ideas about the research topic based on the literature but I was also considering the needs of the case companies, i.e. this study is partly managerially-orientated research (Gill & Johnson 2010, 5; Gummesson 2000). However, when it came to choosing the research approach I took the liberty of finding a research approach that best suits the research questions (Saunders et al. 2007, 132).

Establishing theoretical clarity about co-creation in the B2B service business using empirical enquiry collaboratively with the case companies is a social action, i.e. social science. Furthermore, co-creation as an object of study is a social phenomenon which cannot be separated from its reality (see figure 2.2). This kind of research activity would be difficult to accomplish by taking a natural science/positivist approach which claims to be logical and value-independent. Thus the ontological assumption of this study is that research into social actions takes place in authentic situations, which means that reality and research cannot be separated and is therefore inevitably subjective (Creswell 1994, 5; Saunders et al. 2007, 108). Accordingly, the epistemology behind this study is interpretivism, and thus I interpret situations and social roles with my own set of meanings (Creswell 1994; Saunders et al. 2007).

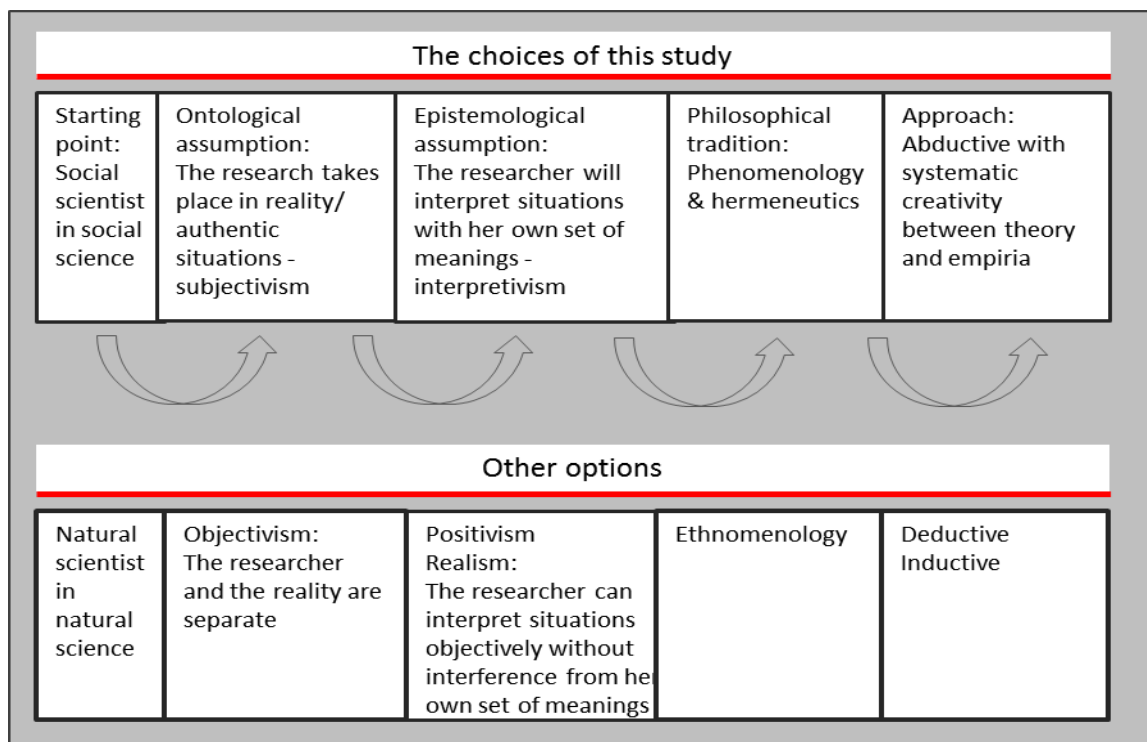


Figure 2.2: Choices of the philosophical approach

The tradition of interpretivism has its origin in phenomenology and hermeneutics (Gill & Johnson 2010; Gummesson 2000; Saunders et al. 2007). In phenomenology the researcher, i.e. the phenomenologist, seeks to understand reality by exploring the way people experience it. Thus in this study I attempt to understand the reality of the co-creation phenomenon through the views of the interviewees and workshop participants. A researcher adopting phenomenology and hermeneutics analyses not only the words in interviews and the visual outputs of the workshops but also gestures, hesitations and other possible clues in order to interpret reality. According to Gummesson (2000) hermeneutics involves a broad interpretation of reality, taking into consideration earlier activities, experience and other things which seem relevant in understanding a phenomenon, which in this study is co-creation.

Furthermore, a researcher needs to define the approach of the research. The literature defines three different approaches: deduction, induction, and abduction. Deduction is based on logical reasoning, where a researcher first constructs hypotheses out of existing theory and then collects data to test the theory. In contrast, induction takes empirical data as a starting point which

seems to be in line with grounded theory, i.e. theorising from the data through the data analysis. The third approach, called abduction, seems to lie between the extremes of the other two (Creswell 2014; Dubois & Gadde 2002; Kovács & Spens 2005; Saunders et al. 2007).

The abductive approach, also parallel to multiple methods (Saunders et al. 2007, 119), to mixed methods (Creswell 2014, 68), and to systematic combining (Dubois & Gadde 2002), is an approach which seems to capture the research practices of this study. The core idea of the abductive approach is that the researcher moves between the theoretical and empirical worlds and accepts the incompleteness of thoughts and taking non-linear approaches throughout the research to deepen both theoretical and empirical understanding (Dubois & Gadde 2002). This can be also called “systematic creativity” (Kovács & Spens 2005). The abductive approach is to an extent inductive in attempting to theorise the knowledge gained through empirical enquiry rather than deductively testing the theory. However, the abductive approach attempts to understand the theory related to gain pre-understanding and to generate a conceptual framework (the conceptual co-creation framework of this study is presented in chapter 3.4) which constitutes the foundation of the study and can lead to understand the phenomenon in a new way (Kovács & Spens 2005). To understand this better, see Figure 2.3: The abductive research process generally.

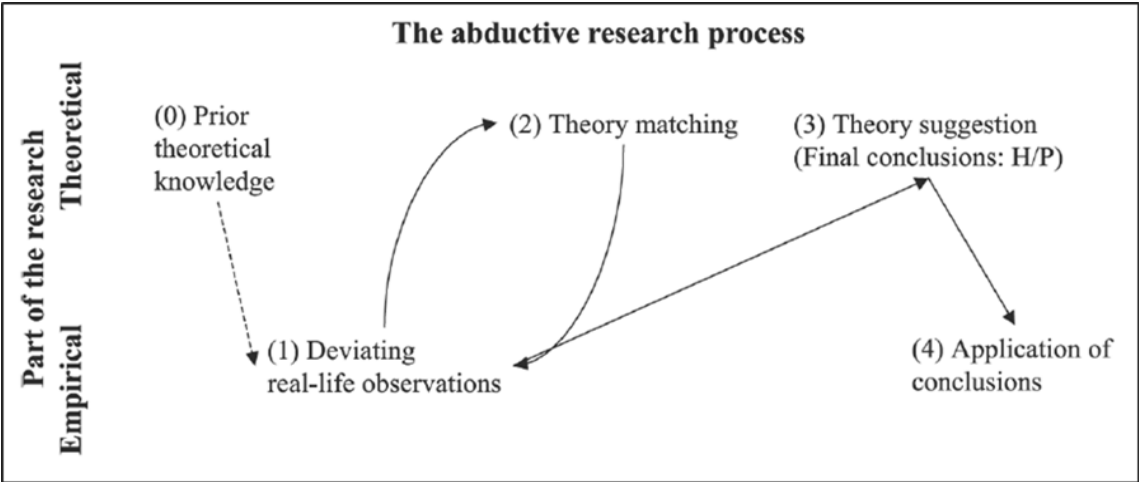


Figure 2.3: The abductive research process generally (Kovács & Spens 2005)

This study started with some preconceptions and the exploration of theoretical knowledge. However, Phase 2 was initiated while exploring the literature, i.e. real-life observation. This is part of the creative iterative process (Kovács & Spens 2005; Taylor et al. 2002) of systematic combining (Dubois & Gadde 2002), in which current theory is used to understand the empirical phenomenon (here, co-creation) and the empirical phenomenon is used to understand the theory (see figure 2.4), leading to a refined framework. Next, the third phase was executed, including the descriptive study and designing the final framework, integrating the latest literature in the field. Thus this study moves between the theoretical and empirical worlds and accepts the incompleteness of thoughts, taking a non-linear approach throughout in order to deepen both a theoretical and an empirical understanding of co-creation (Dubois & Gadde 2002).

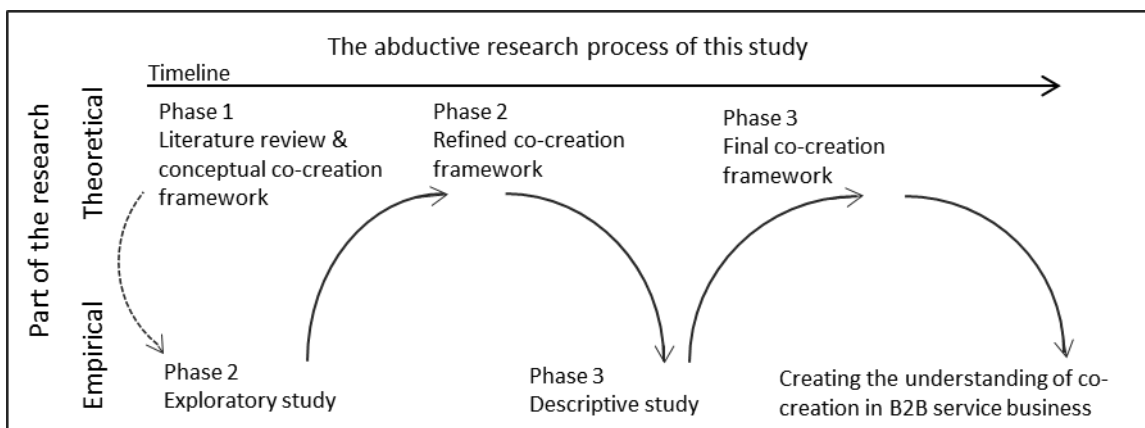


Figure 2.4: The abductive research process of this study

2.2 Research methodology

Research methodology needs to be based on a philosophical approach and it involves decisions about strategy, method and timeline (see figure 2.5). Based on the philosophical approach presented in Chapter 2.1 there are different strategic options: case study, action research, grounded theory and ethnography. There are also three main purposes of enquiry based on problem structure: exploratory, descriptive and explanatory (Saunders et al. 2007, 133).

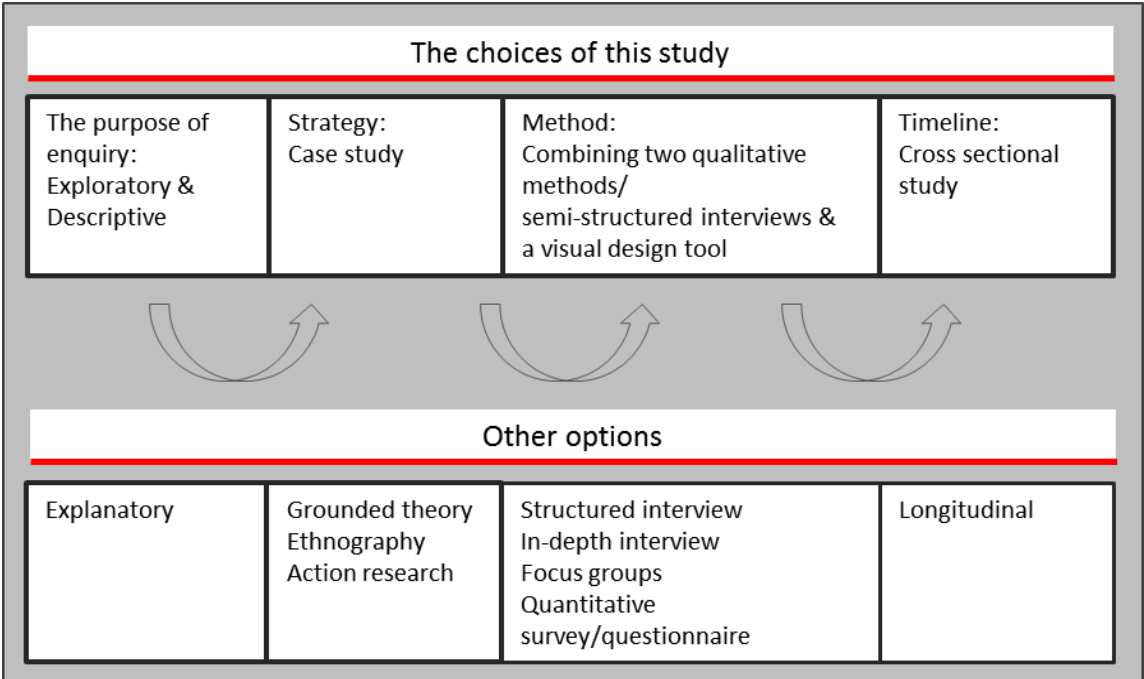


Figure 2.5: Methodological choices

Thus the co-creation seems to be unstructured and ill-defined theoretically and empirically. The first part of the empirical enquiry was conducted using an exploratory research design. Building on the conceptual co-creation framework, the objective of the exploratory study was to better understand co-creation. Knowledge gained in the exploratory research made it possible to synthesise empirical findings into a refined co-creation framework and to define research questions more coherently. This led to using descriptive research as a second phase of the study, to deepen understanding of the co-creation (Saunders et al. 2007, 133).

As a research strategy, case studies seemed the best option, for three reasons: 1) the form of the main research question, 2) to control behavioural events, and 3) to focus on contemporary not historical events (Yin 2009). Research questions are usually classified by interrogative words such as who, what, where, how and why. Controlling behavioural events refers to the need to control certain actions during the research. The third point concerns whether the research is about the past or the present (Yin 2009, 8). In this particular study, the main research question is “how” question; there is no manipulation of events while researching social action in real life; and the research deals with the contemporary phenomenon of co-creation. Table 2.1 shows the options, and the decisions made for this study are bordered in red.

Table 2.1: Choosing the right research strategy (Yin 8, 2009)

Method	Form of research question	Requires control of behavioural events	Focuses on contemporary events
Experiment	How , why?	Yes	Yes
Survey	Who, what, where, how many, how much?	No	Yes
Archival analysis	Who, what, where, how many, how much?	No	Yes / No
History	How , why?	No	No
Case study	How , why	No	Yes

Furthermore, this study is mainly cross-sectional, seeking to study a particular phenomenon, i.e. co-creation, in a short period of time. However, it has some features of the longitudinal as the three main case companies are the same in the exploratory study and descriptive study. (Saunders et al. 2007, 148.)

2.3 Research design

This study follows the case study strategy of Yin (2009). Based on this strategy the stages of this case study design are: planning, designing, preparing, collecting, analysing, and sharing. The planning and designing stages are

common to all phases of this study, and the descriptions of these stages are included in this chapter. Detailed descriptions of the four additional stages are given in the respective chapters.

In the planning stage, this study began by reviewing the literature related to co-creation in order to be able to define the knowledge gap. The planning stage was followed by the design stage, including defining the research questions and identifying the philosophical approach and research methodology. Next, negotiations with possible case companies took place, including the introduction of the research plan and finally gaining access to the case companies and signing the research agreements with three companies (Saunders et al. 2007, 163). After this the three research phases of the study were identified: Phase 1 - Building a conceptual framework, Phase 2 - An exploratory study, and Phase 3 - A descriptive study.

As stated earlier, according to Yin (2009) each phase contains its own specific activities related to preparing, collecting, analysing and sharing. However, Figure 2.6 presents the overall design and administration process of this study.

Figure 2.6: Research design and administration process

Stage		Research design		
		Unified activities/all phases Chapters 1, 2		
Plan	Design	Reviewing the literature related to co-creation Identifying the knowledge gap based on the current literature		
		Defining the research question Identifying the philosophical approach and research methodology Identifying the cases <ul style="list-style-type: none"> ▪ Choosing the case companies ▪ Gaining access to the case companies ▪ Signing the research agreements with the case companies Identifying the research phases		
		Specified activities/each phase		
		Phase 1 Chapter 3	Phase 2 Chapters 4,6,7	Phase 3 Chapters 5,6,7
Prepare	Collect	Objective <ul style="list-style-type: none"> ▪ To translate current theoretical insights into a conceptual co-creation framework 	Objective <ul style="list-style-type: none"> ▪ To understand co-creation in the B2B service business based on the empirical findings ▪ To synthesise the empirical into a refined co-creation framework 	Objective <ul style="list-style-type: none"> ▪ To deepen the understanding of the co-creation based on the empirical findings ▪ To synthesise the empirical and theoretical findings into a final co-creation framework
		RQ1a <ul style="list-style-type: none"> ▪ What is co-creation based on current theory? 	RQ1b <ul style="list-style-type: none"> ▪ How are theoretically derived principles of co-creation applied in the B2B service business? 	RQ1c <ul style="list-style-type: none"> ▪ What are the characteristics of co-creation in the B2B service business?
		Identifying the relevant literature	Designing interview themes and questions Designing the data collection	Designing the content of the workshops Designing the data collection
		Searching the relevant literature	Implementing 21 interviews	Implementing 18 workshops
		Reviewing and reading the relevant literature	Analysing the data <ul style="list-style-type: none"> ▪ Transcribing the data ▪ Analysing the data 	Analysing the data <ul style="list-style-type: none"> ▪ Printing the maps of the customer-supplier relationship ▪ Writing the story of the customer-supplier relationship per case
		Writing the literature and constructing the conceptual co-creation framework	Writing the findings Synthesizing the empirical insights into refined co-creation framework	Writing the findings Synthesizing the empirical and theoretical insights into a final co-creation framework
Share	Analyse	Presenting the findings to the case companies Publishing two academic conference papers Publishing an academic journal article		Presenting the findings to the case companies Publishing an academic conference paper Publishing a co-creation workbook

Regular intervals of assessing and updating the research design

2.4 Selecting cases

In a classic case study, a case (the unit of an analysis) can be one organisation, an event, a program, a process, one country or a relationship/a partnership between two entities. Choosing the case or cases should derive from the research questions, so the data collection for this study should primarily answer two sub-questions: RQ1b - How are the theoretically derived principles of co-creation applied in the B2B service business, and RQ1c - What are the characteristics of co-creation in the B2B service business. (Yin 2009.)

In case study strategy there is a choice between a single-case design and a multiple-case design. Additionally, the researcher has to be able to choose between holistic and embedded case study. From the rational point of view it is better to carry out a multiple-case study since two out of three quality tests (see chapter 2.6) recommend it over a single case study. Additionally, a multiple-case study allows more extensive answers to the research questions. Between holistic and embedded case study the holistic approach was chosen since there were no sub-units of the cases researched. Thus the design of this research follows the procedures of holistic multiple-case study (Yin 2009).

Consequently the research questions limit the units of analyses here to B2B service businesses. Additionally, SMEs were preferred since the literature seems to lack research on co-creation in SMEs and the background of the researcher being in SME service business. Furthermore, the nature of this study required not only a lot of the case companies' time but also access to their employees and customers. Because of this the choices were also geographically limited to companies operating in Southern Finland. As a result of these prerequisites, initial meetings with nine gatekeepers of possible B2B service companies were held. Out of these nine companies, three were finally identified as case companies of this study. The case companies (i.e. suppliers) included financial management services, IT service and construction, real estate development and area development consultation services. At this point, written research agreements were signed. As stated earlier, this study is part of a funded research project.

During the descriptive study the case selection was expanded to nine cases, including nine customers of the three suppliers studied during the exploratory stage. Additionally, the advantages of a literal replication or a theoretical replication were evaluated, based on the findings of the exploratory study. Because of the expectation of contrasting results but for anticipatable reasons, the choices were made from a theoretical replication perspective (Yin 2009). Next, the three primary case companies (i.e. suppliers) were only briefly introduced in order to maintain anonymity.

Consequently the suppliers S1, S2, and S3 of this research are operating in three different service sectors: financial management, IT and construction, real estate development and area development consultation. S1, S2, and S3 are small or medium-sized businesses (SMEs). This study also includes nine B2B customers of S1, S2 and S3, varying in size from SMEs to the large corporations. They represent a variety of fields but have a service business as a uniting factor (see table 2.2 below).

Table 2.2: Case companies

Suppliers		Customers	
S1	Financial management services	S1C1	Business gift services
		S1C2	Sports betting services
		S1C3	Regional commerce and industry services
S2	IT services	S2C1	Mobile software services
		S2C2	ICT infrastructure services
		S2C3	Education services
S3	Construction, real estate development and area development consultation services	S3C1	Crane business
		S3C2	Elevator and escalator business
		S3C3	Real estate business

Case company S1 is a B2B service company producing financial management services and employing about 250 persons. The services of S1 include both the traditional type of bookkeeping as well as real-time financial accounting, including the solving of special accounting issues.

Case company S2 is a B2B service company producing IT communication services and employing about 20 persons. The aim of case company S2 is to provide customers with comprehensive technical knowledge, personalised and secured communication and networking solutions.

Case company S3 is a B2B service company producing consultation services related to construction, real estate development and area development, employing about 20 persons. The aim of case company S3 is to provide their customers with project-based comprehensive solutions.

2.5 Judging the quality of this study

According to Yin (2009) there are four common tests for judging the quality of research in social sciences: 1) Construct validity, 2) Internal validity, 3) External validity, and 4) Reliability. Out of these four tests number two deals only with explanatory and causal studies (Yin 2009), so it is excluded from this research. Next, this study is briefly analysed based on construct validity, external validity and reliability. The limitations of this study are discussed at the end of the thesis.

2.5.1 Construct validity

To improve the quality of this study based on construct validity, the following tactics are used. The study comprises multiple sources of evidence. In the exploratory study there are three cases and the descriptive study consists of nine additional cases. The actions of this study are described in this thesis to build a chain of evidence. The findings will be presented to the key informants in three ways. First, the findings of the exploratory study are presented to each supplier, including the informants. Secondly, the findings of each descriptive study case are sent to each informant, allowing them to comment if needed. Thirdly, each of the three suppliers S1, S2 and S3 will be able to read and suggest changes to this thesis (Miles & Huberman 1994; Silverman 2011; Saunders et al. 2007; Yin 2009).

2.5.2 External validity

The most common criticism of case studies concerns the generalisability of a single case. In case studies it is important to rely on analytic generalisation rather than the statistical generalisation adopted in surveys. Analytic generalisation occurs when findings are replicated, i.e. when multiple cases support the same theory (Silverman 2011; Yin 2009). Thus, referring to construct validity, this study is designed to contain multiple sources of evidence, first within three cases and then with nine additional cases. The data will be gathered using two different qualitative methods.

2.5.3 Reliability

This quality test deals with research design, meaning that if another researcher adopted the same procedures with the same cases, he/she would end up with the same results. This study documents every single procedure in order to fulfil this requirement. Additionally, this study will make use of Yin's (2009) case study protocol and all the data will be stored in a safe database. The research agreement with the case companies also permits/requires the latter requirement. Furthermore, for all procedures in each phase, tables and figures will be added to facilitate the understanding of the procedures implemented (Miles & Huberman 1994; Saunders et al. 2007; Yin 2009).

2.6 Summary & implications for the study

To conclude, the research approach and design of this study has determined its direction. Figures 2.2 and 2.5 and Table 2.1 rationalise and summarise the choices and Figures 2.4 and 2.6 demonstrate the overall design. Additionally, considerations about the quality of this study are implemented as they were realised during the design phase. The quality and the limitations of the study are discussed in more depth at the end.

Consequently the role of the social researcher here is to observe and collect data about the social phenomenon of co-creation. Moreover, the researcher's role here is not to judge whether co-creation is good or bad, but to analyse and present the data and explain its meaning coherently and rigorously (Ghauri & Gronhaug 2010).

3 Building a conceptual framework of co-creation

The objective of this chapter is a) to present the current frameworks and models of co-creation in service marketing and management, service design and service innovation until 2011, and b) to synthesise current knowledge to present a conceptual co-creation framework for this study. Figure 3.1 shows the relationship of this chapter to the other chapters. Next, the research design of Phase 1, the literature review, is presented.

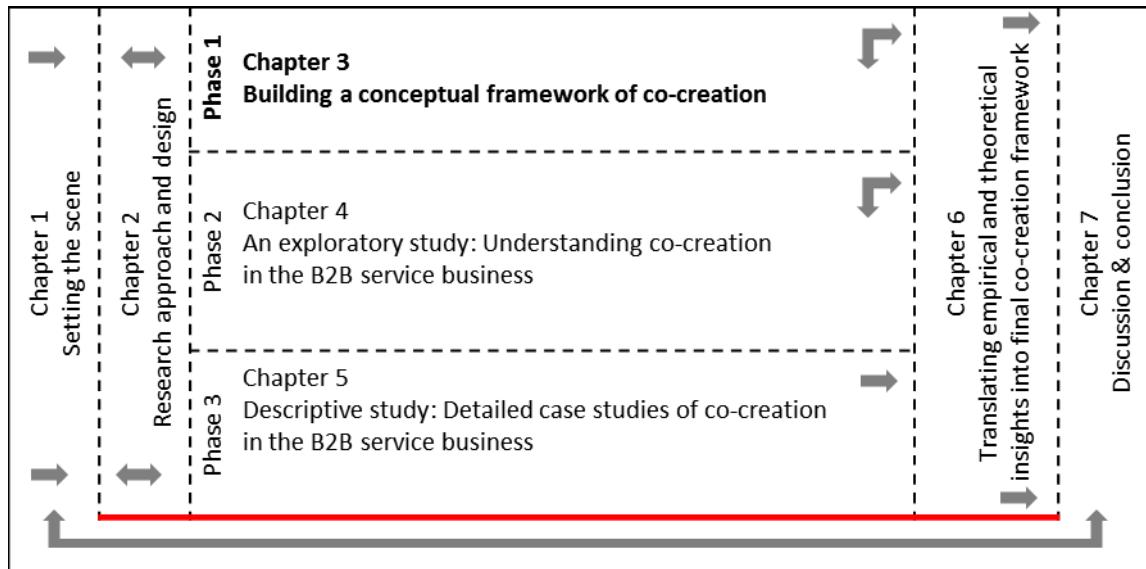


Figure 3.1: Thesis structure – Chapter 3

3.1 Research design: Phase 1

In this study the literature review is treated as a separate phase (Jesson et al. 2011, 9), following the study strategy of Yin (2009). Based on Yin's strategy the stages of this study are: planning, designing, preparing, collecting (in this phase called "search"), analysing, and sharing. The planning and designing stages are common to all phases of this study, and the descriptions of these stages are included in Chapter 2. Detailed descriptions of the four additional stages are elaborated in this chapter (see figure 3.2).

Stage	Research design
	Unified activities/all phases Chapters 1, 2
Plan	<ul style="list-style-type: none"> Reviewing the literature of co-creation Identifying the knowledge gap based on the current literature
Design	<ul style="list-style-type: none"> Defining the research question Identifying the philosophical approach and research methodology Identifying the cases <ul style="list-style-type: none"> Choosing the case companies Gaining access to the case companies Signing the research agreements with the case companies Identifying the phases
	Specified activities/Phase 1 Chapter 3
Prepare	<ul style="list-style-type: none"> Objective <ul style="list-style-type: none"> To translate current theoretical insights into a conceptual co-creation framework RQ1a <ul style="list-style-type: none"> What is co-creation based on current theory?
Search	<ul style="list-style-type: none"> Identifying the relevant literature <ul style="list-style-type: none"> Co-creation in the title, abstract or keywords/Scopus Peer-reviewed research articles Complementing literature based on the references of the 1st and 2nd literature search
Analyse	<ul style="list-style-type: none"> Searching the relevant literature <ul style="list-style-type: none"> 1st literature search <ul style="list-style-type: none"> Literature until the end of 2011/428 articles 2nd literature search <ul style="list-style-type: none"> Literature between 2012-May 2014/396 articles 3rd complementing searches during the study
Share	<ul style="list-style-type: none"> Reviewing the relevant literature and constructing the framework <ul style="list-style-type: none"> 1st analysis/ Narrowing the focus and choosing the articles <ul style="list-style-type: none"> Having co-creation as one of the core topics Within the fields of marketing and management, design, and innovation Related to business activities Resulting 20 (until the end of 2011) and 30 articles (2012-May 2014) 2st analysis <ul style="list-style-type: none"> Conceptual or empirical Focus on supplier's and/or customer's or general co-creation activities Focus on B2C or B2B or no specific focus 3rd analysis <ul style="list-style-type: none"> Analysing the content of co-creation research and detecting co-creation frameworks and models Writing the literature & constructing the conceptual framework
	<ul style="list-style-type: none"> Publishing two academic conference papers and presenting the results at the academic conferences April, 2011 & September, 2011 Publishing an academic journal article October, 2012

Figure 3.2: Research design of the literature search

The literature search was conducted not only to detect current co-creation frameworks and models but also to view the wider perspective of the co-creation phenomenon and to define the knowledge gap discussed and introduced in Chapter 1. The activities of this phase partly overlap with Phase 2, i.e. the

interview questions and the conceptual framework were constructed while collecting the exploratory data.

3.1.1 Preparing the literature search

This stage included identification of the relevant literature on co-creation. The first and second literature searches in Scopus were limited to peer-reviewed articles with the word “co-creation/cocreation” in their title, abstract or keywords. Complementary searches were made during the study using the references of the articles detected in the Scopus searches.

3.1.2 Searching the relevant literature

The first literature search was conducted at the beginning of this study to view the wider perspective on co-creation, to define the knowledge gap and to detect current co-creation frameworks and models. As a result of the first literature search for the word “co-creation/cocreation” in the title, abstract or keywords of articles before the end of 2011, 428 instances were found.

Next to this primary search the second literature search was accomplished in May 2014 before submitting the thesis to underpin the contribution of this study with the latest literature. This second literature search was made for the word “co-creation/cocreation” in the title, abstract or keywords of articles between January 2012 and May 2014, and 396 instances were found.

Complementing searches were made during the study using the references of the articles detected in Scopus searches. These activities resulted in more than 900 articles (two Scopus searches and complementary searches).

3.1.3 Analysing the relevant literature

Having more than 900 articles meant having to define the most seminal articles focusing on the core development of co-creation within businesses and in the fields of this study. Thus the focus of the first round of the literature analysis was to narrow the number of articles so that only the articles were accepted which:

a) had co-creation as one of the core topics b) were within the fields of marketing, management, design, and innovation, and c) related to business activities. As a result, 20 articles published earlier than or in 2011 were chosen as a first set (see attachment 1) and 30 articles between January 2012 and May 2014 were chosen as a second set (see attachment 2). The first set of articles laid the grounds for setting up this study and the purpose of the second set of articles was to underpin the contribution of this study.

The second round of the literature analysis analysed the articles detected in the first round from three different perspectives: 1) conceptual or empirical, 2) focusing on suppliers' and/or customers' co-creation activities or having no specific focus, and 3) focusing on transactions in business-to-consumer (B2C), business-to-business (B2B) or taking a generic approach.

3.1.4 Sharing the results of the literature review

As a result of the literature review a conceptual co-creation framework was designed. Additionally, my knowledge of co-creation increased, allowing me to publish and present two conference papers (Keränen & Ojasalo 2011; Ojasalo & Keränen 2011). The first one discussed co-creation in B2B services and the movement toward service logic and value co-creation. The second introduced the conceptual co-creation framework. Subsequently a journal article was published discussing complex service systems in relation to value co-creation, systems and networks, technology, and complexity (Briscoe et al. 2012).

Next, this chapter focuses on introducing approaches to co-creation and co-creation frameworks and models before 2012, after which the conceptual co-creation framework is introduced.

3.2 Co-creation in service marketing and management

Three main different approaches to co-creation can be seen in service marketing and management literature: a) service-dominant logic, b) service-logic, and c) managerial. These will now be discussed.

3.2.1 Co-creation in service-dominant logic

In 2004 Vargo and Lusch's prominent article (Vargo & Lusch 2004) was published, introducing and contrasting goods-dominant logic (G-D logic) and service-dominant logic (S-D logic) embedding value co-creation. Since 2004 S-D logic has been the main topic in service marketing and management literature. S-D logic is a conceptual model which seems to incorporate most of the knowledge of marketing research up to 2004.

Primarily S-D logic consisted eight foundational premises (Vargo & Lusch 2004), updated later with two additional premises (see figure 3.3) (Vargo & Lusch 2006). In the original set of premises, number 6 (FP6) referred to value co-creation: "The customer is always a co-producer" (Vargo & Lusch 2004, 11).

Premise number	Foundational premise
FP1	Service is the fundamental basis of exchange.
FP2	Indirect exchange masks the fundamental basis of exchange.
FP3	Goods are a distribution mechanism for service provision.
FP4	Operant resources are the fundamental source of competitive advantage.
FP5	All economies are service economies.
FP6	The customer is always a co-creator of value.
FP7	The enterprise can not deliver value, but only offer value propositions.
FP8	A service-centered view is inherently customer oriented and relational.
FP9	All social and economic actors are resource integrators.
FP10	Value is always uniquely and phenomenologically determined by the beneficiary.

Figure 3.3: Service-dominant logic (Vargo et al. 2008, 148)

Later on, this foundational premise was updated to "The customer is always a co-creator of value" (Lusch & Vargo 2006, 284), since according to the authors co-production seemed to be leaning more towards G-D logic. The authors see the difference between G-D logic and S-D logic as being that S-D logic is more about value creation and G-D logic is more about production. However, they state that co-production should be seen as one of the elements of co-creation because it seems to capture the notion of participation in value creation delivered

by goods. In S-D logic, co-production is seen as “participation in the creation of the core offering itself” (Lusch & Vargo 2006, 284).

Furthermore, S-D logic (2004; 2006) offers a new way of thinking which dissociates the conventional economic approach, i.e. traditional goods-centred dominant logic (G-D logic), from a new approach related to service economy, i.e. service-dominant logic (S-D logic), in keeping with the fact that services currently dominate world economy.

First of all, S-D logic embeds the notion that goods are related to services, meaning that goods generate services to the users. Goods serve their users and there should be no confrontation between goods and services; service should be seen as a foundation for “all economic exchange” (Vargo & Akaka 2009, 38). In comparison to G-D logic there are also other concrete differences (see figure 3.4). The most drastic difference between G-D and S-D logic seems to be the notion of value.

In G-D logic (Vargo & Lusch 2004; Vargo & Lusch 2006) value is defined by the producer and is embedded in goods or services, i.e. a company’s output to its customers, which can be defined as value-in-exchange, aiming to foster the company’s assets and transmit value to the customers. The resources used are mainly operand resources meaning physical raw material and technical knowledge. Customers are seen as being outside the company and their role is to buy or not buy ready-made goods.

On the contrary to G-D the essence of S-D logic is to co-create value through shared resources among the stakeholders in joint activities. The resources used are mainly operant resources, meaning that knowledge and skills are incorporated with operand resources, i.e. goods that deliver value through services. The value is elicited while using service (value-in-use) and it depends on the context (value-in-context). A company can only propose value to the customers through value propositions and it is the customer’s role to define value at the consumption stage, meaning value-in-use. Moreover, the purpose of the value proposition is to support the customer’s activities. The FP6 presented earlier refers to the customer as a co-creator of a value, meaning that the

customer always co-creates value through the integration of resources. The company's role is to create value propositions (Vargo et al. 2008) with the notion that this actually includes two processes: co-production and value co-creation (Vargo 2008).

	G-D logic	S-D logic
Value driver	Value-in-exchange	Value-in-use or value-in-context
Creator of value	Firm, often with input from firms in a supply chain	Firm, network partners, and customers
Process of value creation	Firms embed value in "goods" or "services", value is 'added' by enhancing or increasing attributes	Firms propose value through market offerings, customers continue value-creation process through use
Purpose of value	Increase wealth for the firm	Increase adaptability, survivability, and system wellbeing through service (applied knowledge and skills) of others
Measurement of value	The amount of nominal value, price received in exchange	The adaptability and survivability of the beneficiary system
Resources used	Primarily operand resources	Primarily operant resources, sometimes transferred by embedding them in operand resources-goods
Role of firm	Produce and distribute value	Propose and co-create value, provide service
Role of goods	Units of output, operand resources that are embedded with value	Vehicle for operant resources, enables access to benefits of firm competences
Role of customers	To 'use up' or 'destroy' value created by the firm	Co-create value through the integration of firm-provided resources with other private and public resources

Figure 3.4: Comparison between G-D logic and S-D logic (Vargo et al. 2008, 148)

Additionally Vargo and Lusch (2008, 5) point out that value-in-context extends the value creation between company and customer to a level where two or more service systems are creating value, stating that "it needs to be understood that the venue of value creation is the value configurations – economic and social actors within networks interacting and exchanging across the through networks". Service system can be seen as a set of resources associated with other service systems through value-propositions as in Figure 3.5 (Spohrer et al. 2008; Vargo et al. 2008).

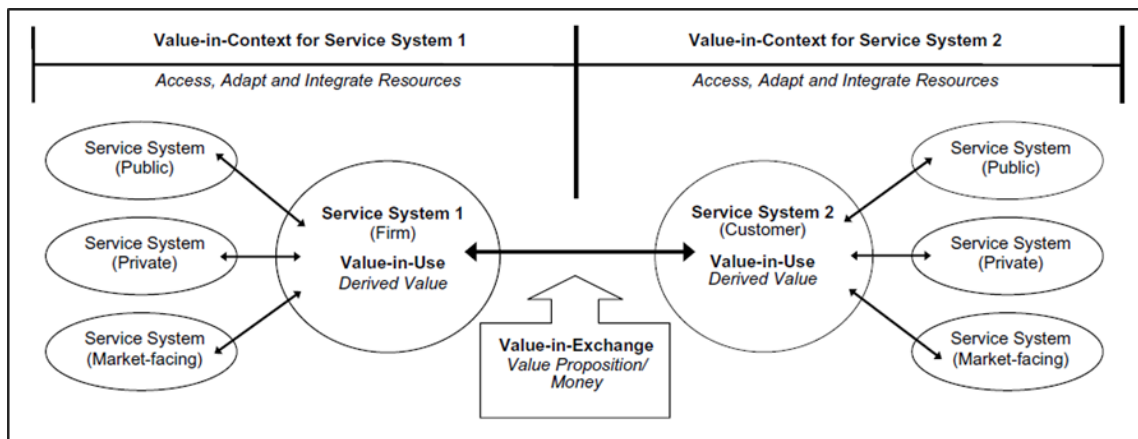


Figure 3.5: Value co-creation among service systems (Vargo et al. 2008, 149)

According to Vargo et al (2008, 150) value co-creation occurs “through the integration of existing resources with those available from a variety of service systems that can contribute to system well-being as determined by the system’s environmental context”. Furthermore Vargo and Lusch (2008, 8) argue that “value obtained in conjunction with market exchanges cannot be created unilaterally but always involves a unique combination of resources and an idiosyncratic determination of value and thus the customer is always a co-creator of value”.

Contributions to Service-Dominant logic

Several authors have contributed to S-D logic (e.g. Arantola-Hattab 2013; Ballantyne & Varey 2008; Grönroos 2011c; Gummesson 2008; Järvensivu 2010; Payne et al. 2008; Spohrer 2011). From the co-creation perspective two of the most important frameworks seem to be the Conceptual framework for value creation in Figure 3.6 (Payne et al. 2008) and the Framework of co-production and value co-creation in Figure 3.7 (Ojasalo 2010).

Payne et al. (2008) see value co-creation in the context of S-D logic and they have developed a conceptual framework demonstrating how customers engage in value co-creation in the B2C market, explaining how it can be managed. The framework embeds three interconnected processes, customer, encounter and supplier processes, as key processes in managing value co-creation (see figure 3.6). The black two-way arrows in the centre demonstrate the two-way repetitive

activities which link the customer and supplier processes and which create possibilities for value co-creation activities. The thicker one way arrows between the customer and customer learning and the supplier and supplier learning demonstrate the mutual learning on both sides as a key-component of fostering future co-creation activities.

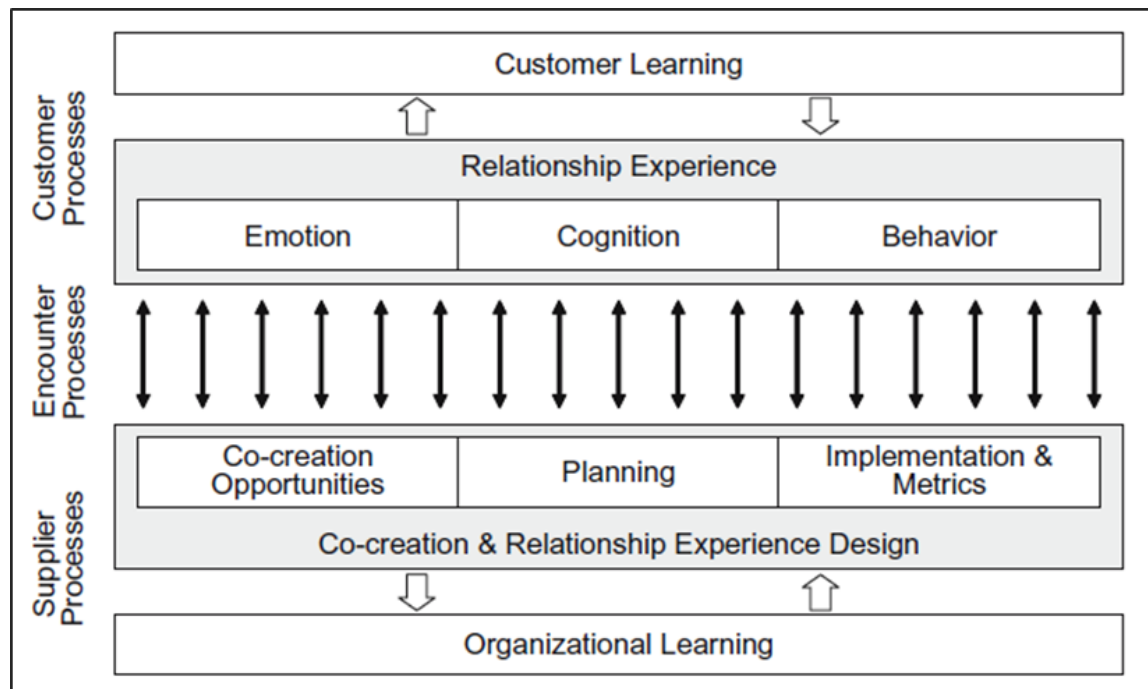


Figure 3.6: A conceptual framework for value co-creation (Payne et al. 2008, 86)

Within encounter processes there seem to be some which appear to be more transactional, like the exchange of money or products, and others which seem to embed joint activities. Payne et al. (2008, 90) suggest that there are “three broad forms of encounters that facilitate value co-creation: communication encounters, usage encounters, and service encounters”. In order to manage value co-creation related to customer experiences there is a need to define customer practices and their relation to the different encounters. Based on this, the encounters are classified in three different categories: emotion-supporting encounters, cognition-supporting encounters, and behaviour- and action-supporting encounters. It is likely that some of the encounters are more seminal to value co-creation than others. To make use of the value co-creation framework it seems important first to define the customer, supplier and encounter

processes in integrative way. To adopt co-creation processes it is necessary “to manage expectations, communications and promises” among the stakeholders involved and companies can do so by involving customers in co-creation processes (Payne et al. 2008, 36). Payne et al. (2008, 93) conclude that “value co-creation opportunities can be identified by the supplier teaching the customer certain co-creation behaviours. Managers need to seek new ways of involving the customer in co-creation behaviours”.

Ojasalo (2010) has translated topical discussion of the shift from goods to services into a framework which includes three different types of business approaches: The traditional product business approach, co-production in services and the value co-creation approach. The framework is substantial since it maps the relationship between these three approaches on the basis of an extensive literature review (see figure 3.7).

In the traditional product business approach customers are treated as passive recipients of products and value is created within the company without any collaboration with customers (Gummesson 2008; Ojasalo 2010; Prahalad & Ramaswamy 2004c; Storbacka 1994). The company sees itself operating as one individual actor in a value chain (Norman & Ramirez 1993; Ojasalo 2010; Porter 1985), aiming to produce and sell goods and services which are outputs of the company providing value-in-exchange. The relationship is transaction-based, meaning that interaction occurs at the moment of exchange and financial value is the fundamental value driving the company activities. The company focuses on improving internal processes and products based on information from structured methods such as surveys and interviews which are the main tools for collecting information about customers (Ojasalo 2010; Vargo & Lusch 2004; Vargo & Lusch 2006).

In contrast to the traditional product business approach, companies adopting a value co-creation approach provide solutions embedding services and goods. Value is defined and created by the customer when using the solutions, i.e. value-in-use (Ojasalo 2010; Prahalad & Ramaswamy 2004a). Thus it is important that a company understands customers’ value creation processes and creates

solutions that support them (Gummesson 2008; Ojasalo 2010). To understand customers' value creation processes, the company's aim is to jointly create comprehensive solutions. Creating jointly includes active interaction, transparent activities and including customers in the development of value propositions by using participatory methods such as listening and learning together (Ballantyne & Varey 2008; Ojasalo 2010; Prahalad & Ramaswamy 2004a; Vargo & Lusch 2006). Whereas the traditional product business approach sees a company as one actor in a value chain, the value co-creation approach sees it as an active actor in a value network sharing resources with each other (Ojasalo 2010).

Treated as a separate approach, co-production in services seems to fit in between the extremes of the other two, supporting the view that co-production is a separate activity from co-creation. In co-production, customers are seen as "active players" participating in the production and delivering of services in parameters defined by the supplier, and the company focuses on "managing, educating and rewarding customers" in order to enhance their co-production activity level (Dabholkar 1990; Ojasalo 2010; Zeithaml et al. 2006). The purpose of services is to satisfy the needs of the customers and the focus is on co-producing value by "making and keeping promises". The company collects customer feedback in order to further develop its service. Customer access to information and other resources is limited (Ojasalo 1999; Ojasalo 2010). The company sees its operations as a part of the value chain. Whereas the traditional product business approach embeds the idea of "making and selling", the co-production approach has moved one step further to "servicing" (Ojasalo 2010).

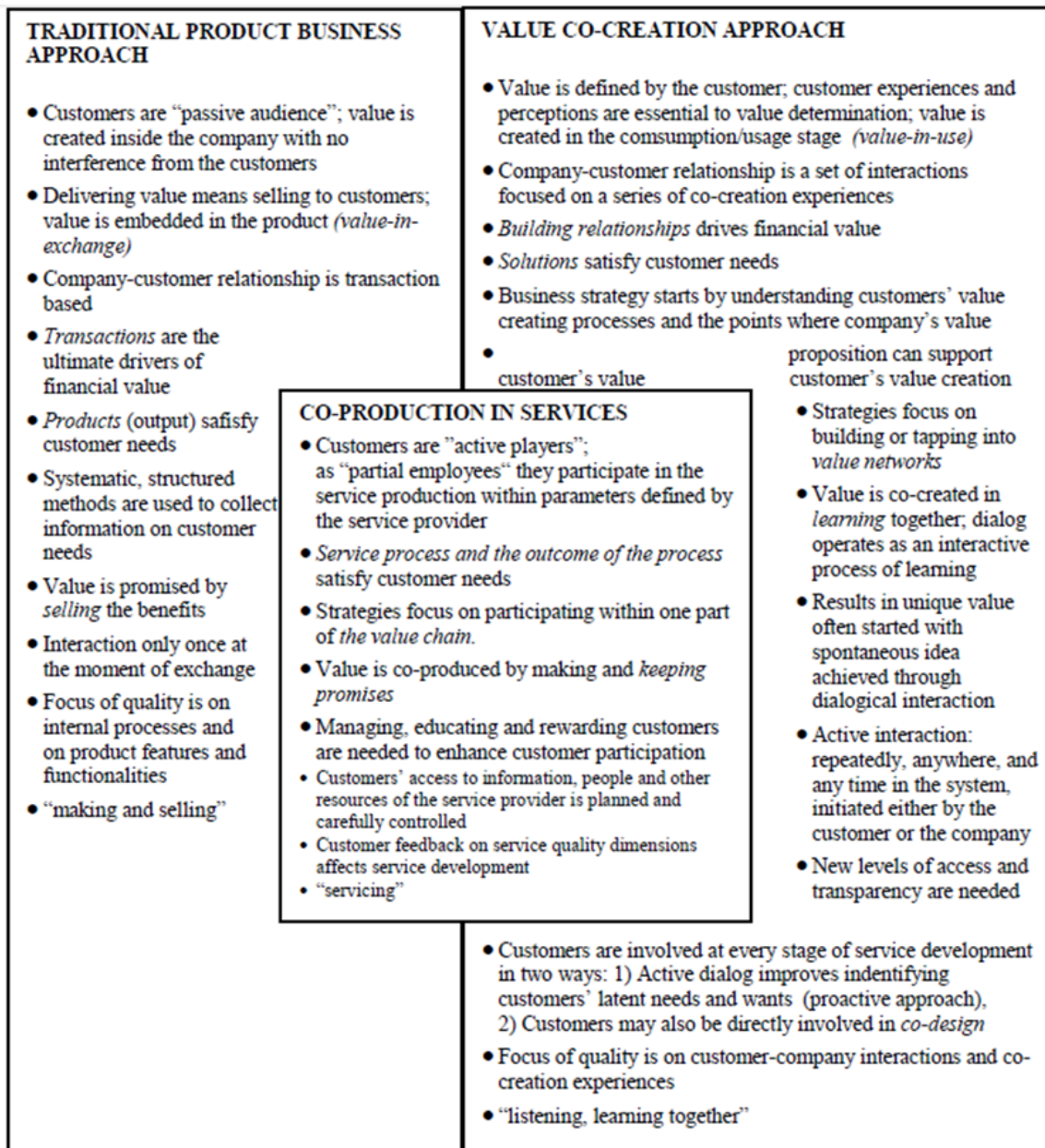


Figure 3.7: Framework of co-production and value co-creation (Ojasalo 2010, 175)

3.2.2 Co-creation in service logic

The Nordic School of Marketing has contributed to the discussion of value co-creation with the notion that service logic is the opposite of goods logic. Service logic seems to embed two logics: customer service logic and provider service logic (Grönroos 2008), comprising interactions between the service provider and

the customer (Grönroos 2006a). Grönroos (2008) sees service as a value-supporting process, whereas goods are a value-supporting resource and “service as a business logic means facilitating interactive processes that support customers’ value creation in their everyday practices” (Grönroos 2008, 300).

The premises of service logic as well as service-dominant logic are that “customers consume services regardless of whether they buy goods or services” (e.g. Grönroos 2008, 302) and goods and services should both be seen as resources for the customer to create value-in-use. Value-in-use and value-in-exchange have been often treated as opposite to each other, where the latter is pertinent to a traditional product approach and the former one is seen in relation to services. Moreover, value-in-exchange is understood as an activity occurring at the moment of exchange between a customer and a supplier which is a source of money for the supplier (Ojasalo 2010; Payne et al. 2008; Vargo & Lusch 2006). In service logic however, value-in-exchange not only pertains to goods logic but is also seen as subordinate to value-in-use, meaning that when customers buy services and are able to make use of them value-in-use occurs, and if value-in-use occurs value-in-exchange occurs as well, since customers who are satisfied will most likely return. It can be challenging for companies to focus on value-in-use since not only are its results difficult to measure but in the long run they also appear to be contrast to value-in-exchange, in which results can be seen immediately. Thus to focus on value-in-use requires the change from a short-term to a long-term perspective (Grönroos 2008).

Viewing value creation from the service logic point of view, customers are seen as value creators and suppliers as value facilitators, meaning that suppliers facilitate customers’ value creation. Through direct interactions with customers where suppliers can join their customers’ value creation in a shared process, suppliers can become co-creators of value. Thus suppliers’ “value co-creation can be characterized as a joint value creation with customers” and “if there are no direct interactions, no value co-creation is possible”(see figure 3.8) (Grönroos 2011c, 290).

Furthermore, co-production can be seen from a production viewpoint where a customer joins the production process at the moment of delivery and a customer is seen as a co-producer of the service (Grönroos 2006a; Grönroos 2011c).

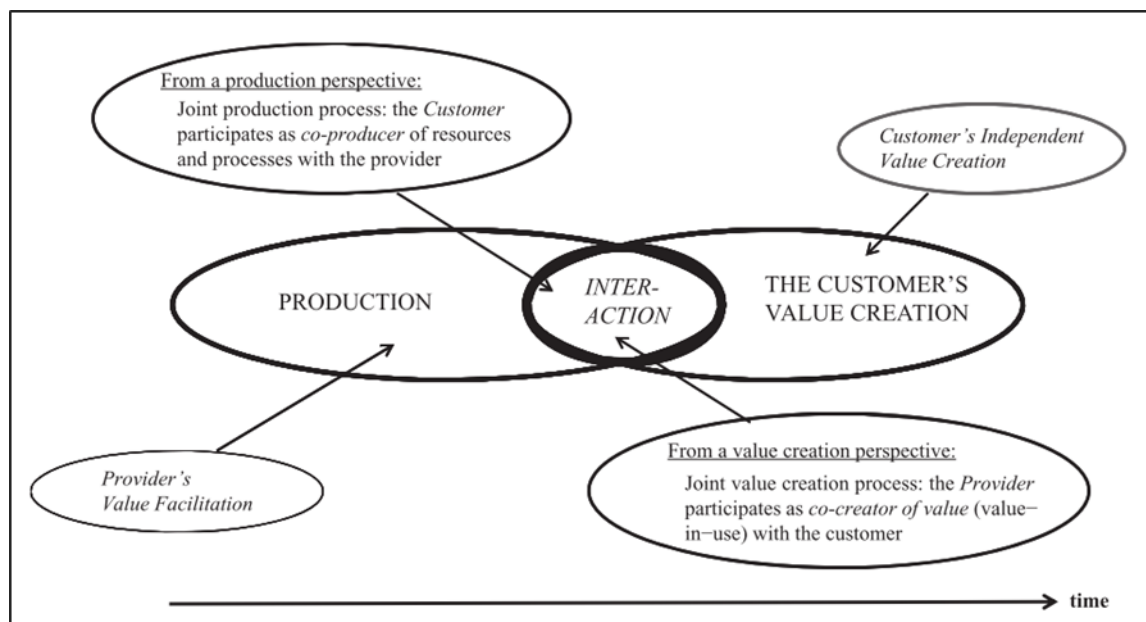


Figure 3.8: Value-in-use creation model (Grönroos 2011c, 291)

3.2.3 Co-creation from the managerial perspective

Prahalad and Ramaswamy can be seen as the fathers of the co-creation phenomenon from the managerial perspective (Sanders & Stappers 2008). Their book *The Future of Competition: Co-creating Unique Value with Customers* (2004) resulted from six years' research attempting to understand the changes in the economy at that time. The book calls for a paradigm shift, drawing on the differences between traditional, i.e. conventional value creation and value co-creation. They also suggest that while we would traditionally categorise companies as business-to-consumer (B2C) or business-to-business (B2B), where most actions are company-centric, the new way of approaching could be consumer-to-business-to-consumer (C2B2C) or even "from individuals to the nodal firm and its network and back to the individual" (I2N21). This approach would place the consumer at the centre of value creation (Prahalad & Ramaswamy 2004; Ramaswamy 2011.) Ramaswamy (2011, 195) defines co-

creation as: “the process by which mutual value is expanded together, where value to participating individuals is a function of their experiences, both their engagement experiences on the platform, and the productive and meaningful human experiences that result.”

Moreover Prahalad and Ramaswamy (Prahalad & Ramaswamy 2004a; Prahalad & Ramaswamy 2004c) introduced co-creation building blocks named DART (see figure 3.9) focusing on interactions between company and customer to support co-creation activities. The DART comprises four components: dialogue, access, risk assessment and transparency. Dialogue is about open and equal dialogue between a customer and a company leading to the understanding perceptions of the customer value. Access is about customers getting access to a company’s processes and being able to gain experiences without owning a certain product. Risk assessment is about a company managing risks of the value proposition from the customer’s point of view. Transparency is about allowing customers to see the production and delivery process. The components of DART function in supportive conjunction with each other, i.e. access and transparency enable more valuable dialogue as well as a better understanding of the risks embedded in an offering. The components also point out the divergence between traditional value creation and value co-creation approaches, also called “company think” and “customer think” (Prahalad & Ramaswamy 2004).

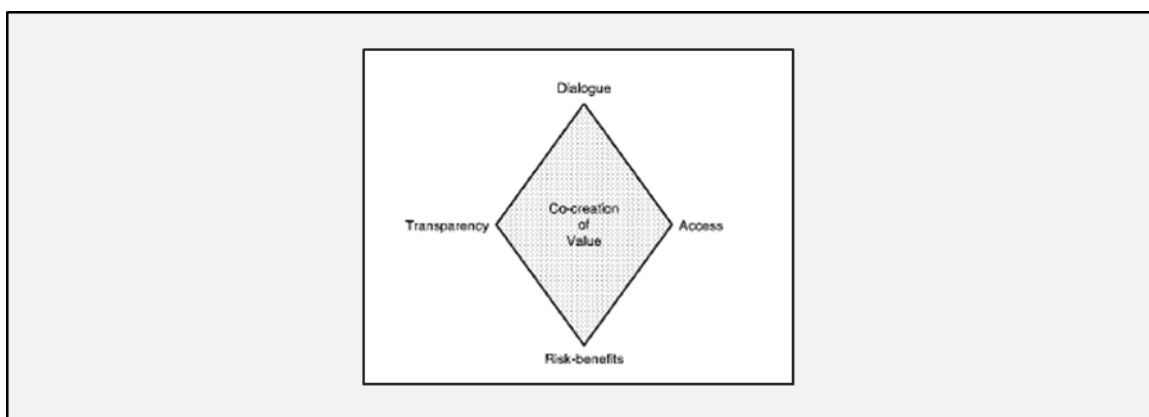


Figure 3.9: DART
(Prahalad & Ramaswamy 2004b, 9)

Furthermore, Prahalad and Ramaswamy (2004b) define what co-creation is and what it is not (see figure 3.10). In their view, co-creation is seen as joint value creation between the company and the customer, including jointly defined and jointly solved problems; having “experience environments” which allow continuous and active dialogue; variety; and permitting customers to “co-construct” personalised experiences to suit their world. Moreover, the importance of innovating new experience environments is acknowledged.

Nevertheless, it should be noted that according to Prahalad and Ramaswamy (2004b) co-creation is not about the provider company trying to please the customer or pampering the customer with lavish customer service. It does not mean that the customer is king and always right. Additionally, the figure demonstrates that in co-creation the customer is not a product manager or a co-designer of a product or a service.

WHAT CO-CREATION IS NOT	WHAT CO-CREATION IS
<ul style="list-style-type: none"> • Customer focus • Customer is king or customer is always right 	<ul style="list-style-type: none"> • Co-creation is about <i>joint</i> creation of value by the company and the customer. It is not the firm trying to please the customer
<ul style="list-style-type: none"> • Delivering good customer service or pampering the customer with lavish customer service 	<ul style="list-style-type: none"> • Allowing the customer to co-construct the service experience to suit her context
<ul style="list-style-type: none"> • Mass customization of offerings that suit the industry's supply chain 	<ul style="list-style-type: none"> • Joint problem definition and problem solving
<ul style="list-style-type: none"> • Transfer of activities from the firm to the customer as in self-service 	<ul style="list-style-type: none"> • Creating an experience environment in which consumers can have active dialogue and co-construct personalized experiences; product may be the same (e.g., Lego Mindstorms) but customers can construct different experiences
<ul style="list-style-type: none"> • Customer as product manager or co-designing products and services 	<ul style="list-style-type: none"> • Experience variety
<ul style="list-style-type: none"> • Product variety 	<ul style="list-style-type: none"> • Experience of one
<ul style="list-style-type: none"> • Segment of one 	<ul style="list-style-type: none"> • Experiencing the business as consumers do in real time
<ul style="list-style-type: none"> • Meticulous Market research 	<ul style="list-style-type: none"> • Continuous dialogue
<ul style="list-style-type: none"> • Staging experiences 	<ul style="list-style-type: none"> • Co-constructing personalized experiences
<ul style="list-style-type: none"> • Demand-side innovation for new products and services 	<ul style="list-style-type: none"> • Innovating experience environments for new co-creation experiences

Figure 3.10: The Concept of Co-Creation (Prahalad & Ramaswamy 2004b, 8)

Subsequently the publications related to this perspective leaned more towards the managerial mode (Prahalad & Ramaswamy 2008; Prahalad 2009; Ramaswamy 2010; Ramaswamy & Guillard 2010). Nevertheless, these authors still seem to influence the co-creation phenomenon in research literature (Grönroos 2006a; Kimbell 2011; Meroni & Sangiorgi 2011; Sanders & Stappers 2008; Vargo & Lusch 2006).

3.3 Co-creation in service design and service innovation

The literature on co-creation in service design and service innovation does not seem to present any related frameworks or models for co-creation. Rather it discusses co-creation in conjunction to participatory design, co-design, new service development, and open innovation as discussed in the Chapter 1.

The discussion in service design of co-creation seems to be more conceptual, concerning how to define co-creation (Sanders 2008; Mattelmäki & Visser 2011). As discussed earlier, in design research service design can be seen as rooted in a participatory design, embedding user involvement as a driving force in service development and service innovation (Meroni & Sangiorgi 2011). Thus service design and service innovation partly overlap. Moreover, service design tools enhance service design activities and their purpose is to involve users in designing for services.

Furthermore, Kumar's (2009) model includes design perspective with innovation. Kumar sees that adopting the view of understanding users in design innovation, thus adopting a view of service design and co-innovation, is the central notion and creates value-in-use (Grönroos 2011c; Vargo & Lusch 2006). He demonstrates the differences between business- and technology-driven innovation and design-driven innovation (see figure 3.11). Whereas business- and technology-driven innovations start with traditional product innovation, design-driven innovation starts by understanding users and their needs, i.e. where design innovation turns traditional innovation thinking upside down. Additionally, he relates design innovation to design thinking, where the purpose is to enable businesses to discover new possibilities.

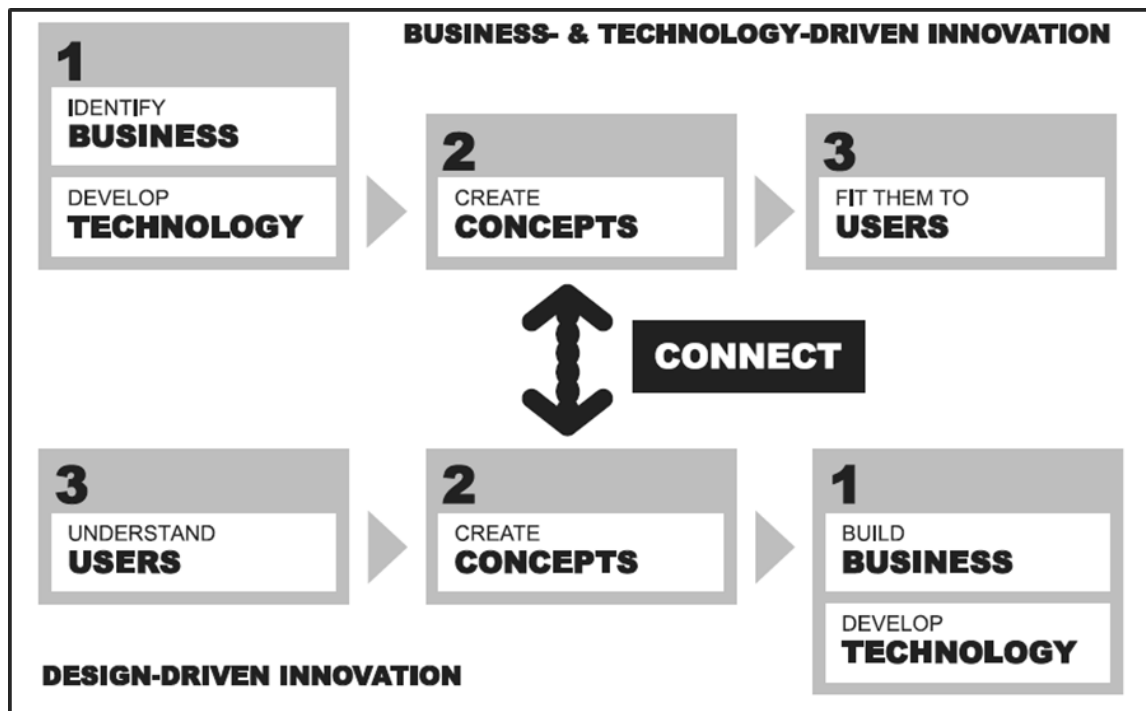


Figure 3.11: Three different models of innovation, driven by technology, business processes, and the points at which they intersect (Kumar 2009, 92)

In addition to design innovation thinking, the service innovation literature on co-creation suggests two different approaches: new service development (NSD) and open innovation. Generally it seems that in service innovation “co-creation refers to collaboration with customers for the purposes of innovation” (Kristensson et al. 2008, 475). These two approaches are briefly discussed next.

New Service Development

NSD focuses on the overall process of developing new service offerings and is concerned with every stage from idea to launch. NSD suggests user involvement or customer involvement as one of its core elements and there is numerous amount of research that emphasises the importance of involving customers and understanding their needs. (e.g. de Brentani 1995; Edvardsson et al. 2010; Narver & Slater 1990; Berry et al. 1985.)

Alam (2002, 254) suggests that there are four different components of user involvement in new service development: “Objective/purpose of user involvement, stages of involvement, intensity of involvement, and modes of

involvement". "Objective/purpose of user involvement" includes six points about why users are involved: "Superior and different service, reduced cycle time, user education, rapid diffusion, improved public relations, and long-term relationships". There are 10 "stages of involvement": "strategic planning, idea generation, idea screening, business analysis, formation of the cross-functional team, service and process design, personnel training, service testing and pilot run, test marketing, and commercialization". "Intensity of involvement" is described as a "continuum" with "passive user participation" at one end and "participative decision making" along with users at the other. "Modes of involvement" consists of six different ways to involve users in new service development: "face-to-face interviews, user visits and meetings, brainstorming, user's observation and feedback, phone, faxes and e-mails". Thus all of these are apparent in new service development. Alam (2002) points out that the stages of idea generation, service design, service testing and pilot run might take place before other stages. Magnusson et al. (Magnusson et al. 2003) use Alam's components in user involvement regarding service innovation and conclude that user involvement seems to boost service development when managed well (Magnusson et al. 2003). They suggest that just to ask users about their needs and wants in questionnaires or interviews is not enough, because that way you will not spot latent needs; and doing so is a seminal part of innovating new services. Magnusson et al. (2003) indicate that users should be involved in "problem-solving" processes attached to their everyday routines in order to find those latent needs (Narver & Slater 1990).

Additionally, co-innovation has been discussed in relation to both new service development and new product development. According to Mannervik and Ramirez (2006), co-innovation is a collaborative activity between companies and customers of defining, developing, testing and re-shaping value propositions. They see customers as interactive co-designers or, at an even deeper level, as integrated designers. Additionally, Mannervik and Ramirez (2006) indicate that customer co-innovation should be seen as a strategically important source of information.

Open innovation

Open innovation seems to be intertwined with user involvement as it highlights the importance of an outside-in approach within businesses (Chesbrough 2003). Co-creation can be seen as one of the four main functionalities in open services innovation (Chesbrough 2011, 17). Additionally, open services innovation involves seeing services as an open unit of exchange, using open innovation as a way to involve other stakeholders and to modify a company's business model to be supportive of open innovation processes.

Co-creation in open services innovation is seen as an activity performed together with customers to gain tacit knowledge and to enhance innovations. Co-creation is defined as involving customers "early and deeply in the innovation process" (Chesbrough 2011, 23), in comparison with traditional product innovation process where customers are seen at the end of the value chain as passive receivers of products. In co-creation, customers are seen as active participants of the value network, generating value for them as well as enhancing the competitiveness of the supplier.

The next chapter will combine the literature from the perspective of translating existing theoretical insights into a conceptual framework.

3.4 Translating theoretical insights into a conceptual framework

The purpose of this chapter is to incorporate understanding of co-creation and current approaches to it in service marketing and management, service design and service innovation in a conceptual framework of co-creation.

The conceptual framework is designed to: a) understand co-creation in service business, b) analyse the current business approach of the case companies, and c) present the findings of the exploratory study. The framework was developed by a group of five researchers under my leadership. Thus it is necessary to unfold my own role in this process.

Constructing the conceptual framework took place at the same time as undertaking the data collection processes in the exploratory study (see chapter 4). I led the group, three of which were Master students carrying out activities related to their theses. The role of the fourth was to supervise them. Besides leading the group I acted as a researcher, collaboratively constructing the conceptual co-creation framework. The collaborative construction of the conceptual framework was a natural step in parallel with the data collection processes in the exploratory study (see chapter 4), as the framework was needed by the researchers in order to analyse the data. It should be noted that after constructing the conceptual framework the research group was dissolved and the rest of this study is the work of myself alone.

The literature review demonstrated the existing frameworks, models and current thinking about co-creation in the fields of service marketing and management, service design and service innovation. Although the existing frameworks and models presented earlier are useful they all come from slightly different perspectives and are at different levels of abstraction, and none of the existing frameworks or models combine the three perspectives needed to execute this study. Thus it was necessary to construct the conceptual co-creation framework that directs this study. The prerequisite for the framework was that it should seek to clarify co-creation and be usable with companies, facilitating answers to the research questions.

First, it is necessary to consider how to categorise current understanding so that the existing knowledge can be understood and used in empirical research. In the literature there are three “levels” of co-creation which relate: a) to strategic thinking in co-creation (Grönroos 2006a; von Hippel 2005b; Mannervik & Ramirez 2006; Vargo & Lusch 2006); b) to the focus on customer interaction and relationships being everyday business as usual (Grönroos 2011a; Lusch & Vargo 2006); and c) to service development including co-design and co-innovation (Magnusson et al. 2003; Meroni & Sangiorgi 2011; Sanders & Stappers 2008). Thus co-creation can be seen through three different lenses: A) Strategic thinking and business model, B) Customer interactions and relationships, and C) Service design. These lenses are now explored further.

Lens A), Strategic thinking and business model, aims to cover the topical discussion of S-D logic and service logic originating in marketing theory. The role of Lens B), Customer interactions and relationships, stems mainly from the relationship marketing and co-production of services. The literature indicates that co-creation requires active interaction and a relationship between two or more parties; in this study this would mean the supplier and the customer (Grönroos 2011a; Prahalad & Ramaswamy 2004a). Finally, Lens C), Service design, aims to cover the knowledge of service design and service innovation including co-design and co-innovation when designing value propositions. It is clear that co-design, embedding collective creativity and interactive design methods, plays a vital role in co-creation (Mattelmäki & Visser 2011; Sanders & Stappers 2008). In reality these three lenses overlap but in order to simplify the scene and to demonstrate their meaning they are treated here as separate sections, as in Figure 3.12 (Ojasalo & Keränen 2011).

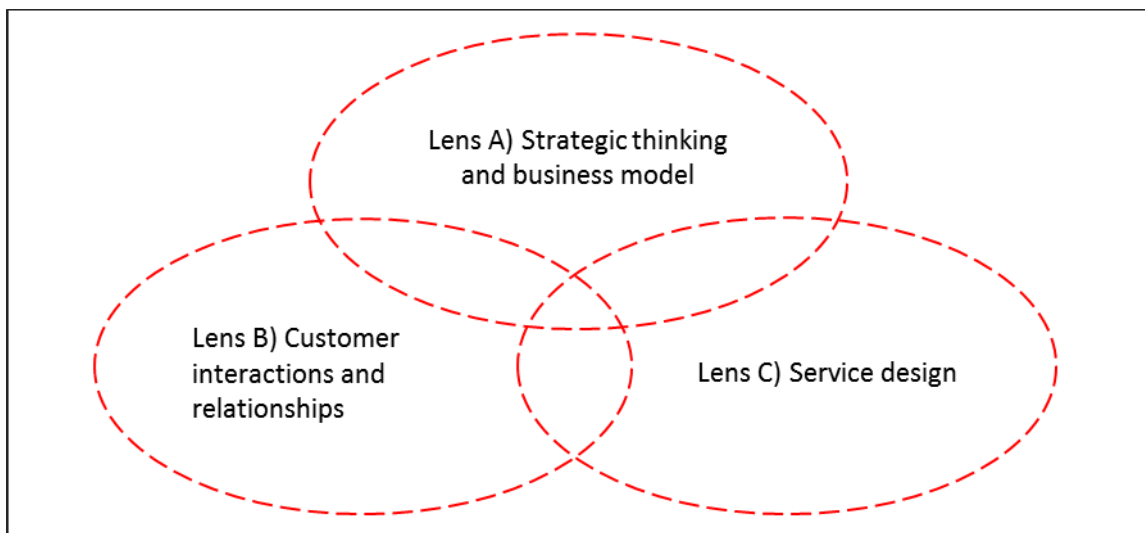


Figure 3.12: Three lenses of co-creation in service business

Second, the literature seem to contrast conventional ways of performing service marketing and management, design, and innovation (goods logic vs. service logic, user-centric design vs. participatory/service design, business- and technology-driven innovation vs. user-driven innovation) with new ways (Grönroos 2006a; Meroni & Sangiorgi 2011; Sanders 2006; Vargo & Lusch 2006; Kumar 2009). In Figure 3.13 this contrast is simplified into a continuum with the

conventional approach at one end and co-creation at the other. The continuum will assist in exploring how the theoretically derived principles of co-creation are applied in service business, demonstrating the differences between the conventional approach and the co-creation approach.

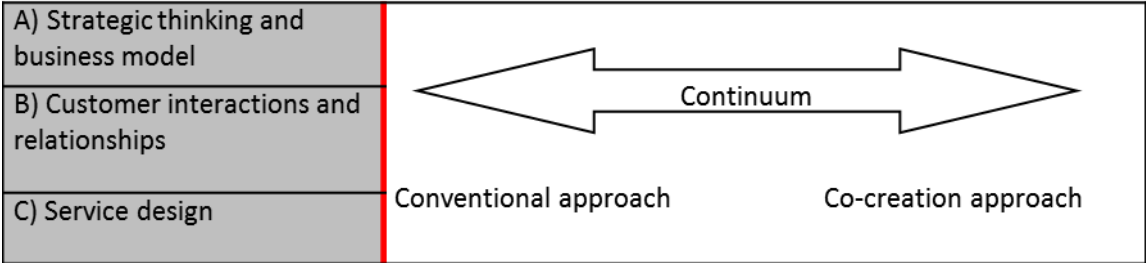


Figure 3.13: Continuum embedding lenses A, B, C including both conventional and co-creation approaches

Third, to better understand the meaning of each lens, five sub-lenses are created. These sub-lenses describe more specifically what kinds of characteristics are included in each lens (see table 3.1). Next, each lens including the five sub-lenses will be discussed in more detail.

Table 3.1: Lenses A, B, C and 15 sub-lenses

A) Strategic thinking and business model	B) Customer interactions and relationships	C) Service design
A1. Business goals	B1. Company-customer relationship	C1. Gathering information on the customer
A2. Strategy process	B2. Information on the customer	C2. Processing information on the customer
A3. Value creation processes	B3. Nature of interaction with the customer	C3. Developing the value proposition
A4. Resources	B4. Amount of interactions	C4. Testing the value proposition
A5. Position in value chain / value network	B5. Customer access to information and other resources	C5. Launching the value proposition

3.4.1 Co-creation in strategic thinking and business model

The first lens (Lens A) of co-creation follows the discussion in the literature drawn from marketing theory related to service-dominant logic (Vargo & Lusch 2004; Lusch & Vargo 2006; Vargo et al. 2008) and service logic (Grönroos

2006a; Grönroos 2011c). The lens is assembled to show how the strategy and business goals are defined in both the conventional approach and the co-creation approach. In adopting a co-creation approach, companies need a new kind of strategic thinking and a commitment to change (Lusch et al. 2007; Ojasalo & Keränen 2011).

Conventional approach in Lens A

In the conventional approach to business goals, a company makes and sells goods and services, aiming to maximise value for the company i.e. value-in-exchange (Grönroos 2006a; Grönroos & Voima 2011; Ojasalo 2010; Vargo & Lusch 2006). The emphasis is on the quality and optimisation of its own processes. Management develops the strategy without active input from the stakeholders, i.e. the strategy is developed top-down and inside-out. The company has its own value-creation processes, and goods and services are seen to generate value by fulfilling customer needs. The company uses its own know-how, resources and technology and sees production equipment and technical know-how as the most critical resources. Moreover, the company sees itself as operating in a value chain, considering only specific aspects of other players, as in Figure 3.14 (Grönroos 2006b; Kumar 2009; Ojasalo 2010; Vargo & Lusch 2006).

Co-creation approach in Lens A

The company jointly creates comprehensive customer solutions in order to maximise customers' value-in-use, which enables the emergence of financial value (value-in-exchange) for the company (Grönroos 2011c). The strategy is developed in close collaboration between management, employees, customers and/or other stakeholders, i.e. it is developed bottom-up and outside-in. The focus is on customers' and customers' customers' value creation processes in order to facilitate their value-in-use (Ojasalo & Ojasalo 2009; Ojasalo 2010; Prahalad & Ramaswamy 2004a). Resources are shared among the customers and other stakeholders (Michel et al. 2007). Their know-how is actively employed. Finally, the company sees itself as operating across the whole value network, employing its full potential.

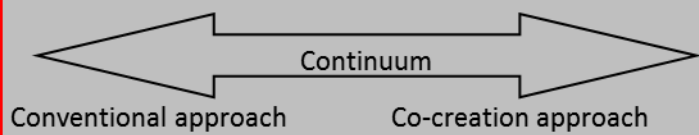
A) Strategic thinking and business model		
	Conventional approach	Co-creation approach
A1. Business goals	To make and sell services and products/Value-in-exchange	To jointly create comprehensive customer solutions/ Value-in-use
A2. Strategy process	Top-down/inside-out	Bottom-up/Outside-in
A3. Value creation processes	Focus on own value creation processes	Focus on customers' and customers' customers value creation processes
A4. Resources	Focus on own competences and resources, processes and technologies	Focus on shared resources among the company, its customers/other stakeholders
A5. Position in value chain/ value network	Focus on the company's own position in the value chain	Focus on the value network

Figure 3.14: Lens A – Strategic thinking and business model

3.4.2 Co-creation in customer interactions and relationships

The second lens (Lens B) focuses on customer-company interactions and relationships as one of the key areas in co-creation. From the co-creation point of view the interactions are understood as conditions where the customer and the company engage in and influence each other's processes (Grönroos 2008). Thus, during interactions, a company has the opportunity to engage with its customers' value creation and become a co-creator of value (Grönroos 2011c), as in Figure 3.15.

Conventional approach in Lens B

The conventional approach of Lens B follows the topical discussion of goods logic (e.g. Grönroos 2006b; Ojasalo 2010; Prahalad & Ramaswamy 2004a; Vargo & Lusch 2004). The customer relationship is not actively sustained and it is more transaction-oriented. Customers are segmented by size, industry and other demographic factors or they are not segmented at all, i.e. they are treated equally. The nature of the interactions is more passive and reactive, focusing on selling and having some after-sales activities. Most of the interaction occurs at the moment of exchange. Customer access to information and other resources is

very limited, i.e. the customer has no opportunity to observe the company's service operations.

Co-creation approach in Lens B

In the co-creation approach, the company's activities are oriented towards building long-term customer relationships with holistic collaboration and partnership (Ojasalo 2009; Ojasalo 2010). The company has a deep insight into the customer, including a profound understanding of customers' processes. All actors know each other in person. Proactive interaction occurs, including continuous dialogue focusing on the quality of interaction and shared experiences. The interaction is active, two-way and it can happen anytime and anywhere (Prahalad & Ramaswamy 2004; Ramaswamy & Gouillart 2010.) Accordingly, a customer has access to a wide range of information and resources.

B) Customer interactions and relationships	Continuum	
	Conventional approach	Co-creation approach
B1. Company-customer relationship	Transaction-oriented	Oriented towards building long-term customer relationships
B2. Information on the customer	Segmented by size, industry and other demographic factors	Deep customer insight – knowing in person
B3. Nature of interaction with the customer	Passive/reactive (selling)	Proactive/dialogue
B4. Amount of interactions	Only at the moment of exchange	Active/two-way Anywhere/anytime
B5. Customer access to information and other resources	Very limited	Transparent

Figure 3.15: Lens B – Customer interactions and relationships

3.4.3 Co-creation in service design

The third lens (Lens C) focuses on service design and new service development including the notion of service innovation (e.g. Alam 2002; Magnusson et al. 2003; Meroni & Sangiorgi 2011; Ojasalo 2010; Sanders & Stappers 2008), embedding the process of developing value propositions (see figure 3.16).

Conventional approach in Lens C

In accordance to conventional approach a company gathers information on the customer by having structured methods such as questionnaires and interviews to gain insight into customer satisfaction and current needs (Magnusson et al. 2003; Prahalad & Ramaswamy 2004a; Sanders & Stappers 2008). The customer information is processed internally within the company. The development of the value proposition is accomplished having an expert mindset i.e. the development is a top-down and inside-out process. Accordingly the value proposition is tested within the company by the expert designers. Launching the value proposition includes the traditional marketing approach i.e. marketing and selling goods and services to the customers. (Kimbell 2011; Kumar 2009; Sanders & Stappers 2008.)

Co-creation approach in Lens C

In the co-creation approach a company gathers information on customers using participatory methods such service design tools to listen and learn together (Ballantyne & Varey 2008). The customer information is processed in collaboration with employees and customers to enhance the relationship. Value proposition is jointly developed and tested by employees and customers. As a result of collaboration in earlier phases, resulting in comprehensive customer solutions, no separate launching is needed. Thus customers are seen in a proactive role and involved at every stage. Two customer roles can be distinguished in service design: 'Customer as Informant' and 'Customer as Co-designer' (Ojasalo 2009; Ojasalo 2010). It is important to develop a comprehensive understanding of what creates value for the customer in general and to anticipate customers' latent needs in particular. Latent needs are defined here as "opportunities for customers". When service companies innovate and design services directly with their customers, and the customers are active partners in every stage, customers are no longer seen only from an observational perspective (Narver et al. 2004).

In service design, the customer is seen as a co-designer in order to co-design value propositions together with the supplier. This means that in this study co-design is seen as a subset of co-creation (Mattelmäki & Visser 2011).

C) Service design	Continuum	
	Conventional approach	Co-creation approach
C1. Gathering information on the customer	Structured methods	Participatory methods, listening and learning together
C2. Processing information on the customer	Internally within the company	Externally with the customers
C3. Developing the value proposition	Top-down/Inside out	Bottom-up including the customers
C4. Testing the value proposition	Internally within the company	Externally with the customers
C5. Launching the value proposition	Selling services/products	Providing solutions /minimum marketing activities

Figure 3.16: Lens C - Service design

In Figure 3.17 below, these three lenses and the sub-lenses with short explanations are integrated into a conceptual co-creation framework to serve the analysis of the empirical enquiry and to present the findings of the case companies.

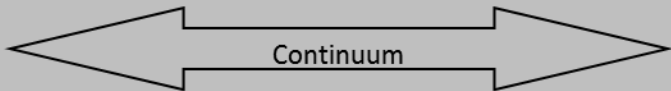
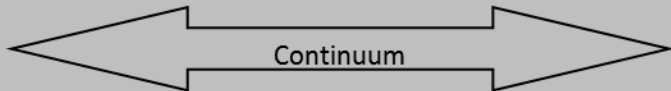
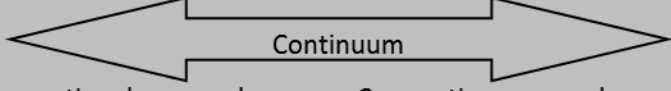
A) Strategic thinking and business model		
	Conventional approach	Co-creation approach
A1. Business goals	To make and sell services and products/ Value-in-exchange	To jointly create comprehensive customer solutions/ Value-in-use
A2. Strategy process	Top-down/Inside-out	Bottom-up/Outside-in
A3. Value creation processes	Focus on own value creation processes	Focus on customers' and customers' customers value creation processes
A4. Resources	Focus on own competences and resources, processes and technologies	Focus on shared resources among the company, its customers/other stakeholders
A5. Position in value chain / value network	Focus on the company's own position in the value chain	Focus on the value network
B) Customer interactions and relationships		
	Conventional approach	Co-creation approach
B1. Company-customer relationship	Transaction-oriented	Oriented towards building long-term customer relationships
B2. Information on the customer	Segmented by size, industry and other demographic factors	Deep customer insight – knowing in person
B3. Nature of interaction with the customer	Passive/reactive (selling)	Proactive/dialogue
B4. Amount of interactions	Only at the moment of exchange	Active/two-way Anywhere/anytime
B5. Customer access to information and other resources	Very limited	Transparent
C) Service design		
	Conventional approach	Co-creation approach
C1. Gathering information on the customer	Structured methods	Participatory methods, listening and learning together
C2. Processing information on the customer	Internally within the company	Externally with the customers
C3. Developing the value proposition	Top-down/Inside out	Bottom-up including the customers
C4. Testing the value proposition	Internally within the company	Externally with the customers
C5. Launching the value proposition	Selling services/products	Providing solutions/ minimum marketing activities

Figure 3.17: The conceptual co-creation framework

3.5 Summary & implications for the exploratory study

This study aims to understand co-creation in the B2B service business through in-depth case studies of co-creation in practice. In order to accomplish the study a conceptual framework is needed based on current understanding and incorporating the characteristics of co-creation in the fields of service marketing and management, service design and service innovation.

Thus the objective of this chapter was a) to present the current knowledge, frameworks and models of co-creation in service marketing and management, service design and service innovation before 2012, and b) to synthesise the current knowledge to introduce a conceptual co-creation framework.

The literature review demonstrated the existing frameworks, models and current discussion related to co-creation. The existing frameworks and models are useful but they all come slightly different perspectives and are at different levels of abstraction and at times they are too abstract to be usable with companies. Thus this complexity was turned into something that allows an answer to the research questions and moreover into something that businesses might understand.

Accordingly, the conceptual co-creation framework was designed to a) understand co-creation in service business, b) analyse the current business approach of the case companies, and c) to present the findings of the exploratory study.

The conceptual co-creation framework is an initial attempt to incorporate the current understanding of co-creation in service marketing and management, service design and service innovation. The current knowledge of co-creation seems to be rather incoherent and at times challenging to perceive. Thus some of the lenses/sub-lenses of the conceptual co-creation framework are more strongly supported by the current literature and others were supported more strongly by the research group. The advantage of having a group of researchers at this stage was to gain understanding collaboratively while constructing the framework.

Furthermore, the purpose of the exploratory study is to empirically test to what extent this framework actually does represent co-creation within the cases chosen. Additionally, the framework allows the author to communicate to the case companies what co-creation might be and what it is not.

Next, the exploratory study will be discussed, including the research design. The conceptual framework is used to analyse the data and to present it to the case companies. Thereafter, the findings of the exploratory study are conveyed in refining the framework to conduct the descriptive study.

4 An exploratory study: Understanding the co-creation phenomenon in the B2B service business

The role of the second phase of this study is to conduct a first empirical enquiry. Based on problem structure an exploratory study seemed the best possible approach, since co-creation seems to be very abstract phenomenon, ill-defined both theoretically and empirically (Ghauri & Gronhaug 2010). Figure 4.1 shows the relationship of this chapter to the other chapters.

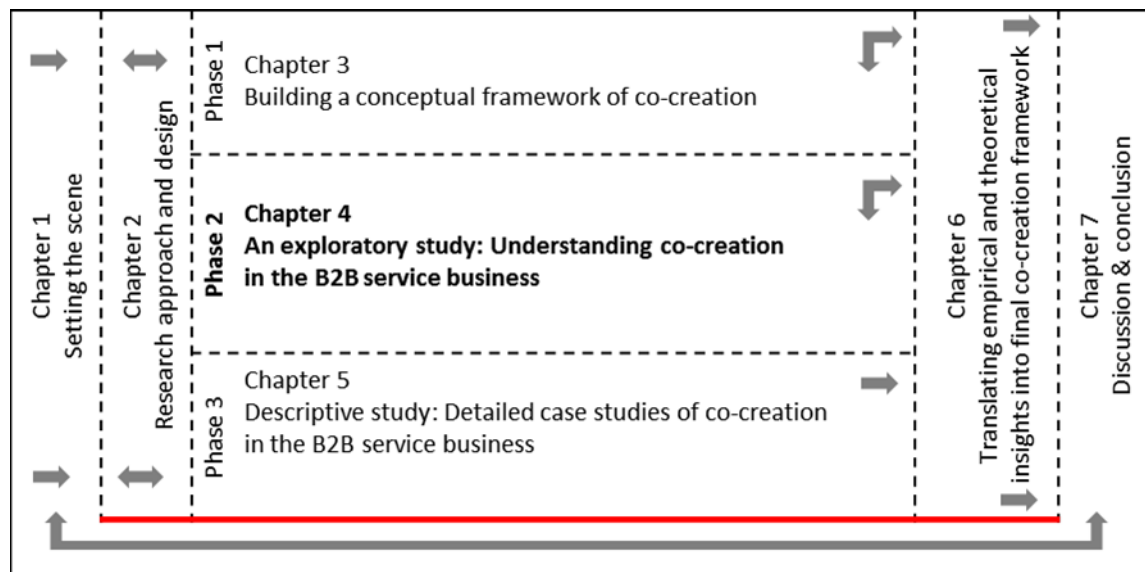


Figure 4.1: Thesis structure – Chapter 4

The objective of the exploratory study is a) to understand co-creation in the B2B service business based on empirical findings and b) to synthesise empirical findings into a refined co-creation framework. The research question related to this phase is RQ1b: How are the theoretically derived principles of co-creation applied in the B2B service business?

Following the overall research approach and design presented in Chapter 1, the detailed research design and the findings of the exploratory study are presented in this chapter. It should be noted that Phase 1, Building a conceptual co-creation framework, partly overlapped with the construction of the exploratory study. The conceptual co-creation framework was first used in analysing the data of the exploratory study; in other words, it did not exist when setting up the interview

questions. Rather, constructing the interview questions supported the design of the framework. Additionally, the research workshops described in the research design of this phase were also used to design the conceptual co-creation framework. Now the specific research design of Phase 2: An Exploratory study is presented.

4.1 Research design: Phase 2

This study follows the case study strategy of Yin (2009). Based on this strategy the stages of this case study design are: planning, designing, preparing, collecting, analysing, and sharing. The planning and designing stages are common to all phases of this study, and the detailed descriptions of these stages are included in Chapter 2. The purpose of this chapter is explicitly to describe in detail the four additional stages related to Phase 2 (see figure 4.2). On the time scale this phase was performed between January 2011 and August 2012.







Stage	Research design	
Plan	 Regular intervals of assessing and updating the research design	Unified activities/all phases Chapters 1, 2
		Reviewing the literature of co-creation Identifying the knowledge gap based on the current literature
Design	 Regular intervals of assessing and updating the research design	Defining the research question Identifying the philosophical approach and research methodology Identifying the cases <ul style="list-style-type: none"> ▪ Choosing the case companies ▪ Gaining access to the case companies ▪ Signing the research agreements with the case companies Identifying the phases
		Specified activities/Phase 2 Chapters 4,6,7
Prepare	 Regular intervals of assessing and updating the research design	Objective <ul style="list-style-type: none"> ▪ To understand co-creation in the B2B service business based on empirical findings of the exploratory study ▪ To synthesise empirical findings into refined co-creation framework RQ1b <ul style="list-style-type: none"> ▪ How are theoretically derived principles of co-creation applied in the B2B service business?
		Designing interview themes and questions <ul style="list-style-type: none"> ▪ 1st Researcher meeting 28th January, 2011 ▪ 2nd Researcher workshop 4th March, 2011 ▪ 3rd Researcher workshop 16th March, 2011 Designing the data collection <ul style="list-style-type: none"> ▪ Sharing the interviews among the researchers ▪ Deciding the common procedures ▪ Creating the common data base ▪ Setting up the final interview dates, times and places
Collect	 Regular intervals of assessing and updating the research design	3 cases implementing 21 semi-structured interviews between April -June, 2011 <ul style="list-style-type: none"> ▪ 3 pilot interviews ▪ Researcher meeting 4th April, 2011 exploring the experience gained and specifying the questions ▪ Final 18 interviews ▪ Parallel to this process the preliminary co-creation framework was designed see Chapter 3
Analyse	 Regular intervals of assessing and updating the research design	Analysing the data between June-November, 2011 <ul style="list-style-type: none"> ▪ Transcribing the data ▪ Coding the data ▪ Assimilating the meaning of the quotes ▪ Evaluating the current approach of the case companies Writing the findings Updating the preliminary framework
Share	 Regular intervals of assessing and updating the research design	Presenting the findings to the case companies August-November, 2011 Publishing two academic conference papers and presenting the results at the academic conferences April and September, 2011 Publishing an academic journal article October, 2012

Figure 4.2: The research design of the exploratory study

4.1.1 Preparing the data collection

Designing interview themes and questions

The design of the interview themes and questions was conducted in two workshops in March 2011 with a group of five researchers as a part of the bigger research consortium. To avoid confusion it is necessary to describe my role in this process. The preparation and data collecting in this phase were implemented by the group of researchers under my leadership. Three other researchers were Masters students made responsible for collecting the data of one case company each, i.e. they each had an individual case study for the purposes of their theses. The role of the fourth researcher was to supervise the other three. While leading the research team I was also part of it, and collaboratively we executed the tasks of designing interview themes and questions and conducting the data collection as well as designing the conceptual framework introduced in Chapter 3. The rest of the activities introduced in this chapter were solely undertaken by myself.

The research group first met on 28th January 2011 in order to discuss the design of the data collection. In this meeting I set a shared assignment to construct a set of interview themes/questions based on the current literature on co-creation to explore the current business approach of the case companies related to co-creation.

The research workshop took place on 4th March 2011. As a result of the assignment given in the earlier meeting each researcher brought her/his themes/questions on separate post-it notes. The content of the post-it notes was combined, discussed and reframed during the workshop (see figure 4.4) and four preliminary interview themes and questions were identified: (1) Company's strategy, vision, aims and business environment; (2) Developing service offering; (3) Delivering the service offering and (4) Customer.



Figure 4.3: Reframing interview themes and questions

A follow-up workshop for the five researchers was held on 16th of March 2011. The emphasis was to re-evaluate and finalise the interview themes and questions. Drawing on the evaluation discussion the interview themes discovered earlier were kept but the interview questions were further developed. See Table 4.1 for the final semi-structured interview themes and questions. It is notable that although Table 4.1 presents a list of questions, the nature of semi-structured interview is not to ask them one by one. Rather, the role of these questions is to help the interviewer to cover all aspects of the themes (Saunders et al. 2007, 312).

Table 4.1: Semi-structured interview themes and questions

Overall questions
What are your main tasks/responsibilities? How long have you been working here? Can you give me some examples? (Support question when needed)
Theme 1 Company's strategy, vision, aims and business environment
What does your company do? What are the basic elements of your company's strategy? How the current strategy has been developed? (Goals, target) What are the most important resources in your company? What do you promise to your customers? (Competitive advantage) Who are your competitors? How do you define your market? (Market position)
Theme 2 Developing service offering
What do you offer to your customers? (Products, services, portfolio/package) What are the benefits that your customers get from your offering? Do you know why do they choose you? How do you get new customers? How is your service offering being built? (Partners involved) What kind of earning logic or pricing do you use? Where does the money come from? (Contract or transaction based) Could you describe these contracts in more detail?
Theme 3 Delivering the service offering
How is the service delivered? How long takes an average service process? Which actions are included? Which modules are standardised/flexible/set? What is the role of the customer in the service process? Does the customer understand his/hers role in the service process? What is the employee's decision role during the service delivery? What if something goes wrong/if the customer complains?
Theme 4 Customers
Who are your customers? Do you segment your customers? How many customers do have on average in each segment? Which kinds of customers are most valuable for you? How do you interact with the customer? How often do you see them? Why? Do you have loyal customer activities? How do you collect or get customer data? And how the data is handled/shared? Are you monitoring social media environment? How long are your customer relationships typically? (Contract or transaction based) Why do they usually end? How satisfied are your customers? How do you define your customer satisfaction? How do you measure your customer satisfaction?

Designing the data collection

After the second workshop the preparation for the actual data collection took place. This included choosing the interviewees, sharing the interviews among the researchers, deciding the common procedures during the interviews, creating a common database and finally setting up the actual interview dates, times and places (Saunders et al. 2007, 317). The case companies were asked to choose employees from a wide variety of management levels, covering the main

functionalities of the company. Thus all the interviewees were key people in management and included CEOs of all three case companies. The interviews included 21 semi-structured interviews with the three case companies (see table 4.2). Out of these interviews 6 were held in English and 15 were held in Finnish. I was responsible for 14 of the interviews with the three case companies.

Table 4.2: The sample and the timetable of the exploratory study

Case company	S1	S2	S3
Field	Financial management services	IT services	Construction, real estate development and area development consultation services
Company size	SME (approx. 250 employees)	SME (approx. 20 employees)	SME (approx. 20 employees)
Sample	10	6	5
Interview timetable	April-June, 2011	April-May, 2011	April-June, 2011
Amount of the data	Recordings 9 hours 41 min Transcripts 164 pages	Recordings 7 hours 42 min Transcripts 142 pages	Recordings 5 hours 13 min Transcripts 90 pages
Presenting the results to the case companies	18 August, 2011	1 September, 2011	7 November, 2011

4.1.2 Collecting the data

At the beginning of the data collection the first three pilot interviews were held (Ghauri & Gronhaug 2010, 130; Yin 2009, 92), one per case company and in pairs, including one Master's student and myself. This was crucial in order to have a mutual understanding of the interview procedures and the working styles of the researchers. After the first three pilot interviews, a meeting took place to explore the experience gained and to specify the questions needed. The interview data was collected between April 2011 and June 2011. The interviews were recorded and then transcribed by three researchers, two assistants and myself, according to the protocols I set (Ghauri & Gronhaug 2010, 150; Saunders et al. 2007, 474).

4.1.3 Analysing the data

Simultaneously with the exploratory study process, a conceptual co-creation framework was developed (see chapter 3.4). The purpose of the framework was to a) understand co-creation in the B2B service business based on current theory until 2011, b) analyse the current business approach of the case companies related to the co-creation, and c) present the findings to the case companies, i.e. the analysis of the exploratory study is “relying on theoretical propositions” (Yin 2009, 130).

The analysis took place between June and November 2011. While analysing the qualitative data was a very challenging stage of the exploratory study it appeared to be highly engrossing. The case companies expressed a strong interest in the findings. The research group had worked together quite intensively since January 2011 to develop the interview themes/questions, perform the data collection processes and design the conceptual co-creation framework. At this point the group split up to work as individual researchers to analyse the data.

Hence the data of the exploratory study was analysed by the author in terms of systematic coding, employing the conceptual co-creation framework (Miles & Huberman 1994, 55). The conceptual co-creation framework allowed categorising of the data within three lenses and 15 sub-lenses. Furthermore, the continuum of the original framework included two extreme approaches: 1) the conventional approach, and 2) the co-creation approach. Quite soon after categorising the data it was understood that the two ends of the continuum would be too simplistic and would not depict the current state of the case companies' business approach related to co-creation activities. Thus a category between two extremes of the continuum was created, named the “Intermediate approach”. The analysis then proceeded by assimilating and interpreting the meaning of the quotes.

First, the results are presented separately, case by case and lens by lens, including a narrative story. Within the story the lenses related to the text are placed in brackets. Some quotes are presented to bolster the results. The quotes are numbered S1, S2, S3, etc. when detailing the case and I1, I2, I3, etc. when

identifying the interviewee involved; for example, S1-I2 meaning supplier 1 and interviewee 2. The results of each case including the view of one lens are incorporated into individual tables and at the end of each case a further table includes all three lenses.

Secondly, a cross-case analysis is executed to deepen the analysis (Miles & Huberman 1994). The findings of the three cases are merged into one table (see table 4.15). This facilitates a clear answer to the research question for Phase 2: How are the theoretically derived principles of co-creation applied in the B2B service business (RQ1b)? Additionally, the findings are discussed.

Finally, it is important to note that as stated previously in Chapter 3.4 the lenses and sub-lenses in the conceptual co-creation framework overlap. During the analysis this caused some challenges. It was seen that some of the quotes would have fitted under several criteria, especially within lens B - Customer interactions and relationships. This was solved by not only placing the quote under the sub-lens it seemed to fit best but also interpreting the data holistically through all lenses and using the understanding gained across the sub-lenses.

4.1.4 Sharing the findings

To strengthen the validity of interpretations, between August and November 2011 the findings were presented to each case company using the conceptual co-creation framework. First, the results were presented to the gatekeepers of the case companies in order to get permission to present them to a wider audience within the company. Each gatekeeper of the three case companies gave their permission to present the results as they were. Secondly, the results were presented to the wider audience in a workshop which included the gatekeepers and the interviewees involved in the interviews. Each participant received a full written report of the research. During the workshop the participants were able to discuss and rectify the findings. A vibrant discussion took place. The participants from case companies S1 and S2 suggested that the data in many cases indicates that the current business approach depends on the customer, i.e. the supplier may have co-creation activities with some customers

and quite a conventional relationship with others. They also stated that it is not appropriate to co-create with every customer and this also depends on the size of the customer in the market place.

To add to the academic discussion on co-creation, two peer-reviewed academic conference papers and one peer-reviewed journal paper were published. The first conference paper consisted of a literature analysis of value co-creation in B2B services (Keränen & Ojasalo 2011) and the second introduced the conceptual co-creation framework (Ojasalo & Keränen 2011). The journal article included several perspectives on complex service systems including value co-creation and it broadened my own knowledge of the field (Briscoe et al. 2012).

Next, the empirical data and the findings are introduced.

4.2 Case S1

The story of Lens A - Strategic thinking and business model

The first lens (A) of the conceptual co-creation framework focuses on strategic thinking and business model. It includes five sub-lenses: A1) Business Goals, A2) Strategy process, A3) Value creation processes, A4) Resources, and A5) Position in value chain/value network.

S1's main focus is to make and sell services, aiming to maximise value for the company and emphasising the quality and optimisation of its own processes, i.e. value-in-exchange (A1). Moreover, the value of the service is mainly measured in monetary terms. S1 realises the importance of understanding the customer needs and it values personal service. Nevertheless, the long experience that shaped the existing business model and the culture is quite prescriptive:

“We have contracts that define what we do and what the customer does – there is not much to compromise here. This is quite routine work.” (S1-I6)

“...the concept of this company has been... that we would focus on personal service... that is our thing.” (S1-I4)

The development of the strategy is based on top-down/inside-out procedures (A2). The customers are not involved in the company's strategy development, and neither is the definition of strategy very concrete to the employees. In the company's values it is clear that the customer is important and the company would like to be in partnership with the customer, but it is not defined what this actually means in practice. Thus there are signals of a mental shift in favour of a strategy where a co-creation approach would be adopted but as yet there is no movement towards it.

"We have this strategy planning group and it is intended that the whole organisation would be involved this time... we have decided that it should be handled like this in the future... so that it would not be a top-down process." (S1-I3)

"...we have not included customers into our strategy planning group so far." (S1-I7)

"We actually can't move on before the owners define the mission and vision of this company." (S1-I7)

S1's processes focus on developing internal functions and more effective working methods, i.e. mainly on service operations inside the company (A3). In terms of resources (A4), S1 develops and uses its own resources such as the know-how of its employees. In the customer role S1 aims to buy ready-made products from its service providers in preference to taking a role in co-designing the products. Moreover, S1 sees itself as one player in a value chain rather than operating in a value network (A5).

"We have a good service, we have professional staff... we keep our timetables..." (S1-I6)

"The most important resources are our employees." (S1-I7)

"We just want to buy the services from the supplier..." (S1-I1)

In conclusion, the business approach of S1 in relation to Lens A is conventional, scoring five marks out of five for conventionality. However, there seems to be a

desire, at least partially, to modify S1’s business operations towards a co-creation approach. S1 has a long history of operating successfully which might slow down any transition.

Table 4.3: The results of the exploratory study related to Lens A - Case S1

A) Strategic thinking and business model	Conventional approach	Intermediate approach	Co-creation approach
A1. Business goals	X		
A2. Strategy process	X		
A3. Value creation processes	X		
A4. Resources	X		
A5. Position in value chain/ value network	X		
Lens A in total	5		

The story of Lens B - Customer interactions and relationships

The second lens (B) of the co-creation framework focuses on customer interactions and relationships. It includes five sub-lenses: B1) Company-customer relationship, B2) Information on the customer, B3) Nature of interactions with the customer, B4) Amount of interaction, and B5) Customer access to information and other resources. Next, the results of case S1 are introduced using these sub-lenses (see table 4.4).

Based on the data, S1 aims to sustain its customer relationships and favours intensive long-term partnerships yet the data indicates that customer relationships are getting shorter (B1):

“Our customer relationships are long-lasting but in this field they are getting shorter and shorter.” (S1-I5)

“A long relationship is a good indication of service quality.” (S1-I10)

S1 does not segment its customers systematically yet some employees use their own personal classification or tacit knowledge. There seems to be variation in how well the employees know their customers: some of them they know very well

and others they do not know at all. They seem to recognise that it would be valuable to know their customers better (B2).

“Some of us use so-called ABC-classification in classifying the customers.” (S1-I8)

“Some of the customers we know quite well and some of the customers we don’t know at all.” (S1-I6)

“Of course it could be good for sales and marketing activities to know a little bit about what kinds of customers we have. Now we have a bit of a gut feeling about this.” (S1-I2)

Moreover the nature of interactions with customers varies. With some customers S1 has a very proactive interaction but with others S1 just provides a service and reacts when only when necessary (B3). It seems mainly that the customer’s activity level influences S1’s activity level although the personnel have been trained to have active interaction with the customer.

“The best customers are interested in our service and are actively co-producing the service. The customer who values your service by joining in the production is always a pleasure. They (customers) usually understand what we do. For most of the customers we are an outsourced service on which they rely to take full responsibility from the beginning to the end. About ten percent of the customers are actively co-producing the service.” (S1-I2)

“Our aim is to be interested in the customer and this topic has been included into our training as well. We have had campaigns aiming at higher activity in meeting customers. Customers value that we are interested in them. From the customer point of view it is easier if we understand their business. We could be a lot better in this.... We seek to emphasise that our employees should understand this but it is overwhelming for many of them.” (S1-I2)

The quality of interaction varies from very active to very passive (B3). Employees see some customers weekly, some monthly, yearly, and some even less than that (B4). Recently S1 has launched a new virtual platform for delivering the service, resulting in a boom in interactions because of the guidance needed on the customer's side.

"Nowadays life is so hectic and communication is taken care of by using the e-mail – this is pity because when you actually see the customer you chat about many things and you find out a lot of good-to-hear things." (S1-I6)

"Most of the customers we see on a weekly or monthly basis. They (customers) bring their accounting documents and we have a short chat. Afterwards we deliver accounting printouts etc. mostly by e-mail... I think we should be more active. Those customers that we contact more are better at paying the bill and they don't whine about the amount of it." (S1-I4)

"About half of the customers we don't meet even yearly." (S1-I2)

Customers' access to S1's information and other resources are two-fold (B5). For the most part, access to S1's resources is very limited and customers know very little about the actual service production process. They get some information about S1's activities through a newsletter and customer events. On the other hand the new virtual platform of delivering services has opened up the service production process, so those customers involved in it can see the service production transparently and they co-produce parts of it.

"In our traditional service model the customer does not have access to our resources. If we make a mistake the customer probably does not notice it and we can fix it... but in the virtual platform the customer sees everything and if the customer does something funny we can also ask about it." (S1-I9)

"Within the virtual platform both the customer and employee see which phase of the service process we are at." (S1-I5)

In conclusion, the business approach of S1 in relation to lens B appears to be in transition from conventional to co-creation, scoring five marks out of five in the middle category. Nevertheless, the approach appears to be two-fold and more dependent on the customer rather than being a holistic mind-set of the whole company; in other words, with some customers S1 has a fairly co-creative relationship but with most of them the relationship is rather conventional.

Table 4.4: The results of the exploratory study related to Lens B - Case S1

B) Customer interactions and relationships	Conventional approach	Intermediate approach	Co-creation approach
B1. Company-customer relationship		X	
B2. Information on the customer		X	
B3. Nature of interaction with the customer		X	
B4. Amount of interactions		X	
B5. Customer access to information and other resources		X	
Lens B in total		5	

The story of Lens C - Service design

The third lens (C) of the co-creation framework focuses on service design. It includes five sub-lenses: C1) Gathering information on the customer, C2) Processing information on the customer, C3) Developing the value proposition, C4) Testing the value proposition, and C5) Launching the value proposition. Here the results of case S1 are introduced using these sub-lenses (see table 4.5).

S1 gathers information on the customer mainly by systematic enquiry, meaning a regular customer satisfaction survey (C1). The method used is structured and it contains information from the past. However, it seems that S1 understands the importance of more open participatory feedback methods and the need for them. The results of the survey are mainly processed internally within the company and the customers are informed of them via the customer newsletter (C2).

“We wonder if this kind of structured questionnaire gives us correct information... when you think how you would answer these kinds of statistical questionnaires yourself.” (S1-I10)

“The customer satisfaction survey is done every two years. So far it has been fine but it does not measure the right things. From now on we need to change it, so that we can get a better picture of our services.” (S1-I10)

“The results of the customer satisfaction survey are seen by all of the employees.” (S1-I6)

When it comes to the development of new value propositions, they are often related to the accounting laws regulating the field and are mostly developed within the company, mainly by the managers. Lately most new development has been in IT services (C3). Furthermore, the data does not indicate that customers would be involved in testing (C4) and launching (C5) the value proposition.

“Unfortunately I must say that they (new value propositions) come from inside the company and focus more on improving processes among the employees.” (S1-I1)

“This work (the development of new value proposals) has been quite IT program-driven.” (S1-I7)

Table 4.5: The results of the exploratory study related to Lens C - Case S1

C) Service design	Conventional approach	Intermediate approach	Co-creation approach
C1. Gathering information on the customer	X		
C2. Processing information on the customer	X		
C3. Developing the value proposition	X		
C4. Testing the value proposition	X		
C5. Launching the value proposition	X		
Lens C in total	5		

In conclusion, the business approach of S1 in relation to Lens C is conventional, scoring five marks out of five for conventionality. However, there seems to be an understanding of the importance of a move from the conventional approach to a co-creation approach.

Next, the results were merged into one table (4.6) incorporating lenses A, B, and C. The Table 4.6 demonstrates that S1 has generally adopted rather conventional approach, scoring ten marks out of 15 on the conventional side and none on the co-creation side. However, in relation to Lens B, scoring five marks out of five in the middle category, it can be seen that the transition is on the way. Moreover, it became evident that the employees understand the importance of co-creation activities and aim to move toward a co-creation approach, although behind the spoken words it seems that many of the co-creation practices seem new, quite revolutionary and even overwhelming to some of the employees. Moreover, the practicalities seem to vary depending on how the customer and customer's activity influences the level of co-creation activities.

Table 4.6: The results of the exploratory study - Case S1

A) Strategic thinking and business model	Conventional approach	Intermediate approach	Co-creation approach
A1. Business goals	X		
A2. Strategy process	X		
A3. Value creation processes	X		
A4. Resources	X		
A5. Position in value chain/ value network	X		
Lens A in total	5		
B) Customer interactions and relationships	Conventional approach	Intermediate approach	Co-creation approach
B1. Company-customer relationship		X	
B2. Information on the customer		X	
B3. Nature of interaction with the customer		X	
B4. Amount of interactions		X	
B5. Customer access to information and other resources		X	
Lens B in total		5	
C) Service design	Conventional approach	Intermediate approach	Co-creation approach
C1. Gathering information on the customer	X		
C2. Processing information on the customer	X		
C3. Developing the value proposition	X		
C4. Testing the value proposition	X		
C5. Launching the value proposition	X		
Lens C in total	5		
Lenses A+B+C in total	10	5	

4.3 Case S2

The story of Lens A - Strategic thinking and business model

The first lens (A) of the co-creation framework focuses on strategic thinking and business model. It includes five sub-lenses: A1) Business Goals, A2) Strategy process, A3) Value creation processes, A4) Resources, and A5) Position in value chain/value network. Next, the results of case S2 are introduced using these sub-lenses (see table 4.7).

S2's business goal appears to be two-fold: on one hand the main goal with some of the customers is to make and sell services generating value-in-exchange. Nevertheless, S2 also seems to create comprehensive customer solutions together with some of their customers, aiming to facilitate customers' value in use (A1).

“On the other hand we know our customers' business well and on the other hand we don't know it so well. Those customer cases where we have steering groups - those customers we know well.” (S2-S1)

“We are rather a small company and we are flexible. When a customer has a problem we try to solve it quickly. This is an advantage in comparison with the large companies.” (S2-I2)

The development of the strategy is based on top-down/inside-out procedures (A2). Neither the employees nor the customers are involved into company's strategy development.

“... the board of directors has worked on it (strategy). It is quite a bureaucratic process. We do not have an executive team where we could discuss strategy.” (S2-I4)

“It might be interesting to involve customers in strategy work.” (S2-I5)

Additionally, S2's processes seem to focus on developing internal functions and new instructions for the employees, i.e. S2 focuses mainly on service operation within the company (A3).

“...customers might have good ideas about how we should operate - we are quite stuck up with our own ideas... we would need a bigger group for discussion... the group could consist of some pilot customers.” (S2-I5)

Related to resources (A4) S2 mainly develops and uses its own resources and the employees are considered to be the most important resource.

“They (resources) are the people who have worked here for a longer while, who have a lot of knowledge about things.” (S1-I2)

On the other hand in some cases S2 uses customers to generate ideas for new value propositions. S2 partly operates in a value network and partly in a value chain, depending on the customer (A5).

“The best way to get new ideas is to ask the customer and listen to their needs and wishes.” (S2-I6)

“During the customer steering group meetings we go through many different things. We always have new ideas coming up and they are written in the minutes. Additionally if somebody wants to have something new (development) it will be introduced during the steering group meetings. Our aim is to meet once a month and later on a couple of times per year.” (S2-I1)

“We should have time to focus more on customers' actions in order to be able to see how the company is doing and we should be able to offer more services to back up the customers actions.” (S2-I3)

In conclusion, the business approach of S2 in relation to Lens A appears to be two-fold, scoring two marks out of five for conventionality and three out of five in the middle category. Moreover, with some customers S2 seems to operate in rather a conventional way while with others it seems more co-creative. However, S2 seems to be very conventional in relation to sub-lenses A2 and A3. Nevertheless, the data indicates that the mind-set of S2 is oriented towards a co-

creation approach and there is an increasing need to involve customers in defining business goals and a strategy for the company.

Table 4.7: The results of the exploratory study related to Lens A - Case S2

A) Strategic thinking and business model	Conventional approach	Intermediate approach	Co-creation approach
A1. Business goals		X	
A2. Strategy process	X		
A3. Value creation processes	X		
A4. Resources		X	
A5. Position in value chain/ value network		X	
Lens A in total	2	3	

The story of Lens B - Customer interactions and relationships

The second lens (B) of the co-creation framework focuses on customer interactions and relationships. It includes five sub-lenses: B1) Company-customer relationship, B2) Information on the customer, B3) Nature of interactions with the customer, B4) Amount of interaction, and B5) Customer access to information and other resources. Next, the results of case S2 are presented using these lenses (see table 4.8).

The data supposes that S2 actively sustains customer relationships and favours intensive long-term partnerships (B1). However, they also have transaction-oriented customers.

“Usually we have long term contracts of one year at the minimum but we also have customers who just walk in and buy one product.” (S2-16)

“I am trying to get to know the customers and their business. It is important to ask questions of the customer when spending time together and focus on their challenges. It is wrong to assume that our product would solve customers’ problems before knowing what they

*are. I know our customers better because I spend time with them.
Only by spending time with them do you learn to know them.” (S2-I3)*

The customers are segmented in a conventional way but it seems that in some cases S2 has deep customer knowledge and they are strategic partners to some of their customers (B2).

“In sales we segment our customers based on how much they buy, what they buy and where they are located.” (S2-I1)

“We know our customers in quite a conventional way. We have about 150 customers and both the two sales managers have about 75 customers. Some of them they know better and some of them not so well but in fact we don’t know our customers’ businesses so well.” (S2-I5)

“Small customers we don’t know so well.” (S2-I6)

“Many customers don’t want to share their business information with us. To some of them we are a strategic partner, and we are actively involved in their business.” (S2-I5)

Moreover the nature of interactions with customers varies. With some customers S2 has a very proactive interaction, whereas with others S2 just delivers the service and reacts only when necessary (B3). Therefore the quality of interactions varies, depending on the customer and the need for the customer to have regular monthly meetings with some of them (B4).

“The amount of communication varies depending on the customer.” (S2-I5)

“Some say that when you don’t hear anything about your customer he is satisfied but it doesn’t quite work that way. The customer is satisfied when he can actively join in the development of his own service like in the steering groups that we have.” (S2-I1)

The customer is not able to directly access information about the services they buy but there are indications that there is a need to build more transparent processes (B5).

“Our processes could be more open and customers would know better whereof they are paying. They might now think that our services are expensive but behind the services there is a lot of work.”
(S2-I6)

“At this moment customer can ask us a report on their services and we produce it by copy pasting the information from our files and send it by e-mail. This takes time and resources. This should be more automatic.” (S2-I2)

In conclusion, the business approach of S2 in relation to lens B appears to be in transition from conventional to co-creation, scoring four marks out of five in the middle category. Nevertheless the approach is more related to the customer; in other words, with some customers S2 has quite a co-creative relationship whereas with others the relationship is more conventional.

Table 4.8: The results of the exploratory study related to Lens B - Case S2

B) Customer interactions and relationships	Conventional approach	Intermediate approach	Co-creation approach
B1. Company-customer relationship		X	
B2. Information on the customer		X	
B3. Nature of interaction with the customer		X	
B4. Amount of interactions		X	
B5. Customer access to information and other resources	X		
Lens B in total	1	4	

The story of Lens C - Service design

The third lens (C) of the co-creation framework focuses on service design. It includes five sub-lenses: C1) Gathering information on the customer, C2)

Processing information on the customer, C3) Developing the value proposition, C4) Testing the value proposition, and C5) Launching the value proposition. Next, the results of case S1 are introduced using these sub-lenses (see table 4.9).

S2 gathers customer information through both systematic enquiry, meaning the regular customer satisfaction survey, and participatory methods. However, it seems to value participatory methods more when interacting face to face with a customer (C1).

“Customers are quite satisfied with our services. Once a year we have a customer satisfaction survey. Not all the customers participate.” (S2-I4)

“The customer does not know what he wants so we need to ask questions. After this we can search for solutions based on the customer’s needs.” (S2-I3)

“The best way to get new ideas is to ask the customer.” (S2-I6)

“Actually you are able to measure the service quality... we should check the indicators, for example how often we meet the customers personally, how many contacts we have per customer. We need some kind of reporting system for customer feedback.” (S2-I6)

The results of customer feedback are mainly processed internally inside the company but the customer satisfaction overview is sent to the customers (C2). Nonetheless there seems to be a need to develop the system towards a co-creative way of processing customer information.

“I think we have sent an overview to the customers (based on the results of the customer satisfaction survey) of how good we are. We should develop this procedure.” (S2-I1)

“We handle the results (customer satisfaction survey) internally...we have got some development ideas out of them.” (S2-I1)

“I am not saying that we don’t make use of the customer satisfaction survey in developing our business. We could just do it better. We should also inform customers better.” (S2-I1)

Similarly to many of the earlier sub-lenses, the approach to the development (C3), testing (C4) and launching (C5) of the new value propositions is two-fold. Consequently, during the steering group meetings, customers seem to be incorporated in developing, testing and launching value propositions, in contrast to other customers who do not seem to be closely involved in these processes. Yet one quote indicates the need to incorporate customers in the developing the value proposition.

“...we think this (development) needs to be done together, how should I say it, in some kind of workshop or something else together.” (S2-I5)

In conclusion, the business approach of S2 in relation to Lens C appears to be in transition from conventional to co-creation, scoring four marks out of five in the middle category and one for conventionality. Similarly to Lens B, the approach is more related to the customer in case. In other words, with some customers S2 is has quite a co-creative relationship whereas with others the relationship is rather conventional. Nevertheless, the data indicates clearly the aim of developing the processes toward a co-creation approach.

Table 4.9: The results of the exploratory study related to Lens C - Case S2

C) Service design	Conventional approach	Intermediate approach	Co-creation approach
C1. Gathering information on the customer		X	
C2. Processing information on the customer	X		
C3. Developing the value proposition		X	
C4. Testing the value proposition		X	
C5. Launching the value proposition		X	
Lens C in total	1	4	

Next, the results of case S2 were merged into one table (4.10) incorporating lenses A, B, and C. The table demonstrates that generally S2 is in transition from the conventional approach to co-creation approach, having 11 out of 15 sub-lenses in the middle category. Although it demonstrates a clear result we need to bear in mind that the middle category was only chosen to simplify the results. In many cases S2 operates two-fold depending on the relationship with the customer. Some customers think that S2 delivers value-in-exchange and others think that it delivers value-in-use. The aim is to shift the approach towards co-creation.

Table 4.10: The results of the exploratory study - Case S2

A) Strategic thinking and business model	Conventional approach	Intermediate approach	Co-creation approach
A1. Business goals		X	
A2. Strategy process	X		
A3. Value creation processes	X		
A4. Resources		X	
A5. Position in value chain/ value network		X	
Lens A in total	2	3	
B) Customer interactions and relationships	Conventional approach	Intermediate approach	Co-creation approach
B1. Company-customer relationship		X	
B2. Information on the customer		X	
B3. Nature of interaction with the customer		X	
B4. Amount of interactions		X	
B5. Customer access to information and other resources	X		
Lens B in total	1	4	
C) Service design	Conventional approach	Intermediate approach	Co-creation approach
C1. Gathering information on the customer		X	
C2. Processing information on the customer	X		
C3. Developing the value proposition		X	
C4. Testing the value proposition		X	
C5. Launching the value proposition		X	
Lens C in total	1	4	
Lenses A+B+C in total	4	11	

4.4 Case S3

The story of Lens A - Strategic thinking and business model

The first lens (A) of the co-creation framework focuses on strategic thinking and business model. It includes five sub-lenses: A1) Business Goals, A2) Strategy process, A3) Value creation processes, A4) Resources, and A5) Position in value chain/value network. Next, the results of case S3 are introduced using these sub-lenses (see table 4.11).

The data demonstrates that business goal of S3 strongly follows the co-creation approach. S3's aim is to offer holistic services to their customers and according to them the customer is the one who determines the value, i.e. value-in-use (A1).

“The real estate development business doesn't depend on the functionalities of the engineers, rather it depends on the end customer's needs and demand. We attempt to look at everything through the lenses of marketing and demand and this is a different approach.” (S3-I4)

“Our aim is to offer holistic services from the beginning of the project to the end of the project.” (S3-I3)

S3 attempts to look at the processes from the customer point of view and the customer's need is what paves the way regarding strategy development (A3). However, the strategy is developed by the board of directors (A2). Their main competitive advantage seems to be quality and managing customer relationships.

“The quality level of your services is as good or bad as your customer thinks it is. It doesn't really matter how you see your service. If the customer doesn't like it or they don't see any value in it – then it doesn't have any value. We need to look at our business through the eyes of the customer.” (S3-I4)

“Our strategy is developed by the board of directors.” (S3I2)

“Quality is our competitive advantage.” (S3I3)

S3 seems to focus on developing both the company’s value creation and their customer’s value creation (A3). In addition they seem to apply co-creative methods in their processes. Although they think that the employees are their most important resource, they also have a strong network of players which they use in their projects (A4). They definitely see themselves as operating in a value network (A5).

“A couple of years ago we made an offer to company X. So we asked before making the offer whether our employee could work in company X’s factory for two days. So there he was, working two days in different situations. First of all this makes the customer feel good and secondly it makes us realise a bit more what this case is all about.” (S3-I3)

“Our most important resources are the employees. Software in IT plays quite an important role but not as important as employees.” (S3-I4)

In conclusion, the business approach of S3 in relation to lens A appears to be co-creative, scoring four marks out of five for a co-creation approach and only one A2 in the middle category. In S2 the customer determines the value and the value propositions are developed based on customers’ needs and an understanding of the customer’s business. S3 focuses on building and using the resources of the value network, which enables it to achieve the best possible quality.

Table 4.11: The results of the exploratory study related to Lens A - Case S3

A) Strategic thinking and business model	Conventional approach	Intermediate approach	Co-creation approach
A1. Business goals			X
A2. Strategy process		X	
A3. Value creation processes			X
A4. Resources			X
A5. Position in value chain/ value network			X
Lens A in total		1	4

The story of lens B - Customer interactions and relationships

The second lens (B) of the co-creation framework focuses on customer interactions and relationships. It includes five sub-lenses: B1) Company-customer relationship, B2) Information on the customer, B3) Nature of interactions with the customer, B4) Amount of interaction, and B5) Customer access to information and other resources. Next, the results of case S3 are introduced using these sub-lenses (see table 4.12).

Based on the data, S3 seems to actively sustain customer relationships and favours intensive long-term partnerships. Building trust and personal relationships appears to be highly valued (B1).

“Long-term customer relationships are more important and also more profitable than short-term customer relationships. Long-term customer relationships enable building good personal relationships which gives a good foundation point for new projects. It smoothes all the activities when you can trust each other and both parties will take care of their responsibilities.” (S3-I5)

The customers are not segmented in a traditional way; rather, S3 seem to focus on key accounts and to see possibilities in every customer (B2).

“Our aim is to focus on key accounts. Our goal at the moment is to have between 5 and 10 key accounts to whom we will deliver service 24/7.” (S3-I3)

“Actually we don’t segment customers according their size. So for some small customers we might do a lot of small jobs and then again for some large company we might just do a small project. I think that the most important thing is loyalty and trust so that we know that customers trust us.” (S3-I4)

Moreover, the nature of interaction with customers is proactive, which allows the customer to contribute to mutual value creation regarding the value proposition (B3). Meetings are frequent and at the beginning of a project they are especially important in order to get to know each other better and to understand the customer’s value creation. It seems that some customers are more active than others.

“We have a lot of meetings with the customer and our aim is to make the customer feel that he has been able to influence the value proposition so that the end product doesn’t just pop up from nowhere.” (S3-I1)

“The more the customer is involved at the beginning of the project the better the end result will usually be.” (S3-I1)

“Some of the customers aim to be involved a lot and they want to participate in the workshops, exchange ideas and understand different possibilities.” (S3-I4)

“It is our responsibility to contact the customer.” (S3-I3)

S3 is ready to serve 24/7, meaning anytime the customer has a need, especially key account customers. Accordingly it aims to solve problems proactively before they occur (B4). Moreover it uses a virtual platform where the customer has access and where the customer and the employees can see the current state of affairs (B5).

“We have a system that once a month we meet with the customer and we prepare a project report which we then present to the customer. We also have a virtual platform where the customer has access.” (S3-I3)

In conclusion it is clear that S3 adopts a co-creation approach in relation to activities in Lens B, scoring five marks out of five for a co-creation approach. It is not only long-term customer relationships that count; mutual trust and personal knowledge are also highly valued in their customer relationships. S3 seems to have a very proactive communication with the customer, attempting to solve problems before they occur. It also comprehends that not every customer is willing to be active. Moreover it has a virtual platform which supporting transparency.

Table 4.12: The results of the exploratory study related to Lens B - Case S3

B) Customer interactions and relationships	Conventional approach	Intermediate approach	Co-creation approach
B1. Company-customer relationship			X
B2. Information on the customer			X
B3. Nature of interaction with the customer			X
B4. Amount of interactions			X
B5. Customer access to information and other resources			X
Lens B in total			5

The story of Lens C - Service design

The third lens (C) of the co-creation framework focuses on service design. It includes five sub-lenses: C1) Gathering information on the customer, C2) Processing information on the customer, C3) Developing the value proposition, C4) Testing the value proposition, and C5) Launching the value proposition. Next, the results of case S3 are introduced using these sub-lenses (see table 4.13).

Case S3 is currently developing their quality management system so there was not much data available.

“Our quality system is under development at the moment.” (S3-I2)

Nevertheless, they seem to favour participatory methods, listening and learning together (C1). They seem to process the customer information jointly among all stakeholders (C2). Related to developing (C3), testing (C4) and launching (C5) the value proposition, it seems that they actively join in with customers' processes and also actively incorporate customers into their own whenever the customers are willing.

“The truth is that the data on the customer just piles up. When you meet key accounts the meeting itself is your customer data so simple it is.” (S3-I3)

“In reclamation we make a memo immediately and start to think among the group how we could fix the problem. We are not accusing anybody or lynching anybody, rather we try to think how to avoid this next time.” (S3-I1)

“We handle feedback quite openly in the steering group meetings and employee meetings.” (S3-I3)

In conclusion it is justified to say that in relation to the activities in Lens C, S3 seems to have adopted a co-creation approach, scoring five marks out of five for co-creation. The data indicates that S3 values participatory methods and processes in common with its customers.

Table 4.13: The results of the exploratory study related to Lens C - Case S3

C) Service design	Conventional approach	Intermediate approach	Co-creation approach
C1. Gathering information on the customer			X
C2. Processing information on the customer			X
C3. Developing the value proposition			X
C4. Testing the value proposition			X
C5. Launching the value proposition			X
Lens C in total			5

Next, the results of case S3 were merged into one table (4.14) incorporating lenses A, B, and C. The data demonstrates that generally S3 has adopted a co-creation approach, scoring marks in 14 out of the 15 sub-lenses for a co-creation approach. They have adopted a co-creation mindset and they seem to propose that co-creation is a valuable mode of operation. Nevertheless, they also seem to think that it is quite an unusual approach in their field.

Table 4.14: The results of the exploratory study - Case S3

A) Strategic thinking and business model	Conventional approach	Intermediate approach	Co-creation approach
A1. Business goals			X
A2. Strategy process		X	
A3. Value creation processes			X
A4. Resources			X
A5. Position in value chain/ value network			X
Lens A in total		1	4
B) Customer interactions and relationships	Conventional approach	Intermediate approach	Co-creation approach
B1. Company-customer relationship			X
B2. Information on the customer			X
B3. Nature of interaction with the customer			X
B4. Amount of interactions			X
B5. Customer access to information and other resources			X
Lens B in total			5
C) Service design	Conventional approach	Intermediate approach	Co-creation approach
C1. Gathering information on the customer			X
C2. Processing information on the customer			X
C3. Developing the value proposition			X
C4. Testing the value proposition			X
C5. Launching the value proposition			X
Lens C in total			5
Lenses A+B+C in total		1	14

4.5 Cross-case analysis of the exploratory study

The purpose of this chapter is to combine the results of the three cases S1, S2, and S3 to see how the theoretically derived principles of co-creation as a whole are applied in the three cases and how the findings might foster the understanding of co-creation. The results are found in Table 4.15. (Miles & Huberman 1994).

Table 4.15: Cross-case analysis of the exploratory study

A) Strategic thinking and business model	Conventional approach			Intermediate approach			Co-creation approach		
Case companies	S1	S2	S3	S1	S2	S3	S1	S2	S3
A1. Business goals	x				x				x
A2. Strategy process	x	x				x			
A3. Value creation processes	x	x							x
A4. Resources	x				x				x
A5. Position in value chain/value network	x				x				x
Lens A in total/cases	5	2			3	1			4
Lens A in total	7			4			4		
B) Customer interactions and relationships	Conventional approach			Intermediate approach			Co-creation approach		
Case companies	S1	S2	S3	S1	S2	S3	S1	S2	S3
B1. Company-customer relationship				x	x				x
B2. Information on the customer				x	x				x
B3. Nature of interaction with the customer				x	x				x
B4. Amount of interactions				x	x				x
B5. Customer access to information and other resources		x		x					x
Lens B in total/cases		1		5	4				5
Lens B in total	1			9			5		
C) Service design	Conventional approach			Intermediate approach			Co-creation approach		
Case companies	S1	S2	S3	S1	S2	S3	S1	S2	S3
C1. Gathering information on the customer	x				x				x
C2. Processing information on the customer	x	x							x
C3. Developing the value proposition	x				x				x
C4. Testing the value proposition	x				x				x
C5. Launching the value proposition	x				x				x
Lens C in total/cases	5	1			4				5
Lens C in total	1			4			5		
Lenses A+B+C in total/case	10	4		5	11	1			14
Lenses A+B+C in total	14			17			14		

Exploring the marks in the cross-analysis table

As a whole, Table 4.15 indicates significant dispersion among the lenses and cases. The conventional approach is worth 14 out of 45 marks. The intermediate approach is worth most of the marks, 17 out of 45. Finally the co-creation approach is worth 14 out of 45 marks, which is the same amount as the conventional approach.

In contrast, the outcome related to the approach of each case seems to be congruent, having only minor differences; i.e. each of the cases seems to have a clear but different approach. S1 has a mainly conventional approach although in relation to Lens B it seems to have an intermediate approach. S2 has a mainly intermediate approach, and S3 has a co-creation approach.

Finally, the interpretation of Table 4.15 from the perspective of lenses A, B and C is as follows. For Lens A: Strategic thinking and business model, most of the marks, in total 7 out of 15, are on the conventional side and most of them belong to case S1. It is notable that sub-lens A2 (Strategy process) is the only one of all the sub-lenses that does not score any marks for a co-creation approach, i.e. none of the cases is fully co-creative in strategy development. The intermediate approach and the co-creation approach both get 4 marks out of 15. Lens B: Customer interactions and relationships scores 9 out of 15 for an intermediate approach, only 1 for conventional approach, and 5 for co-creation. Lens C: Service design scores 6 out of 15 marks for a conventional approach, 4 out of 15 for an intermediate approach and 5 out of 15 marks for co-creation.

To conclude, in other words to answer the research question “How are the theoretically derived principles of co-creation applied in the B2B service business?” (RQ1b), the findings demonstrate that the case companies apply theoretically derived principles of co-creation on many different levels.

Exploring the data behind the tables

The findings of the exploratory study demonstrate that the case companies apply theoretically derived principles of co-creation on many different levels. Consequently, evaluating the case companies' current business approach in relation to co-creation was an attempt to understand co-creation in practice. In this light, rather than just looking at the statistics for the various approaches, it seems to be more important to understand what the data behind the results tells us. Moreover the findings are not as clear as the marks and numbers in Table 4.15 demonstrate, revealing the data only partly. Thus it is more important to discuss the findings in more detail and how the knowledge gained could assist in refining the conceptual co-creation framework.

Before the research began, the gatekeepers of the case companies indicated that the case companies were interested in co-creation activities. The exploratory study data demonstrates that the companies seem to value co-creation activities and are aiming to adopt or have already adopted co-creation activities, at least in part.

Consequently, regarding to many sub-lenses, instead of choosing the intermediate approach, both the conventional and co-creation approach could have chosen since the data indicates that companies' approach varies depending on five factors: 1) lack of resources, 2) the size of the customer, 3) the willingness of the customer to co-create, 4) the state of fair related to the customer relationship, and 5) the stance of the employees. Moreover, cases S1 and S2 used co-creation activities with one customer and a conventional approach with another. When this kind of result occurred the intermediate approach was chosen. Additionally, although S3 has fully embedded the co-creation approach, it also has customers who want a more conventional approach. These five factors will now be discussed in more detail.

First, mainly in cases S1 and S2, the main reason for not adopting the co-creation approach was a lack of resources, through insufficient time or personnel or the lack of systems supporting co-creation activities. Still, the interviewees often felt that *“although we lack resources we should do more”*. S1 and S2 seem

to believe that co-creation activities require more resources and to an extent the employees feel inadequate for not being more co-creative. Case S3 seems to give great prominence to co-creation activities, although as an SME its resources are limited as well.

Second, the data suggest that the size of the customer's business influences the level of co-creation activities adopted. The quote "*it isn't possible to co-create with every customer*" in the workshop reveals the thinking, and later the connection to resources was brought up: "*we don't have resources to co-create with smaller customers*". Among all the cases, the companies appear to have more co-creative activities with larger customers, meeting them more frequently and starting steering/development groups with some of them. S3 has segmented the customers with key accounts, whom they aim to serve 24/7.

Third, it seems that the willingness of the customer to co-create affects the level of co-creative activities adopted. Some customers are more active than others and some are willing to co-create where others are not. One of the participants in the S2 workshop stated that "*not every customer is willing to co-create*".

Fourth, the current state of affairs in the customer relationship seems to influence the level of co-creation activities. Particularly at the beginning of a new relationship or a project, or when there is a need to develop new value propositions, there seems to be higher motivation to co-create.

The fifth factor proposes that the positive or negative stance of employees affects the level of co-creative activities. The data demonstrates in case S1 that some of the employees might see co-creation activities as "*overwhelming*". In contrast, many of the quotes from all cases suggest that the employees see the importance of co-creation activities and are willing to co-create.

Moreover, as previously stated, a vibrant discussion took place in the workshops when presenting the findings using the conceptual co-creation framework. Resulting from this it was observed that although S1 and S2 are interested in co-creation approach they lack full awareness of what co-creation actually means. It was especially notable that these two companies requested to update the

framework to simplify it, i.e. with no overlapping among the sub-lenses and more detailed explanation of every sub-lens related to co-creation. They would also like to see concrete co-creation methods. Additionally, in cases S1 and S2, the discussion indicated that their current working methods and systems support a more conventional approach. Thus this might also be one of the reasons why they believe that the co-creation approach requires more resources. S3 seems to have applied co-creation methods and there seems to be an understanding of what kinds of activities are embedded in the co-creation approach. Yet they also indicated that the framework should be simplified.

Finally, the comments during the workshops about the conceptual co-creation framework were mainly positive. Nevertheless, three critical points were made: 1) the lenses were overlapping, 2) the framework should be simplified, and 3) the framework does not really show what the companies should do in order to co-create. These points paved the way for refining the framework.

4.6 Refining the framework

The initial framework was designed to understand current co-creation literature, to support in analysing the data from the exploratory study, and to introduce the findings to the case companies. At the beginning it consisted of two extreme approaches: 1) a conventional approach and 2) a co-creation approach. During the analysis it became evident that an intermediate approach was required, and the framework was refined accordingly before the final findings.

The findings of the exploratory study indicate the case companies' lack full awareness of what co-creation actually means and what kind of activities are embedded in the co-creation approach. Additionally, the case companies indicate that the lenses overlap and the framework should be simplified. Thus to better understand co-creation it seems that the conceptual co-creation framework should be simpler and must clearly demonstrate what co-creation means and how to achieve it.

First, to simplify the framework the continuum was removed and only the co-creation approach was left, as it seemed that the purpose of the refined co-creation framework was now not to evaluate the current state of the case companies' business approach but to indicate better what is meant by co-creation in service businesses. Thus a new column was created next to each sub-lens in the framework to describe in more detail what is needed in order to adopt a co-creative business approach. The new descriptions extend the short descriptions of each-sub lens.

Additionally, when it comes to the overlapping of the lenses it should be noted that as the conceptual co-creation framework attempts to merge three different perspectives of co-creation it seems to require a deeper understanding before possibly pooling some of the lenses or sub-lenses, thus no changes to the lenses/sub-lenses were made at this point. Now the refined co-creation framework is introduced.

4.7 Refined co-creation framework

The refined co-creation framework includes the same three lenses and 15 sub-lenses as the earlier framework.

Lens A - Strategic thinking and business model

On a practical level a strategy defines a clear, long-term view of the company's goals, provides direction for growth and success, and prioritises investments. The new strategic thinking aims to influence organisational attitudes and culture towards a deep understanding of the co-creation of value. Business models, on the other hand, define how a company sees value creation.

This means that a service company needs to understand the value creation processes of itself, its customers and their customers. While conventional business strategy defines value as embedded in goods or services (value-in-exchange) and delivering that value in the form of selling to customers, a co-creation-based strategy focuses on comprehensive customer solutions and value co-creation at the consumption stage (value-in-use), emphasising the service as

a relational, co-creative process of creating benefits. (Järvensivu 2010.) In value co-creation, the formulation of a strategy starts by understanding the customer's value creation processes and selecting which of these processes the service company wishes to support. The positioning within the customer's processes defines the support and thus the scope of the value proposition. In other words, planning for co-creation is outside-in as it starts from an understanding of the customer's value creation processes, and aims at providing support for better co-creation of value (Payne et al. 2008). When value is co-created, the service company's contribution is a value proposition that can support the customer's value creation processes, and the customer contribution is the value actualisation (Gummesson 2008). In the value co-creation approach, both the service company and the customer are active, can alter their roles and improve their capabilities, and contribute their own resources to the value creation process (Michel et al. 2008). Consequently, to adopt a co-creative business approach in a company's strategic thinking and business model it is necessary to:

1. Create service business solutions which emphasise the customer's value-in-use rather than simply focusing on producing and selling services and goods (i.e. value-in-exchange)
2. Design processes which allow staff and customers to join in the development of new or modified strategies rather than restricting it to a small group of professionals inside a company
3. Focus on fully understanding and defining both your customers' and their customers' businesses and processes, and based on this understanding to design your own value propositions that support customers' businesses and processes
4. Design processes that allow all your key stakeholders to share resources in an effective way
5. Understand and design your company's role as a part of a value network rather than just one individual actor in a value chain (see table 4.16).

Table 4.16: Lens A – Strategic thinking and business model

Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	To adopt a co-creative business approach it is necessary to:
C1. Gathering information on the customer	Participatory methods, listening and learning together	Focus on activities which allow you to listen and learn together with your customers, instead of using only structured customer feedback methods.
C2. Processing information on the customer	Externally with the customers	Process all the customer information carefully, make it available to the customers and demonstrate their influence.
C3. Developing the value proposition	Bottom-up including the customers	Integrate staff and customers at every stage of the development of value propositions.
C4. Testing the value proposition	Externally with the customers	Test the value proposition externally with the customers during the development process.
C5. Launching the value proposition	Providing solutions	To launch the value proposition, use the powerful relationship established during the development process, thus liberating your resources from a mere sales level.

Lens B – Customer interactions and relationships

The co-creation approach sees the transformation of customers from passive audiences to ‘active players’, focusing on customer-company interaction as the locus of value creation. Interactions are situations where the service company and its customer are involved in each other’s processes, and have opportunities to influence each other and to learn about each other’s businesses (Grönroos 2008). Customers interact with service companies through diverse channels in complex environments characterised by physical elements, processes and people (Ostrom et al. 2010). Designing value propositions that can support a customer’s value creation processes requires a deep, long term relationship embedding mutual trust with the customer (Ojasalo 2009). There can be multiple points of interaction anywhere in the system and all points of customer-company interaction are critical for value creation. All points of interaction between the provider and the customer are opportunities for value creation (Prahalad &

Ramaswamy 2004a). Companies can provide diverse platforms that allow customers to interact and share their experiences (Ramaswamy & Guillard 2010). Dialogic interaction may result in a unique value, often starting with a spontaneous idea.

Consequently, to adopt a co-creative business approach in a company's customer interactions and relationships it is necessary to:

1. Aim to establish long-term customer relationships which allow the building of trust
2. Aim at full knowledge of your customers' business and their customers' business and their (future) challenges
3. Design communication processes to support proactive dialogue with customers
4. Design communication processes which allow active two-way dialogue with customers
5. Afford your customers transparent information regarding your business relationship (see table 4.17).

Table 4.17: Lens B – Customer interactions and relationships

Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	To adopt a co-creative business approach it is necessary to:
B1. Company-customer relationship	Oriented towards building long term customer relationships	Aim to establish long term customer relationships which allow building trust
B2. Information on the customer	Deep customer insight – knowing in person	Aim at full knowledge of your customers' and their customers' businesses and challenges
B3. Nature of interaction with the customer	Proactive/dialogue	Design communication processes to support proactive dialogue with your customers
B4. Amount of interactions	Active/two-way Anywhere/anytime	Design communication processes with your customers which allow active two-way dialogue
B5. Customer access to information and other resources	Transparent	Afford your customers transparent information regarding your business relationship

Lens C – Service design

Thirdly, the co-creation approach sees co-design as a concrete activity in the service design process (Mattelmäki & Visser 2011). In co-creation, customers take a proactive role and are involved in every stage of service development. Two customer roles can be distinguished in service design: 'Customer as Informant' and 'Customer as Co-designer' (Ojasalo 2009). Customers are an essential source of information, innovation and creativity. By interacting and spending time with customers, profound customer insights may emerge. A major challenge for service organisations is to integrate customers into the development process as early as possible. Instead of making, selling and servicing, it is important to listen to customers and learn together with them (Ojasalo 2010). Thus value is co-created in learning together, and dialogue operates as an active part of the interactive process of that learning (e.g. Ballantyne & Varey 2008). Moreover, it is important to develop a comprehensive understanding of what creates value for the customer in general and to anticipate customers' latent needs in particular (Narver et al. 2004). Focusing on latent needs may offer a high potential in terms of differentiation and competitiveness. By sharing service experiences, service companies are able to learn something new together with the customers, which may result in new value propositions (Payne et al. 2008). In addition to being sources of information and ideas, customers should also be directly involved in specifically co-designing new value propositions (Flint & Mentzer 2006; Ojasalo 2010). When service companies innovate and design services directly with their customers, the customers are no longer seen from a merely observational perspective but are active partners at every stage of the service design process (e.g. Moritz 2005).

Consequently to adopt a co-creative business approach in a company's service design it is necessary to:

1. Focus on activities which allow you to listen and learn together with your customers, instead of using only structured customer feedback methods
2. Process all the customer information carefully, make it available to the customers, and demonstrate their influence
3. Integrate staff and customers in every stage of the development of value propositions
4. Test the value proposition externally with the customers during the development process
5. Launch the value proposition using the powerful relationship established during the development process, thus liberating your resources from a mere sales level (see table 4.18).

Table 4.18: Lens C – Service design

Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	To adopt a co-creative business approach it is necessary to:
C1. Gathering information on the customer	Participatory methods, listening and learning together	Focus on activities which allow you to listen and learn together with your customers, instead of using only structured customer feedback methods.
C2. Processing information on the customer	Externally with the customers	Process all the customer information carefully, make it available to the customers and demonstrate their influence.
C3. Developing the value proposition	Bottom-up including the customers	Integrate staff and customers in every stage of the development of value propositions.
C4. Testing the value proposition	Externally with the customers	Test the value proposition externally with the customers during the development process.
C5. Launching the value proposition	Providing solutions	To launch the value proposition, use the powerful relationship established during the development process, thus liberating your resources from a mere sales level.

4.8 Summary and implications for the descriptive study

This study has demonstrated the knowledge gap and the current state of co-creation literature and has gathered empirical evidence from the exploratory study. The first objective of the exploratory study was to understand the co-creation in the B2B service business based on empirical findings. The second objective was to synthesise empirical and theoretical findings into a refined framework. The research question of the exploratory study was RQ2: How are theoretically derived principles of co-creation applied in the B2B service business supported by these objectives?

The exploratory study took place between January 2011 and August 2012 and it was implemented by a research group holding 21 semi-structured interviews in the three B2B service businesses (cases S1, S2 and S3). The main stages of the exploratory study according to Yin (2009) were: 1) Literature review, 2) Preparing the data collection, 3) Collecting the data, 4) Analysing the data, and 5) Sharing the results.

The findings of the exploratory study demonstrate that the case companies apply theoretically derived principles of co-creation on many different levels. It should be noted that even though the exploratory study answers the research question this is not actually as significant as the knowledge gained by reading the data “between the lines” to foster the understanding of the co-creation phenomenon.

During the analysis the researcher must somehow categorise the data in order to demonstrate the findings. In the exploratory study this was done by having the conceptual co-creation framework. The framework allowed categorisation of the data within three lenses and 15 sub-lenses. Additionally, by adding a third approach to the continuum, it was possible to categorise the data one step further into categories of 1) conventional approach, 2) intermediate approach, and 3) co-creation approach.

First, the results were presented separately case by case and lens by lens/sub-lens by sub-lens. Some quotes were presented to bolster the results. Secondly, the results of each case were incorporated into a table containing all three lenses

and 15 sub-lenses. Thirdly, a cross case analysis was executed and the results of the three cases were incorporated into one table (see table 4.15) as it seems to facilitate a clear answer to the research question for phase 2: How are the theoretically derived principles of co-creation applied in the B2B service business? (RQ1b).

To crystallise the results it seems that: 1) the case companies perceive that co-creation is important but they seem to think that it acquires more resources, 2) the case companies would like to use a variety of approaches side by side depending on the customer relationship, and 3) the conceptual co-creation framework should be simpler and must clearly demonstrate what co-creation means and how to achieve it.

The findings of the exploratory study allowed slight refinement of the conceptual co-creation framework: a) the continuum was removed and only the co-creation approach was left, and b) more detailed descriptions were incorporated into the framework to specify what is necessary in order to adopt a co-creative business approach. The lenses and sub-lenses stayed the same although it was understood that in their current form they overlap. However, removing or reconstructing the lenses seems to require more knowledge, thus this issue will be reconsidered after exploring the findings of the descriptive study.

The study is still on its way and more research is needed in order to deepen the understanding on co-creation. The purpose of the refined framework (see table 4.19) is to support in analysing the results of the descriptive study in order to develop a final co-creation framework for the B2B service business. Next, Chapter 5 will take the reader through the descriptive study.

Table 4.19: Refined co-creation framework

Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	To adopt a co-creative business approach it is necessary to:
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	Create service business solutions which emphasise the customer's value-in-use rather than simply focusing on producing and selling services and products (i.e. value-in-exchange).
A2. Strategy process	Bottom-up/Outside-in	Design processes which allow staff and customers to join in the development of new or modified strategies rather than restricting it to a small group of professionals inside your company.
A3. Value creation processes	Focus on customers' and their customers value creation processes	Focus on fully understanding and defining both your customers' and their customers' businesses and processes, and based on this understanding to design your own value propositions that support customers' businesses and processes.
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	Design processes that allow all your key stakeholders to share resources in an effective way.
A5. Position in value chain/value network	Focus on the entire value network	Understand and design your company's role as a part of value network rather than just one individual actor in a value chain.
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	To adopt a co-creative business approach it is necessary to:
B1. Company-customer relationship	Oriented towards building long term customer relationships	Aim to establish long term customer relationships which allow building trust
B2. Information on the customer	Deep customer insight – knowing in person	Aim at full knowledge of your customers' and their customers' businesses and challenges
B3. Nature of interaction with the customer	Proactive/dialogue	Design communication processes to support proactive dialogue with your customers
B4. Amount of interactions	Active/two-way Anywhere/anytime	Design communication processes with your customers which allow active two-way dialogue
B5. Customer access to information and other resources	Transparent	Afford your customers transparent information regarding your business relationship
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	To adopt a co-creative business approach it is necessary to:
C1. Gathering information on the customer	Participatory methods, listening and learning together	Focus on activities which allow you to listen and learn together with your customers, instead of using only structured customer feedback methods.
C2. Processing information on the customer	Externally with the customers	Process all the customer information carefully, make it available to the customers and demonstrate their influence.
C3. Developing the value proposition	Bottom-up including the customers	Integrate staff and customers at every stage of the development of value propositions.
C4. Testing the value proposition	Externally with the customers	Test the value proposition externally with the customers during the development process.
C5. Launching the value proposition	Providing solutions	To launch the value proposition, use the powerful relationship established during the development process, thus liberating your resources from a mere sales level.

5 Descriptive study: Detailed case studies of co-creation in the B2B service business

The purpose of this chapter is to take the reader through the third phase of this study including descriptive case studies of co-creation. Previously, in Phase 1, the literature up to 2011 on co-creation frameworks and models leading to a conceptual co-creation framework of this study was explored. During Phase 2 the current understanding of co-creation was amplified with an exploratory study resulting in a slightly refined co-creation framework. The purpose of Phase 3 is to explore co-creation in more depth, resulting in a deeper understanding of co-creation in the B2B service business leading to a final framework of co-creation. Figure 5.1 shows the relationship of this chapter to the other chapters.

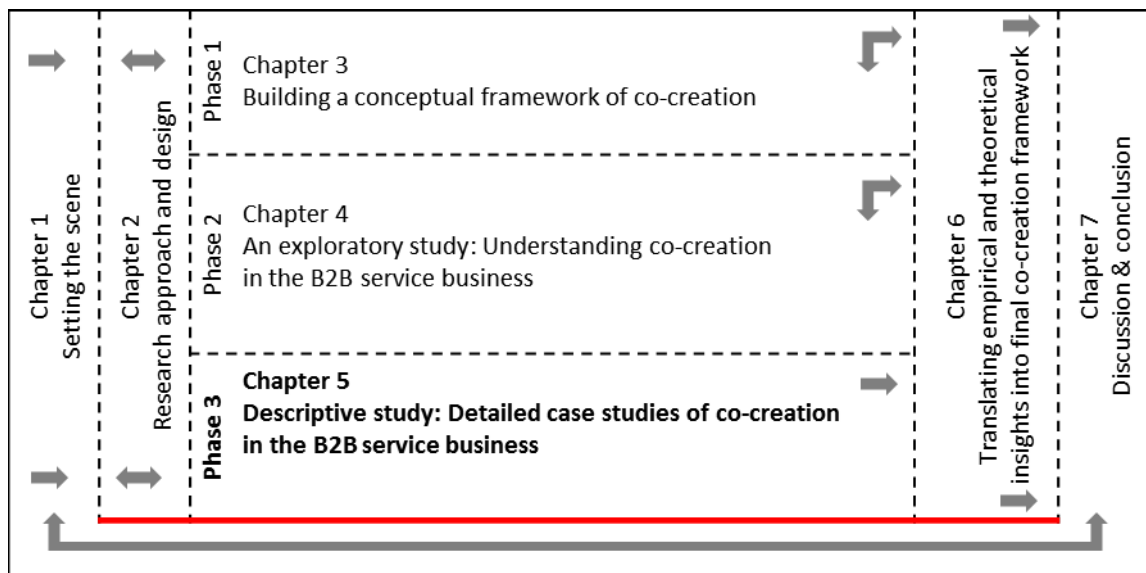


Figure 5.1: Thesis structure – Chapter 5

The specific objectives of the descriptive study are: a) to deepen the understanding of co-creation based on empirical findings and b) to synthesise empirical and theoretical insights into a final framework. The research question related to this phase is RQ1c: What are the characteristics of co-creation in the B2B service business?

Following the research approach and design presented in Chapter 1, the detailed research design and the findings of the descriptive study are presented in this chapter. Here the specific research design of Phase 3: A descriptive study is presented.

5.1 Research design: Phase 3

This study follows the case study strategy of Yin (2009). Based on this strategy the stages of this case study design are: planning, designing, preparing, collecting, analysing, and sharing. The planning and designing stages are common to all phases of this study, and the detailed descriptions of these stages are included in Chapter 2. The purpose of this chapter is explicitly to describe in detail the four additional stages related to Phase 3 (see figure 5.2). On the time scale this phase was performed between September 2012 and April 2014.

Phase 3 comprises nine cases, including 18 workshops. The data includes 18 service business maps: nine of suppliers and nine of their customers. This study defines maps as a way of illustrating the current state of the service setting, including its central characteristics viewed both from the customer and the supplier point of view. Next, the four specific stages of this enquiry according to Yin (2009) are described: preparing, collecting, analysing, and sharing (see figure 5.2).

Stage	Research design
	Unified activities/all phases Chapters 1-2
Plan	Reviewing the literature of co-creation Identifying the knowledge gap based on the current literature
Design	Defining the research question Identifying the philosophical approach and research methodology Identifying the cases <ul style="list-style-type: none"> ▪ Choosing the case companies ▪ Gaining access to the case companies ▪ Signing the research agreements with the case companies Identifying the research phases
	Specified activities/Phase 3 Chapters 5,6,7
	Objective <ul style="list-style-type: none"> ▪ To deepen the understanding of the co-creation based on empirical findings of the descriptive study ▪ To synthesise empirical and theoretical findings into final framework RQ1c ▪ What are the characteristics of co-creation in the B2B service business?
Prepare	Designing the content of the workshops Designing the data collection
Collect	Implementing 18 workshops between November 2012-May 2013
Analyse	Analysing the data <ul style="list-style-type: none"> ▪ Printing the 18 customer-supplier relationship maps ▪ Analysing the 18 customer-supplier relationship maps using the refined co-creation framework ▪ Writing the stories of the customer-supplier relationships and framing the findings Synthesizing the empirical and theoretical insights in a final co-creation framework
Share	Presenting the findings to the case companies Publishing an academic conference paper presenting the results at the academic conference September, 2013 Publishing the workbook of co-creation March, 2013 (managerial contribution) Finalizing and publishing the PhD thesis 2015 Publishing academic conference & journal papers 2015-2017

Figure 5.2: Research design and administration process

5.1.1 Preparing the data collection

Choosing the method

In order to deepen the understanding of co-creation in supplier-customer relationships this study has employed a specific method called CoCo Cosmos developed in the CoCo research project (Keränen et al. 2013; Keränen 2013; Ojasalo & Keränen 2011).

CoCo Cosmos is a visual and participatory service design tool for co-creation (Keränen et al. 2013) whose primary purpose is to help business partners to

become more co-creative and to better understand the possibilities for value creation among the stakeholders. As a participatory service design tool it enables collaborative communication and better understanding, and opens new possibilities among the partners (Mitchell et al. 2011; Vaajakallio 2012).

The tool involves six sets of cards (see figure 5.3/appendix 3), three white board markers and a game board which sets the scene for capturing a service business setting. The six sets of cards include three sets of stakeholders (blue, green, and turquoise cards). One set can be used as the supplier’s actors, one set can be used as the customer’s actors and a third set can be used as customers’ customers’ actors. The fourth set of cards indicates all the locations (black cards) where the business can be done. The fifth set includes all business actions (grey cards). The sixth set includes all the entities, here understood as the results of business actions (pink cards). Each set of cards includes blank ones, which makes it possible to create new cards, allowing for creativity (Vaajakallio 2012, 221). All the cards and the game board are laminated so that the cards can be personalised and players can draw on the game board with white board markers.

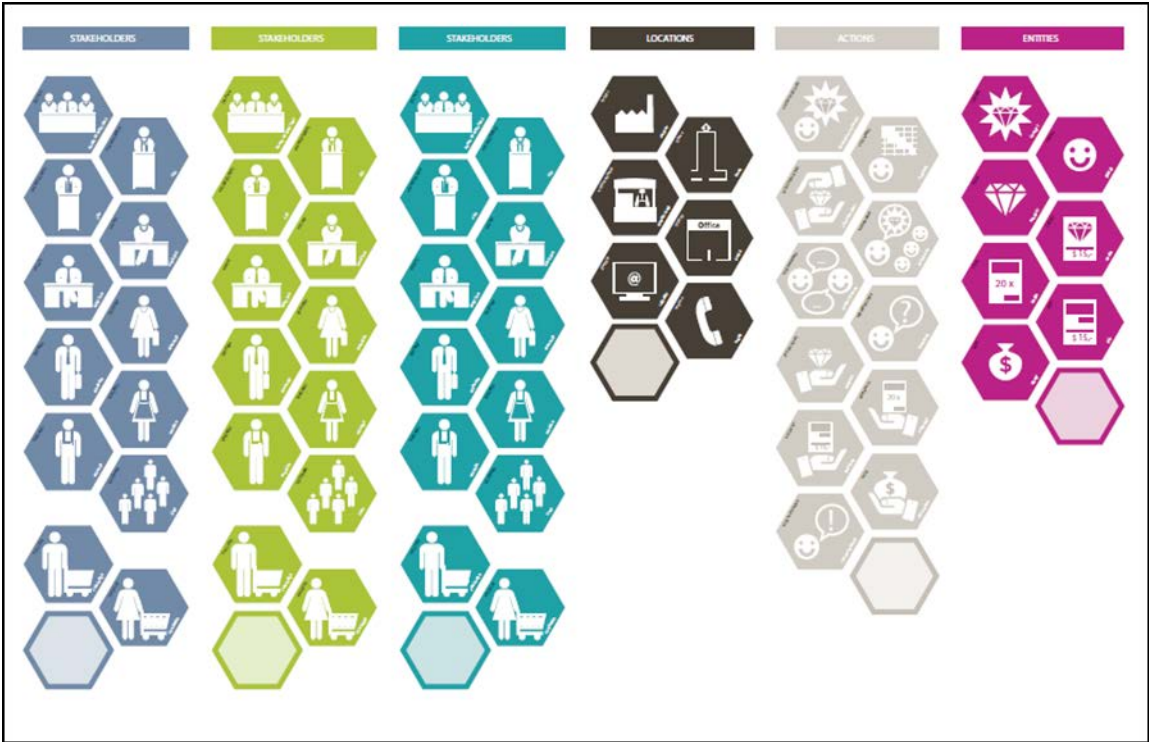


Figure 5.3: CoCo Cosmos cards

The white board markers are black, green and red. Black is used to personalise the cards and to draw connectors between the cards. Connectors are shown by arrows/lines, demonstrating a one-way or a two-way relationship. Green is used to show the enablers of the service business: things that are crucial to the relationship, which work well and raise the quality of a service. Red is used to show the barriers to the service business: things that slow down or prevent the service delivery and lower the quality of a service.

It was decided to use CoCo Cosmos as a method because it seemed to facilitate collecting deeper and richer data than more traditional ways of interviewing people. As part of this study CoCo Cosmos was used in 18 workshops in which both suppliers and customers built separate maps to visualise the current supplier-customer relationship involved with the service being provided by the supplier.

Designing the data collection

Having chosen the method, the preparation for the data collection took place. This included choosing the workshop participants, designing common procedures for the workshops, creating a common database and finally setting up the actual workshop dates, times and places (Saunders et al. 2007, 317).

The descriptive study included the same three case companies (S1, S2, S3), i.e. suppliers, as in the exploratory study and nine of their customers (see table 5.1). In the notion of co-creation it seemed seminal to include the customers of the original three case companies to be able to explore co-creation in more depth. Thus the suppliers were asked to freely choose three customers each, after which the author contacted the customers by phone to set up a date for the workshop. The participants in the workshops were the key contacts on both sides of the service being provided by the supplier. Although no specific instructions were given, in every customer workshop there was one participant but in the supplier workshop the number varied from one to two on average depending on the number of stakeholders. In the first supplier workshop, case S2C3, there were actually six participants in because of the high interest in the

method shown by both suppliers and customers. Altogether 28 participants joined in 18 workshops.

Table 5.1: Case companies

Suppliers		Customers	
S1	Financial management services	S1C1	Business gift services
		S1C2	Sports betting services
		S1C3	Regional commerce and industry services
S2	IT services	S2C1	Mobile software services
		S2C2	ICT infrastructure services
		S2C3	Education services
S3	Construction, real estate development and area development consultation services	S3C1	Crane business
		S3C2	Elevator and escalator business
		S3C3	Real estate business

To design common procedures for the workshops I used the CoCo Cosmos user instructions (Keränen, Dusch & Ojasalo 2013) but defined them more precisely, narrowing the role of the facilitator to be solely an instructor and not to influence the data. The workshops were designed to last between 60 and 90 minutes and they were recorded. The workshops had three phases: the introduction, building the customer-supplier relationship maps, and the conclusion. Each had their specific procedures (see table 5.2).

Table 5.2: The procedures of the workshops

Phase Time	Activity
Introduction Approx. 15 min	1. The workshop facilitator i.e. the researcher lays out the cards, game board and the inks
	2. The workshop facilitator introduces the objective of the workshop i.e. to build a map of a service provided by the supplier
	3. The workshop facilitator starts recording the workshop
	4. The workshop facilitator demonstrates the functions of the cards to the workshop participant/participants
Building the customer-supplier relationship map Approx. 30 min- 60 min	5. The workshop participant/participants are asked to specify the value proposition using the entity cards (pink cards)
	6. The workshop participant/participants are asked to specify the actors involved using the stakeholder cards (blue, green and turquoise cards)
	7. The workshop participant/participants are asked to specify the business locations involved using the location cards (black cards)
	8. The workshop participant/participants are asked to specify the activities involved using the action cards (grey cards)
	9. The workshop participant/participants are asked to arrange the cards so that it would describe the current service business setting
	10. The workshop participant/participants are asked to draw the connections between the service, actors, activities and locations by using the black whiteboard marker
	11. The workshop participant/participants are asked mark all the enablers involved in the current service business setting by using the green whiteboard marker
	12. The workshop participant/participants are asked to mark all the barriers involved in the current service business setting by using the red whiteboard markers
	13. The workshop participant/participants are asked to conclude the map of telling the story of the map
	14. The workshop facilitator asks supporting questions to clarify the aspects needed
Concluding Approx. 15 min	15. The workshop facilitator asks feedback on the method
	16. The workshop facilitator stops the recording and the workshop ends
	17. The workshop facilitator takes photos of the map

Collecting the data

The data collection took place between November 2012 and May 2013, and it was collected in 18 workshops: three in each of the three case companies, i.e. suppliers, and the rest in their customers' companies.

The core assignment in each workshop was to build a map related to the service being offered by the supplier (see table 5.2). First the customers built the map

from their perspective and then the suppliers built a map of the same service setting from their perspective. The customers' maps were shown to the suppliers only after they had built their own (see the cases, timetable, and maps in figure 5.4).

The procedures of each workshop were the same. However, in the first three workshops (19th November, 22nd November and 23rd November 2011) the beta version of the CoCo Cosmos was used as the final version was not yet available. Furthermore, the beta version used wooden/metal rods as well as the coloured pens to build connectors between the cards but this was found to be impractical and was removed from the final version. This explains the difference in layout when comparing the first three maps to the others. In the workshop on 5th February 2012 one new card was invented by the workshop participant – the phone card was added to the black card group indicating one of the locations where business can be done. Afterwards this card was used frequently.

5.1.2 Analysing the data

The data collected is rich and there is a wide variety of aspects that the researcher could focus on. However, research question RQ1c: “What are the characteristics of co-creation in the B2B service business?” gave the guidelines for analysing the data. This simplified the analysis and led the researcher to focus on tracing co-creation characteristics. In terms of the characteristics, the refined co-creation framework constituted a foundation for analysing the data.

First, when the data had been collected the researcher organised it. The data comprises 18 maps and sound recordings from the workshops (see figure 5.4/appendix 4). The organising phase included saving the data, coding the maps, processing and printing A3 maps.













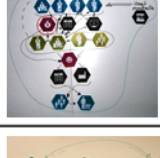





Case	Customer's workshop/ Participants involved	Customer's map	Supplier's workshop/ Participants involved	Supplier's map
S1C1	17.4.2013/ 1 participant		17.5.2013/ 2 participants	
S1C2	8.3.2013/ 1 participant		15.5.2013/ 1 participant	
S1C3	6.5.2013/ 1 participant		15.5.2013/ 2 participant	
S2C1	7.5.2013/ 1 participant		8.5.2013/ 1 participant	
S2C2	5.2.2013/ 1 participant		8.5.2013/ 1 participant	
S2C3	29.1.2013/ 1 participant		2.4.2013/ 2 participant	
S3C1	29.1.2013/ 1 participant		8.2.2013/ 2 participant	
S3C2	19.11.2012/ 1 participant		6.3.2013/ 2 participants	
S3C3	22.11.2012/ 1 participant		23.11.2012/ 6 participants	

Figure 5.4: The data of the descriptive study

Second, an initial analysis template for each case was designed. One case includes two maps: one customer map and one supplier map of a service provided by the supplier. The template incorporates the story of each case, a list of all actors with their names, and the story of the service setting including the quotes of the workshop participants and key characters. The initial template enabled presenting the findings to the case companies but it cannot be published as it includes names and other additional information confidential to the case companies. For the research purpose it operated as an important vehicle in conveying the findings.

The third step included the design of two things: 1) a table for each case grounded in the knowledge of the refined co-creation framework, and 2) a figure for each case presenting the data. The purpose of the table was to help in detecting the characteristics of co-creation from the data. The purpose of the figure was to present the maps and quotes supporting the findings. These tables and figures are presented in the chapters which present the findings of each case. Moreover the story of the each case takes the reader through the findings. In the stories “customer” means the customer business and “supplier” means the supplier business thus not being individuals and “stakeholders” meaning both the supplier and the customer.

During the fourth step the cross-case analysis of all the cases was conducted to analyse the similarities and differences among the data. Additionally, within this step, new tables were created demonstrating the findings from different perspectives.

5.1.3 Sharing the findings

To strengthen the validity of the interpretations the findings were first presented to each participant to allow the possibility for corrections. During this process customer S2C1 proposed one correction which was then made by the researcher. After this process written reports were sent to all participants. Furthermore, this thesis will be sent to the case companies before its final publication.

Additionally, to contribute to the academic discussion on co-creation, one peer-reviewed academic conference paper has been published and one-peer reviewed journal article is in publication. Further, as a managerial contribution a workbook on co-creation was published. The conference paper introduces CoCo Cosmos as a research method and the early findings of this study (Keränen et al. 2013). The journal article continues the discussion of the method and introduces more detailed findings of this study. The workbook introduces different tools for companies in adopting co-creation activities (Keränen et al. 2013).

Before presenting the results it should be highlighted that the purpose of this phase of the study was not to evaluate the current customer-supplier relationship apart from the co-creation characteristics, nor to analyse drivers or barriers apart from the co-creation characteristics, nor to depict the possible future development needs. The purpose was simply to seek possible co-creation characteristics. Next, the empirical data and the findings are introduced.

5.2 Case S1C1

Case S1C1 includes data from the two workshops. The customer workshop was held on 17th April 2013 and the supplier workshop on 17th May 2013. Supplier S1 provides financial management services and their customer S1C1 provides services related to business gifts. Both companies are SMEs and their relationship is long-term. In the supplier workshop there were two main contact persons and in the customer workshop there was one main contact person connected with the service being provided.

In this case co-creation activities can be seen in five sub-lenses out of 15. Most of these activities (four out of five sub-lenses) appear in Lens B: Customer interactions and relationships. In Lens A: Strategic thinking and business model, there are one or two sub-lenses demonstrating co-creation activities and in Lens C: Service design, there are none (see table 5.3). Additionally, the stories related to each lens take the reader through the findings which are underpinned by the data demonstrated in Figure 5.5.

Table 5.3: Co-creation activities and remarks emerging from case S1C1

Case S1C1		
Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
A1. Business goals	To jointly create comprehensive customer solutions /value-in-use	No activities seen
A2. Strategy process	Bottom-up /Outside-in	No activities seen
A3. Value creation processes	Focus on customers' and their customers' value creation processes	No activities seen Remarks: The customer seems to value different things related to the service than the supplier believes (Q&M)
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	No activities seen
A5. Position in value chain/value network	Focus on the value network	The customer is focusing on value network rather than being just one individual actor in a value chain (M)
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
B1. Company-customer relationship	Oriented towards building long-term customer relationships	The case is a long-term relationship (background information) and there seems to be mutual trust among the stakeholders (Q)
B2. Information on the customer	Deep customer insight – knowing in person	The stakeholders know each other in person (Q&M) Remarks: The supplier seems to lack deep customer knowledge (Q) The stakeholders don't seem to have any need to share the information on customer's customer (Q)
B3. Nature of interaction with the customer	Proactive dialogue	No activities seen Remarks: There seems to be less dialogue among the stakeholders than before using the collaborative on-line platform (Q)
B4. Amount of interactions	Active/two-way Anywhere/anytime	The stakeholders have a two-way dialogue (M) The 24h collaborative on-line platform can be used anywhere, anytime (M) Remarks: Stakeholders meet in person approximately once per year (Q)
B5. Customer access to information and other resources	Transparent	Both of the stakeholders have an access to the 24h collaborative on-line platform (M)
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
C1. Gathering information on the customer	Participatory methods, listening and learning together	No activities seen
C2. Processing information on the customer	Externally with the customers	No activities seen
C3. Developing the value proposition	Bottom-up including the customers	No activities seen
C4. Testing the value proposition	Externally with the customers	No activities seen
C5. Launching the value proposition	Providing solutions	No activities seen
Key: M= Emerged in the relationship maps Q = Emerged in the quotes		

The story of Lens A – Strategic thinking and business model

In Lens A co-creation activities can be seen in sub-lens A5 where the customer sees itself positioned in the value network where its customers are included in the service setting, demonstrating the value that the service provides to its customers. The supplier includes only its customer thus not including customers' customers. It is notable here that the customer seems to value other things than the supplier supposes. In the customer map it can be seen that the customer values on-line platform services because they provide value and intensify the customer's supply process, whereas the supplier expects the customer to value the bookkeeping functionalities of the on-line platform.

The story of Lens B – Customer interactions and relationships

In Lens B co-creation activities can be seen in four sub-lenses. The case is based on a long-term relationship and there seems to be mutual trust between the stakeholders. The stakeholders know each other well but don't seem to have any need to share information on the customer's customers or anything related to their businesses apart from the service being provided. Both the customer and the supplier stated that there used to be more personal dialogue before having the on-line platform. Currently the customer has 24h on-line access to information related to the service, so there is even less need to make personal contacts; however, it seems that they both would value more personal contact. At present the stakeholders meet once a year. The nature of the interaction appears to be more reactive than proactive.

The story of Lens C – Service design

In Lens C there are no co-creation activities.

To conclude, co-creation activities can be seen in six sub-lenses out of 15. In Lens A co-creation activities can be seen in sub-lens A5 where the customer sees itself operating in a value network. In Lens B co-creation activities can be seen in four sub-lenses: B1 as the case is a long-term relationship and there seems to be a mutual trust between the stakeholders, B2 where the stakeholders know each other's businesses but don't seem to have any need to share

information on the customer's customers, B4 where there is a personal two-way relationship but communication is reactive, and B5 where the stakeholders use a 24h collaborative platform provided by the supplier.

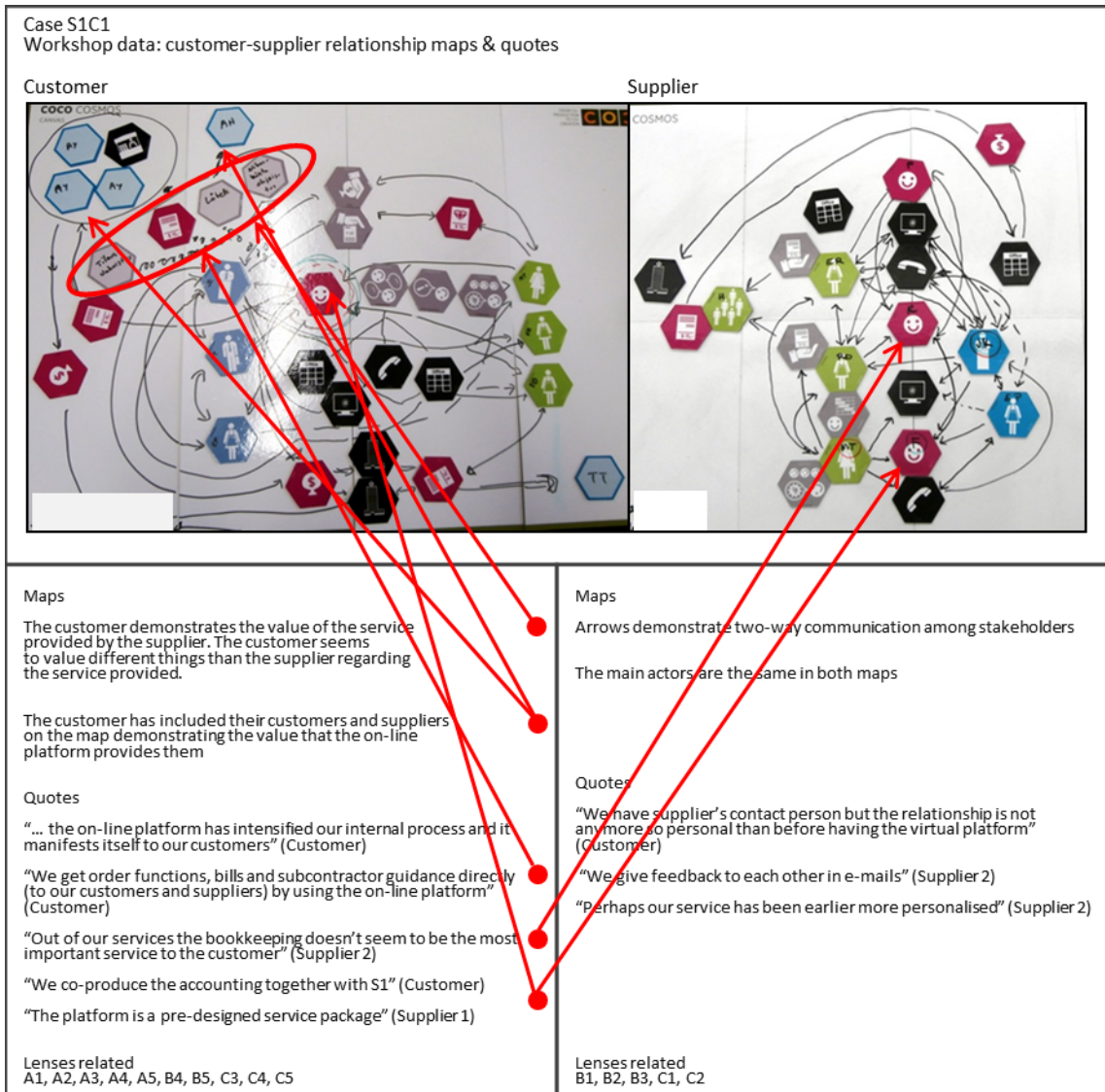


Figure 5.5: Maps and quotes of the customer-supplier relationship - Case S1C1

5.3 Case S1C2

Case S1C2 includes data from the two workshops. The customer workshop was held on 8th February 2013 and the supplier workshop on 15th May 2013. Supplier S1 provides financial management services and their customer S1C2 provides sports betting services. Both companies are SMEs and the relationship is long-term. In the supplier workshop there were two main contact persons and in the customer workshop there was one main contact person connected with the service being provided.

In this case co-creation activities can be seen in four out of 15. Most of these activities (two out of five sub-lenses) appear in Lens B: Customer interactions and relationships. In Lens A: Strategic thinking and business model there is one sub-lens demonstrating co-creation activities and in Lens C: Service design there are no sub-lenses demonstrating co-creation activities (see table 5.4). Additionally, the stories related to each lens take the reader through the findings which are underpinned by the data demonstrated in Figure 5.6.

Table 5.4: Co-creation activities and remarks emerging from case S1C2

Case S1C2		
Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	No activities seen
A2. Strategy process	Bottom-up/Outside-in	No activities seen
A3. Value creation processes	Focus on customers' and their customers' value creation processes	No activities seen
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	No activities seen
A5. Position in value chain/value network	Focus on the value network	The customer is focusing on value network rather than being just one individual actor in a value chain (M)
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
B1. Company-customer relationship	Oriented towards building long-term customer relationships	The case is a long-term relationship (background information) and there seems to be mutual trust among the stakeholders (Q)
B2. Information on the customer	Deep customer insight – knowing in person	The stakeholders know each other in person (Q&M) Remarks: The supplier seems to lack deep customer knowledge (Q) The stakeholders don't seem to have any need to share the information on customer's customer (Q)
B3. Nature of interaction with the customer	Proactive dialogue	No activities seen Remarks: There seems to be less dialogue than before among the stakeholders (Q)
B4. Amount of interactions	Active/two-way Anywhere/anytime	Stakeholders have a two-way dialogue (M)
B5. Customer access to information and other resources	Transparent	No activities seen
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
C1. Gathering information on the customer	Participatory methods, listening and learning together	No activities seen
C2. Processing information on the customer	Externally with the customers	No activities seen
C3. Developing the value proposition	Bottom-up including the customers	No activities seen
C4. Testing the value proposition	Externally with the customers	No activities seen
C5. Launching the value proposition	Providing solutions	No activities seen
Key: M= Emerged in the relationship maps Q= Emerged in the quotes		

The story of Lens A – Strategic thinking and business model

In Lens A co-creation activities can be seen in one sub-lens A5 where the customer sees itself positioned in the value network including its customers in the service setting demonstrating the value that the service provides for the its customers. The supplier includes only its customer.

The story of Lens B – Customer interactions and relationships

In Lens B co-creation activities can be seen in three sub-lenses. The case is based on a long-term relationship and there seems to be a mutual trust between the stakeholders. The stakeholders know each other well personally but they don't seem to have any need to share the knowledge on customer's customers. There is also a personal two-way relationship between the stakeholders but it is related to one service person on the supplier side and the relationship is reactive.

The story of Lens C – Service design

Lens C there are no co-creation activities.

To conclude co-creation activities can be seen in four sub-lenses out of 15. In Lens A co-creation activities can be seen in one sub-lens: A5 where the customer sees itself operating in a value network. In Lens B co-creation activities can be seen in the three sub-lenses: B1 as the case is a long-term relationship and there seems be a mutual trust between the stakeholders, B2 where the stakeholders know each other's businesses but they don't seem to have any need to share the information on customer's customer, and B4 where there is a personal two-way relationship but the communication is reactive.

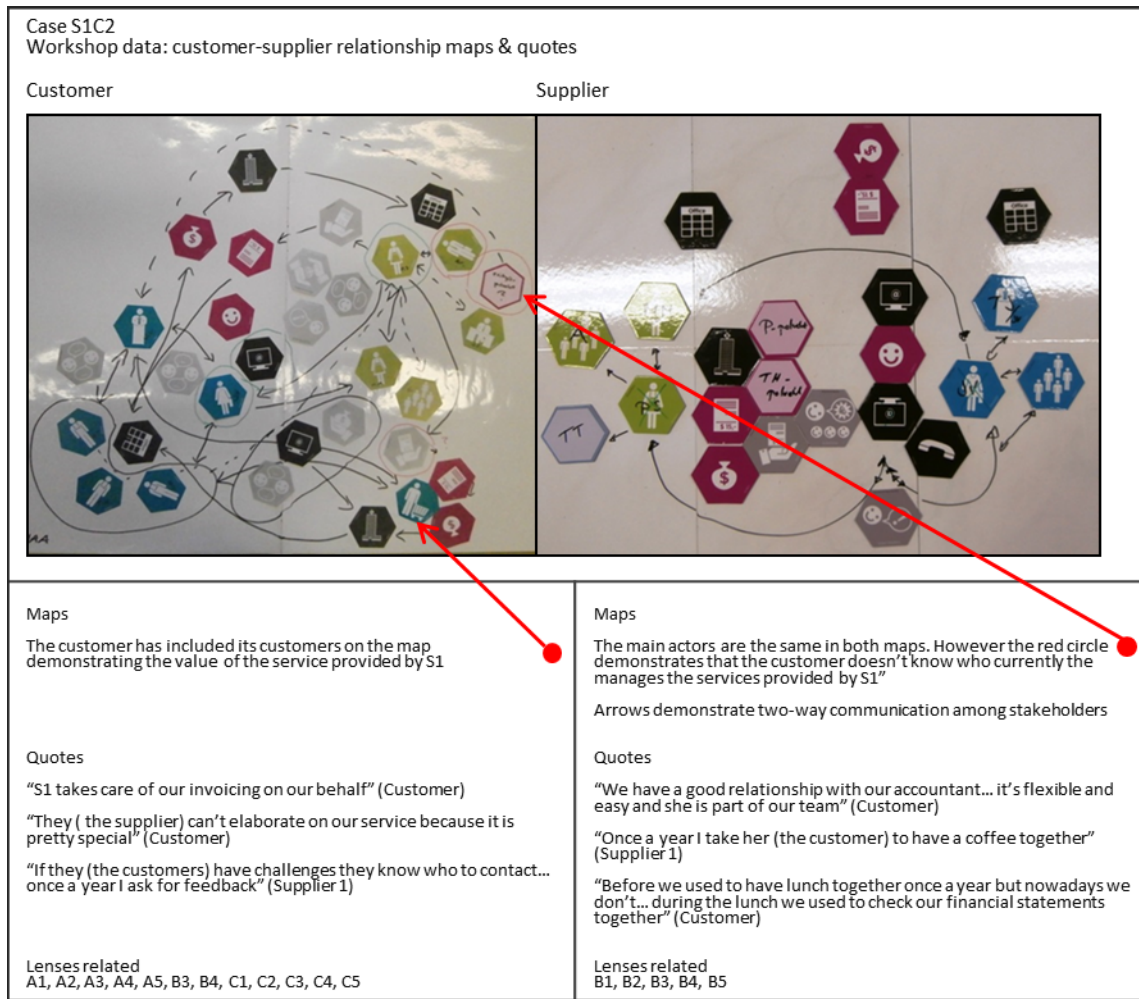


Figure 5.6: Maps and quotes of the customer-supplier relationship - Case S1C2

5.4 Case S1C3

Case S1C3 includes data from the two workshops. The customer workshop was held on 6th May 2013 and the supplier workshop on 15th May 2013. Supplier S1 provides financial management services and their customer S1C3 provides regional commerce and industry services. Both companies are SME's and their relationship is long-term. In the supplier workshop there were two main contact persons and in customer workshop there was one main contact person connected with the service provided.

In this case co-creation activities can be seen in four sub-lenses out of 15. Most of these activities (three out of five sub-lenses) appear in Lens B: Customer interactions and relationships. In Lens A: Strategic thinking and business model there is one sub-lens demonstrating co-creation activities and in Lens C; Service design there are none (see table 5.5). Additionally, the stories related to the each lens take the reader through the findings which are underpinned by the data demonstrated in the Figure 5.7.

Table 5.5: Co-creation activities and remarks emerging from case S1C3

Case S1C3		
Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	Co-creation activities and remarks emerging in the workshops
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	No activities seen Remarks: The customer would like to jointly create the service process provided by the supplier (Q)
A2. Strategy process	Bottom-up/Outside-in	No activities seen
A3. Value creation processes	Focus on customers' and their customers' value creation processes	No activities seen
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	No activities seen
A5. Position in value chain/value network	Focus on the value network	The customer is focusing on value network rather than being just one individual actor in a value chain (M)
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
B1. Company-customer relationship	Oriented towards building long-term customer relationships	This case is a long-term relationship (background information) Remarks: There seems to be a lack of trust among the stakeholders (Q)
B2. Information on the customer	Deep customer insight – knowing in person	The stakeholders know each other in person (M) Remarks: The supplier seems to lack deep customer knowledge (Q)
B3. Nature of interaction with the customer	Proactive dialogue	No activities seen Remarks: There seems to be less dialogue than before among the stakeholders(Q)
B4. Amount of interactions	Active/two-way Anywhere/anytime	Stakeholders have a two-way dialogue (M) Remarks: Stakeholders meet in person approximately once per year (Q)
B5. Customer access to information and other resources	Transparent	No activities seen
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
C1. Gathering information on the customer	Participatory methods, listening and learning together	No activities seen
C2. Processing information on the customer	Externally with the customers	No activities seen
C3. Developing the value proposition	Bottom-up including the customers	No activities seen
C4. Testing the value proposition	Externally with the customers	No activities seen
C5. Launching the value proposition	Providing solutions	No activities seen
Key: M= Emerged in the relationship maps Q= Emerged in the quotes		

The story of Lens A – Strategic thinking and business model

In Lens A co-creation activities can be seen in one sub-lens A5 where the customer sees itself positioned in the value network including its customers in the service setting demonstrating the value that the service provides for the its customers. The supplier includes only its customer.

The story of Lens B – Customer interactions and relationships

In Lens B co-creation activities can be seen in three sub-lenses. The case is based on long-term relationship but there seems be lack of a mutual trust between the stakeholders. The stakeholders know each other well on a business level and customer seems to aim at sharing more knowledge of their customers'. Moreover there is a personal two-way relationship between the stakeholders but it is related to one person on both sides. Stakeholders rarely have personal meeting and the relationship is reactive.

The story of Lens C – Service design

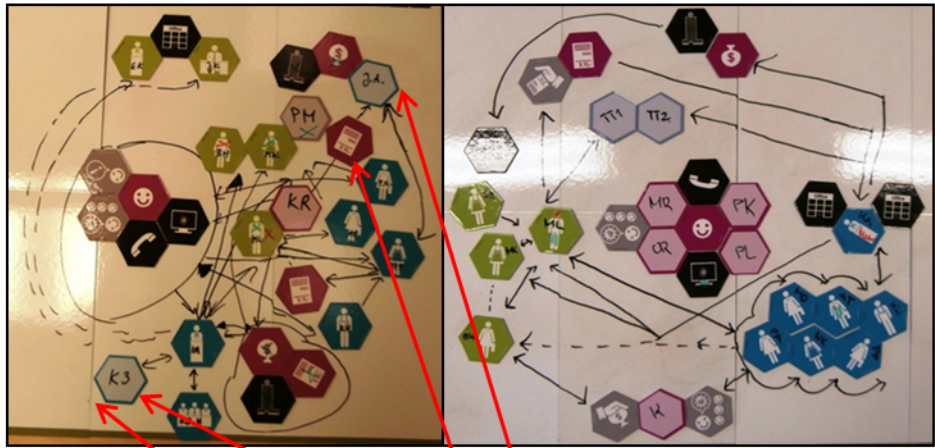
Lens C there are no co-creation activities.

To conclude there can be seen partial co-creation activities in four sub-lenses out of 15. In Lens A co-creation activities can be seen in one sub-lens: A5 where the customer sees itself operating in a value network. In Lens B co-creation activities can be seen in the three sub-lenses: B1 as the case is a long-term relationship but it is lacking mutual trust, B2 where the stakeholders know each other's businesses but customer seems to have an interest to share more knowledge of their customers', and B4 where there is a personal two-way relationship but the stakeholders meet rarely and the communication is reactive.

Case S1C3
Workshop data: customer-supplier relationship maps & quotes

Customer

Supplier



Maps

The customer has included its customers on the map demonstrating the value of the service provided by S1

The customer has included its partners into map demonstrating the influence of the service provided by S1

Quotes

"They invoice our customers" (Customer)

"Our partners define how the accounting should be done" (Customer)

"It would be good to check the service process together on both sides to better understand each other" (Customer)

Lenses related

A1, A2, A3, A4, A5, C3, C4, C5

Maps

Arrows demonstrate two-way communication among stakeholders

The main actors are the same in both maps

Quotes

"We have met once a year" (Customer)

"We need to double check that the work is done" (Customer)

"The accountant is overloaded and that's why it is hard to fulfill the promise to the customer" (Customer)

"I don't know whether the feedback given earlier has influenced the service" (Customer)

Lenses related

B1, B2, B3, B4, B5, C1, C2

Figure 5.7: Maps and quotes of the customer-supplier relationship - Case S1C3

5.5 Case S2C1

Case S2C1 includes data from the two workshops. The customer workshop was held on 7th May 2013 and the supplier workshop on 8th May 2013. Supplier S2 provides IT services and their customer S2C1 provides mobile software services. Both companies are SME's and their relationship is long-term. In the supplier workshop there was one main contact person and in customer workshop there was one main contact person connected with service being provided.

In this case co-creation activities can be seen in two sub-lenses out of 15. The first co-creation activity appears in Lens A1; Strategic thinking and business model and the second co-creation activity appear in Lens B1: Customer interactions and relationships (see table 5.6). Additionally, the stories related to the each lens take the reader through the findings which are underpinned by the data demonstrated in the Figure 5.8.

Table 5.6: Co-creation activities and remarks emerging from case S2C1

Case S2C1		
Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	No activities seen Remarks: Customer would like to have development meetings together with the supplier (Q)
A2. Strategy process	Bottom-up/Outside-in	No activities seen
A3. Value creation processes	Focus on customers' and their customers' value creation processes	No activities seen
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	No activities seen
A5. Position in value chain/value network	Focus on the value network	Customer is focusing on value network rather than being just one individual actor in a value chain (M)
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	Co-creation activities and remarks emerging the workshops
B1. Company-customer relationship	Oriented towards building long-term customer relationships	The case is a long-term relationship (background information) Remarks: There seems to be a neutral situation in terms of mutual trust (Q)
B2. Information on the customer	Deep customer insight – knowing in person	No activities seen Remarks: The supplier seems to lack deep customer knowledge (Q) The stakeholders don't seem to know each other in person (Q&M) The customer seems to have some need to share the information on the supplier, on the customer and on the customer's customers (Q&M)
B3. Nature of interaction with the customer	Proactive dialogue	No activities seen Remarks: There seems to be less dialogue than before among the stakeholders (M)
B4. Amount of interactions	Active/two-way Anywhere/anytime	The stakeholders have a two-way dialogue (M) Remarks: The stakeholders meet in person less than once per year (Q)
B5. Customer access to information and other resources	Transparent	The relationship is transparent through 24h help desk services (background information)
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
C1. Gathering information on the customer	Participatory methods, listening and learning together	No activities seen
C2. Processing information on the customer	Externally with the customers	No activities seen
C3. Developing the value proposition	Bottom-up including the customers	No activities seen
C4. Testing the value proposition	Externally with the customers	No activities seen
C5. Launching the value proposition	Providing solutions	No activities seen
Key: M= Emerged in the relationship maps Q= Emerged in the quotes		

The story of Lens A – Strategic thinking and business model

In Lens A co-creation activities can be seen in one sub-lens A5 where the customer sees itself positioned in the value network including its customers in the service setting demonstrating the value that the service provides for the its customers. The supplier includes only its customer.

The story of Lens B – Customer interactions and relationships

In Lens B co-creation activities can be seen in one sub-lens B1. The case is based on a long-term relationship but there seems to be rather neutral stance related to a mutual trust between the stakeholders. It seems that the stakeholders have known each other earlier better both on a business level and personally. Both stakeholders indicate that the barrier of the relationship is the lack of the personal communication between the stakeholders.

The story of Lens C – Service design

Lens C there are no co-creation activities.

To conclude there can be seen partial co-creation activities in two sub-lenses out of 15. In Lens A co-creation activities can be seen in one sub-lens: A5 where the customer sees itself operating in a value network. In Lens B co-creation activities can be seen in one sub-lens: B1 as the case is a long-term relationship. It is notable here that the customer would be willing to have more activities related to co-creation and seems to value co-creation activities.

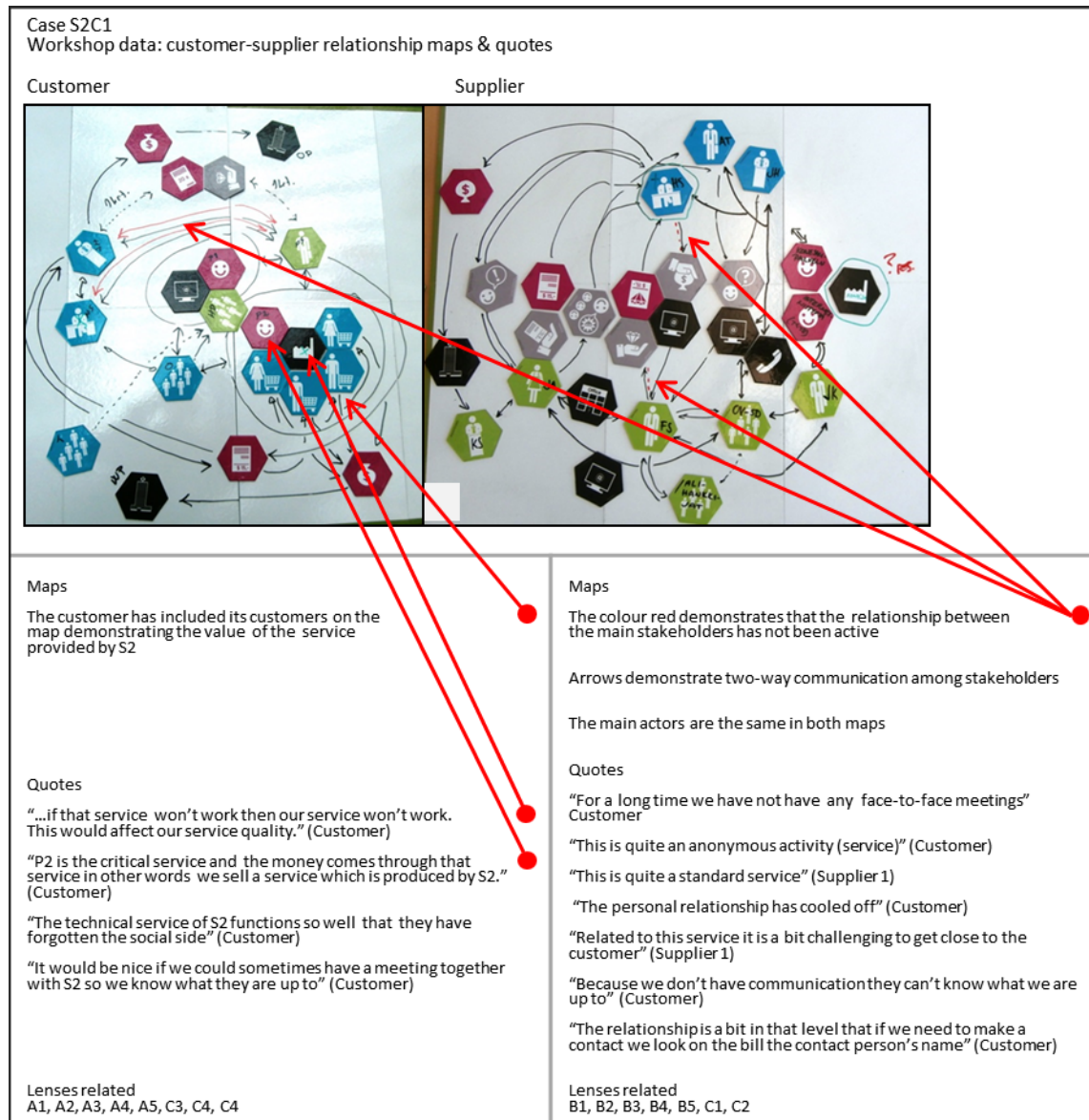


Figure 5.8: Maps and quotes of the customer-supplier relationship - Case S2C1

5.6 Case S2C2

The case S2C2 includes the data from the two workshops. The customer workshop was held on 5th February 2013 and the supplier workshop on 8th May 2013. Supplier S2 provides IT services and the customer S2C provides ICT infrastructure services. Both companies are SME's and their relationship is long-term. In the supplier workshop there was one main contact person and in customer the workshop there was one main contact person connected with the service being provided.

In this case co-creation activities can be seen in thirteen sub-lenses out of 15. Both in Lens A: Strategic thinking and business model, and Lens B: Customer interactions and relationships there are four sub-lens demonstrating co-creation activities and in Lens C: Service design, there are five sub-lenses demonstrating co-creation activities (see table 5.7). Additionally, the stories related take the reader through the findings which are underpinned by the data demonstrated in the Figure 5.9.

Table 5.7: Co-creation activities and remarks emerging from case S2C2

Case S2C2		
Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	The stakeholders jointly create business solutions and solve challenges through regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M) Remarks: The stakeholders have fewer meetings than before (Q)
A2. Strategy process	Bottom-up/ Outside-in	No activities seen Remarks: The stakeholders would be willing to co-create strategy (Q)
A3. Value creation processes	Focus on customers' and their customers' value creation processes	The supplier focusses on customers' and their customers' value creation processes through regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	The stakeholders share resources through the regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
A5. Position in value chain/value network	Focus on the value network	Both the customer and the supplier see themselves operating in a value network (M)
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
B1. Company-customer relationship	Oriented towards building long-term customer relationships	The case is a long-term relationship (background information) and there seems to be mutual trust (Q)
B2. Information on the customer	Deep customer insight – knowing in person	The stakeholders know each other in person (Q&M) The stakeholders seems to have a good knowledge of each other's businesses (Q&M) The supplier has a good knowledge of the customer's customers' business (Q&M)
B3. Nature of interaction with the customer	Proactive dialogue	No activities seen Remarks: Currently dialogue is reactive but it used to be more proactive among the stakeholders (Q)
B4. Amount of interactions	Active/two-way Anywhere/anytime	The stakeholders have a two-way dialogue (M) The service includes 24h help desk services for the customer and the customer's customers (M) 24h on-call services for the customers Remarks: The stakeholders have less dialogue than before (Q) The stakeholders have fewer regular meetings than before (Q)
B5. Customer access to information and other resources	Transparent	The relationship is transparent through personal contacts, regular meetings and 24h help desk services (Q&M)
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
C1. Gathering information on the customer	Participatory methods, listening and learning together	The stakeholders listen and learn together in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
C2. Processing information on the customer	Externally with the customers	The stakeholders process information in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
C3. Developing the value proposition	Bottom-up including the customers	The stakeholders develop together in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
C4. Testing the value proposition	Externally with the customers	The stakeholders test together particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
C5. Launching the value proposition	Providing solutions	The launching of the new value proposition is carried out automatically during the relationship (Q)
Key: M= Emerged in the relationship maps Q = Emerged in the quotes		

The story of Lens A – Strategic thinking and business model

In Lens A co-creation activities can be seen in four sub-lenses A1, A3, A4 and A5. Related to the sub-lenses A1, A3, and A4 both stakeholders stated that their co-creation activities are strongly related to the customer's need to develop new value propositions. Earlier stakeholders have also had regular development meetings where participants have jointly attempted to solve mutual challenges and to plan future activities in order to create value for the customer and customer's customers. In both of the maps there can be seen an arrow pointing toward a red circle meaning that both the supplier and the customer has a holistic understanding of each other's business related to the service, and the supplier's focus is to create value for the customer. The holistic understanding means that the service is understood from the value-in-use point of view, customer's customer is presented, the main actors are presented, there are multiple ways of a two-way communication and the communication is active.

Following in the sub-lens A5 there can be seen clear indication both the supplier and the customer focusing on the entire value network. In the supplier map one arrow is pointing toward two customer's customer cards showing that the supplier understands its role as a part of the value network. In the customer map two arrows are pointing toward external customer indicating how the service influences on them.

The story of Lens B – Customer interactions and relationships

In Lens B co-creation activities can be seen in every sub-lens. The case is based on long-term relationship and there seems to be a mutual trust between the stakeholders. The stakeholders know each other well personally and they seem know each other's businesses well too. Development meetings have earlier allowed them to have a two-way proactive communication. The supplier is proving a help desk service which support active/anytime/anywhere communication between the stakeholders. Transparency is provided having personal contacts and the help desk service.

The story of Lens C – Service design

In Lens C co-creation activities can be seen in every sub-lens. This results from the development activities where the customer has had a need for a new value proposal and the supplier has joined in the service design process. The activities related to Lens C appear in regular development meetings which they have had earlier more. Currently they have a feeling that they should jointly update the development strategy to enhance the mutual development.

To conclude co-creation activities can be seen in 14 sub-lenses out of 15. In Lens A co-creation activities can be seen in the three sub-lenses: A1 where the stakeholders jointly solve challenges and plan future activities in the regular development meetings particularly when designing new services, A3 where the supplier demonstrates the holistic understanding of the customer's processes and value-in-use, and A5 where both of the stakeholders have demonstrated that they see themselves operation in a value network. In Lens B co-creation activities can be seen in the five sub-lenses: B1 as the case is a long-term relationship and there seems to be a mutual trust between the stakeholders, B2 where both of the stakeholders seem to have the holistic understanding of each other's businesses and challenges, B3 where there can be seen processes embedding a proactive dialogue between the stakeholders, B4 where active personal contacts, development meetings and the help desk provide active, two-way/anytime dialogue and transparency between the stakeholders (B5). Furthermore it should be noted here that both of the stakeholders agree that lately there have had fewer development meetings and communication has been more reactive than before.

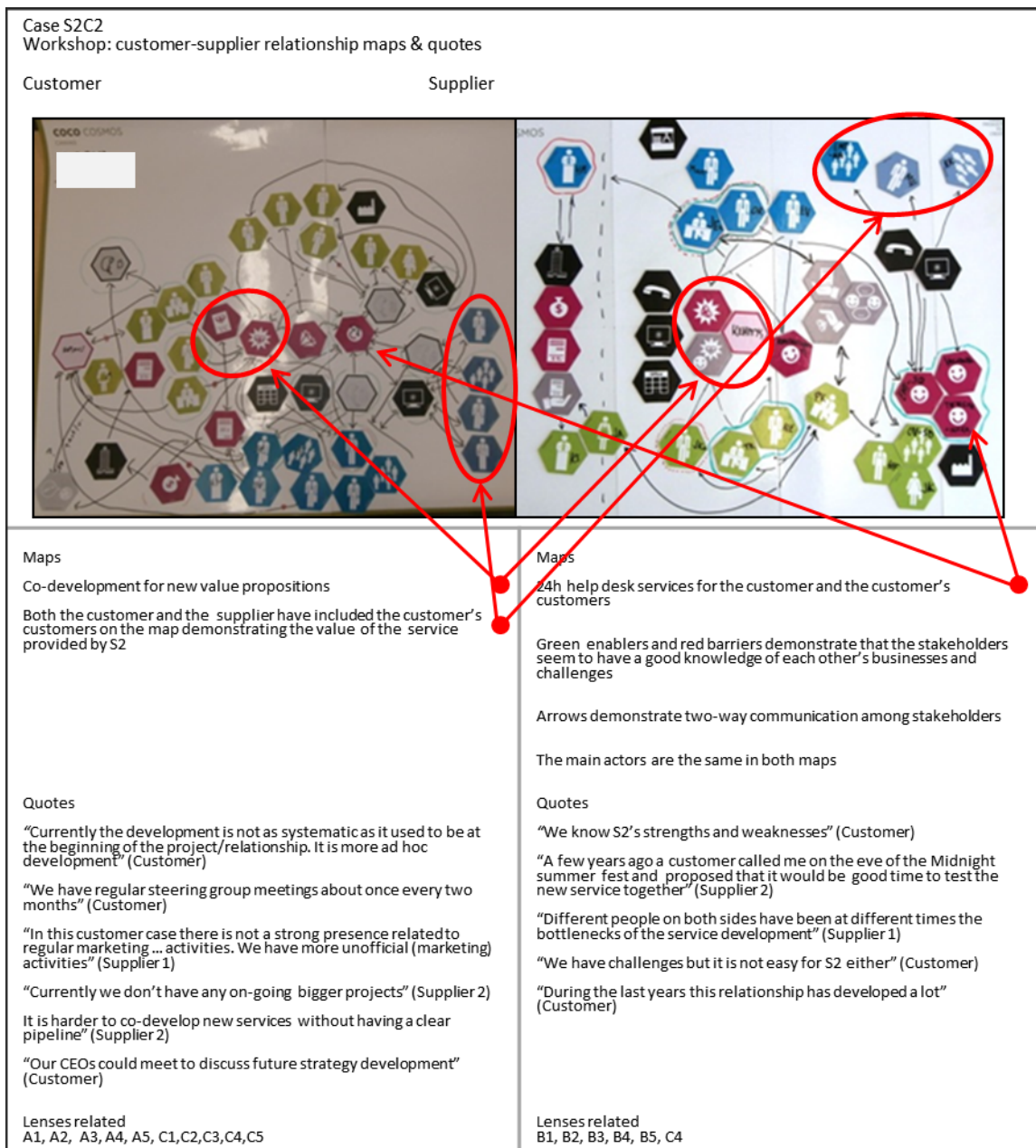


Figure 5.9: Maps and quotes of the customer-supplier relationship - Case S2C2

5.7 Case S2C3

The case S2C3 includes the data from the two workshops. The customer workshop was held on 29th January 2013 and the supplier workshop on 2nd April 2013. Supplier S2 is a SME which provides IT services and their customer S2C3 is a vocational institute which provides educational services. The relationship is long-term. In the supplier workshop there were two main contact persons and in customer workshop there was one main contact person connected with the service being provided.

In this case co-creation activities can be seen in ten sub-lenses out of 15. Most of these activities (five out of five sub-lenses) appear in Lens B: Customer interactions and relationships. In Lens A: Strategic thinking and business model there are three sub-lenses demonstrating co-creation activities and in Lens C: Service design there are two sub-lenses demonstrating co-creation activities (see table 5.8). Additionally, the stories related to the each lens take the reader through the findings which are underpinned by the data demonstrated in the Figure 5.10.

Table 5.8: Co-creation activities and remarks emerging from case S2C3

Case S2C3		
Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	The stakeholders jointly create business solutions and solve challenges through regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M) Remarks: The stakeholders would like to involve end users in the value creation (Q)
A2. Strategy process	Bottom-up/Outside-in	No activities seen Remarks: The supplier would be willing to co-create strategy (Q)
A3. Value creation processes	Focus on customers' and their customers' value creation processes	The supplier focusses on customers' and their customers' value creation processes through regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M) Remarks: The stakeholders would like to involve end users in the value creation (Q)
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	The stakeholders share resources through the regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
A5. Position in value chain/value network	Focus on the value network	Both the customer and the supplier see themselves operating in a value network (M)
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
B1. Company-customer relationship	Oriented towards building long-term customer relationships	The case is a long-term relationship (background information) and there seems to be mutual trust (Q)
B2. Information on the customer	Deep customer insight – knowing in person	The stakeholders know each other in person (M) The stakeholders seem to have a good knowledge of each other's businesses (Q&M) The supplier has a good knowledge of the customer's customers' activities (Q&M)
B3. Nature of interaction with the customer	Proactive dialogue	There seems to be proactive dialogue among the stakeholders (Q)
B4. Amount of interactions	Active/two-way Anywhere/anytime	The stakeholders have a two-way dialogue (M) The stakeholders have regular meetings (Q&M) The supplier provides 24h help desk services for the customer (M)
B5. Customer access to information and other resources	Transparent	The relationship is transparent through personal contacts, regular meetings and 24h help desk services (Q&M)
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
C1. Gathering information on the customer	Participatory methods, listening and learning together	The stakeholders listen and learn together in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
C2. Processing information on the customer	Externally with the customers	The stakeholders process information in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
C3. Developing the value proposition	Bottom-up including the customers	The stakeholders develop together in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M) Remarks: The stakeholders would like to involve end users in the value creation (Q)
C4. Testing the value proposition	Externally with the customers	No activities seen
C5. Launching the value proposition	Providing solutions	No activities seen
Key: M= Emerged in the relationship maps Q = Emerged in the quotes		

The story of Lens A – Strategic thinking and business model

In Lens A co-creation activities can be seen in three sub-lenses A1, A3 and A5. Related to the sub-lenses A1, and also C1 and C2 in supplier's map there can be seen two arrows pointing toward two lines which demonstrate two different development groups having regular meetings involving actors from the both of the companies. In these regular development meetings participants jointly attempt to solve mutual challenges and to plan future activities in order to create value for the customer particularly in a situation where the customer has a need to develop a new value proposition. In the customer's map these development groups are not shown but the description of the congruent activities was sound recorded during the customer workshop. Supplier gathers information on the customer with a structured questionnaire but also uses the development meetings to listen and learn together as well as to jointly process the information on customer.

Following in the sub-lens A3 in both of the maps there can be seen an arrow pointing toward a red circle meaning that both the supplier and the customer has a holistic understanding of each other's business related to the service described, and the supplier's focus is to create value for the customer. The holistic understanding means that the service is understood from the value-in-use point of view, customer's customer is presented, the main actors are presented, there are multiple ways of a two-way communication and the communication is active.

Similarly in the sub-lens A5 there can be seen clear indication both the supplier and the customer focusing on the entire value network. In the supplier map one arrow is pointing toward two customer's customer cards demonstrating that the supplier understands its role as a part of the value network. In the customer map two arrows are pointing toward two groups of internal and external customers indicating how the service influences on them.

The story of Lens B – Customer interactions and relationships

In Lens B co-creation activities can be seen activities in every sub-lens. The case is based on a long-term relationship and there seems to be a mutual trust between the stakeholders. The stakeholders know each other well personally and they seem know each other's businesses well also. Development meetings allow them to have a two-way proactive communication together. The supplier is proving a help desk service which support active/anytime/anywhere communication between the stakeholders. Transparency is provided having personal contacts and through virtual services related to service provided.

The story of Lens C – Service design

In Lens C co-creation activities can be seen in three sub-lenses C1, C2, C3. During the regular development meetings stakeholders listen, learn and process the information together. Additionally the value propositions based on the customer needs are developed together during these regular meetings.

To conclude co-creation activities can be seen in ten sub-lenses out of 15. In Lens A co-creation activities can be seen in the three sub-lenses: A1 where the stakeholders jointly solve challenges and plan future activities in the regular development meetings, A3 where the supplier demonstrates the holistic understanding of customer's processes and value-in-use, and A5 where both of the stakeholders have demonstrated that they see themselves operating in the value network. In Lens B co-creation activities can be seen in the five sub-lenses: B1 as the case is a long-term relationship and there seems be a mutual trust between the stakeholders, B2 where the both of the stakeholders seem to have a holistic understanding of each other businesses and challenges, B3 where there can be seen processes embedding a proactive dialogue between the stakeholders, B4 where active personal contacts, development meetings and the help desk are proving active, two-way/anytime dialogue and transparency between the stakeholders (B5). In Lens C co-creation activities can be seen in three sub-lenses: C1 where the stakeholders jointly listen and learn in regular the development meetings, C2 where the stakeholders jointly process the

information in the regular development meetings, and C3 where the stakeholders jointly develop value propositions in the regular development meetings.

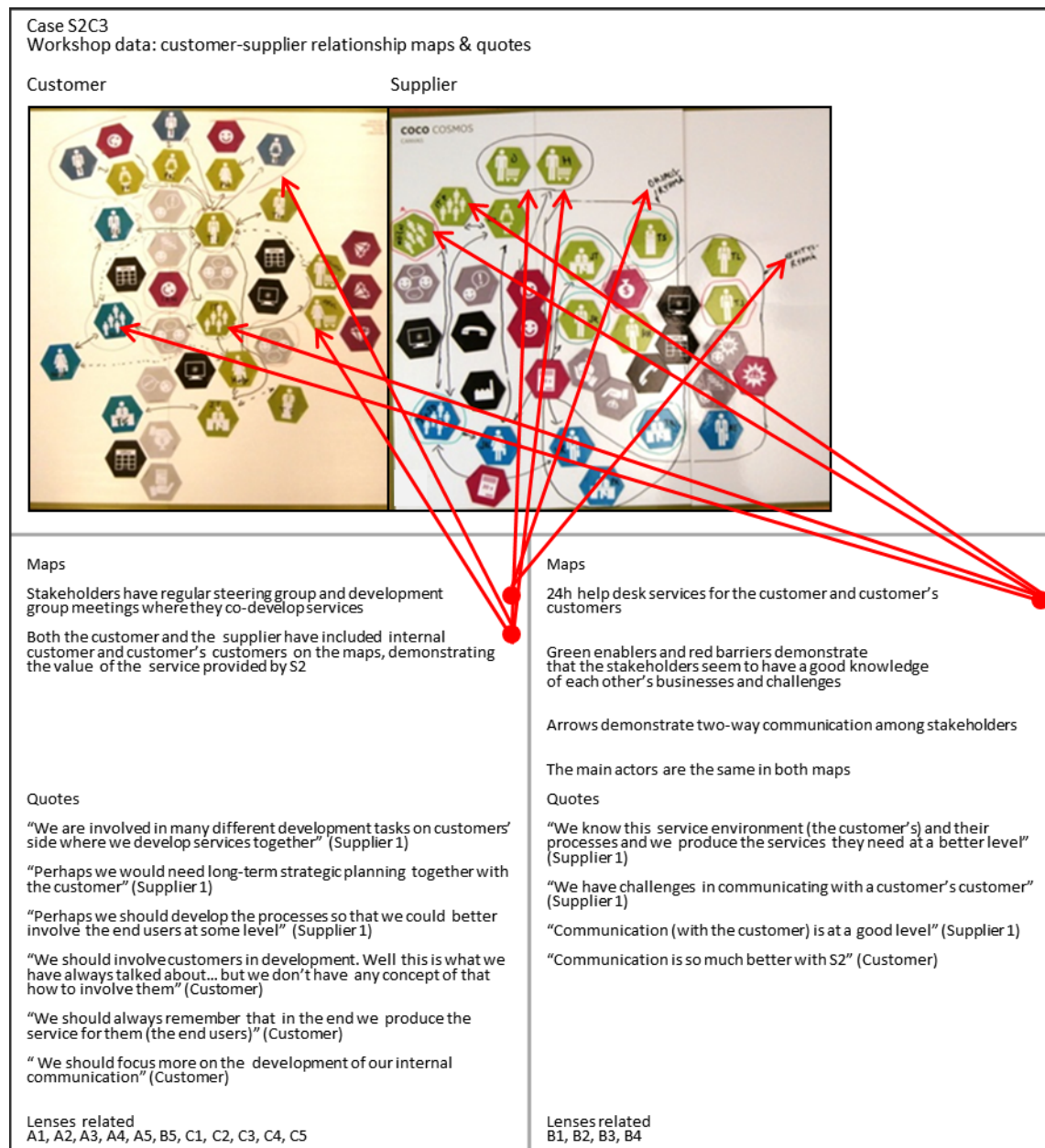


Figure 5.10: Maps and quotes of the customer-supplier relationship - Case S2C3

5.8 Case S3C1

Case S3C1 includes data from the two workshops. The customer workshop was held on 29th January 2013 and the supplier workshop on 8th February 2013. Supplier S2 is a SME which provides construction, real estate development and area development construction services and the customer S3C1 is a large company which provides lifting services with cranes. The relationship is long-term. In the supplier workshop there were two main contact persons and in customer workshop there was one main contact person connected with the service being provided.

In this case co-creation activities can be seen in 12 sub-lenses out of 15. Most of these activities (five out of five sub-lenses) appear in Lens B: Customer interactions and relationships. In Lens A: Strategic thinking and business model there are four sub-lenses demonstrating co-creation activities and in Lens C: Service design there are four sub-lenses demonstrating co-creation activities (see table 5.9). Additionally, the stories related to the each lens take the reader through the findings which are underpinned by the data demonstrated in the Figure 5.11.

Table 5.9: Co-creation activities and remarks emerging from case S3C1

Case S3C1		
Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	The stakeholders jointly create business solutions and solve challenges through regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q)
A2. Strategy process	Bottom-up/Outside-in	No activities seen Remarks: The customer would be willing to co-create strategy (Q)
A3. Value creation processes	Focus on customers' and their customers' value creation processes	The supplier focusses on customers' and their customers' value creation processes through regular meetings and particularly in a situation where the customer needs to develop a new value proposition (Q&M)
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	The stakeholders share resources through the regular meetings (Q)
A5. Position in value chain/value network	Focus on the value network	Both the customer and the supplier see themselves operating in a value network
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
B1. Company-customer relationship	Oriented towards building long-term customer relationships	This case is a long-term relationship (background information) and there seems to be mutual trust (Q)
B2. Information on the customer	Deep customer insight – knowing in person	The stakeholders know each other in person (Q&M) The stakeholders seem to have a good knowledge of each other's businesses (Q&M) Supplier has a good knowledge of the customer's customers' business (Q&M)
B3. Nature of interaction with the customer	Proactive dialogue	There seems to be proactive dialogue among the stakeholders (Q)
B4. Amount of interactions	Active/two-way Anywhere/anytime	The stakeholders have a two-way dialogue (M) The stakeholders have regular meetings (Q) Supplier has provided the on-line platform (Q)
B5. Customer access to information and other resources	Transparent	The relationship is transparent through personal contacts, regular meetings and an on-line platform (Q&M)
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
C1. Gathering information on the customer	Participatory methods, listening and learning together	Stakeholders listen and learn together in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q)
C2. Processing information on the customer	Externally with the customers	Stakeholders process information in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q) Remarks: The customer has seen the impact of its feedback (Q)
C3. Developing the value proposition	Bottom-up including the customers	Stakeholders develop together in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q)
C4. Testing the value proposition	Externally with the customers	No activities seen
C5. Launching the value proposition	Providing solutions	The launching of the new value propositions is carried out automatically during the relationship (Q) Remarks: The doesn't include marketing activities (Q)
Key: M= Emerged in the relationship maps Q = Emerged in the quotes		

The story of Lens A – Strategic thinking and business model

In Lens A co-creation activities can be seen in four sub-lenses A1, A3, A4 and A5. Related to the sub-lenses A1 and A4 stakeholders have regular meetings where they share resources and jointly attempt to plan future activities and solve mutual challenges to create value for the customer particularly in a situation where the customer has a need to develop a new value proposition.

Following in the sub-lens A3 both of the stakeholders indicate that both have a holistic understanding of each other's business related to the service described, and the supplier's focus is to create value for the customer. The holistic understanding means that the service is understood from the value-in-use point of view, customer's customer is presented, the main actors are presented, there are multiple ways of a two-way communication and the communication is active. Additionally the stakeholders seem to share resources (A4).

Similarly in the sub-lens A5 there can be seen clear indication that the customer focusses on the entire value network. In the customer map two arrows are pointing toward both internal and external customer indicating how the service influences on them. The supplier has not demonstrated customer's customer but indicate the importance in the dialogue.

The story of Lens B – Customer interactions and relationships

In Lens B co-creation activities can be seen in every sub-lens. The case is based on a long-term relationship and there seems to be a mutual trust between the stakeholders. The stakeholders know each other well personally and they seem know each other's businesses well also. Regular meetings allow them to have a two-way proactive communication. The supplier is proving an on-line platform which supports active/anytime/anywhere communication between the stakeholders. Transparency is provided having personal contacts and through the on-line platform.

The story of Lens C – Service design

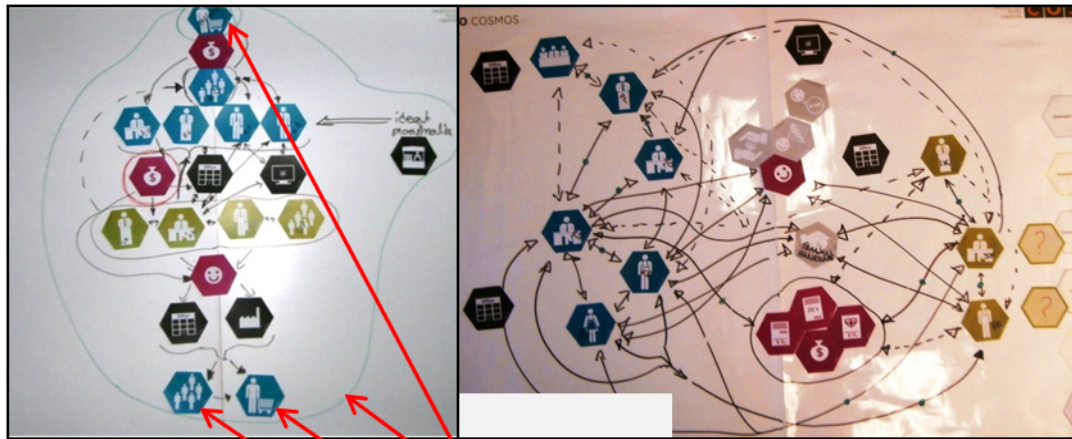
In Lens C co-creation activities can be seen in four sub-lenses C1, C2, C3 and C5. During the regular meetings stakeholders seem to listen, learn and process the information together. Customer indicates that the supplier had developed its service processes based on the feedback. The relationship established during the development process seems to carry automatically the launching activities and conventional marketing activities are not needed.

To conclude co-creation activities can be seen in ten sub-lenses out of 15. In Lens A co-creation activities can be seen in the four sub-lenses: A1 where the stakeholders jointly solve challenges and plan future activities in regular the development meetings, A3 where the supplier demonstrates the holistic understanding of customer's processes and value-in-use, and A5 where the stakeholders demonstrate that they see themselves operating in a value network. In Lens B co-creation activities can be seen in the five sub-lenses: B1 as the case is a long-term relationship and there seems be a mutual trust between the stakeholders, B2 where the both of the stakeholders seem to have a holistic understanding of each other businesses and challenges, B3 where there can be seen processes embedding a proactive dialogue between the stakeholders, B4 where active personal contacts, regular meetings and the on-line platform are proving active, two-way/anytime dialogue and transparency between the stakeholders (B5). The data indicates that the stakeholders co-create more actively at the beginning of each project. Moreover the customer highlights the importance of having stronger value-co-creation activities and seems to be interested to provide more resources to implement more co-creation activities which also can create value for the supplier. In Lens C there can be seen in four sub-lenses: C1 where the stakeholders jointly listen and learn in the regular development meetings, C2 where the stakeholders jointly process the information in the regular development meetings, C3 where the stakeholders jointly develop value propositions in the regular development meetings, and C5 where the relationship established during the development process carries automatically the launching activities and conventional marketing activities are not needed.

Case S3C1
Workshop data: customer-supplier relationship maps & quotes

Customer

Supplier



Maps

The customer has created a green circle around the whole map meaning that the holistic view is important

The customer has included its customers on the map demonstrating that everything starts and ends with the customer the customer

The customer has included their internal customers (personnel) on the map demonstrating the importance of understanding the personnel's value creation

Quotes

"We are using a project reporting model in which we meet face to face once a month and go through the whole project. We also use so-called project bank which is an on-line platform" (Supplier 1)

"I hope that in the future we can continue co-development and sharing ideas" (Customer)

"It might even create value for us if we would co-create their (S3) strategy" (Customer)

"We gear our business format so that it serves the customer's format and that is the way things work well and it manifests itself to the directors and users; in other words to the end customers" (Supplier 1)

"This starts from our customers" (Customer)

"We don't collect customer feedback we get it automatically anyway" (Supplier 1)

"All these activities occur more or less at the same time. At the same time that we collaborate we develop, we get feedback so there are no separate steps for these" (Supplier 2)

"They have developed their processes based on our feedback" (Customer)

"In this customer relationship we don't need marketing activities anymore" (Supplier 1)

"I don't think they are marketing anything at least I haven't noticed anything" (Customer)

Lenses related
A1, A2, A3, A4, A5, B5, C1, C2, C3, C4, C5

Maps

Arrows demonstrate two-way communication among stakeholders

The main actors are the same in both maps

Quotes

"Collaboration works both ways" (Supplier 2)

"The added value in operating with S3 is their way of doing things which includes partnership and trust" (Customer)

"One important thing is openness - that we play with open cards and the customer plays with open cards" (Supplier 1)

"Our customer expects all the time that our processes get more effective and better so although we are good it does not mean that we can just rest; we need to be active all the time" (Supplier 1)

Lenses related
B1, B2, B3, B4

Figure 5.11: Maps and quotes of the customer-supplier relationship - Case S3C1

5.9 Case S3C2

Case S3C2 includes data from the two workshops. The customer workshop was held on 19th November 2012 and the supplier workshop on 6th March 2013. Supplier S2 is a SME which provides construction, real estate development and area development construction services and the customer S3C2 is a large company which provides services in elevator and escalator business. The relationship is short term. In the supplier workshop there were two main contact persons and in customer workshop there was one main contact person connected with the service being provided.

In this case co-creation activities can be seen in eleven out sub-lenses of 15. Most of these activities (five out of ten sub-lenses) appear in Lens B: Customer interactions and relationships. In Lens A: Strategic thinking and business model there are four sub-lenses demonstrating co-creation activities and in Lens C: Service design there are two sub-lenses demonstrating co-creation activities (see table 5.10). Additionally the stories related to the each lens take the reader through the findings which are underpinned by the data demonstrated in the Figure 5.12.

Table 5.10: Co-creation activities and remarks emerging from case S3C2

Case S3C2		
Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	The stakeholders jointly create business solutions and solve challenges through regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q)
A2. Strategy process	Bottom-up/Outside-in	No activities seen
A3. Value creation processes	Focus on customers' and their customers' value creation processes	The supplier focusses on customers' and their customers' value creation processes through regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	The stakeholders share resources through the regular meetings (Q)
A5. Position in value chain/value network	Focus on the value network	The customer is focusing on value network rather than being just one individual actor in a value chain (M)
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
B1. Company-customer relationship	Oriented towards building long-term customer relationships	The case is a short-term relationship (background information) and there seems to be mutual trust (Q)
B2. Information on the customer	Deep customer insight – knowing in person	The stakeholders know each other in person (Q&M) The stakeholders seem to have a good knowledge of each other's businesses (Q&M)
B3. Nature of interaction with the customer	Proactive dialogue	There seems to be proactive dialogue among the stakeholders (Q)
B4. Amount of interactions	Active/two-way Anywhere/anytime	The stakeholders have a two-way dialogue (M) The stakeholders have regular meetings (Q) The supplier has provided the on-line platform (Q)
B5. Customer access to information and other resources	Transparent	The relationship is transparent through personal contacts, regular meetings and an on-line platform (Q&M)
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
C1. Gathering information on the customer	Participatory methods, listening and learning together	Stakeholders listen and learn together in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q)
C2. Processing information on the customer	Externally with the customers	Stakeholders process information in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q) Remarks: The customer has seen the impact of its feedback (Q)
C3. Developing the value proposition	Bottom-up including the customers	No activities seen
C4. Testing the value proposition	Externally with the customers	No activities seen
C5. Launching the value proposition	Providing solutions	No activities seen
Key: M= Emerged in the relationship maps Q= Emerged in the quotes		

The story of Lens A – Strategic thinking and business model

In Lens A co-creation activities can be seen in four sub-lenses A1, A3, A4 and A5. Related to the sub-lens A1 stakeholders have regular meetings where they jointly attempt to plan future activities and solve mutual challenges to create value for the customer particularly in a situation where the customer has a need to develop a new value proposition.

Following in sub-lens A3 first in the customer's map there can be seen an arrow pointing toward a red circle meaning the customer has a holistic understanding of each other's business related to the service. Supplier has demonstrated the same in quotes thus the supplier's focus is to create value for the customer. The holistic understanding means that the service is understood from the value-in-use point of view, customer's customer is presented, the main actors are presented, there are multiple ways of a two-way communication and the communication is active. Additionally the stakeholders seem to share resources (A4). Particularly customer sees the supplier as a partner being an additional resource.

Similarly in the sub-lens A5 there can be seen a clear indication that the customer focusses on the value network. In the customer map there is a red circle circulating where the customer has added other stakeholders involved in this service setting and during the workshop it became evident that understanding both the supplier's value creation and customer's customer value creation is important for the customer. The supplier includes only its customer to the map.

The description of Lens B – Customer interactions and relationships

In Lens B co-creation activities can be seen in every sub-lens. The case is based on a long-term relationship and there seems to be a mutual trust between the stakeholders. The stakeholders know each other well personally and they seem know each other's businesses well also. Regular meetings allow them to have a two-way proactive communication. The supplier provides an on-line platform which supports active/anytime/anywhere communication between the

stakeholders. Transparency is provided having personal contacts and through the on-line platform.

The story of Lens C – Service design

In Lens C co-creation activities can be seen appearing in two sub-lenses C1 and C2. During the regular meetings stakeholders seem to listen, learn and process the information together. Customer indicates that the supplier had developed its service processes based on the feedback.

To conclude co-creation activities can be seen in eleven sub-lenses out of 15. In Lens A co-creation activities can be seen in the four sub-lenses: A1 where the stakeholders jointly solve challenges and plan future activities in the regular development meetings, A3 where the supplier demonstrates the holistic understanding of customer's processes and value-in-use, A4 where the stakeholders share resources, and A5 where the customer demonstrates that it sees itself operating in a value network. In Lens B co-creation activities can be seen in five sub-lenses: B1 as the case is a long-term relationship and there seems to be a mutual trust between the stakeholders, B2 where both of the stakeholders seem to have the holistic understanding of each other's businesses and challenges, B3 where there can be seen processes embedding a proactive dialogue between the stakeholders, B4 where active personal contacts, regular meetings and the on-line platform are proving active, two-way/anytime dialogue and transparency between the stakeholders. In Lens C co-creation activities can be seen in two sub-lenses: C1 and C2 where the stakeholders seem to listen, learn and process the information together in regular meetings.

It should be noted that the customer workshop related to this case was the first one. The CoCo Tool Kit used during this workshop was the beta-version before having the final one. This has caused the divergence related to the other maps built later on. However, the workshop procedure followed the same guidelines as the other workshops.

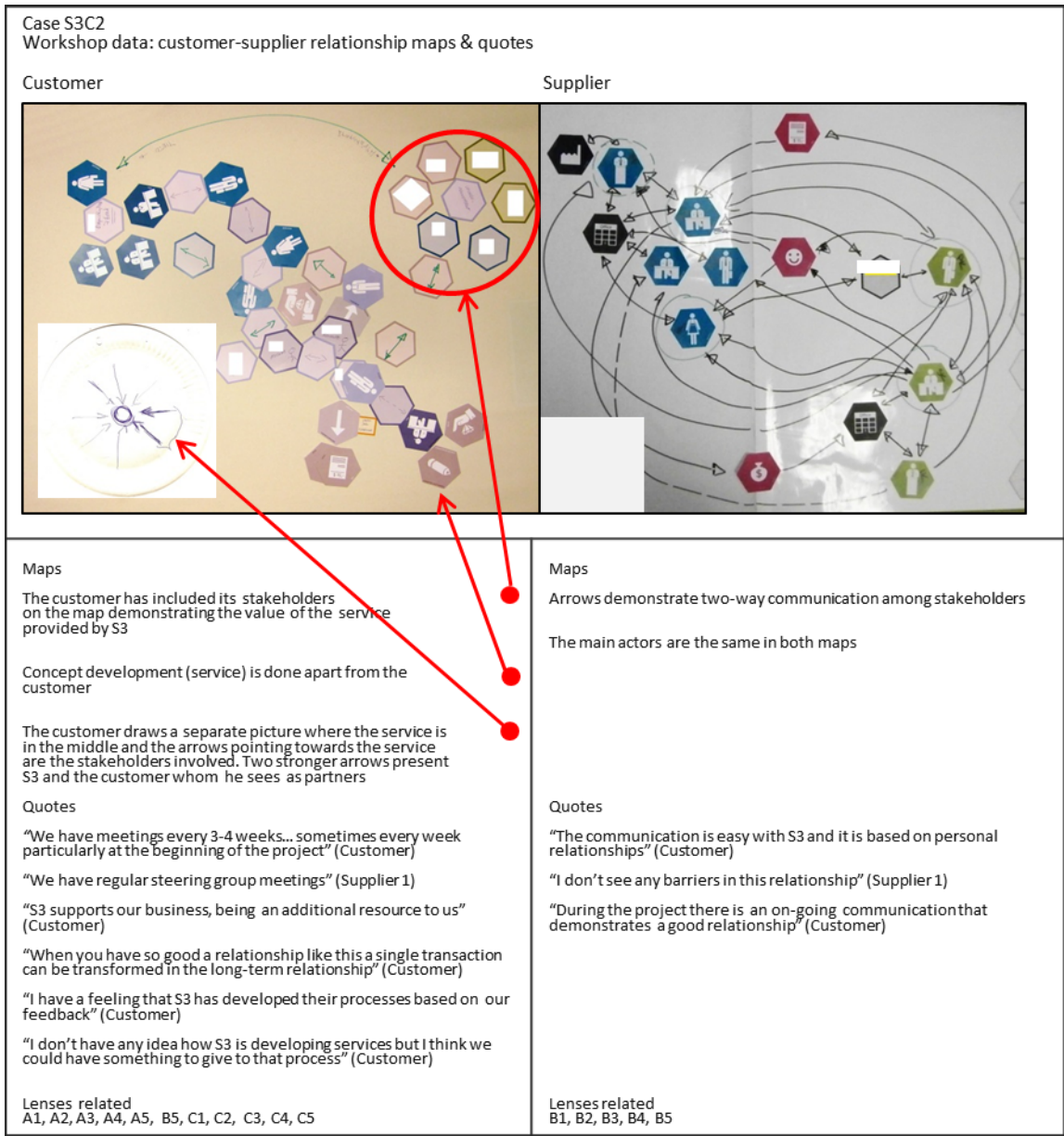


Figure 5.12: Maps and quotes of the customer-supplier relationship - Case S3C2

5.10 Case S3C3

Case S3C3 includes data from the two workshops. The customer workshop was held on 22nd November 2012 and the supplier workshop on 23rd November 2013. Supplier S2 is a SME which provides construction, real estate development and area development construction services and the customer S3C3 is a large company which provides services in real estate business. In the supplier workshop there were three main contact persons and four other who joined the workshop because the interest of seeing the tool. In customer workshop there was one main contact person connected with the service being provided.

In this case co-creation activities can be seen in ten sub-lenses out of 15. Most of these activities (five out of five sub-lenses) appear in Lens B: Customer interactions and relationships. In Lens A: Strategic thinking and business model there are three sub-lenses demonstrating co-creation activities and in Lens C: Service design there are two sub-lenses demonstrating co-creation activities (see table 5.11). Additionally the stories related to the each lens take the reader through the findings which are underpinned by the data demonstrated in the Figure 5.13.

Table 5.11: Co-creation activities and remarks emerging from case S3C3

Case S3C3		
Lens A. Strategic thinking and business model		
Sub-lenses A1-A5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	The stakeholders jointly create business solutions and solve challenges through regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q) Remarks: The purpose of the meetings is mainly to support supplier on defining customer needs and presenting ready-made concepts The customer is aiming to have meetings where the stakeholders would jointly develop concepts (Q&M)
A2. Strategy process	Bottom-up/Outside-in	No activities seen
A3. Value creation processes	Focus on customers' and their customers' value creation processes	The supplier focusses on customers' and their customers' value creation processes through regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q&M)
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	No activities seen Remarks: The customer is aiming to have more meetings where the stakeholders would share resources
A5. Position in value chain/value network	Focus on the value network	Both the customer and the supplier see themselves operating in a value network (M)
Lens B. Customer interactions and relationships		
Sub-lenses B1-B5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
B1. Company-customer relationship	Oriented towards building long-term customer relationships	The case is a long-term relationship (background information) and there seems to be mutual trust (Q)
B2. Information on the customer	Deep customer insight – knowing in person	The stakeholders know each other in person (Q&M) The stakeholders seem to have a good knowledge of each other's businesses (Q&M) Supplier has a good knowledge of the customer's customers' business (Q&M)
B3. Nature of interaction with the customer	Proactive dialogue	There seems to be proactive dialogue among the stakeholders (Q)
B4. Amount of interactions	Active/two-way Anywhere /anytime	The stakeholders have a two-way dialogue (M) The stakeholders have regular meetings (Q) On-line platform (Q) Remarks: The customer is aiming to have more meetings where the stakeholders would jointly develop concepts
B5. Customer access to information and other resources	Transparent	The relationship is transparent through the personal contacts, regular meetings and an on-line platform (Q&M)
Lens C. Service design		
Sub-lenses C1-C5	Co-creation approach	Co-creation activities and remarks emerging from the workshops
C1. Gathering information on the customer	Participatory methods, listening and learning together	Stakeholders listen and learn together in regular meetings and particularly in a situation where the customer has a need to develop a new value proposition (Q)
C2. Processing information on the customer	Externally with the customers	No activities seen
C3. Developing the value proposition	Bottom-up including the customers	No activities seen Remarks: The customer is aiming to have more meetings where the stakeholders would jointly develop concepts rather than just receiving a ready-made one (Q&M)
C4. Testing the value proposition	Externally with the customers	No activities seen
C5. Launching the value proposition	Providing solutions	No activities seen
Key: M= Emerged in the relationship maps Q = Emerged in the quotes		

The story of Lens A – Strategic thinking and business model

In Lens A co-creation activities can be seen in four sub-lenses A1, A3, and A5. Related to the sub-lens A1 stakeholders have regular meetings where they jointly attempt to plan future activities and solve mutual challenges to create value for the customer particularly in a situation where the customer has a need to develop a new value proposition.

Following in sub-lens A3 in both of the maps there can be seen an arrow pointing toward a red circle meaning that both the supplier and the customer has an holistic understanding of each other's business related to the service described, and the supplier's focus is to create value for the customer. Holistic understanding means that the service is understood from the value-in-use point of view, customer's customer is presented, the main actors are presented, there are multiple ways of a two-way communication and the communication is active.

Similarly in sub-lens A5 in the both of maps there can be seen a clear indication that both the customer and the supplier focus on the value network. In the both of the maps there are red circles circulating where they have added other stakeholders involved in this service setting.

The story of Lens B – Customer interactions and relationships

In Lens B co-creation activities can be seen in every sub-lens. The case is based on long-term relationship and there seems to be mutual trust between the stakeholders. The stakeholders know each other well personally and they seem know each other's businesses well also. Regular meetings allow them to have a two-way proactive communication. The supplier is proving an on-line platform which supports active/anytime/anywhere communication between the stakeholders. Transparency is provided having personal contacts and through the on-line platform.

The story of Lens C – Service design

In Lens C co-creation activities can be seen in two sub-lenses C1 and C2. During the regular meetings stakeholders seem to listen, learn and process the information together.

In the customer maps there is a barrier which indicates that the customer is not included into development of the core value proposition. Customer would like to be more involved the process of developing the value proposition.

To conclude co-creation activities can be seen in ten sub-lenses out of 15. In Lens A co-creation activities can be seen in four sub-lenses: A1 where the stakeholders jointly solve challenges and plan future activities in the regular development meetings, A3 where the supplier demonstrates the holistic understanding of customer's processes and value-in-use, and A5 where the both of the stakeholders demonstrate that they see themselves operating in value network. In Lens B co-creation activities can be seen in five sub-lenses: B1 as the case is a long-term relationship and there seems to be a mutual trust between the stakeholders, B2 where the both of the stakeholders seem to have a holistic understanding of each other businesses and challenges, B3 where there can be seen processes embedding a proactive dialogue between the stakeholders, B4 where active personal contacts, regular meetings and the on-line platform are proving active, two-way/anytime dialogue and transparency between the stakeholders. In Lens C co-creation activities can be seen in two sub-lenses: C1 and C2 where the stakeholders seem to listen learn and process the information together in regular meetings.

It should be noted that the customer and the supplier workshop related to this case were the second and third ones. The CoCo Cosmos used during these workshops was the beta-version before having the final one. This has caused the divergence related to the other maps built later on. However the workshop procedure followed the same guidelines as the other workshops.

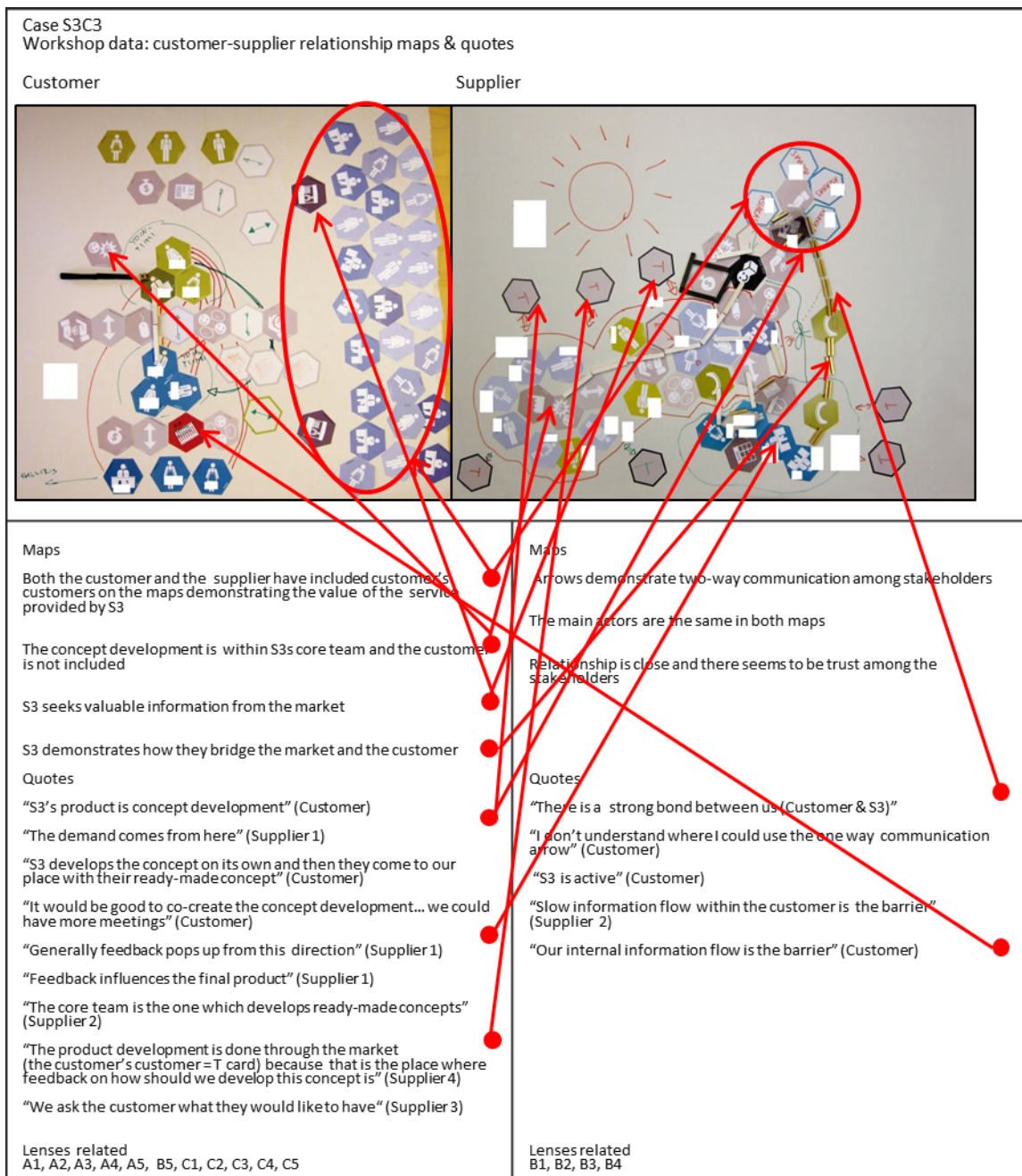


Figure 5.13: Maps and quotes of the customer-supplier relationship - Case S3C3

5.11 Cross-case analysis of the descriptive study

This chapter will incorporate the data from all nine cases of the descriptive study. The purpose of the cross-case analysis is: a) to systematically synthesise the findings, b) to identify the characteristics of co-creation, and c) to generate a holistic understanding in order to construct the final co-creation framework (Miles & Huberman 1994).

The first findings were synthesised into a more detailed A3 table, Table 6.12, which gave an extensive perspective of all cases and generated a general understanding of the results. However, it became evident that to identify more precisely the characteristics of co-creation would require a table providing more precise and simplified data. Table 6.12 demonstrated that the sub-lenses were too broad to analyse the results coherently. For example, sub-lens B4 includes four separate descriptions related to interaction: 1) active, 2) two-way, 3) anywhere, and 4) anytime. Furthermore, the table demonstrates that the interaction can be two-way, as in all cases here, but it could equally be active or non-active.

Table 5.12: The characteristics of co-creation and remarks per case

Lens A. Strategic thinking and business model										
Sub-lenses A1-A5	Co-creation approach	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	No activities	No activities	No activities Remarks: The customer would like to jointly create the service process provided by the supplier	No activities Remarks: The customer would like to have development meetings together with the supplier	Through regular meetings Customer has a need to develop a new value proposition Remarks: The stakeholders have fewer meetings than before	Through regular meetings Customer has a need to develop a new value proposition Remarks: The stakeholders would like to involve customer's customers in the value creation	Through regular meetings Customer has a need to develop a new value proposition	Through regular meetings Customer has a need to develop a new value proposition	Through regular meetings Customer has a need to develop a new value proposition Remarks: The purpose of the meetings is mainly to support supplier on defining customer needs and in presenting ready-made concepts The customer is aiming to have meetings where the stakeholders would jointly develop concepts
A2. Strategy process	Bottom-up/ Outside-in	No activities	No activities	No activities	No activities	No activities Remarks: The stakeholders are willing to co-create strategy	No activities Remarks: The supplier is willing to co-create strategy	No activities Remarks: The customer is willing to co-create strategy	No activities	No activities
A3. Value creation processes	Focus on customers' and their customers value creation processes	No activities Remarks: The customer values different things than the supplier believes	No activities	No activities	No activities	Through regular meetings Customer has a need to develop a new value proposition	Through regular meetings Customer has a need to develop a new value proposition Remarks: The stakeholders would like to involve customer's customers in the value creation	Through regular meetings Customer has a need to develop a new value proposition	Through regular meetings Customer has a need to develop a new value proposition	Through regular meetings Customer has a need to develop a new value proposition
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	No activities	No activities	No activities	No activities	Through regular meetings Customer has a need to develop a new value proposition	Through regular meetings Customer has a need to develop a new value proposition	Through regular meetings Customer has a need to develop a new value proposition	Through regular meetings Customer has a need to develop a new value proposition	No activities Remarks: The customer is aiming to have more meetings where the stakeholders would share resources
A5. Position in value chain/value network	Focus on the value network	Customer focusses	Customer focusses	Customer focusses	Customer focusses	Customer focusses Supplier focusses	Customer focusses Supplier focusses	Customer focusses Supplier focusses	Customer focusses	Customer focusses Supplier focusses
Lens B. Customer interactions and relationships										
Sub-lenses B1-B5	Co-creation approach	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
B1. Company-customer relationship	Oriented towards building long-term customer relationships	A long-term customer relationship Mutual trust	A long-term customer relationship Mutual trust	A long-term customer relationship	A long-term customer relationship	A long-term customer relationship Mutual trust	A long-term customer relationship Mutual trust	A long-term customer relationship Mutual trust	A short-term customer relationship Mutual trust	A long-term customer relationship Mutual trust
B2. Information on the customer	Deep customer insight – knowing in person	Knowing in person Remarks: The stakeholders don't have any need to share the information on customer's customer	Knowing in person Remarks: The stakeholders don't have any need to share the information on customer's customer	Knowing in person	No activities	Knowing in person Stakeholders have a good knowledge of each other businesses Supplier has a good knowledge of the customer's customers' business	Knowing in person Stakeholders have a good knowledge of each other businesses Supplier has a good knowledge of the customer's customers' activities	Knowing in person Stakeholders have a good knowledge of each other businesses Supplier has a good knowledge of the customer's customers' business	Knowing in person Stakeholders have deep knowledge of each other businesses	Knowing in person Stakeholders have a good knowledge of the customer's customers' business
B3. Nature of interaction with the customer	Proactive dialogue	No activities Remarks: Less dialogue than before using on-line platform	No activities Remarks: Less dialogue than before	No activities Remarks: Less dialogue than before	No activities Remarks: Less dialogue than before	No activities Remarks: Less dialogues than before Dialogue used to be proactive	Dialogue is proactive	Dialogue is proactive	Dialogue is proactive	Dialogue is proactive
B4. Amount of interactions	Active/two-way Anywhere/anytime	Two-way dialogue On-line platform Remarks: Meeting in person approximately once per year	Two-way dialogue Remarks: Meeting in person approximately once per year	Two-way dialogue Remarks: Stakeholders meet in person approximately once per year	Two-way dialogue Remarks: The stakeholders meet in person less than once per year	Active two-way dialogue 24h help desk services for the customer and their customers' 24h on-call services for the customers Remarks: Less regular meetings than before	Active two-way dialogue Regular meetings 24h help desk services	Active two-way dialogue Regular meetings On-line platform	Active two-way dialogue Regular meetings On-line platform	Active two-way dialogue Regular meetings On-line platform Remarks: The customer is aiming to have more meetings where the stakeholders would jointly develop concepts
B5. Customer access to information and other resources	Transparent	On-line platform	No activities	No activities	24h help-desk services	Personal contacts Regular meetings 24h help-desk/on-call services	Personal contacts Regular meetings 24h help-desk services	Personal contacts Regular meetings On-line platform	Personal contacts Regular meetings On-line platform	Personal contacts Regular meetings On-line platform
Lens C. Service design										
Sub-lenses C1-C5	Co-creation approach	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
C1. Gathering information on the customer	Participatory methods, listening and learning together	No activities Remarks: Feedback is given mainly by e-mail	No activities	No activities	No activities	During regular meetings Customer has a need to develop a new value proposition	During the regular meetings Customer has a need to develop a new value proposition	During the regular meetings Customer has a need to develop a new value proposition	During the regular meetings Customer has a need to develop a new value proposition	During the regular meetings Customer has a need to develop a new value proposition
C2. Processing information on the customer	Externally with the customers	No activities	No activities	No activities	No activities	During regular meetings Customer has a need to develop a new value proposition	During the regular meetings Customer has a need to develop a new value proposition	During the regular meetings Customer has a need to develop a new value proposition Remarks: The customer has seen the impact of its feedback	During the regular meetings Customer has a need to develop a new value proposition Remarks: The customer has seen the impact of its feedback	No activities
C3. Developing the value proposition	Bottom-up including the customers	No activities	No activities	No activities	No activities	During regular meetings Customer has a need to develop a new value proposition	During the regular meetings Customer has a need to develop a new value proposition Remarks: The stakeholders would like to involve customer's customers in the value creation	During the regular meetings Customer has a need to develop a new value proposition	No activities	Remarks: The customer is aiming to have more meetings where the stakeholders would jointly develop concepts rather than just receiving a ready-made one
C4. Testing the value proposition	Externally with the customers	No activities	No activities	No activities	No activities	Customer has a need to develop a new value proposition	No activities	No activities	No activities	No activities
C5. Launching the value proposition	Providing solutions	No activities	No activities	No activities	No activities		No activities	The launching of the new value propositions is carried out automatically during the development relationship Remarks: The case doesn't include marketing activities	No activities	No activities

Table 5.12 demonstrated a need to have more a detailed and simplified view to analyse the results further. Two additional tables were created: a) the sub-lenses were divided into more detailed views, i.e. **detailed sub-lenses**, in order to demonstrate the similarities and differences between the data (see table 5.13), and b) the remarks were accumulated into a separate table (see table 5.14). The detailed sub-lenses were constructed by decomposing the original sub-lenses and analysing the characteristics of co-creation in Table 5.12. Moreover, in Tables 5.13 and 5.14 an X indicates the characteristic of co-creation or the remark made in each case. After decomposing the sub-lenses the table contains three lenses (A, B, C), 15 sub-lenses and 31 detailed sub-lenses (see table 5.13). Altogether there are 147 marks in the table.

Analysing the data included two steps: a) vertical analysis, i.e. detecting the characteristics of co-creation per case, and b) horizontal analysis, i.e. detecting the characteristics of co-creation per lens. The remarks were added along the way where they seemed to generate more insight. Accordingly the next two chapters will introduce the findings.

Table 5.13: Detailed sub-lenses per case

Lens A. Strategic thinking and business model											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
A1. Business goals	To jointly create comprehensive customer solutions/Value-in-use	A1a. Through regular meetings					X	X	X	X	X
		A1b. Customer has a need to develop a new value proposition					X	X	X	X	X
A2. Strategy process	Bottom-up/ Outside-in	A2a. Bottom-up									
		A2b. Outside-in									
A3. Value creation processes	Focus on customers' and their customers value creation processes	A3a. Through regular meetings					X	X	X	X	X
		A3b. Customer has a need to develop a new value proposition					X	X	X	X	X
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	A4b. Through regular meetings					X	X	X	X	
		A4c. Customer has a need to develop a new value proposition					X	X	X	X	
A5. Position in value chain/ value network	Focus on the value network	A5a. Customer focusses	X	X	X	X	X	X	X	X	X
		A5b. Supplier focusses					X	X	X		X
Lens B. Customer interactions and relationships											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
B1. Company-customer relationship	Oriented towards building long term customer relationships	B1a. Long term customer relationship	X	X	X	X	X	X	X		X
		B1b. Mutual trust	X	X			X	X	X	X	X
B2. Information on the customer	Deep customer insight – knowing in person	B2a. Knowing in person	X	X	X		X	X	X	X	X
		B2b. Supplier has a good knowledge of the customer business					X	X	X	X	X
		B2c. Supplier has a good knowledge of customer's customers' business/activities					X	X	X		X
		B2d. Customer has a good knowledge of the supplier's business					X	X	X	X	X
B3. Nature of interaction with the customer	Proactive dialogue	B3a. Proactive dialogue						X	X	X	X
B4. Amount of interactions	Active/two-way Anywhere/anytime	B4a. Active						X	X	X	X
		B4b. Two-way	X	X	X	X	X	X	X	X	X
		B4c. Anywhere	X			X	X	X	X	X	X
		B4d. Anytime	X			X	X	X	X	X	X
B5. Customer access to information and other resources	Transparent	B5a. Through regular meetings					X	X	X	X	X
		B5b. Through an on-line platform / 24h help desk services	X			X	X	X	X	X	X
Lens C. Service design											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
C1. Gathering information on the customer	Participatory methods, listening and learning together	C1a. During regular meetings					X	X	X	X	X
		C1b. Customer has a need to develop a new value proposition					X	X	X	X	X
C2. Processing information on the customer	Externally with the customers	C2a. During the regular meetings					X	X	X	X	
		C2b. Customer has a need to develop a new value proposition					X	X	X	X	
C3. Developing the value proposition	Bottom-up including the customers	C3a. During regular meetings					X	X	X		
		C3b. Customer has a need to develop a new value proposition					X	X			
C4. Testing the value proposition	Externally with the customers	C4a. Customer has a need to develop a new value proposition					X				
C5. Launching the value proposition	Providing solutions	C5a. Launching the new value proposition is carried out automatically during the relationship					X		X		

Table 5.14: Remarks per case

Lens A. Strategic thinking and business model											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
A1. Business goals	To jointly create comprehensive customer solutions/ Value-in-use	A1a. Through regular meetings					X	X	X	X	X
		A1b. Customer has a need to develop a new value proposition					X	X	X	X	X
A2. Strategy process	Bottom-up/Outside-in	A2a. Bottom-up									
		A2b. Outside-in									
A3. Value creation processes	Focus on customers' and their customers' value creation processes	A3a. Through regular meetings					X	X	X	X	X
		A3b. Customer has a need to develop a new value proposition					X	X	X	X	X
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	A4b. Through regular meetings					X	X	X	X	
		A4c. Customer has a need to develop a new value proposition					X	X	X	X	
A5. Position in value chain /value network	Focus on the value network	A5a. Customer focusses	X	X	X	X	X	X	X	X	X
		A5b. Supplier focusses					X	X	X		X
Lens B. Customer interactions and relationships											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
B1. Company-customer relationship	Oriented towards building long-term customer relationships	B1a. Long-term customer relationship	X	X	X	X	X	X	X		X
		B1b. Mutual trust	X	X			X	X	X	X	X
B2. Information on the customer	Deep customer insight – knowing in person	B2a. Knowing in person	X	X	X		X	X	X	X	X
		B2b. Supplier has a good knowledge of the customer's business					X	X	X	X	X
		B2c. Supplier has a good knowledge of customer's customers' business/activities					X	X	X		X
		B2d. Customer has a good knowledge of the supplier's business					X	X	X	X	X
B3. Nature of interaction with the customer	Proactive dialogue	B3a. Proactive dialogue						X	X	X	X
B4. Amount of interactions	Active / two-way Anywhere / anytime	B4a. Active						X	X	X	X
		B4b. Two-way	X	X	X	X	X	X	X	X	X
		B4c. Anywhere	X			X	X	X	X	X	X
		B4d. Anytime	X			X	X	X	X	X	X
B5. Customer access to information and other resources	Transparent	B5a. Through regular meetings					X	X	X	X	X
		B5b. Through an on-line platform / 24h help desk services	X			X	X	X	X	X	X
Lens C. Service design											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
C1. Gathering information on the customer	Participatory methods, listening and learning together	C1a. During regular meetings					X	X	X	X	X
		C1b. Customer has a need to develop a new value proposition					X	X	X	X	X
C2. Processing information on the customer	Externally with the customers	C2a. During the regular meetings					X	X	X	X	
		C2b. Customer has a need to develop a new value proposition					X	X	X	X	
C3. Developing the value proposition	Bottom-up including the customers	C3a. During regular meetings					X	X	X		
		C3b. Customer has a need to develop a new value proposition					X	X			
C4. Testing the value proposition	Externally with the customers	C4a. Customer has a need to develop a new value proposition					X				
C5. Launching the value proposition	Providing solutions	C5a. Launching the new value proposition is carried out automatically during the relationship					X		X		

5.11.1 Detecting the characteristics of co-creation per case

The purpose of this chapter is to detect the characteristics of co-creation vertically. From the findings it can be seen that the cases are clearly divided into two groups (see table 5.13): the five which takes a mainly co-creation approach (S2C2, S2C3, S3C1, S3C2, S3C3), and the four which take a more conventional business approach (S1C1, S1C2, S1C3, S2C1).

The important result of this analysis is that this finding tallies with the exploratory study which demonstrated that S1 take a conventional approach, S2 an intermediate approach, and S3 a co-creation approach.

Interpreting the co-creative cases

The cases that are co-creative seem mainly to jointly create comprehensive customer solutions, i.e. value-in-use (A1); focus on customers' and their customers' value creation processes (A3); and focus on shared resources among the stakeholders (A4) through regular meetings (A1a) and in a situation where a customer has a need to develop a new value proposition (A1b). Apart from one case (S3C2), all co-creative cases mutually focus on value network (A5b). Furthermore, case S3C2 seems to be the only with a short-term customer relationship (B1a) and also the only one where the supplier does not have a good knowledge of the customer's customers businesses (B2c); thus the results seem to be in line with each other.

Additionally, all co-creative cases include mutual trust (B1b) and they know each other in person (B2a). Stakeholders seem to have a good knowledge of each other's activities (B2b, B2d) and suppliers mainly seem to have a good knowledge of their customers' customer's activities (B2c). It also seems that all co-creative cases have proactive dialogue (B3) and an active (B4a) two-way relationship (B4b) which exists anywhere (B4c) and anytime (B4d). The customer has a transparent access to information and other resources (B5) through regular meetings (B5a) and on-line platforms or 24h help desk services (B5b).

Similarly to Lens A, the data related to Lens C demonstrates that regular meetings (C1a, C2a, C3a) and a situation where a customer has a need to

develop a new value proposition (C1b, C2b, C3b, C4a) foster co-creative activities in service design such as participatory methods, listening and learning together (C1), processing information externally with customers (C2), and developing value propositions with customers (C3). In case S2C2 the customer's need to develop a new value proposition (C4a) has led to a situation where the testing of a new value proposition (C4) is accomplished together with the customer. In cases S2C2 and S3C1 suppliers provide solutions (C5) based on customer needs and launching activities are carried out automatically during the relationship (C5a), i.e. *releasing resources from conventional selling activities*.

Additionally, it seems that adopting the co-creation approach seems to generate *a good knowledge of each other's businesses*, leading to *better value-in-use* in that all actors in co-creative cases seemed to know each other very well and seemed much more pleased with the service, including a wider understanding of the business challenges.

To conclude, it seems that according to lenses A1, A3, A4, B5, C1, C2, C3 and C4, regular meetings and particularly a situation where the customer has a need to develop a value proposition *trigger* other co-creation activities. In other words, active interaction and practical need/motivation seem to be central to adopting co-creation activities.

As a result of co-creation activities, stakeholders appear to have *a good knowledge of each other's businesses* leading to *better understanding of value-in-use* and *releasing resources from conventional selling activities*.

To analyse the findings more deeply, the next chapter will focus on looking at the results horizontally, lens by lens.

5.11.2 Detecting the characteristics of co-creation per detailed sub-lens

The purpose of this chapter is to detect the characteristics of co-creation per detailed sub-lens.

Overall it seems that Lens B has the highest number of marks with 80 out of 147. Second is Lens A with 41 out of 147, and Lens C is lowest with 26 out of 147.

Thus it can be said that the characteristics of co-creation in *Lens B create the foundation for the co-creation approach*.

Furthermore, out of 32 detailed sub-lenses there is a high frequency of co-creation characteristics (min: 7/9 marks – see table 5.15) in eight detailed sub-lenses: A5a, B1a, B1b, B2a, B4b, B4c, B4d and B5b. There is a low frequency (max: 2/9 marks – see table 5.16) in five detailed sub-lenses: A2a, A2b, A4a, C3b and C5a. The category between high and low frequency with the detailed sub-lenses having from three to six marks, i.e. the middle category, has the highest number (18) of detailed sub-lenses (see table 5.17) including A1a, A1b, A3a, A3b, A4b, A4c, A5b, B2b, B2c, B2d, B3a, B4a, B5a, C1a, C1b, C2a, C2b, and C3a. Next these categories are explored in more detail.

High frequency of co-creation characteristics

The detailed sub-lenses having a high frequency (see table 5.15) of co-creation characteristics manifest themselves in nearly all cases. Thus, when comparing these detailed sub-lenses with the others in Table 5.13, it seems that having a long-term (B1a) two-way (B4b) customer relationship which includes mutual trust (B1b), knowing in person (B1b), and being able to interact anywhere (B4c) and anytime (B4d) through an on-line platform or 24h help-desk services (B5b), does not automatically lead to a holistic co-creation approach: the four cases which have adopted a more conventional approach (S1C1, S1C2, S1C3, S2C1) also score marks in these detailed sub-lenses.

Furthermore, scoring full marks (9/9) in detailed sub-lens A5a supposes that even if the customer focuses on the value network (A5a) it does not lead to a co-creative relationship, as the co-creation approach seems to demand that all stakeholders focus on the value network. Additionally, detailed sub-lens B4a demonstrates also scores full marks 9/9 which could mean that two-way interactions occur naturally among these B2B cases and they do not appear only during the co-creation activities.

Moreover, based on remark B3 and related to cases taking a conventional approach, there seems to be less dialogue than before (see table 5.14) which

might mean that a long-term relationship does not automatically foster co-creation activities. Indeed, it became evident that a long-term steady relationship may even reduce interest in co-creation activities because stakeholders have known each other so long. Moreover, it seemed that stakeholders are eager to be active at the beginning of the relationship or a project where they have new things to explore. This applies to all co-creative cases, whether starting a new relationship (S3C2) or having on-going projects which required constant meetings and development of new value propositions (S2C2, S2C3, S3C1, S3C2, S3C3). Further, case S2C2 is a co-creative case but currently has reactive dialogue, but remarks suggest that formerly it had proactive dialogue and more meetings because of a need to actively develop new value propositions. Additionally, case S2C2 used to have more active projects and a higher need to develop new value propositions earlier, i.e. the relationship has become steadier over time.

To conclude, it seems that the *pre-conditions* for a co-creation approach are: 1) focusing on a long term relationship, 2) trust, 3) knowing in person, 4) two-way interaction, 5) anywhere, 6) anytime, and 7) transparency. Nevertheless, just as it would be hard to co-create without these characteristics, it also seems that having them does not automatically lead to a co-creation approach, since most cases which take a conventional approach have adopted them as well. Nor it is not enough if a customer focuses solely on a value network.

Regarding a long-term relationship, it seems an important value (*pre-condition*) to focus on in order to learn about each other's businesses, but having a long-term relationship does not automatically foster co-creation activities and there must be other activities as well, such as on-going projects. Additionally, co-creation activities can equally occur in a short-term relationship.

Table 5.15: High frequency of co-creation characteristics

Lens A. Strategic thinking and business model												
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3	
A5. Position in value chain /value network	Focus on the value network	A5a.Customer focusses	X	X	X	X	X	X	X	X	X	
Lens B. Customer interactions and relationships												
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3	
B1. Company-customer relationship	Oriented towards building long term customer relationships	B1a. Long-term customer relationship	X	X	X	X	X	X	X		X	
		B1b. Mutual trust	X	X			X	X	X	X	X	
B2. Information on the customer	Deep customer insight – knowing in person	B2a. Knowing in person	X	X	X		X	X	X	X	X	
B4. Amount of interactions	Active/two-way Anywhere/anytime	B4b. Two-way	X	X	X	X	X	X	X	X	X	
		B4c. Anywhere	X			X	X	X	X	X	X	
		B4d. Anytime	X			X	X	X	X	X	X	
B5. Customer access to information and other resources	Transparent	B5b. Through an on-line platform/ 24h help desk services	X			X	X	X	X	X	X	

Low frequency of co-creation characteristics

In contrast to the high frequency among the detailed sub-lenses the findings also demonstrate low frequency (max: 2/9 marks) in relation to co-creation characteristics in five detailed sub-lenses: A2a, A2b, C3b, C4a, C5a (see table 5.16). Studying Table 5.16 in more detail, the detailed sub-lenses A2a and A2b seem to be the only ones where the data does not demonstrate any characteristics although in remarks A2 cases S2C2, S2C3, and S3C1 seem willing to co-create strategy, allowing them in the future to plan better activities, new ideas and better value for all stakeholders. Indeed, interpreting the data created an understanding that in adopting a co-creation approach, companies need not have specific meetings/projects/activities targeting on strategy development; on the contrary, they can collect and use valuable information when co-designing services. So, based on this notion, the characteristics seem to be linked.

The results related to the detailed sub-lenses C3b, C4a, and C5a could indicate that these characteristics might occur only within a deep co-creative relationship. It is notable that in cases S2C2 and S3C1, co-creation activities can lead to a situation where the launching of the new value proposition is carried out automatically during the relationship, and remarks suggest that there might be no need to perform marketing activities, thus releasing resources.

To conclude, very few detailed sub-lenses showed a low-frequency of co-creation characteristics. The most interesting appear to be A2a and A2b, which demonstrate that none of the cases co-creates its strategy. Nevertheless, the remarks in three cases indicated that they would be willing to do so and additionally it might be that strategy is automatically co-created during other co-creation activities, allowing *better future planning* and *the emergence of new ideas*.

Table 5.16: Low frequency of co-creation characteristics

Lens A. Strategic thinking and business model												
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3	
A2. Strategy process	Bottom-up/Outside-in	A2a. Bottom-up										
		A2b. Outside-in										
Lens C. Service design												
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3	
C3. Developing the value proposition	Bottom-up including the customers	C3b. Customer has a need to develop a new value proposition					X	X				
C4. Testing the value proposition	Externally with the customers	C4a. Customer has a need to develop a new value proposition					X					
C5. Launching the value proposition	Providing solutions	C5a. Launching the new value proposition is carried out automatically during the relationship					X		X			

The middle frequency category of co-creation characteristics

The frequency of co-creation characteristics among the rest of the detailed sub-lenses varies between 3/9 and 6/9 marks, the majority having 5/9. This middle frequency category comprises 18 detailed sub-lenses with the highest amount of co-creation characteristics. The detailed sub-lenses in the middle frequency category are A1a, A1b, A3a, A3b, A4b, A4c, A5b, B2b, B2c, B2d, B3a, B4a, B5a, C1a, C1b, C2a, C2b and C3a. Here it is notable that all of the detailed sub-lenses in the middle frequency category are related only to cases which have adopted a co-creation business approach (see table 5.17).

If regular meetings, i.e. active interaction, and need motivation constitute the triggers of other co-creation activities including the pre-conditions, then it seems sensible that the rest of the characteristics could constitute the manners of the co-creation approach. Interpreting the Table 5.17, these manners could be: *focusing on a value network, having a proactive attitude, sharing knowledge and resources, and listening, learning, developing, and testing together*.

Table 5.17: Co-creation characteristics in the middle category

Lens A. Strategic thinking and business model											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
A1. Business goals	To jointly create comprehensive customer solutions/ Value-in-use	A1a. Through regular meetings					X	X	X	X	X
		A1b. Customer has a need to develop a new value proposition					X	X	X	X	X
A3. Value creation processes	Focus on customers' and their customers value creation processes	A3a. Through regular meetings					X	X	X	X	X
		A3b. Customer has a need to develop a new value proposition					X	X	X	X	X
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	A4a. Through regular meetings					X	X	X	X	
		A4b. Customer has a need to develop a new value proposition					X	X	X	X	
A5. Position in value chain/ value network	Focus on the value network	A5b. Supplier focusses					X	X	X		X
Lens B. Customer interactions and relationships											
Sub-lenses	Co-creation approach	Detailed vsub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
B2. Information on the customer	Deep customer insight – knowing in person	B2b. Supplier has a good knowledge of the customer business					X	X	X	X	X
		B2c. Supplier has a good knowledge of customer's customers' business					X	X	X		X
		B2d. Customer has a good knowledge of the supplier's business					X	X	X	X	X
B3. Nature of interaction with the customer	Proactive dialogue	B3a. Proactive dialogue						X	X	X	X
B4. Amount of interactions	Active/two-way Anywhere/anytime	B4a. Active						X	X	X	X
B5. Customer access to information and other resources	Transparent	B5a. Through regular meetings					X	X	X	X	X
Lens C. Service design											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
C1. Gathering information on the customer	Participatory methods, listening and learning together	C1a. During regular meetings					X	X	X	X	X
		C1b. Customer has a need to develop a new value proposition					X	X	X	X	X
C2. Processing information on the customer	Externally with the customers	C2a. During the regular meetings					X	X	X	X	
		C2b. Customer has a need to develop a new value proposition					X	X	X	X	
C3. Developing the value proposition	Bottom-up including the customers	C3a. During regular meetings					X	X	X		

5.12 Summary and implications for the final framework

To conclude, the findings of the descriptive study suggest four outcomes related to a co-creative business approach in the B2B service business.

First - There is a need for certain *pre-conditions* for the other co-creation characteristics to appear. These pre-conditions seem to be *two-way communication, orientation towards a long-term relationship* (thus not actually requiring it), *trust, knowing in person, transparency, ubiquitous interaction* including interaction anywhere and anytime.

Second – The findings demonstrate that there are certain *triggers* that cause the other co-creation characteristics to appear. These *triggers* seem to be *active interaction* and *a need/motivation* to develop new value propositions.

Third – The findings demonstrate that actual co-creation activities require certain *manners*, which seem to be: *focusing on a value network, having a proactive attitude, sharing knowledge and resources, and listening, learning, developing, and testing together.*

Fourth – The findings seem to indicate that adopting the characteristics of co-creation generates *potentiality* for strategic thinking and business modelling. The characteristics appear to be: *a good knowledge of each other's businesses, better understanding of value-in-use, better future planning, the emergence of new ideas, and in the case of launching releasing resources from conventional selling activities.*

To conclude, it seems that the findings facilitate an answer to research question RQ1c: What are the characteristics of co-creation in the B2B service business? This demonstrates that businesses which adopt a co-creation approach seem to exhibit a certain set of characteristics. These characteristics can be grouped into four different groups: 1) pre-conditions, 2) triggers, 3) manners, and 4) strategic potentiality. Further demonstration of these groups will be introduced in the next chapter.

The specific objectives of the descriptive study were: a) to deepen understanding of co-creation based on empirical findings and b) to synthesise empirical and theoretical findings into a final framework. Consequently, the descriptive study has enabled definition of the characteristics of co-creation and paved the way for the final co-creation framework. It has also strengthened the findings of the exploratory study even though the methods are different. The next chapter will focus on translating the empirical and theoretical insights into a final co-creation framework.

6 Translating empirical and theoretical insights into the final co-creation framework

The purpose of this chapter is to generate knowledge from the findings of both the exploratory study and the descriptive study and to integrate this knowledge with the latest literature on co-creation related to this study in order to accomplish a final co-creation framework. Figure 6.1 shows the relationship of this chapter to the other chapters.

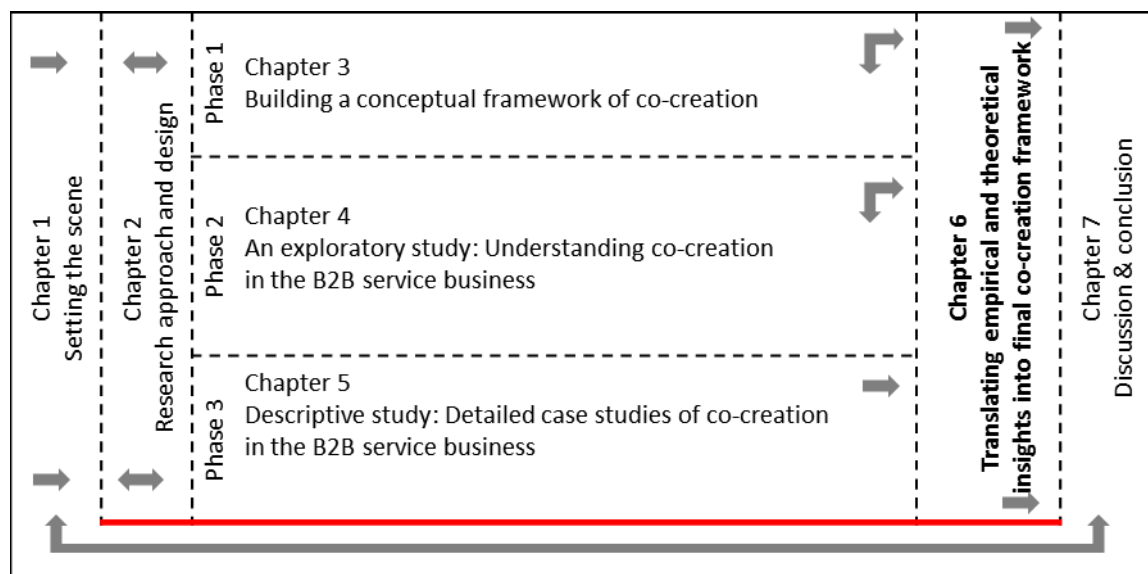


Figure 6.1: Thesis structure – Chapter 6

6.1 Redesigning the co-creation framework

Throughout this study the conceptual co-creation framework has been the underpinning strength of this study. First it incorporated the current knowledge of co-creation in service marketing and management, service design and service innovation before 2012 (see chapter 3.5). Thereafter it served as a framework to analyse and present the data of the exploratory study (see chapter 4). The findings of the exploratory study led to some changes, including removing the continuum to simplify the framework and adding the descriptions of co-creation to each sub-lens in order to better explore the nature of co-creation (see chapter 4). During the descriptive study the refined co-creation framework served as a basis

for analysing the data, although some refinements were made such as creating the detailed sub-lenses in order to explore the very nature of the data.

The findings of the exploratory study demonstrated that 1) the case companies seem to perceive that co-creation is important but they seem to think that it requires more resources, 2) the case companies would like to use a variety of approaches side by side depending on the customer relationship, and 3) the co-creation framework should be simpler and it should clearly demonstrate what co-creation means and how to achieve it.

Furthermore, the outcomes of the descriptive study suggest that businesses which adopt a co-creation approach exhibit a certain set of characteristics. These characteristics can be grouped into four groups: 1) pre-conditions, 2) triggers, 3) manners, and 4) strategic potentialities, giving the coordinates for the final co-creation framework.

Previously, some amendments were made to the conceptual co-creation framework in response to the findings of the exploratory study. Even though for the time being the refined co-creation framework seemed to clarify the nature of co-creation to some extent, it still seems to be a complicated framework embedding three different perspectives on co-creation and a variety of overlapping lenses. During the descriptive study the most useful part of the refined framework appeared to be the “to-do list” which described what kind of activities it is necessary to adopt in order to be co-creative, allowing a better understanding of co-creation in order to collect and analyse the data during the descriptive study.

Consequently, having the findings of the empirical enquiry, it is necessary now to consider which aspects of the conceptual co-creation framework and the refined co-creation framework should be retained, which should be refined and which should be designed anew.

It is logical to start the discussion from the two most dominant features of the framework: first, the three main lenses A: Strategic thinking and business model, B: Customer interactions and relationships, and C: Service design; and next, the

structure of the framework. The nature of the lenses is discussed first and then the structure is evaluated.

It was clear when starting to create the framework that the content of the lenses/sub-lenses overlapped, as the researchers indicated in Chapter 3.5. Additionally, the results of the exploratory study indicated the same issue although for the time being the limited understanding of co-creation did not allow any changes to the refined framework in relation to the overlap. In the light of the findings of the descriptive study it seems that the themes of the lenses are correct but there is a need to refine the content and the names.

Next, each lens is reviewed in relation to the findings and the current literature. The review starts with Lens B: Customer interactions and relationships, which seems to lay the foundation for the co-creation approach including the pre-conditions. The review continues with Lens C: Service design, which seems to foster the manners of the co-creation approach, and finally Lens A: Strategic thinking and business model, including the findings related to strategic potentiality which co-creation seems to foster.

6.1.1 Redesigning Lens B: Customer interactions and relationships

According to Grönroos and Voima (2013,141), interactions “form a platform for joint co-creation of value” and they seem to foster the adoption of a co-creation approach (Prahalad & Ramaswamy 2004c). Similarly, the findings of the descriptive study demonstrate that there is a group of characteristics of co-creation, related to interactions and relationships, which seem to foster the adoption of a co-creation approach. This group of characteristics can be called *pre-conditions*. Based on the empirical findings these pre-conditions seem to be *two-way communication, orientation towards a long-term relationship* (not actually requiring one), *trust, knowing in person, transparency, and ubiquitous interaction* including interaction anywhere and anytime (see figure 6.2).

Furthermore, Grönroos and Voima (2013) argue that the customer should be responsible for creating the interactions as there is a chance that if the supplier attempts to create interaction “a risk for value destruction always exists and may

increase” (Grönroos & Voima 2013, 141). This notion is related to the view that it might be challenging for the suppliers to know the state of mind of the customer. However, the empirical findings of this study indicate the importance of the supplier being in touch with the customers. Among the cases which adopted a conventional approach it was clear that there should be more interaction and customers tended to think that responsibility for creating interaction is the supplier's. Furthermore, among the cases which adopted the co-creation approach the actors seemed to have a more democratic view, including the notion that both the stakeholders could be responsible for creating interaction and see themselves more as partners. Moreover, it seemed that in these cases the customers saw the suppliers more as value-creating partners than “mere facilitators” of value (Grönroos & Voima 2013).

To conclude, the findings demonstrate that the pre-conditions are as a basic element adopting the co-creation approach. However, adopting the pre-conditions does not automatically lead to co-creation. The findings of the descriptive study demonstrate that to adopt a co-creation approach certain *triggers* are needed, i.e. something to encourage and urge stakeholders to co-create (see figure 6.2). In line with the current literature, these triggers seem to be active interaction (Grönroos & Ravald 2010; Grönroos & Voima 2013) and a need by the customer to develop new value propositions (Grönroos & Voima 2013), fostering the motivation to adopt a co-creation approach.

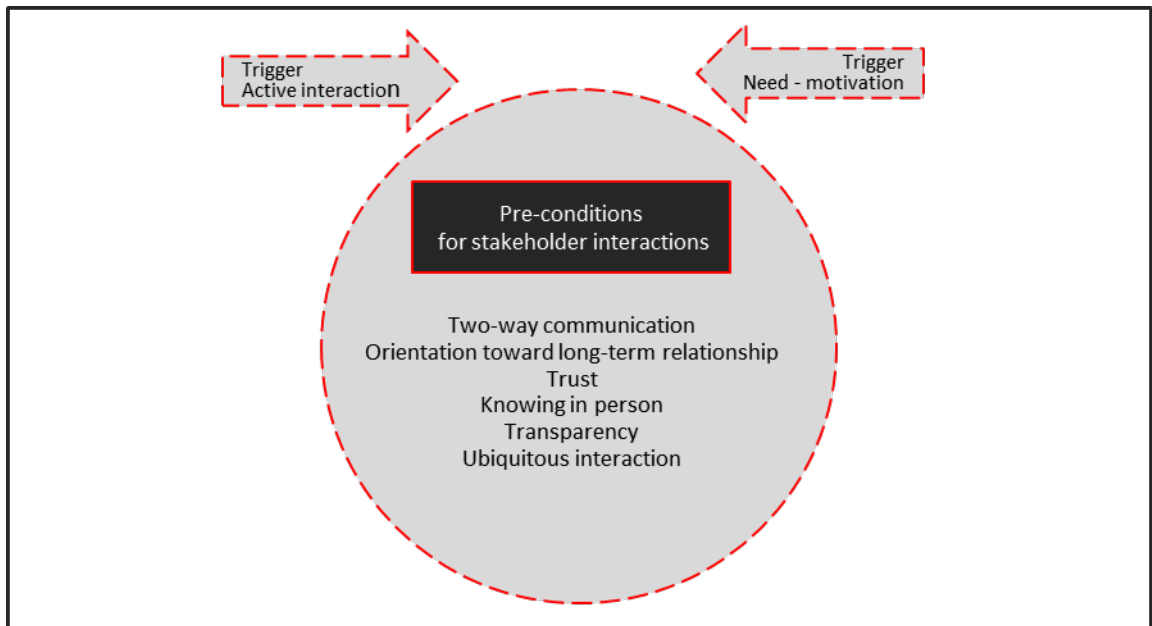


Figure 6.2: Pre-conditions and triggers for co-creation

6.1.2 Redesigning Lens C: Service design

The service design approach embeds the notion of co-design which this study sees as a sub-set embedded in the co-creation approach (Mattelmäki & Visser 2011). Additionally, co-creation is often seen as “a function of interaction” (Grönroos & Voima 2013, 133) and in order to understand how interactions regarding co-creation activities function there seems to be a need for certain co-design manners that can be seen design for service (Wetter-Edman 2014). The empirical findings of the descriptive study demonstrate that the cases adopting a co-creation approach use certain manners in co-design which are mostly related to Lens C. These manners seem to be: focusing on a value network; having a proactive attitude; sharing knowledge and resources; and listening, learning, developing and testing together (see figure 6.3). The idea of these co-design manners is to involve stakeholders in the co-design process, focusing on the development of value propositions that create value-in-use for the customers as well as value-in-exchange (i.e. money) for the suppliers.

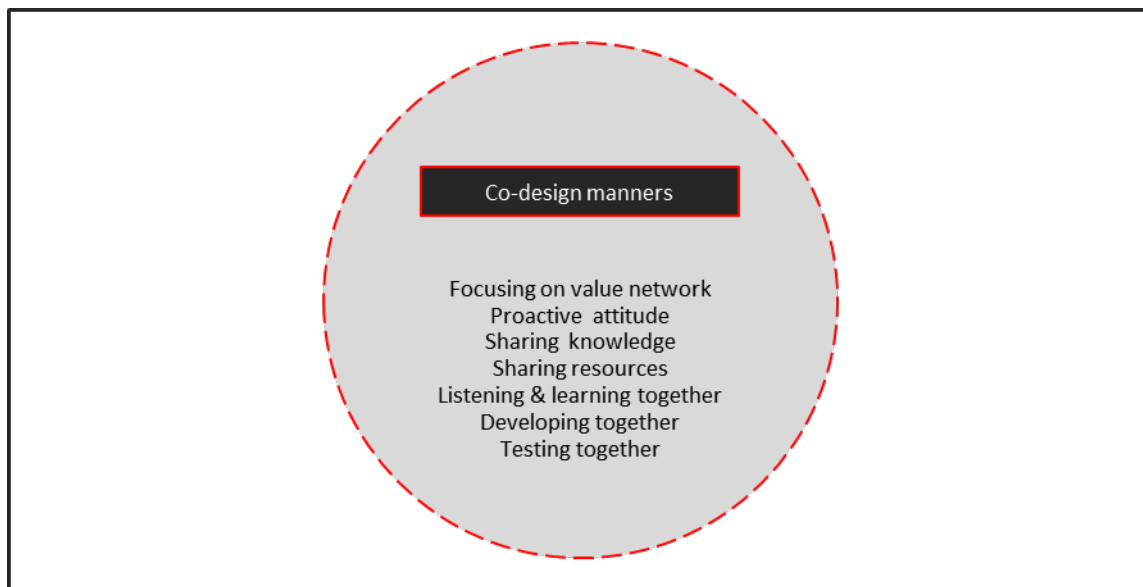


Figure 6.3: Co-design manners

It seems that before adopting the co-design manners the pre-conditions for stakeholder interaction perspective should be internalised to avoid co-destruction (Echeverri & Skalen 2011).

6.1.3 Redesigning Lens A: Strategic thinking and business model

Strategic thinking and business model Lens A indicates the strategic level of co-creation thinking which seems to be embedded in service logic (Grönroos & Voima 2013; Vargo & Lusch 2006). To adopt a co-creation approach in service logic means adopting new strategic thinking and a value creation model in incorporating stakeholders into a value co-creation process.

In this study, cases which have incorporated the pre-conditions into their stakeholder interactions and have adopted co-design manners seem to know each other's businesses well, to create better understanding of value-in-use, to have better planning of future businesses, to have more new ideas, and to be able to release resources from mere selling activities. Thus the findings of the descriptive study indicate that adopting a co-creation approach seems to create some strategic potentiality (see figure 6.4).

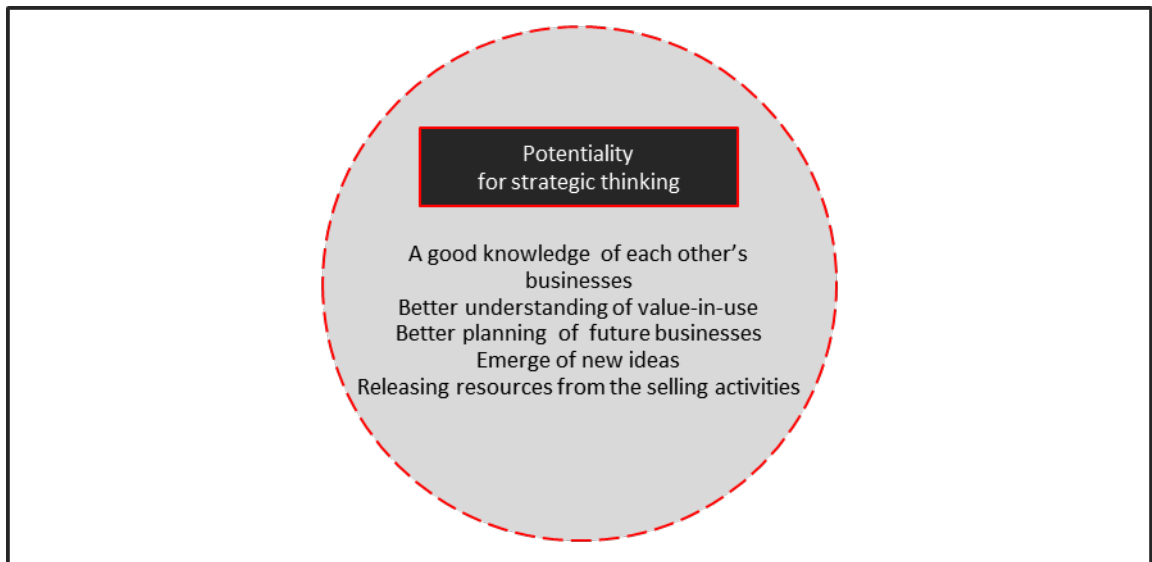


Figure 6.4: Potentiality for strategic thinking

6.1.4 Redesigning the structure

The earlier framework structure does not seem to foster co-creation processes, meaning that based on current knowledge co-creation should be seen as a set of processes where stakeholders jointly generate understanding and knowledge of creating solutions to serve their needs (Hakanen & Jaakkola 2012; Russo-Spena & Mele 2012). From this perspective the earlier framework appears to be like a set of “rules” for co-creation, perhaps missing a bit of its innovative nature (Russo-Spena & Mele 2012; Ngugi et al. 2010), and although for the time being the lenses seemed to create clarity now they seem to have a bit of an observatory nature rather than demonstrating sometimes even a bit “messy” looking nature of co-creation activities (see the customer-supplier maps in chapter 5). To capture the change and to see the linking between the earlier framework and the new framework see the Figure 6.5.

Linking potentiality for strategic thinking with the remarks & combining the findings

Lens A. Strategic thinking and business model											
Sub-lenses	Co-creation approach	Remarks	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
A1. Business goals	To jointly create comprehensive customer solutions/ Value-in-use	The customer would like to jointly create the service process provided by the supplier									
		The customer would like to have meetings with the supplier									
		The stakeholders have fewer meetings than before									
		The stakeholders have more meetings than before									
A2. Strategy process	Bottom-up/Outside-in	Customer is willing to co-create strategy									
		Supplier is willing to co-create strategy									
		The customer values different things, to what the supplier attaches									
		The stakeholder would jointly develop concepts									
A3. Value creation processes	Focus on customers' and their customer's value creation processes	The customer values different things, to what the supplier attaches									
		The stakeholder would jointly develop concepts									
Lens B. Customer interactions and relationships											
B2. Information on the customer	Deep customer insight - knowing in person	Stakeholders don't have any need to share the information on customer's customers									
		Less dialogue than before									
B3. Nature of interaction with the customer	Proactive dialogue	Less dialogue than before									
		Dialogue used to be proactive									
B4. Amount of interactions	Active/two-way Anywhere/anytime	Meeting in person approximately once per year/ less than once per year									
		Fewer regular meetings than before									
Lens C. Service design											
C1. Processing information on the customer	Enter into with the customer	The customer has seen the impact of its feedback									
		Stakeholders are willing to involve customer's customers in the development of a new value proposition									
C2. Developing the value proposition	Bottom-up including the customers	The customer is willing to have more meetings with the stakeholders to jointly develop concepts, rather than just receiving a ready-made one									
		The case doesn't include marketing activities									

Potentiality for strategic thinking

A good knowledge of each other's businesses
Better understanding of value-in-use
Better planning of future businesses
Emergence of new ideas
Releasing resources from the selling activities

Triggers & co-design manners linking with the middle category of co-creation characteristics

Lens A. Strategic thinking and business model											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
A1. Business goals	To jointly create comprehensive customer solutions/ Value-in-use	A1a. Through regular meetings									
		A1b. Customer has a need to develop a new value proposition									
		A1c. Customer has a need to develop a new value proposition									
A3. Value creation processes	Focus on customers' and their customers value creation processes	A3a. Through regular meetings									
		A3b. Customer has a need to develop a new value proposition									
		A3c. Customer has a need to develop a new value proposition									
A4. Resources	Focus on shared resources among the company, its customers and other stakeholders	A4a. Through regular meetings									
		A4b. Customer has a need to develop a new value proposition									
		A4c. Customer has a need to develop a new value proposition									
A5. Position in value chain/ value network	Focus on the value network	A5b. Supplier focuses									
Lens B. Customer interactions and relationships											
B2. Information on the customer	Deep customer insight - knowing in person	B2b. Supplier has a good knowledge of the customer's business									
		B2c. Supplier has a good knowledge of customer's customers' business									
		B2d. Customer has a good knowledge of the supplier's business									
		B2e. Customer has a good knowledge of the supplier's business									
B3. Nature of interaction with the customer	Proactive dialogue	B3a. Proactive dialogue									
		B3b. Proactive dialogue									
B4. Amount of interactions	Active/two-way Anywhere/anytime	B4a. Active									
		B4b. Active									
B5. Customer access to information and other resources	Transparent	B5a. Through regular meetings									
		B5b. Through regular meetings									
Lens C. Service design											
C1. Gathering information on the customer	Participatory methods, listening and learning together	C1a. During regular meetings									
		C1b. Customer has a need to develop a new value proposition									
		C1c. Customer has a need to develop a new value proposition									
C2. Processing information on the customer	Externally with the customers	C2a. During the regular meetings									
		C2b. Customer has a need to develop a new value proposition									
		C2c. Customer has a need to develop a new value proposition									
C3. Developing the value proposition	Bottom-up including the customers	C3a. During regular meetings									
		C3b. During regular meetings									

Co-design manners

Focusing on value network
Proactive attitude
Sharing knowledge
Sharing resources
Listening & learning together
Developing together
Testing together

Trigger
Active interaction

Trigger
Need - motivation

Pre-conditions linking with the high frequency of co-creation characteristics

Lens A. Strategic thinking and business model											
Sub-lenses	Co-creation approach	Detailed sub-lenses	S1C1	S1C2	S1C3	S2C1	S2C2	S2C3	S3C1	S3C2	S3C3
A5. Position in value chain /value network	Focus on the value network	A5a. Customer focuses									
Lens B. Customer interactions and relationships											
B1. Company-customer relationship	Oriented towards building long-term customer relationships	B1a. Long-term customer relationship									
		B1b. Mutual trust									
		B1c. Mutual trust									
B2. Information on the customer	Deep customer insight - knowing in person	B2a. Knowing in person									
		B2b. Knowing in person									
B4. Amount of interactions	Active/two-way Anywhere/anytime	B4b. Two-way									
		B4c. Anywhere									
		B4d. Anytime									
		B4e. Anytime									
B5. Customer access to information and other resources	Transparent	B5b. Through an on-line platform/ 24h help desk services									
		B5c. Through an on-line platform/ 24h help desk services									

Pre-conditions for stakeholder interactions

Two-way communication
Orientation toward long-term relationship
Trust
Knowing in person
Transparency
Ubiquitous interaction

Figure 6.5: Linking the old framework and the new framework

Thus, rather than demonstrating the characteristics of co-creation (pre-conditions, triggers, manners and strategic potentiality) in a tight framework, the structure of the framework should somehow demonstrate the flexibility and the process nature of the co-creation approach. As an outcome of this the new framework is built on three unbounded co-creation loops: 1) Pre-conditions for stakeholder interactions, 2) Co-design manners, and 3) Strategic potentiality. Triggers are introduced between pre-conditions and co-design manners to stimulate interest in adopting co-design manners. The loops are described in more detail in the next chapter, which will combine the characteristics of co-creation into a final co-creation framework. Next the final co-creation framework is introduced.

6.2 Introducing the final co-creation framework – Characteristics of co-creation in the B2B service business

To clarify the nature of co-creation the pieces of the co-creation puzzle, meaning the empirical and the theoretical findings of this study, are pulled together in the form of a framework. Based on the empirical findings, special attention has been given to removing the overlap of the lenses.

The essence of co-creation is to combine stakeholders (in this study suppliers and their customers) in a collaborative process in order to improve existing service solutions or to create new solutions, i.e. innovations (Grönroos & Voima 2013; Sanders 2006). This study introduces the characteristics of co-creation as a collaborative process embedding three loops of co-creation (see figure 6.6).

The three loops of co-creation are reflecting in the broader joint sphere, or the “broader interaction platform” (Grönroos & Voima 2013, 142). The loops embed the notion that interaction within the loops integrates the supplier’s and the customer’s innovation processes into one co-creation process when needed. This creates “a value co-creation opportunity” (Grönroos & Voima 2013, 140) for the stakeholders working as co-designers embedding the co-design manners, and allowing to create value for each other and for themselves .

The story of the framework – The characteristics of co-creation

This first co-creation loop embeds the understanding that there is a need for certain pre-conditions for co-creative stakeholder collaboration. These pre-conditions are two-way communication, orientation towards a long-term relationship, trust, personal knowledge, transparency, and ubiquitous interaction.

Between the first and second co-creation loop there are co-creation triggers which seem to foster the adoption of co-design manners within a second loop. Based on the empirical findings of this study the co-creation triggers seem to be 1) active interaction (Grönroos & Ravald 2010; Grönroos & Voima 2013) and 2) a customer's need to develop a new value proposition (Grönroos & Voima 2013), i.e. a need-motivation.

The second loop indicates that certain co-design manners need to be adopted in a co-creation approach. These manners include focusing on value network, proactive attitude, sharing knowledge, sharing resources, listening and learning together, developing together and testing together.

The third co-creation loop indicates that new strategic potentiality might occur when adopting co-design manners. Strategic potentiality demonstrates that the adopted co-design manners can lead to a third loop influencing strategic decisions and business modelling. When this occurs the second and third loop are merged into a continuing process of co-innovation activities where the stakeholders jointly create and innovate new solutions, fostering mutual value creation and competitiveness and demonstrating that there is a “transparent” and “open-ended flow of social communication built around the negotiation and renegotiation which leads to a networked, evolving social world” (Ind 2013, 92). The service-driven perspective on innovation sees innovation as “a process that involves discovering new ways of co-creating value through more effective participation in resource integration” (Russo-Spena et al. 2012, 530; Vargo et al. 2008). Furthermore, if the technology- and customer-driven perspectives on innovation are combined with the service-driven perspective the outcome of conceptualising innovation would see innovation as “a co-creation process within

social and technological networks in which actors integrate their resources to create mutual value” (Russo-Spena & Mele 2012, 528).

However, if the stakeholders aim to stay on the second co-creation loop and thus not use the knowledge gained when adopting co-design manners they may do so. Moreover, if it seems that the co-creation methods do not foster mutual value creation the stakeholders may decide to exit the process. Additionally, the stakeholders may find that there are no triggers to boost the relationships to the second loop level. Thus the framework allows companies to choose the depth of their co-creation activities as co-creation might not be “the right solution to all instances” but rather one “strategic option” (Roseira & Brito 2014, 11). Nevertheless, the literature seems to advise companies to have more active collaboration in order to enhance mutual value creation (Lambert & Enz 2012; Sarker et al. 2012; Komulainen & Tapio 2013).

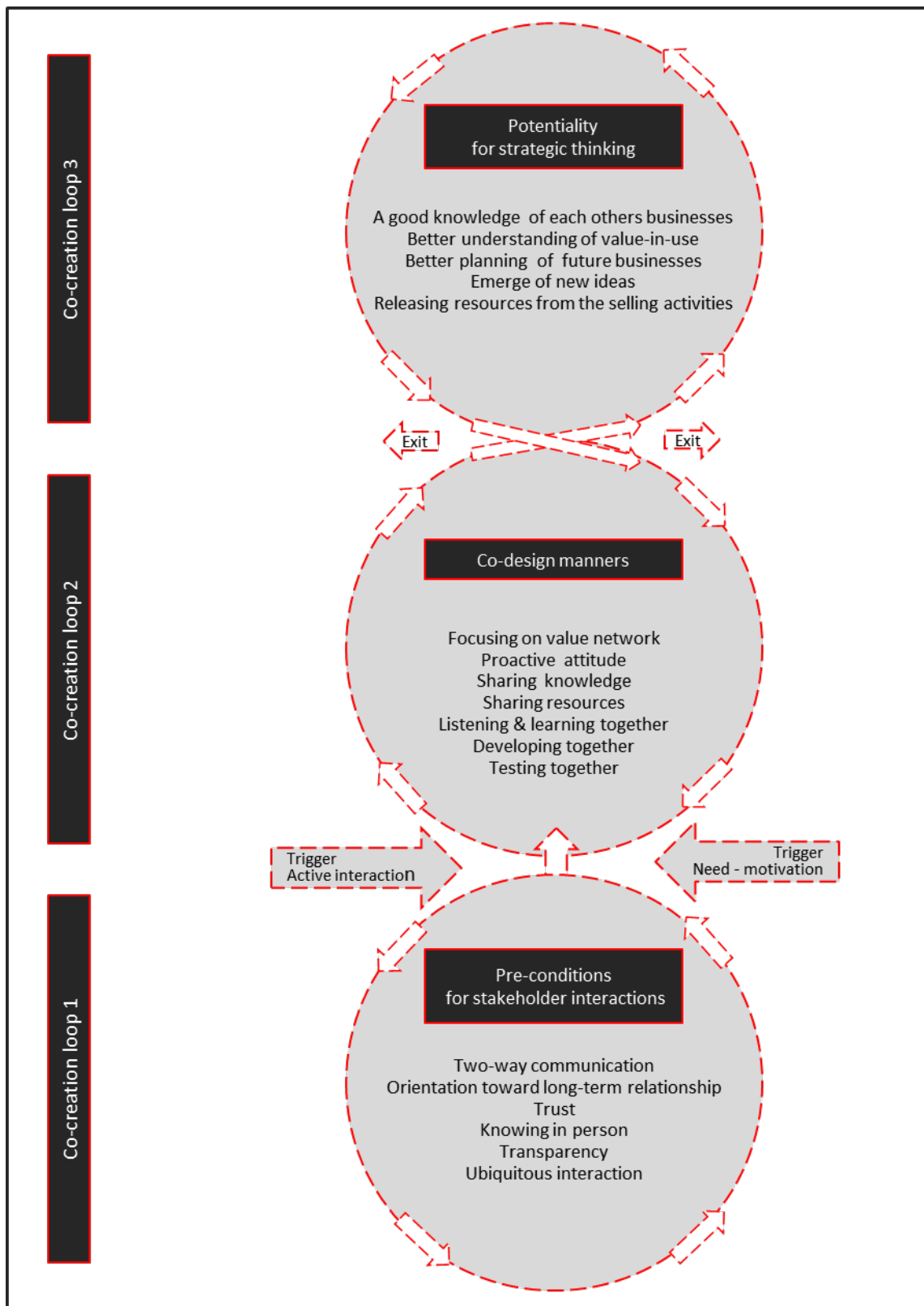


Figure 6.6: The characteristics of co-creation in the B2B service business

6.3 Current knowledge of co-creation

At the beginning of this study there seemed to be no studies on co-creation introducing co-creation frameworks/models within the B2B service business. As stated earlier, co-creation seems to be an emerging phenomenon and so it was important to explore whether the findings of this study are able to contribute to the newest theory.

Consequently, one additional literature search was performed in May 2014, before submitting the thesis, to underpin the contribution of this study with the latest literature. This second Scopus literature search was made for the word “co-creation/cocreation” in the title, abstract or keywords of articles between January 2012 and May 2014, and 396 instances were found.

First, to detect the most seminal articles focusing on the core development of co-creation within businesses and in the fields of this study only the articles were finally chosen which: a) had co-creation as one of the core topics b) were within the fields of service marketing, management, design, and innovation, and c) related to business activities, resulting in a table of 30 articles published between January 2012 and May 2014 (see appendix 2).

Secondly, a table was created to explore co-creation research in numbers between January 2012 and May 2014. The table analyses the research from three different perspectives: 1) conceptual or empirical, 2) focusing on supplier’s and/or customer’s co-creation activities or having no specific focus, and 3) focusing on transactions in business-to-consumer (B2C), business-to-business (B2B) or having a generic approach (see table 6.1).

The table demonstrates that 14 out of 30 articles are conceptual and 16 out of 30 articles empirical. Furthermore, in relation to the focus of this study it can be seen that there are six empirical studies focussing on B2B businesses and introducing models/frameworks related to co-creation.

Table 6.1: The nature of co-creation research in marketing and management, design and innovation between January 2012 and May 2014

1	2				3		
Conceptual/ Empirical	Supplier focus only	Customer focus only	Both supplier and customer focus	No specific focus	B2C	B2B	Generic
Conceptual 14	1	0	0	13	1	1	12
Empirical = 16	=5	=1	=9	=1	=4	=6	=6
Qualitative 10	3	0	6	1	2	5	3
Quantitative 4	2	1	1	0	1	0	3
Qualitative & quantitative 2	0	0	2	0	1	1	0
Altogether 30	6	1	9	14	5	7	18

The six articles detected encompass the following perspectives on co-creation:

- Presenting an empirically grounded framework for joint problem-solving as value co-creation in knowledge-intensive businesses (Aarikka-Stenroos & Jaakkola 2012);
- Demonstrating that effective co-creation of solutions requires a match between the perceptions of multiple suppliers and their customers with regard to core content, operations and processes, customers' experience and the value of the solution (Hakanen & Jaakkola 2012);
- Exploring how to manage and measure value co-creation and introducing three cyclical and interrelated co-creation phases: 1) joint crafting of value propositions, 2) value actualisation, and 3) value determination (Lambert & Enz 2012);
- Demonstrating the mechanisms underlying value co-creation within B2B alliances (Sarker et al. 2012);
- Introducing a framework of customer-perceived value, demonstrating benefits and sacrifices of value co-creation in the infranet business and discussing how value co-creation could be enhanced in the future (Komulainen & Tapio 2013);
- Exploring co-creation in buyer-supplier relationships and demonstrating that co-creation can be regarded as one of the strategic options (Roseira & Brito 2014).

The current research supported in redesigning the co-creation framework and even though the current research has covered many aspects of co-creation it seems that there is still a knowledge gap in the literature related to co-creation and the objectives of this study, as the current literature fails to combine the knowledge on co-creation within the three fields of this study: service marketing and management, service design and service innovation.

6.4 Summary and implications for the discussion and conclusion

The findings of the exploratory study demonstrated that: 1) the case companies seem to perceive that co-creation is important but that it requires more resources, 2) the case companies would like to use a variety of approaches side by side depending on the customer relationship, and 3) the co-creation framework should be simpler and should clearly demonstrate what co-creation means and how to achieve it.

In response to some of these findings the refined framework was introduced in chapter four. Even though for the time being the refined co-creation framework seemed to clarify the nature of co-creation it seems to be a complicated framework embedding three different perspectives on co-creation and a variety of overlapping lenses.

The outcomes of the descriptive study suggest that there is a set of co-creation characteristics which seem to appear in business cases taking a co-creation approach. These characteristics are grouped into four: 1) pre-conditions, 2) triggers, 3) co-design manners, and 4) strategic potentiality.

The characteristics of co-creation were placed in the new framework, which demonstrates the process nature of co-creation better than the previous framework. The new framework is more flexible, allowing companies to enter and exit the co-creation process when needed, thus they can use the variety of approaches in parallel. Moreover it clarifies the nature of co-creation and allows companies to better evaluate the resources needed.

To conclude, the framework combines the findings of the empirical in-depth case study, embedding nine cases and the insights from recent co-creation literature. The framework provides a platform for co-creation activities and sees co-creation as *a joint value creation process* (Grönroos & Voima 2013) *of developing solutions* (e.g. Aarikka-Stenroos & Jaakkola 2012; Hakanen & Jaakkola 2012), *facilitating innovations* (e.g. Kristensson et al. 2008), and *creating strategic potentiality through co-design manners for the stakeholders involved*.

The new framework attempts to demonstrate that instead of combining a set of rules co-creation should be seen as a dynamic process of innovating new solutions or reframing existing ones. It seems that the heart of the co-creation process is the second loop, including co-design manners. Additionally, the framework allows the companies to exit from the process if they wish to do so. Thus this option may lower the threshold for the companies to test co-creation activities. Finally, this framework seems to be a step towards the practical implementation of co-creation.

7 Discussion and conclusions

The current state of co-creation was explored in Phase 1 of this study, leading to a conceptual co-creation framework. During Phase 2, understanding of co-creation was amplified by an exploratory study resulting in a refined co-creation framework. The purpose of Phase 3 was to explore co-creation in more depth, resulting in a deeper understanding of co-creation in the B2B service business and leading to a final framework of co-creation.

The purpose of this chapter is to discuss the contribution of this study as well as its limitations, including some general observations as well as some options for future study. Figure 7.1 shows the relationship of this chapter to the other chapters.

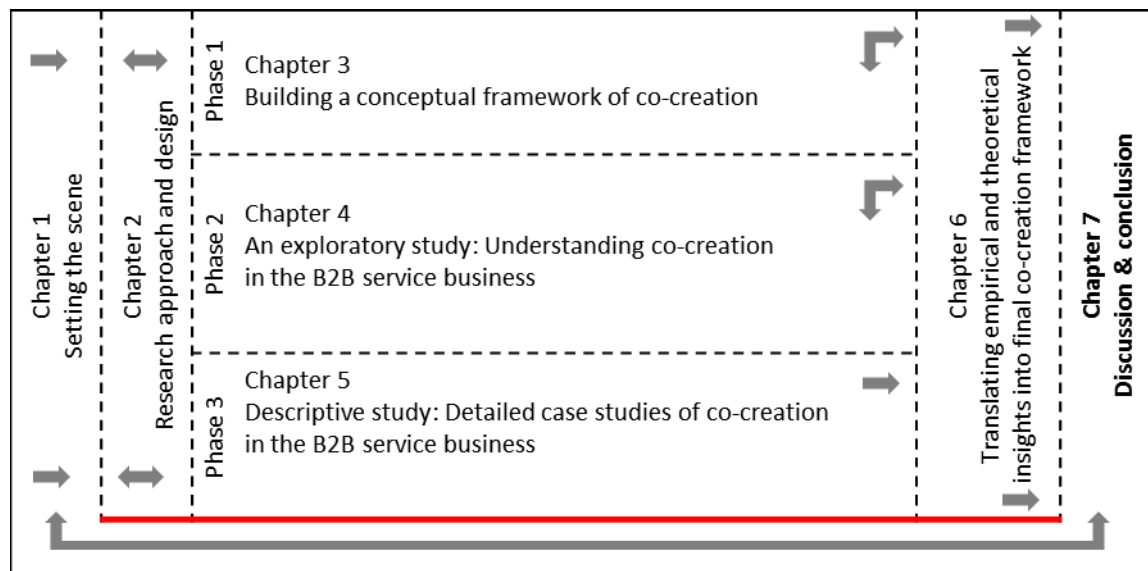


Figure 7.1: Thesis structure – Chapter 7

This study began searching the different options within the service field. The service field was chosen because of my background in both the service business and service education, working for over 20 years as an entrepreneur (SME) in the service field and in academia in relation to service marketing and management, service design and service innovation. Thus it was personal passion and know-how that led to the choice of the service field. Furthermore, working as an entrepreneur I was able to see the importance of working more

closely with customers to understand their value creation in order to create/co-create solutions to their challenges. When the literature proposed that co-creation is an emerging notion in the service field and an actual knowledge gap was detected, from my perspective research on co-creation in the service field was a perfect topic.

The primary literature search paved the way toward B2B services where no research on co-creation could be found rather than choosing B2C services where some research already existed (Echeverri & Skalen 2011; Gebauer et al. 2010; Edvardsson et al. 2010; Payne et al. 2008). Moreover, as it was not possible to look all kind of service companies the primary literature search and my own background supported the decision to focus on SMEs and their customers.

This study aimed to establish theoretical clarity about co-creation in the fields of service marketing management, service design and service innovation through in-depth case studies of B2B service businesses (i.e. suppliers) and their customers. This study began by defining current theoretical positions in literature, before generating an understanding from praxis. The empirical research was executed in two phases: first an exploratory case study of three cases followed by a descriptive case study of nine cases.

The gaps in literature identified were:

- 1: A need for clarification of co-creation in the B2B service business.
- 2: A need for a more comprehensive theoretical framework of co-creation.

This led to the overall objective of understanding co-creation in the B2B service business. The leading research question of this study was: How to understand co-creation in the B2B service business (RQ1)?

On these premises next the contribution to knowledge and implications for practice are discussed.

7.1 Contribution to knowledge

When this study started in autumn 2010, co-creation seemed to be an emerging phenomenon which attracted considerable disagreement as to both its obscurity and its potential for tackling the challenges we face in today's world. Reviewing the literature today, it seems that the arguments are virtually the same now as in 2010 (e.g. Degnegaard 2014; Grönroos & Voima 2013; Lambert & Enz 2012; Sangiorgi & Prendiville 2014; Sangiorgi et al. 2014). Thus co-creation still seems to be emerging phenomenon and although lately there has been a lot of research on co-creation it still appears obscure to an extent. This study attempts to contribute to clarifying the nature of co-creation through empirical research, which has led to introducing the new co-creation framework: The characteristics of co-creation in the B2B service business in the fields of service marketing and management, service design and service innovation.

As a theoretical contribution this study **first** introduced a conceptual co-creation framework combining the current knowledge of co-creation in the fields of service marketing and management, service design and service innovation before 2012. The first conceptual framework combined current knowledge in an original way, including a set of characteristics demonstrating the differences between a conventional business approach and a co-creation business approach.

Second, it conducted an exploratory study with three cases which led to the refined co-creation framework introducing the descriptions of what co-creation could mean in practice.

Third, it conducted a descriptive study with nine cases which led to the final co-creation framework: Characteristics of co-creation in the B2B service business (see figure 6.5). Thus the new framework combines current knowledge on co-creation with empirical knowledge from nine cases of co-creation and non-co-creation, leading to a new conceptual understanding of the co-creation phenomenon in the B2B service business.

The framework provides a platform for co-creation activities and sees co-creation as *a joint value creation process* (Grönroos & Voima 2013) *of developing*

solutions (e.g. Aarikka-Stenroos & Jaakkola 2012; Hakanen & Jaakkola 2012), *facilitating innovations* (e.g. Kristensson et al. 2008), and *creating strategic potentiality through co-design manners for stakeholders involved*, which could serve as a definition of co-creation being the **fourth** contribution.

Fifth, focusing in the fields of service marketing and management, service design and service innovation the study is drawing together multiple strands of knowledge. Furthermore this study can contribute to several streams of research which seem to address similar kinds of discussion on open innovation, (e.g. Minshall et al. 2014; Vanhaverbeke & Cloudt 2014), ICT (e.g. Rai et al. 2010), ecosystem development (e.g. Gawer 2009), industrial change towards services (e.g. Ng et al. 2013; Turunen 2013; Viljakainen & Toivonen 2014), higher education (e.g. Pirinen 2013), and living labs (e.g. Leminen et al. 2014).

Sixth, the study introduced a novel research method called CoCo Cosmos developed in the CoCo research project (Keränen et al. 2013; Keränen 2013; Ojasalo & Keränen 2011). Not only the novel method was used but also a novel method of a visual analysis was developed while analysing the data of the descriptive study. CoCo Cosmos has shown its power engaging informants to play a game which can deliver powerful information to the parties involved. Additionally the tool reveals effectively participants' latent needs and demonstrates value-in-use.

7.2 Implications for practice

The three case companies involved in this study were at different stages in their co-creation lifecycles. All were interested in learning new approaches and developing their thinking towards a co-creation mind-set, thus the companies had already recognised that the business environment is shifting and that new skills are needed. By looking at the findings of this study it seems that large organisations and start-up customers are making stronger demands from their suppliers to develop their business. On the other hand long term SMEs as customers seemed to less challenge their suppliers. As a result of this this

finding it is even more interesting to look at the suppliers and their customers of this study more thoroughly.

Case S1 has been operating for more than 40 years in the field of financial management having mainly SME long-term customers. Moreover financial management is a very traditional area of business which is regulated by strict laws and has a culture that has evolved over a long period of time. Thus it requires significant energy to break away from the traditional business setting, this withstanding, currently when compared to the starting point of this study S1 has nearly doubled its turnover.

Case S2 has been operating for more than 15 years in the field of IT. IT as a business field appears to be fast moving, thus players need to respond with continuous development. During the period of this study S2's turnover has increased by 30%. S2 has a mixture of large organisations, SME's and start-ups as their customers and it is evident that both the large organisations and start-ups have encouraged this supplier to develop its business.

Case S3 has been operating more than 10 years in the field of construction, real estate development and the area of development consultation. The field is also traditional, but S3 has adopted a new approach from its inception to build value propositions based specifically on their customers' needs. Additionally the customers of this supplier seem to be mainly large organisations that strongly encourage S3 to develop their business. During the period of this study S3's turnover has not increased, however it has been awarded substantial future contracts.

The findings of the exploratory study indicated that 1) the case companies seem to perceive that co-creation is important, but that it requires more resources, 2) the case companies would like to use a variety of approaches in combination depending upon the customer relationship, and 3) the co-creation framework should be simpler and should clearly demonstrate what co-creation means and how it may be achieved.

As a result of these three findings, it seems that businesses partly lack an understanding of what co-creation is and how it may be achieved. The findings of the exploratory study and the understanding gained from it led to publication of a workbook on co-creation from the managerial perspective (Keränen et al. 2013a), which aimed to help businesses understand co-creation. The workbook contains five different tools, four of which are used to analyse the current business approach while the fifth, CoCo Cosmos which is a visual and participatory service design tool for co-creation.

Moreover, the framework 'The characteristics of co-creation in the B2B service business' fosters a practical understanding of co-creation. It provides greater clarity on what kind of resources are required and allows companies to partly or fully adopt co-creation approaches, which may lower the threshold for the companies to test co-creation activities.

7.3 General observations by the researcher

The longer I have been immersed in the world of co-creation the more I recognise that co-creation generates mutual value, thus value-in-use for all stakeholders involved. The distinction between a customer's value-in-use and viewing a supplier as only a value facilitator and a receiver of value-in-exchange, is understandable, but, it embeds the notion that the supplier merely receives money in exchange for services. I would like to argue that in successful co-creation processes both value-in-use and value-in-exchange are received mutually by all stakeholders to a greater or lesser extent and stakeholders of a co-creation process are all customers of that process.

In service logic the heart of value creation is value-in-use, meaning the customer's value creation (Grönroos & Voima 2013). However, the boundaries of being a value facilitator and value creator become blurred in the value network of a B2B business. More specifically, supplier A is a value facilitator producing services to customer B who then creates value-in-use by producing services to its customer C. In this case being in a B2B business, customer B is customer-

supplier B being a value facilitator by using at least partly the services provided by supplier A for providing services to customer C.

Furthermore, in the co-creation process stakeholders for example as in supplier A, customer-supplier B and customer C share insights about their businesses. These insights may lead to joint development of a new solution for a supplier A, allowing it to provide better value-in-use for its customers' and customers' customers. By taking this further, if suppliers in a B2B business co-create solutions together with their customers and perhaps also their customers' customers this could result in better value-in-use for all stakeholders involved. This concept should mean, according to service logic (Grönroos 2008), which sees value-in-exchange as a subordinate to value-in-use, that all stakeholders involved (suppliers, customers and customers' customers) would receive better value-in-exchange and in the long run everybody's business would grow. To underline this notion, if a supplier is able to understand the business and to support the growth of its customers and its customers' customers there is little doubt that the supplier would not benefit through growth too. This proposition demonstrates the importance of understanding customers' and their customers' businesses and co-creating value with them.

Moreover, based on the findings from the co-creative cases, the businesses emphasised being partners rather than seeing themselves as having supplier-customer relationships. In contrast to some of the findings from the literature (Banks & Humphreys 2008; Cova et al. 2011; Zwick et al. 2008) the co-creative cases also emphasised that co-creation activities not only include activities where the supplier exploits the customer or vice versa; rather, the roles regarding who is the beneficiary seem to alter. Accordingly it seems that during the co-creation process the stakeholders' roles in value creation alter, sometimes taking the role of being value creators and sometimes value facilitators, depending upon the case they are working on. Hence it seems that the stakeholders of co-creation process are the customers of co-creation processes and the activities of co-creation processes should serve the needs of all stakeholders involved, providing value-in-use for all.

7.4 The quality and limitations of this study

As discussed in Chapter 2 there are four common tests to judge the quality of research in social sciences: 1) Construct validity, 2) Internal validity, 3) External validity, and 4) Reliability (Yin 2009). Out of these four tests, number two deals only with explanatory and causal studies so it will be excluded from this study. First the quality of this study is briefly discussed which after the limitations are evaluated.

7.4.1 Construct validity

To improve the quality of this study based on construct validity the following tactics have been accomplished. The study comprises multiple sources of evidence. In the exploratory study there were three cases and the descriptive study consisted of nine additional cases. The actions of the study have been described in this thesis to build a chain of evidence. The findings have been presented to the case companies in three ways. First, the findings of the exploratory study were presented to each case company in a workshop including the informants. Secondly, the findings of each descriptive study case were sent to each informant allowing them to comment if needed. Thirdly, each of the three original case companies S1, S2 and S3 has been able to read and suggest changes to the thesis, and based on this process some minor corrections have been made (Yin 2009).

7.4.2 External validity

The major criticism of case studies concerns the generalisability of a single case. In case studies it is important to rely on analytical generalisation rather than the statistical generalisation adopted in surveys. Analytical generalisation occurs when findings are replicated, i.e. when multiple cases support the same theory (Yin 2009). First, referring to construct validity, this study contains multiple sources of evidence gathered by two different methods: semi-structured interviews (exploratory study) and the visual collaborative service design tool CoCo Cosmos (descriptive study). Secondly, the findings of each case in both

empirical phases have been combined into a cross-case analysis, each presented in an individual table (tables 4.15 and 5.13) to demonstrate the replication. It is notable that despite adopting two different methods the findings demonstrate coherent results between the exploratory and the descriptive study when it comes to evaluating the business approach of the case companies.

7.4.3 Reliability

This test deals with research design, meaning that if another researcher adopted the same procedures with the same cases as described in the thesis he/she would end up with the same results. This study has documented every single procedure in order to fulfil this requirement. Additionally, the study made use of Yin's (2009) case study protocol and all the data is stored in the database of this study. The research agreement with the case companies also includes the latter requirement. Furthermore, accordingly to all procedures in each phase, tables and figures are added to facilitate understanding (Yin 2009).

Consequently this study has applied the procedure of three possible quality tests for case studies introduced by Yin (2009). Nevertheless, some limitations occur. The role of a researcher when writing a thesis is to seek the best possible way to narrate a reader through the study i.e. to present how the study is accomplished, to present the data and to explain its meaning coherently and rigorously. This has been my ambition too. Having said this is it important to understand that the reality of accomplishing research in a social context with a creative iterative process is much more complicated than this written thesis is able to demonstrate. Thus truly aiming to replicate this study in reality might be messier than the flow of writing in this thesis demonstrates. Furthermore if seeking to replicate this study some challenges/differences might also occur because of the method being highly interactive and requiring strong communication skills.

As a philosophical approach this study chose interpretivism, which has its origin in phenomenology and hermeneutics (Gill & Johnson 2010; Gummesson 2000; Saunders et al. 2007). In phenomenology the researcher, i.e. the phenomologist,

seeks to understand reality by exploring how people see it. Thus, although the data of this study is rich, the findings of this study are subjective and based on the notions of the interviewee and the interpretation of the researcher.

In terms of scope the study focused on co-creation only among B2B service businesses, leaving out B2C businesses and businesses selling purely goods. Moreover, the cases were all Finnish companies, which might limit the generalisability of the findings to certain types of businesses in a certain cultural context.

7.5 Future work

As a result of this study there are a number of different possibilities for further research. The most basic ones would deal with the limitations of this study, extending it to other fields of industry and/or implementing cultural contexts apart from Finland/Europe to see whether the findings are generalisable.

This study is drawing together multiple strands of knowledge thus it can offer as framework which can be seen as provision for further co-creation studies. To extend knowledge about co-creation the following topics for future research studies are suggested:

- to proof this concept with a wider study;
- to explore the impact of adopting the characteristics of co-creation in different types of businesses;
- to explore value-in-use and value-in-exchange after adopting the characteristics of co-creation and to see what kind of value-in-use and value-in-exchange this would generate and for whom;
- to explore what kind of businesses models should be designed in order to support co-creation activities;
- to explore the new possibilities how to use novel CoCo Cosmos research method and possibilities in serious gaming.

In conclusion, at the heart of this study has been the aim of generating new knowledge. To tackle this aim the study began by carefully evaluating current knowledge in order to generate a research plan and then collected two rounds of empirical data, communicating the resulting information in a form which allows others to understand, to evaluate, and hopefully to make use of it in the future.

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Appendix 1: References between 2000-2011

Part 1/3

Reference Between 2000-2011 in chronological order	Domain	Relation to co-creation	Conceptual/ Empirical Qualitative/ Quantitative Focus	Service/ Product Field	B2C/ B2B/ Generic
(Sheth et al. 2000)	Marketing	Proposing a movement toward customer-centric marketing including co-creation marketing involving both customers and suppliers in the interactive process	Conceptual	Generic	Generic
(Prahalad & Ramaswamy 2002)	Business management	Introducing the five powers of the connected consumer and building blocks for co-creation	Conceptual	Generic	Generic
(Prahalad & Ramaswamy, 2004a, 2004b)	Business management	Introducing the concept of co-creation and DART model and comparing co-creation approach to the traditional approach in the market	Conceptual	Generic	Generic
(Vargo & Lusch 2004; Vargo & Lusch 2007)	Marketing	Introducing service-dominant logic including customer as a co-producer/co-creator of value	Conceptual	Service	Generic
(Grönroos 2006a)	Marketing	Introducing service logic including customer as a co-producer of the service and co-creator of a value	Conceptual	Service	Generic
(Kristensson et al. 2008)	Service innovation	Proposing seven key strategies required for the successful involvement of customers in the co-creation of new technology-based services	Empirical Qualitative A supplier focus	Service Mobile phone	B2C
(Payne et al. 2008)	Marketing	Introducing and utilising a conceptual process-based framework for understanding and managing value co-creation in the context of service-dominant logic	Empirical Qualitative A supplier focus	Service Travel company	B2C

Appendix 1: References between 2000-2011

Part 2/3

Reference Between 2000-2011 in chronological order	Domain	Relation to co-creation	Conceptual/ Empirical Qualitative/ Quantitative Focus	Service/ Product Field	B2C/ B2B/ Generic
(Sanders & Stappers 2008)	Design	Demonstrating the evolution in design research toward user-centred approach including co-design and co-creation	Conceptual	Generic	Generic
(Vargo et al. 2008)	Service marketing	Discussing value co-creation from a service systems and service logic perspective and arguing that value is fundamentally derived and determined in use rather than in exchange	Conceptual	Service	Generic
(Zhang & Chen 2008)	Operations management	Introducing three constructs in value co-creation system, demonstrating the positive effects of value co-creation and the possibility of gaining competitive advantage	Empirical Quantitative A supplier focus	Generic	Generic
(Zwick et al. 2008)	Marketing	Introducing consumers as labour for exploitation in the concept of co-creation	Conceptual	Generic	B2C
(Gebauer et al. 2010)	Service management	Demonstrating that a firm can become a value co-creator through utilising Prahalad's five activities of co-creation and organisations should take a comprehensive view of value-co-creation to exploit its full strategic potential	Empirical Qualitative A supplier focus	Service Public transportation	B2C
(Hoyer et al. 2010)	Innovation management	Analysing consumer co-creation in new product development and suggesting future research areas	Conceptual	Product	B2C
(Ngugi et al. 2010)	Business management	Exploring the relational capabilities of SME's in UK's organic food suppliers and suggesting that relational capabilities influence in value co-creation and innovation	Empirical Qualitative A supplier focus	Generic Retail	B2C

Appendix 1: References between 2000-2011

Part 3/3

Reference Between 2000-2011 in chronological order	Domain	Relation to co-creation	Conceptual/ Empirical Qualitative/ Quantitative Focus	Service/ Product Field	B2C/ B2B/ Generic
(Nuttavuthisit 2010)	Business management	Discussing how and why consumers co-create and introducing a typology of consumers' co-creative practices	Conceptual	Generic	B2C
(Ojasalo 2010)	Service marketing	Analysing the current literature on traditional product business approach, co-production in services and value co-creation approach and introducing a framework of co-production and value co-creation	Conceptual	Generic	Generic
(Cova et al. 2011)	Marketing	Broadening the discussion of co-creation and introducing collaborative capitalism and its implications for value creation	Conceptual	Generic	Generic
(Echeverri & Skalen 2011)	Marketing	Introduces value co-destruction, identifies five interaction value practices, and theorises how interactive value formation occurs	Empirical Qualitative A supplier & a customer focus	Service Public transportation	B2C
(Fisher & Smith 2011)	Marketing	Discovering that co-creation can create chaos and proposing how to manage brand experiences	Empirical Qualitative A customer focus	On-line brand community	B2C
(Mattelmäki & Visser 2011)	Design	Discussing the differences and similarities of co-design and co-creation	Conceptual	Generic	Generic
(Witell et al. 2011)	Service innovation	Comparing traditional and co-creation market research techniques during the development of new market offerings	Empirical Quantitative A supplier & a customer focus	Generic	B2C

Appendix 2: References between 2012-2014

Part 1/5

Reference Between January 2012- April 2014 in chronological order	Domain	Relation to co-creation	Conceptual/ Empirical Qualitative/ Quantitative Focus	Service/ Product Field	B2C/ B2B/ Generic
(Aarikka-Stenroos & Jaakkola 2012)	Service marketing	Presenting an empirically grounded framework for joint problem solving as value co-creation in knowledge intensive services	Empirical Qualitative A supplier & a customer focus	Service	B2B
(Gustafsson et al. 2012)	Service innovation	Exploring the outcome of customer co-creation in both incremental innovation and radical innovation	Empirical Quantitative A supplier focus	Generic	Generic
(Grissmann & Stokburger-Sauer 2012)	Hospitality management	Developing a conceptual model of customer co-creation in tourism services and demonstrates the level of customers' satisfaction in relation to their co-creation activities	Empirical Quantitative A supplier & a customer focus	Service Travel agency	Generic
(Hakanen & Jaakkola 2012)	Service marketing	Demonstrating that an effective co-creation of solutions requires a fit between the perceptions of multiple suppliers and their customers with regard to core content, operations and processes, customers experience and value of the solution	Empirical Qualitative A supplier & a customer focus	Generic	B2B
(Hilton et al. 2012)	Marketing management	Analysing how value is realised and indicating that service is co-created but value as being a personal evaluative judgement cannot be co-created	Conceptual	Service	Generic
(Lambert & Enz 2012)	Business management	Exploring how to manage and measure value co-creation and introducing three cyclical and interrelated co-creation phases: 1) joint crafting of value propositions, 2) value actualisation, and 3) value determination.	Empirical Qualitative & quantitative Food industry A supplier & a customer focus	Generic	B2B

Appendix 2: References between 2012-2014

Part 2/5

Reference Between January 2012- April 2014 in chronological order	Domain	Relation to co-creation	Conceptual/ Empirical Qualitative/ Quantitative Focus	Service/ Product Field	B2C/ B2B/ Generic
(Leavy 2012)	Innovation management	Combining design thinking, value co-creation and the power of “pull” from the perspective of collaborative innovation	Conceptual	Generic	Generic
(Lee et al. 2012)	Innovation management	Exploring co-creation in co-innovation from a macro view	Conceptual	Service	Generic
(Martovoy & Henri 2012)	Innovation management	Exploring the characteristics of customers to qualify for co-creation activities and indicating that customers being more demanding, having a possibility to cooperate, and with whom the supplier has a longstanding and intertwined relationships get chosen into co-creation.	Empirical Qualitative A supplier & a customer focus	Service Financial	Generic
(Park 2012)	Design	Proposing a user-evolving collaborative design process which is built on co-creation activities between a designer and a user	Conceptual	Generic	Generic
(Reay & Seddighi 2012)	Innovation management	Exploring the co-creation activities and capabilities in high turnover companies and indicating that co-creation is not intensively used among the companies. Those companies more focusing on meeting the demands of individual customers have more developed co-creation capabilities	Empirical Quantitative A supplier focus	Generic	Generic
(Roggeveen et al. 2011)	Marketing	Exploring and demonstrating how customer participation effects to service recovery	Empirical Quantitative A customer focus	Service	B2C
(Russo-Spena & Mele 2012)	Innovation management	Exploring an innovation as a process of co-creation from a practice-based view and introducing five “co-”s in innovating within the web context	Empirical Qualitative A supplier focus	Generic	Generic

Appendix 2: References between 2012-2014

Part 3/5

Reference Between January 2012- April 2014 in chronological order	Domain	Relation to co-creation	Conceptual/ Empirical Qualitative/ Quantitative Focus	Service/ Product Field	B2C/ B2B/ Generic
(Russo-Spena et al. 2012)	Business management	Exploring co-creation in the perspective of Temporary Shops in Italy and demonstrating that Temporary Shops provide a locus of value co-creation in which interactive and experiential relationships between a firm and the customer in engaged and value co-creation emerges	Empirical Qualitative A supplier focus	Generic Retail	B2C
(Saarijärvi 2012)	Marketing	Analysing strategic implications of the mechanisms of the value co-creation	Conceptual	Generic	Generic
(Sarker et al. 2012)	Business management	Demonstrating mechanisms underlying value co-creation within B2B alliances	Empirical Qualitative A supplier & a customer focus	Service IT	B2B
(Storbacka et al. 2012)	Marketing	Exploring how to design business models to enhance value co-creation and demonstrating new co-creative business model elements	Conceptual	Generic	Generic
(Chathoth et al. 2013)	Hospitality management	Discussing co-production and co-creation and introducing a process based continuum from co-production to co-creation	Conceptual A company focus	Service Hotel industry	B2C
(Gebauer, Füller, & Pezzeri, 2013)	Innovation management	Demonstrating how co-creation project among online community can both carry a risk of conflict but have also positive effects on word-of-mouth	Empirical Qualitative & quantitative A company & a customer focus	Generic Retail	B2C
(Grönroos & Voima 2013)	Service marketing	Analysing value creation and co-creation in service and introducing value creation spheres including co-creation and co-production	Conceptual	Service	Generic

Appendix 2: References between 2012-2014

Part 4/5

Reference Between January 2012- April 2014 in chronological order	Domain	Relation to co-creation	Conceptual/ Empirical Qualitative/ Quantitative Focus	Service/ Product Field	B2C/ B2B/ Generic
(Ind & Coates 2013)	Business management	Analysing co-creation from the psychotherapy, critical theory, software development and design point of view and from the consumers and other stakeholders perspective and indicating that co-creation can be more spontaneous and playful	Conceptual	Generic	Generic
(Komulainen & Tapio 2013)	Service marketing	Introducing a model of customer perceived value in the infranet business and discussing how value co-creation could be enhanced in the future	Empirical Qualitative	Service Infranet solutions	B2B
(Ramaswamy & Kerimcan 2013)	Business management	Exploring co-creation as a new way of strategic thinking	Conceptual	Generic	Generic
(Roser et al. 2013)	Business management	Introducing a model demonstrating differences in co-creation choices across B2B and B2C contexts	Empirical Qualitative A supplier & a customer focus	Generic	Generic
(Saarijärvi et al. 2013)	Service marketing	Identifying the sources of the different approaches to value-co-creation to reduce the complexity Developing a business-oriented analytical framework for assessing the opportunities of value co-creation	Conceptual	Services	Generic
(Degnegaard 2014)	Design	Exploring the literature on co-creation and highlighting co-creation related issues and challenges	Conceptual	Generic	Generic
(Gouillart 2014)	Business management	Presenting five approaches to co-creation and an ideal transformation plan from traditional functions into co-creation ecosystems	Conceptual	Generic	Generic

Appendix 2: References between 2012-2014

Part 5/5

Reference Between January 2012- April 2014 in chronological order	Domain	Relation to co-creation	Conceptual/ Empirical Qualitative/ Quantitative Focus	Service/ Product Field	B2C/ B2B/ Generic
(Hammervoll 2014)	Service marketing	Suggesting six types of service provision in supply chain relationships (SCRs) for the purpose of co-creation of value in service-dominant logic (SDL)	Conceptual	Service	B2B
(Roberts et al. 2014)	Marketing	Exploring factors that motivate consumers to engage in co-creation innovation practices and demonstrating that motivations seem differ across types of co-creation efforts	Empirical Qualitative A supplier focus	Service Gaming and video game	B2C
(Roseira & Brito 2014)	Business management	Exploring co-creation in buyer-supplier relationships and demonstrating that co-creation can be regarded as one of the strategic options	Empirical Qualitative A supplier and a customer focus	Product Manufacturing	B2B

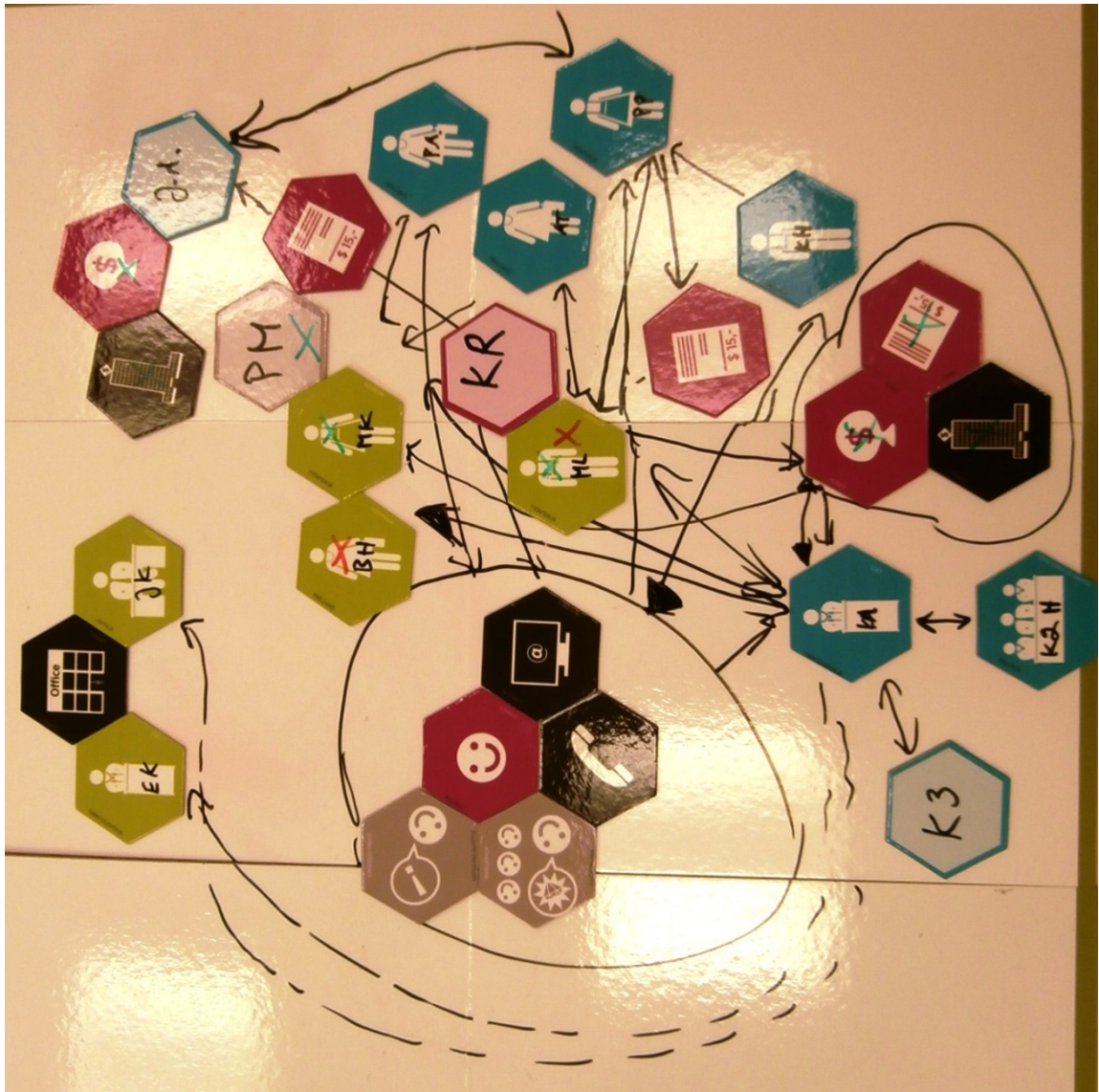
Appendix 4: Maps 1-18

Map 4/18: Case S1C2 Supplier's map



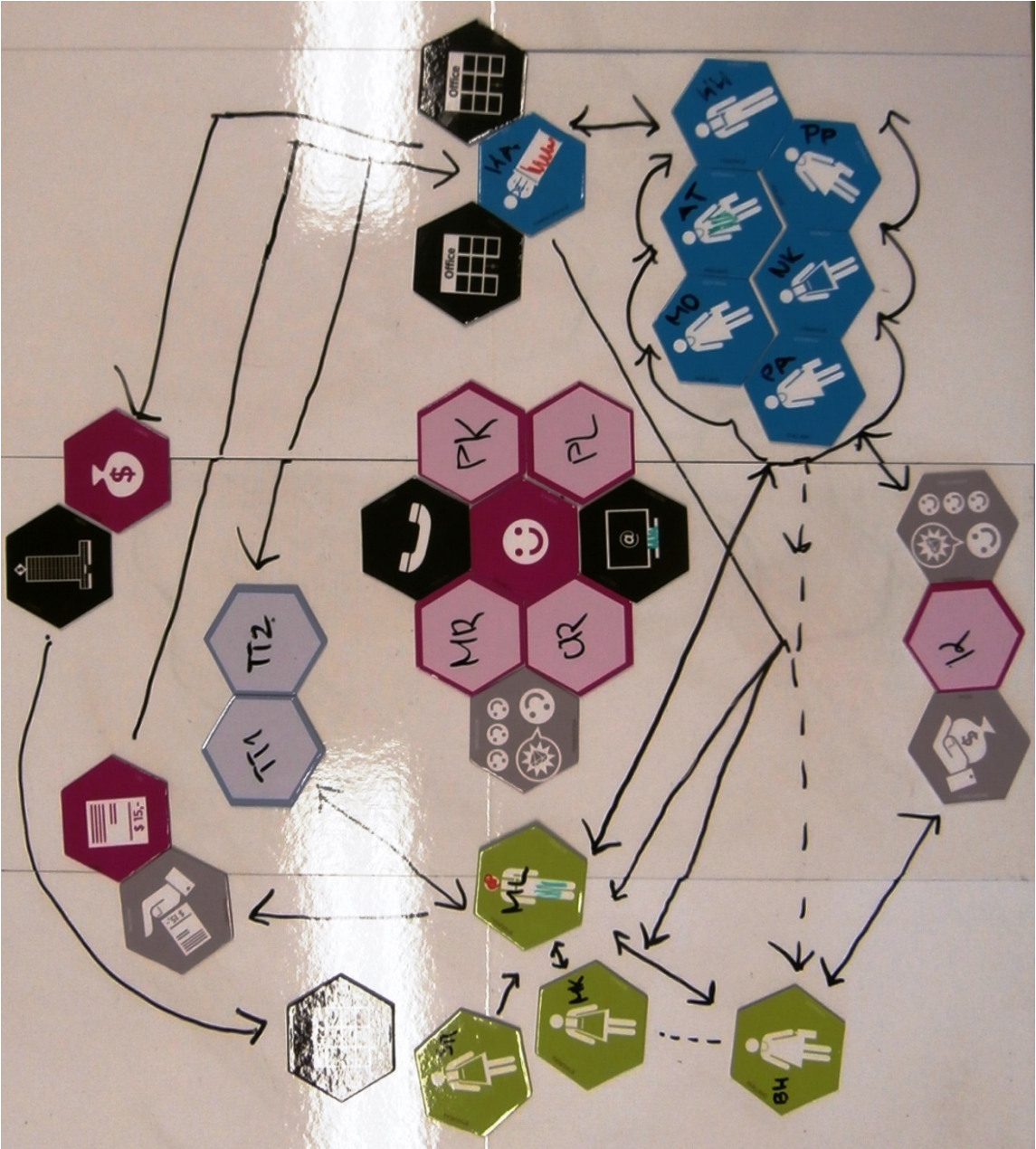
Appendix 4: Maps 1-18

Map 5/18: Case S1C3 Customer's map



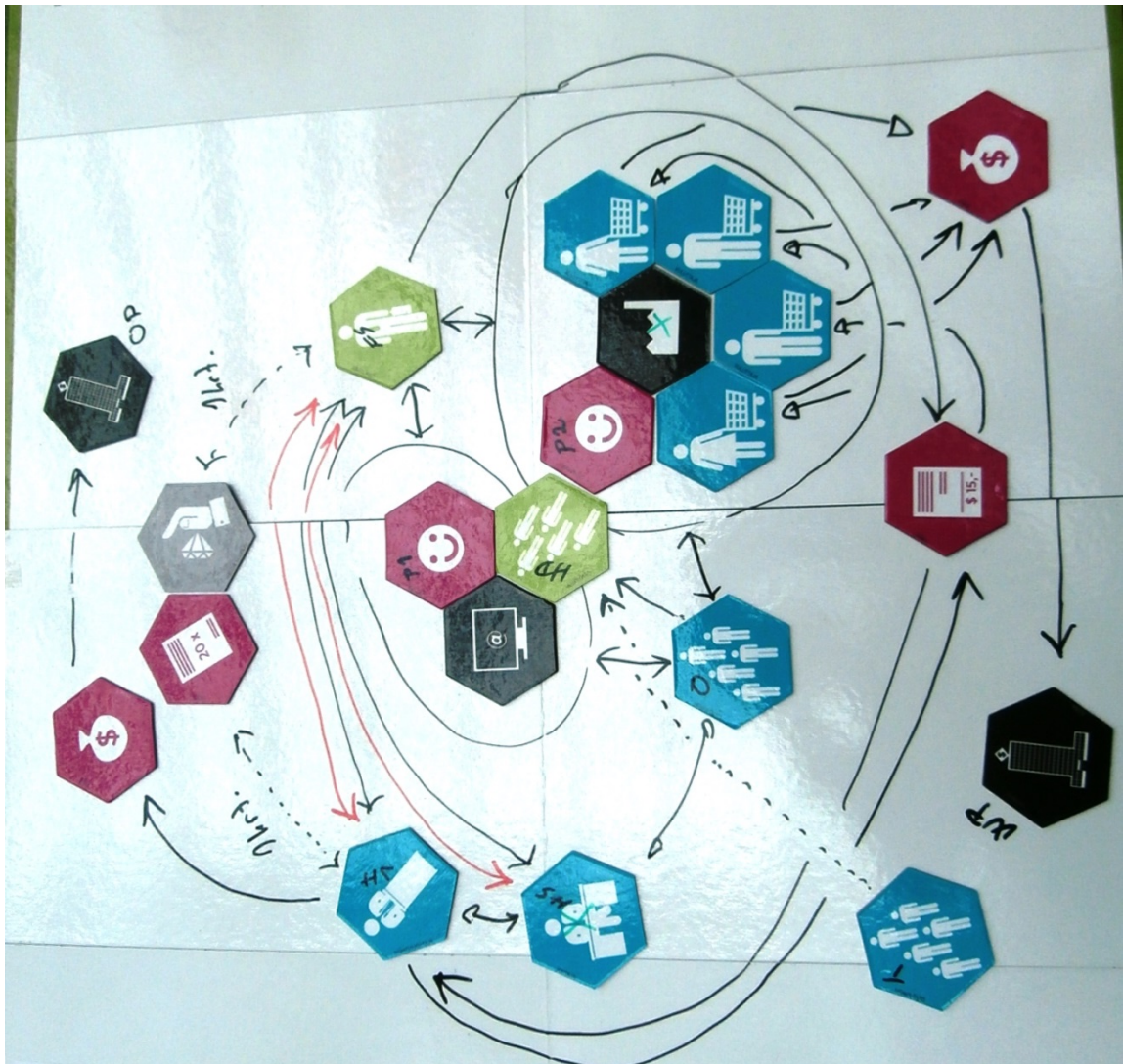
Appendix 4: Maps 1-18

Map 6/18: Case S1C3 Supplier's map



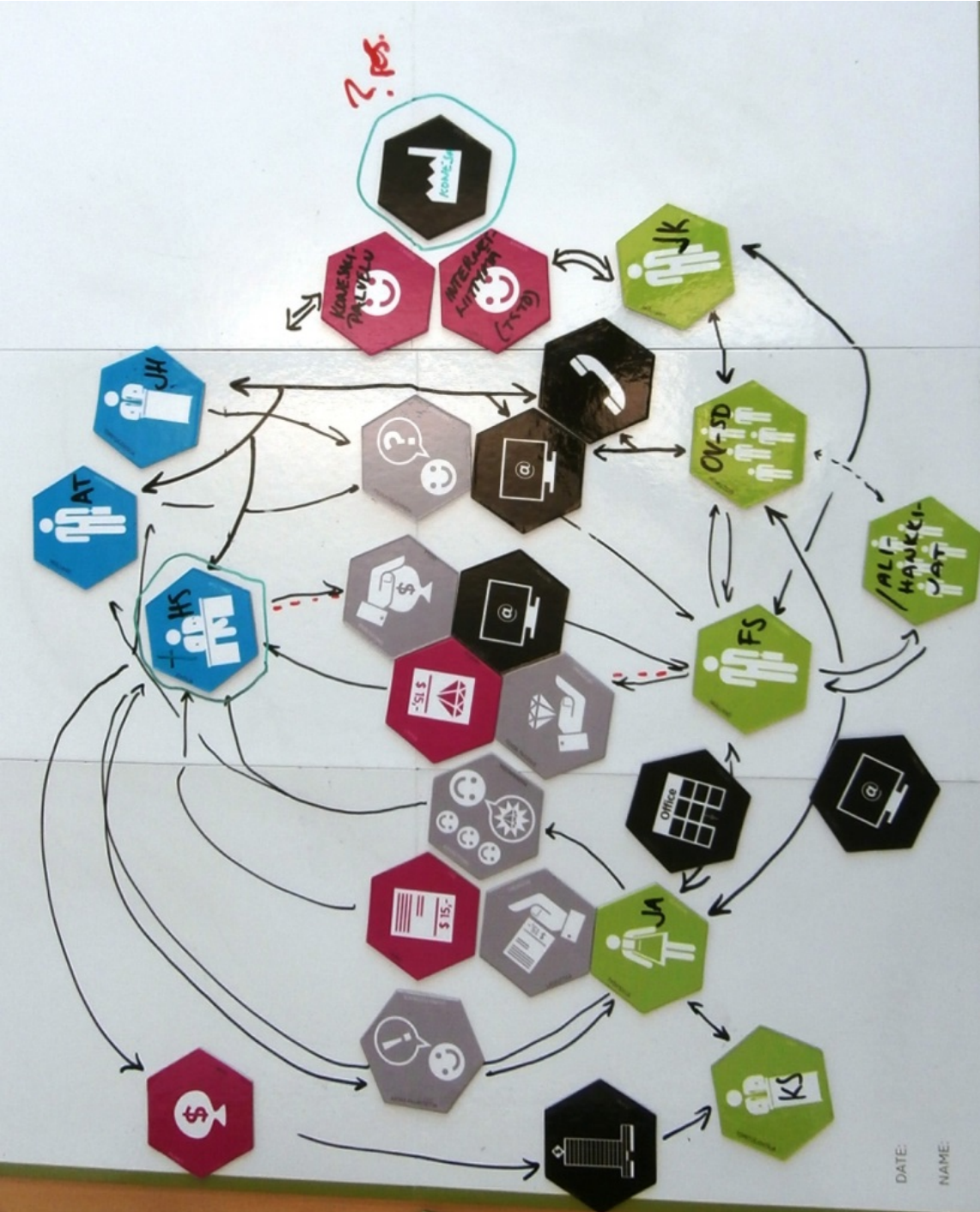
Appendix 4: Maps 1-18

Map 7/18: Case S2C1 Customer's map



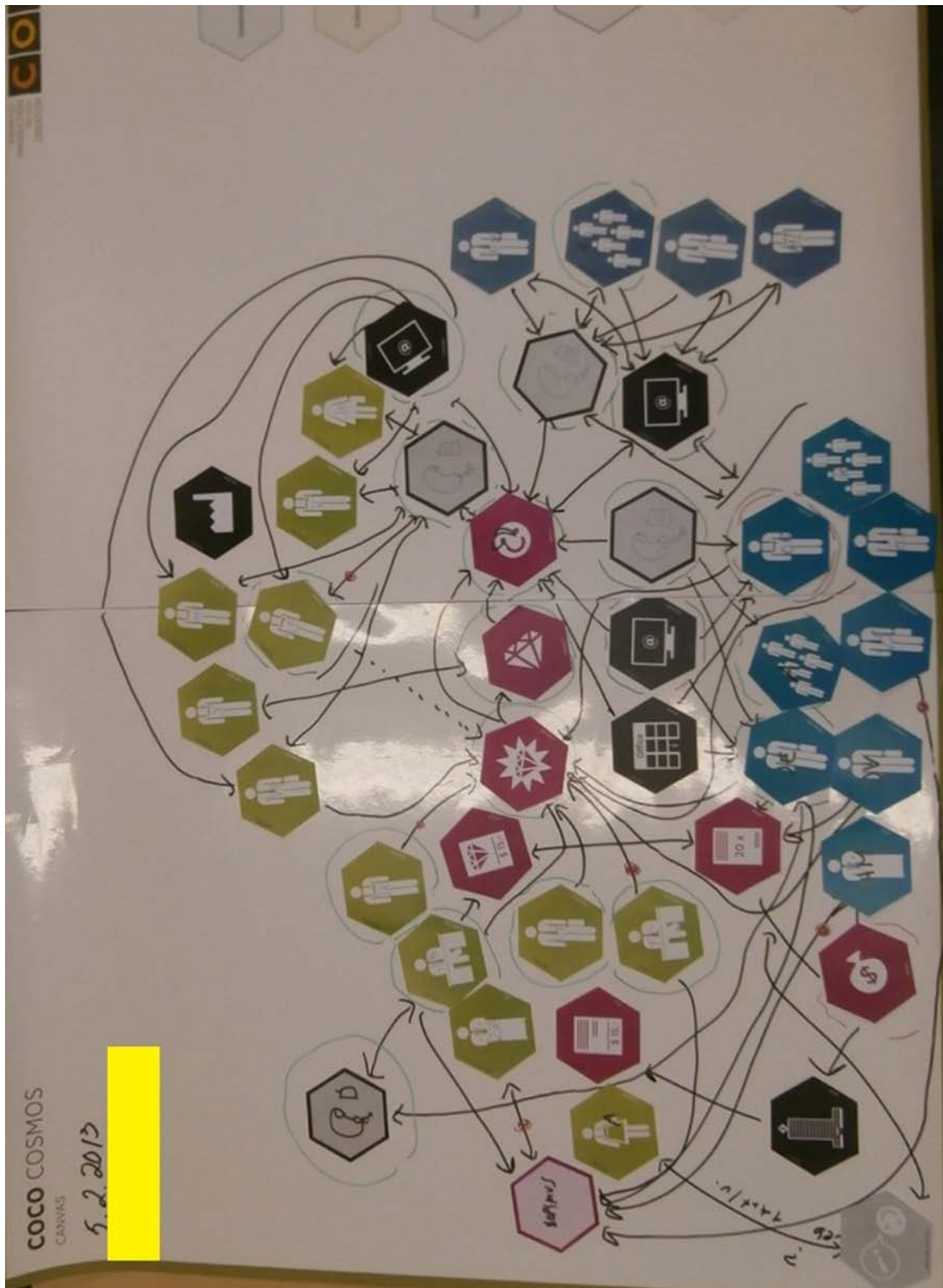
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Map 8/18: Case S2C1 Supplier's map



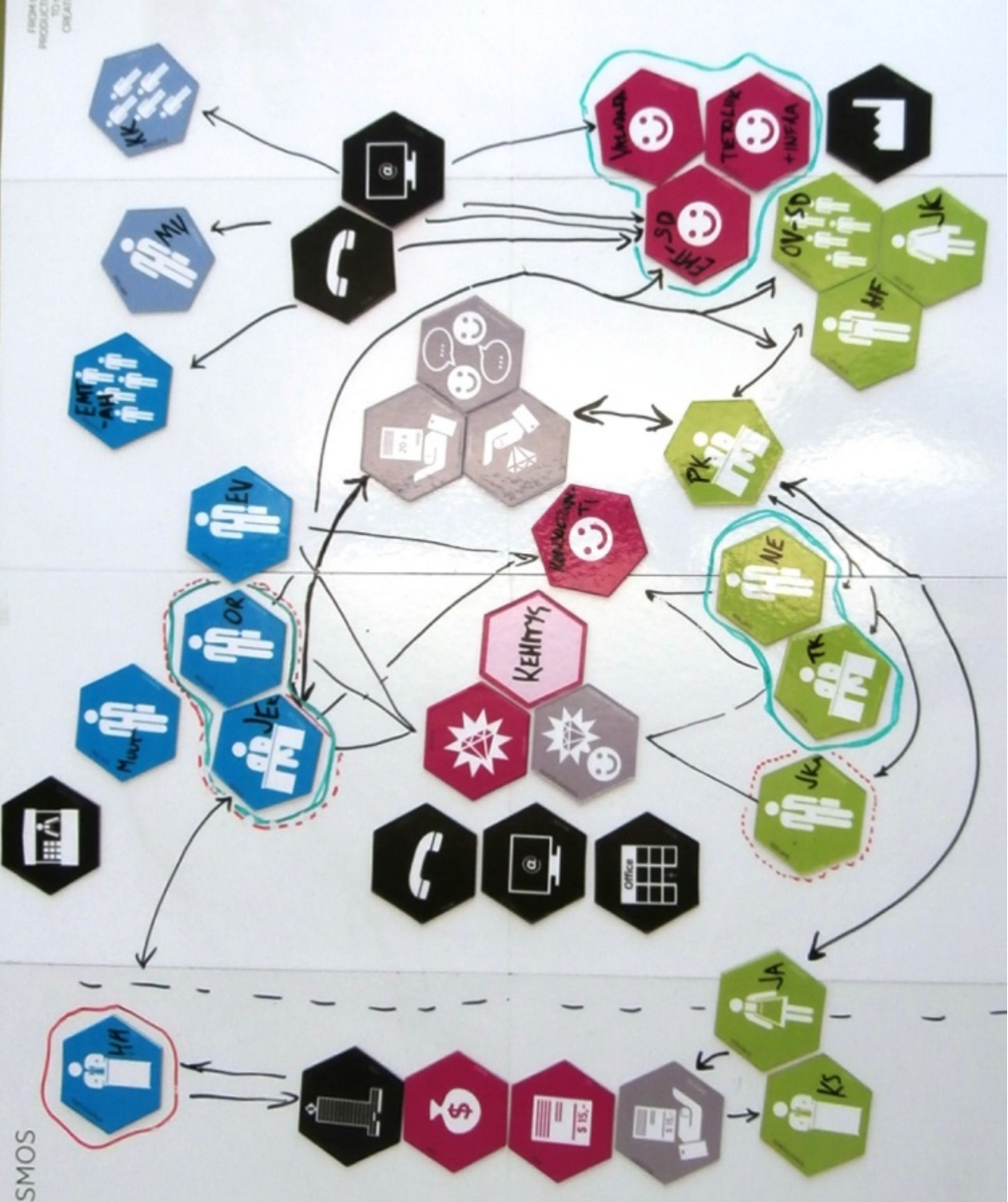
Appendix 4: Maps 1-18

Map 9/18: Case S2C2 Customer's map



Appendix 4: Maps 1-18

Map 10/18: Case S2C2 Supplier's map



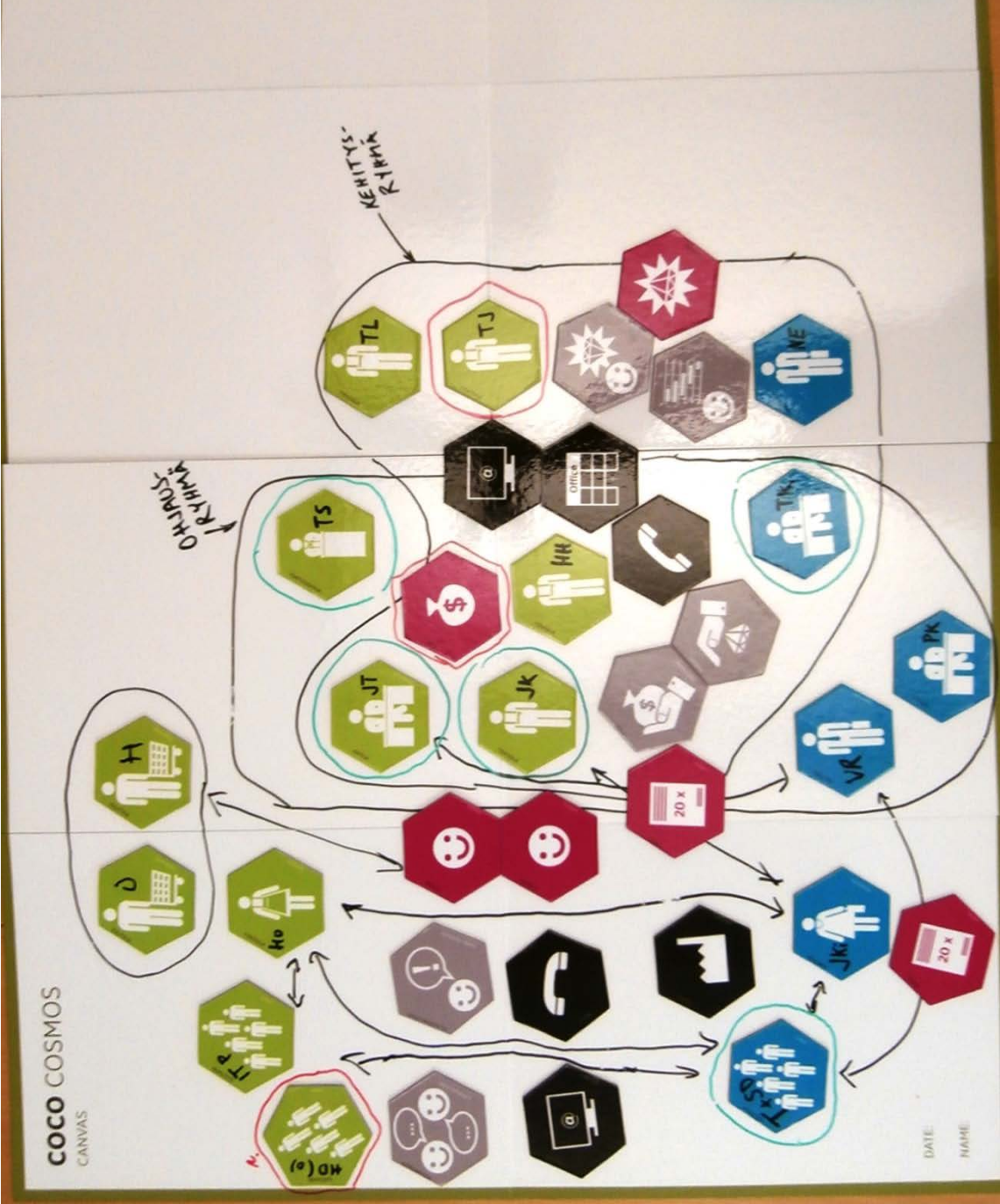
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Map 11/18: Case S2C3 Customer's map



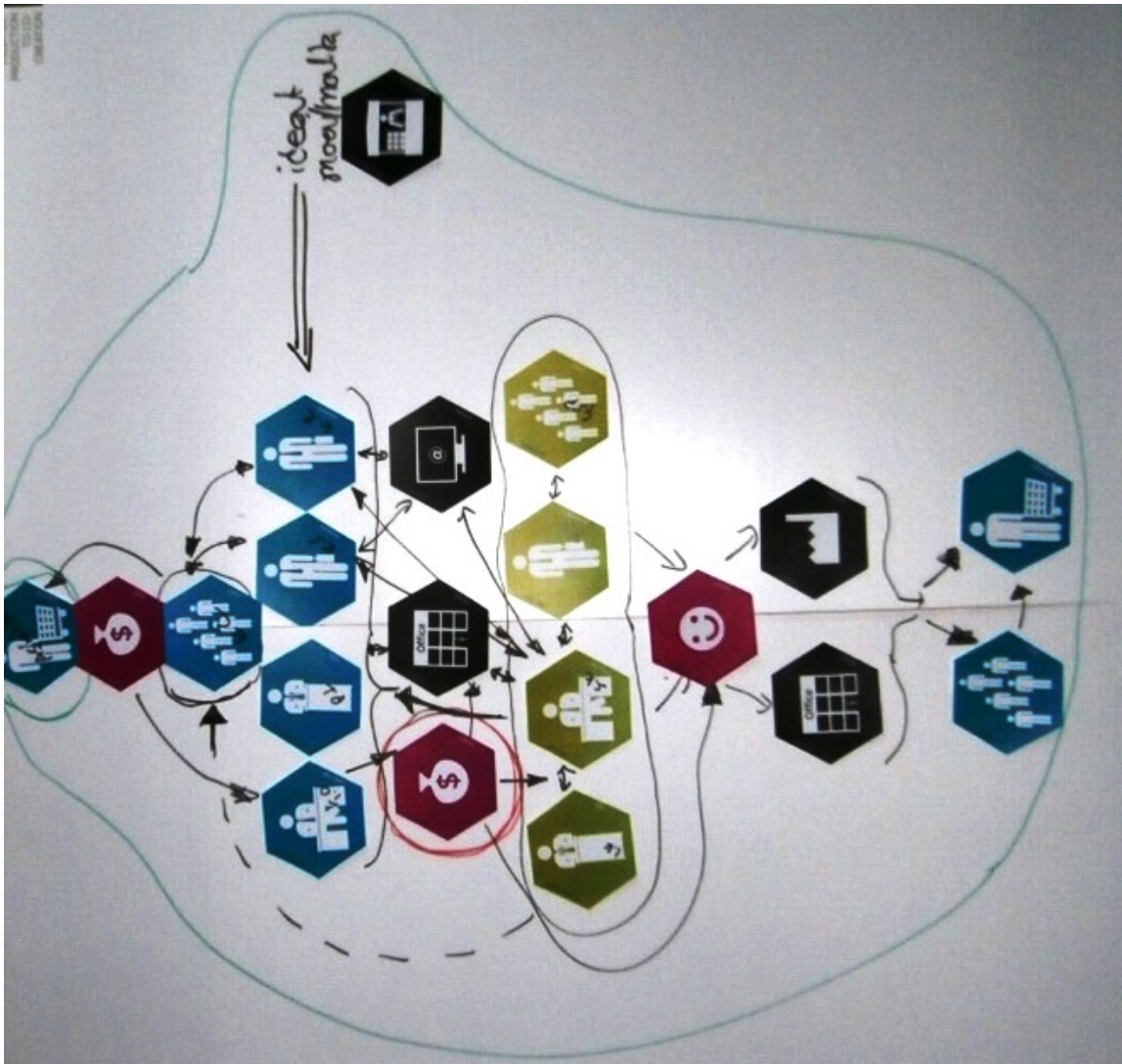
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Map 12/18: Case S2C3 Supplier's map



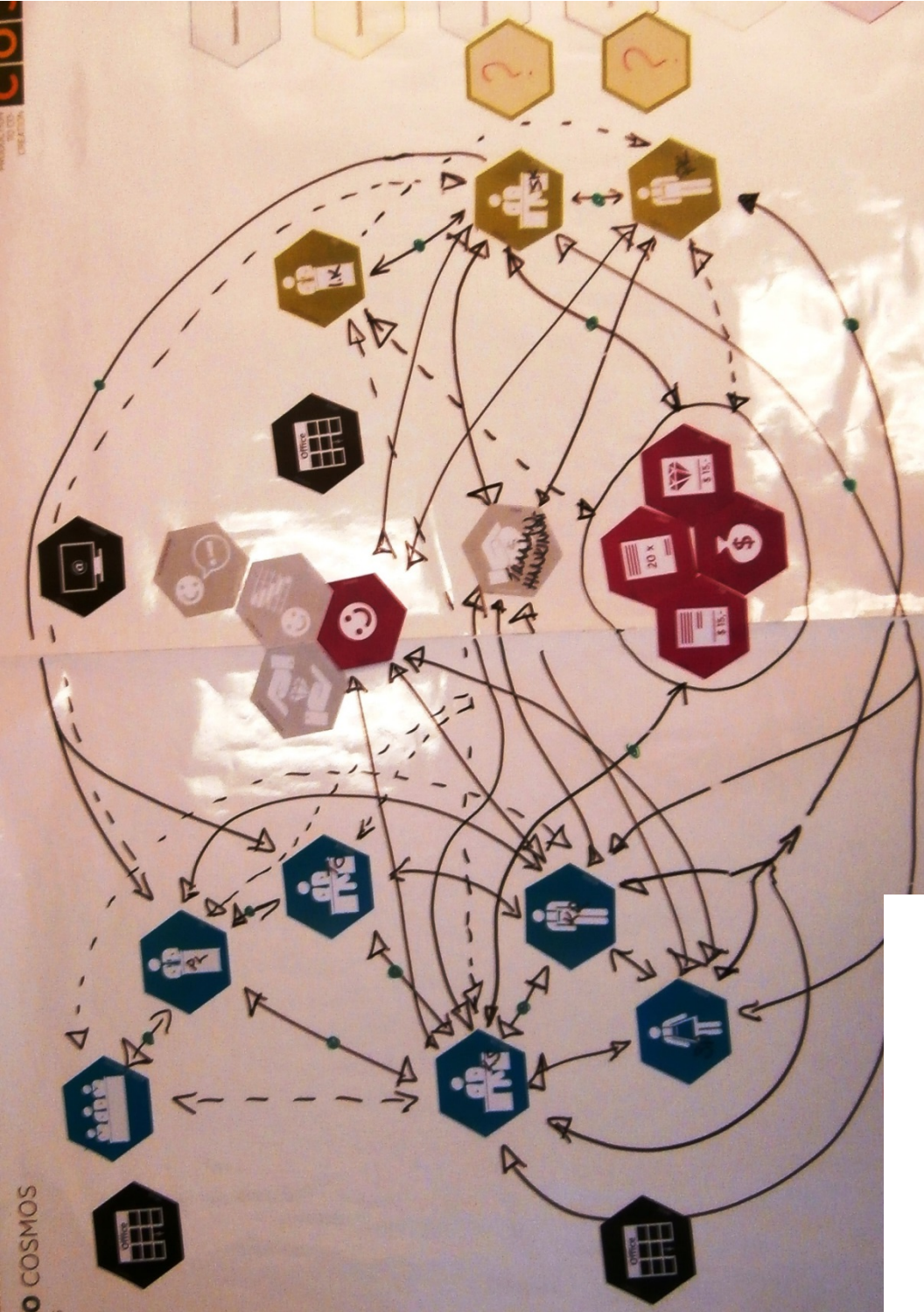
Appendix 4: Maps 1-18

Map 13/18: Case S3C1 Customer's map



Appendix 4: Maps 1-18

Map 14/18: Case S3C1 Supplier's map



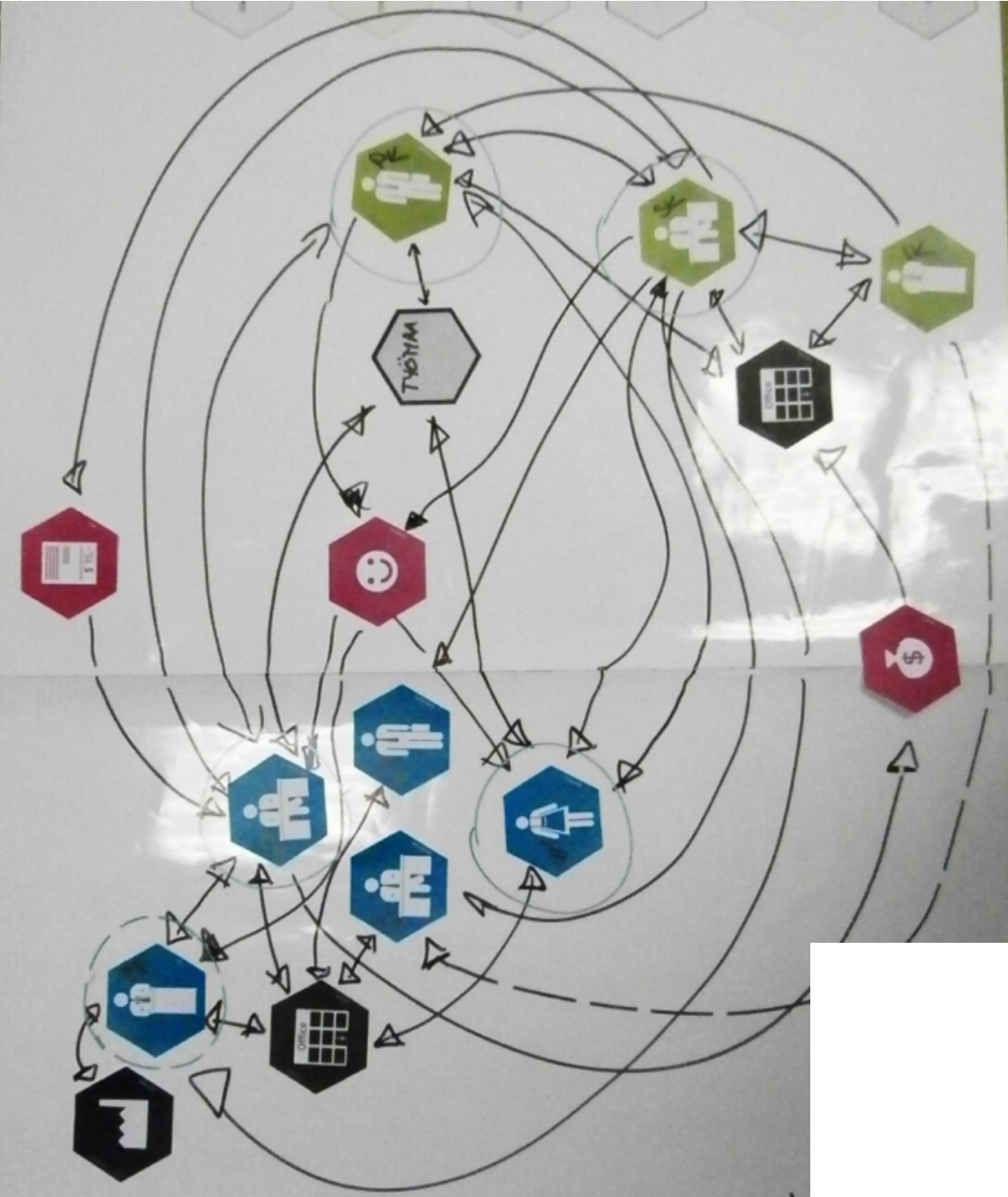
Appendix 4: Maps 1-18

Map 15/18: Case S3C2 Customer's map



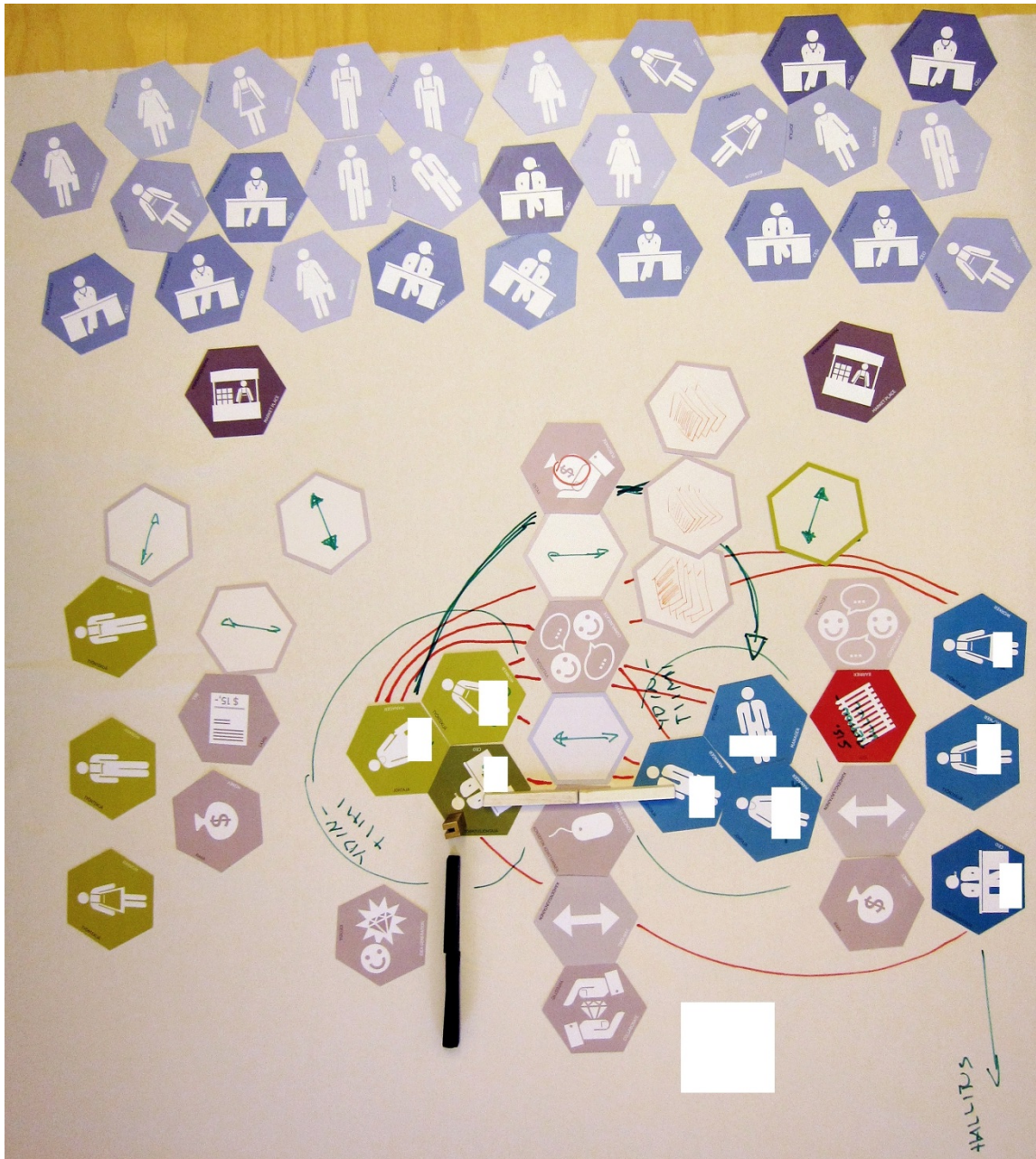
Appendix 4: Maps 1-18

Map 16/18: Case S3C2 Supplier's map



Appendix 4: Maps 1-18

Map 17/18: Case S3C3 Customer's map



Appendix 4: Maps 1-18

Map 18/18: Case S3C3 Supplier's map

