The role of causation, effectuation and bricolage in new service development processes

Lassila, S.

A PhD thesis awarded by the University of Westminster.

THE ROLE OF CAUSATION, EFFECTUATION AND BRICOLAGE IN NEW SERVICE DEVELOPMENT PROCESSES

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A thesis submitted in partial fulfilment of the
requirements of the University of Westminster
for the degree of Doctor of Philosophy

March 2020

Abstract

This thesis examines the role of different types of entrepreneurial cognitive logics—namely causation, effectuation, and bricolage (CEB)—in new service development (NSD) processes within a new venture. To understand how entrepreneurial cognitive logics are used in the NSD process, I adopt a process research approach to study how service comes to be within a new venture in the healthcare industry. My research employs a range of methods between 2013 and 2017, including observation, interviews, and document analysis.

Within current NSD models, means are not considered as part of processes which lead to new services; instead, the NSD process is assumed to start with a conscious intent to create a new service. My research has identified that NSD processes are often means driven and that the service developers ask themselves means-driven questions considered to represent effectuation logic. Hence, I shift the attention of NSD research from stable and resource-rich environments to dynamic and resource-constrained ones. As a result, I suggest that effectuation and bricolage are key perspectives in understanding NSD in uncertain and resource-scarce environments. In doing so, I challenge the predominantly causation-based formal and linear NSD stage model typically proposed in existing research.

The findings show how CEB logics interplay and shift in a complex manner over time. Situational triggers, resource position, and unanticipated consequences, along with actor-dependent responses to internal and external influences, add to the complexity of how CEB logics interplay and shift over time. Furthermore, researching CEB logics on individual, team, and organisational levels reveals that the different logics may also cause conflict, thus leading not only to positive outcomes but also to frustration and tensions within the new venture.

Contents

List of figures

List of tables

Acknowledgements

This thesis work has been an insightful journey while it has taken me to new worlds that were not familiar to me before. I have been lost many times and without the guidance of my supervisors, Professor Alison Rieple and Senior Lecturer Caroline Ennis, I would not have been able to accomplish the dissertation. Therefore, I would like to express them my gratitude and heartfelt thanks for supporting my writing process.

I would also like to thank my examiners Professor Javed Hussain and Dr Jane Chang for providing me valuable critical and clarifying comments. Based on their feedback I was able to develop and focus my research.

Without the founders of Heltti and their open-minded attitude, this research would not have been possible. I was fortunate to find such an inspiring company as my research site and to meet all the warm-hearted people working in Heltti. From them I learnt about courage and empathy, while also experiencing the many pain points of the start-up life.

This dissertation was enabled also by two grands, which allowed me to have a study leave to collect data and write the final work. I would like to express my gratitude to two Finnish funds: The Foundation for Economic Education and Foundation for Private Entrepreneurs.

My employer, Haaga-Helia University of Applied Sciences, enabled my doctoral research journey. I am grateful for Haaga-Helia for giving me the opportunity to study in the doctoral program in University of Westminster. I would like to thank Dr Teemu Kokko, President of Haaga-Helia, and his management team for initiating the doctoral program with University of Westminster. During the research process, I have been fortunate to have three understanding superiors, Lis-Marie Enroth-Niemi, Kaija Lindroth and Matti Kauppinen. Thank you for your support!

Even though these five years writing the thesis have been full of learning, progress and insightful encounters, it has sometimes also been full of despair. I have been privileged to share these ups and downs with my wonderful colleagues and research partners, Anna Hankimaa, Niina Jallinoja and Kitte Marttinen. I am profoundly thankful to my colleague Anette Kairikko for her collegial support and for the many insightful discussions.

Finally, my husband Janne and my two sons, Julius and Samuel, were particularly important in my life during the research journey. Even during the toughest time, you always supported me. I am grateful to my father Pentti and my late mother Anja, who have always encouraged me to learn and study.

Declaration

I declare that all the material contained in this thesis is my own work.

28.3.2020

Sirpa Lassila

1. Introduction

Drawing on relevant literature from the fields of new service development, innovation and entrepreneurship, in this dissertation I examine how different types of entrepreneurial cognitive logics, namely causation, effectuation and bricolage (CEB), influence the new service development process within a new venture in the health care industry. As the context of services is rapidly evolving and becoming ever more complex, understanding how new services are developed and successfully implemented has been identified as one of the priorities for service research (Ostrom et al., 2015; Yu & Sangiorgi, 2018). Services are affected by a fast-changing technological environment (Lusch & Nambisan, 2015) as well as by a shift from traditional internal research and development processes to one that brings in ecosystems and open innovation to the service development process (Ostrom et al., 2015). This changing context of services has also challenged the key assumptions of service innovation research, and service organisations are increasingly aware of the need to be innovative in their service provision (Witell et al., 2015; Witell et al., 2017). Hence, it is timely to undertake an in-depth study of how new services are developed in a new venture within a health care context that is influenced by many of these recent changes.

Although services account for over 70% of the world's advanced economies' GDPs, new product development has received the majority of attention while service innovation theory and empirical work remains limited (O'Cass, Song, & Yuan, 2013). In addition, research on new service development has typically been conducted in established companies. However, these companies have access to different resources and use other types of development heuristics compared to new ventures, leading to different outcomes and processes (Dew, Read, Sarasvathy, & Wiltbank, 2018; Santos & Eisenhardt, 2009). My research provides rich empirical data from a longitudinal study of the new service development processes in the context of a new venture and therefore, it has practical relevance for companies as it increases our understanding of how new services can be created in a dynamic and resource-constrained environment.

Entrepreneurship research has increasingly moved away from identifying entrepreneurial traits (Read, Sarasvathy, Dew, & Wiltbank, 2016) and towards understanding how entrepreneurs identify and manage opportunities while retaining the potential for studying cognitive scripts in decision making (Fayolle & Liñán, 2014). Thus, entrepreneurship research appears to have many areas of overlap with how service providers identify and exploit new service opportunities (Bettencourt, Lusch, & Vargo, 2014; Read & Sarasvathy, 2012). However, how service providers identify opportunities has rarely been studied (Read et al., 2016). The literature review undertaken for this dissertation compares discourses around service innovation and new service development, as well as entrepreneurship theories, to identify similarities, contradictions and how these different theories may complement each other when looking into how new services are developed.

In this dissertation, I investigate whether there are grounds for using entrepreneurial cognitive logics to help understand the processes of new service development in a new venture context. Specifically, I ask: 1) how CEB logics interplay, synergistically, as new services emerge (Smolka, Verheul, Burmeister-Lamp, & Heugens, 2016); 2) which of these logics dominates at the different stages in the service development process and in the different places where inputs into the new service are located; 3) whether these logics differ at individual, team or corporate level (Chandler & Lyon, 2001; Smolka et al., 2016); and 4) whether CEB are useful and appropriate in their conceptualisation and application to understanding new service development.

The research site of this dissertation is a new venture, Heltti, which was established in 2013 in Finland. As a company, Heltti was four years old at the end of the dissertation's study period in 2017 and therefore did not exceed the six years of age limit for a company to still be defined as a new venture (Deligianni, Voudouris, & Lioukas, 2017; Zahra, Ireland, & Hitt, 2000). Heltti offers occupational health care services and aims to improve and uplift changes among employees, organisations and the ecosystem (Anderson et al., 2013). To study how Heltti's service came to be, I employed a range of methods between 2013 and 2017, including observation, interviews and document analysis, all of which aided in achieving a greater depth of understanding (Bryman, 2012; Easterby-Smith, Thorpe, & Jackson, 2012).

Heltti offers occupational healthcare (OHC) and wellbeing services to knowledge workers. Its business model is described by Den Ouden (2011) as a meaningful and transformational innovation; it addresses the different levels of value, aims at changing behaviour, disrupts the traditional structures in the ecosystem, requires a longer time period for value creation and, as a radical solution, it is not certain that the business model is viable and accepted by the customers. Heltti aimed to challenge traditional occupational health care practices by focusing on preventative services, offering a fixed monthly fee and handling approximately 70% of its services digitally through eHealth solutions.

The contribution of this thesis is threefold. First, my research contributes to understanding NSD processes by showing how CEB logics are applied within the innovative new service development process, particularly those services that involve the emotional and/or physical wellbeing of their users. Understanding the role of these logics in NSD has been the subject of almost no previous research. Based on my research, I suggest that an understanding of how all three logics (causation, effectuation *and* bricolage) are applied in the NSD processes may help service developers. In this, I challenge the formal and linear NSD stage model, which is a principally causative approach, and which is typically proposed in existing research.

Second, within the current NSD models, means are not considered as part of processes which lead to new services; instead they assume the NSD process to start with a conscious intent to create a new service. My research has identified that the NSD processes were often means driven, and that the service developers were asking themselves questions like who I am, what I know, and whom I know. These means driven questions have been considered to represent effectuation logic (Sarasvathy, 2001). Hence, I shift the attention of new service development research from stable and resource-rich environments to dynamic and resource-constrained environments, and suggest that effectuation and bricolage are key perspectives in understanding new service development in uncertain and resource scarce environments.

Third, my longitudinal process study provides rare insights into the shifts, relationships and processes, and how and why some aspects emerge, develop, grow, or terminate over time (Langley, Smallman, Tsoukas, & Van de Ven, 2013). In contrast to cross-sectional studies, my process-based research has allowed me to uncover several issues that would not have emerged through the use of a single-time, cross-sectional research design. My study provides insights to the shifts, relationships and process characteristics of CEB logics thereby enhancing conceptual understanding of how they are applied within a new service development context. Numerous researchers have studied the interplay between causation and effectuation (Alsos, Clausen, Hytti, & Solvoll, 2016; Evald & Senderovitz, 2013; Nummela, Saarenketo, Jokela, & Loane, 2014) and found that the logics are used complementarily (Servantie & Rispal, 2018; Smolka et al., 2016). My process research reveals how the dominant CEB logics shifted, coexisted, and created synergy but also conflicted, over time.

This thesis is structured as follows. Chapter 2 provides a literature review of evolutionary developments of service concepts as well as service innovation and new service development theories. I describe service innovation and NSD processes as they are understood in the current literature. Section 2.3 includes a review of CEB theories, while also linking entrepreneurship and innovation as concepts.

Chapter 3 presents my research journey and explains the methodological considerations of this thesis. In Section 3.2, I use process ontology as a lens to discover how a process view might help to better understand cognitive logics associated with CEB. Thus, I take part in the discussion initiated by Arend, Sarooghi and Burkemper (2015), who argue that effectuation as a theory is based on insufficient empirical testing and critical analysis and recommend that more data should be collected by using field observations and inductive process research. I continue by presenting my data collection methods and the data analysis process.

In Chapter 4, I narrate the story of Heltti, providing a detailed and chronological account from December 2012 to January 2017. I start the chapter by introducing the background to the research site and exploring how Heltti's potential value-in-use actualised as organisational value-in-use and individual value-in-use through co-creation and co-destruction. I continue by reconstructing the processes as narrative, which allows for presentation of the temporal evolution as constructed by the founders, managers and employees of Heltti. The story of Heltti provides rich insights into the life of a new venture.

In Chapter 5, I describe and analyse how events unfolded in Heltti by applying CEB logics as a lens. Using a process research approach, I also explore how and why the dominant CEB logics shift, interplay, cause synergy and conflict over time. Finally, I analyse how CEB logics were applied in Heltti's NSD processes.

In Chapter 6, I provide overall conclusions of the study while also illustrating how my findings contribute to better understanding of NSD processes and CEB logics. Finally, I describe the implications for practice, discuss the limitations of this study and provide suggestions for further research.

2. Literature review

The significance of both entrepreneurship research and service research has increased in the past ten years for many reasons. Two primary reasons are that even product-led companies increasingly look to services for growth opportunities and differentiation (Ostrom et al., 2015; Zeithaml, Brown, Bitner, & Salas, 2014) and that digitalisation has changed how customers serve themselves before, during, and after purchase, which has affected the context in which service is delivered and experienced (Ostrom et al., 2015). Longer-term statistics from 2008–2014 reveal that new jobs were primarily created by SMEs providing services, especially by those offering knowledge-intensive services and that the main net employment creators were SMEs of no more than nine years of age (Muller, Devnani, Julius, Gagliardi, & Marzocchi, 2016). The importance of the service sector is one of the factors that explains the growing interest in service innovation. The service sector plays a significant role in overall income level improvement as services account for approximately 75% of the GDP and 80% of employment in OECD countries (OECD, 2014). A service-based economy has challenged even the traditional manufacturing companies to rethink their processes and offerings. Therefore, service innovation has become key to development in service sectors like health care, where the aim is to improve wellbeing among people (Patrício, Gustafsson, & Fisk, 2018).

The following literature review draws from three main perspectives on service innovation, NSD and entrepreneurship to create a theoretical overview to study how entrepreneurial business undertakes the development of new services. This chapter begins with different perspectives on NSD, service innovation and the service concept. The literature review continues by discussing the three entrepreneurship theories: causation, effectuation and bricolage.

2.1 The evolutionary developments in service innovation

The evolution of how the service concept is defined and what services are is at the core of the service innovation evolution (Table 1). Until 1980, the conceptual research of services focused mainly on the question of whether services and goods are different

(Brown, Fisk, & Bitner, 1994). After 1980, the amount of service literature grew exponentially and in 1985 two significant articles on unique characteristics of services (the IHIP model) were published (Parasuraman, Zeithaml, & Berry, 1985; Zeithaml, Parasuraman, & Berry, 1985). A third evolutionary stage took place when Vargo and Lusch (2004) predicted that the dominant logic will shift to service-dominant logic (S-D logic), from the exchange of tangible goods towards integrating goods with services and at the same time, intangibility, relationships and processes will become central.

Vargo and Lusch (2004) also brought learning aspects and the customer as a co-producer into the definition of services, arguing that the customer is always a co-producer with their unique needs, usage situations and behaviour in the process, which continues from manufacturing to learning to use, maintain and adapt the appliance. Later, Vargo & Lusch (2006) elaborated and changed their definition of a customer as a co-producer to a customer as a co-creator of value. Over the past two decades, S-D logic has dominated service research discussion; however, it has also been criticised for several reasons. For example, Grönroos and Voima (2013) argue that when value creation is defined as the customer's creation of value-in-use, the customer is a value creator, not a value co-creator, and the firm is a value facilitator. They distinguish between provider, joint, and customer spheres and state that it is important for a firm to understand how, when and where to get access to the closed customer value sphere as a firm's resources offer potential value for the customer, and when a customer uses a service, the firm facilitates the customer's value creation. It is still possible for the firm to gain access to a customer's value creation process and it can lead to co-creation or co-destruction (Echeverri & Skålén, 2011). Heinonen et al. (2010) note that service providers not only focus on how to engage customers in co-creation and direct interactions between the customer and service provider, but they are also involved with customers' lives as customer experience is part of the customers' ongoing life and it affects their experience of value.

Table 1 Service concept

Service concept as	Definition	References
Service operation: service as an activity, form or process	A process that consists 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 aims at assisting the customer's everyday practices. The way service is delivered.	Clark, Johnston, & Shulver, 2000; Grönroos, 2006; Normann, 2001
Service experience	The customer's direct experience of the service	Clark et al., 2000
Service experience (ecosystem)	Service experience is many-to-many engagement, ongoing and dynamic alignment of the connections and dispositions of many actors.	Chandler & Lusch, 2015
Service outcome	The benefits and results of the service for the customer.	Clark et al., 2000
Service as a perspective on the customer's value creation	The benefits and results of the service for the customer weighed against the costs of the service, what consumers are willing to pay for.	Clark et al., 2000, Grönroos, 2008
Value propositions (ecosystem)	Value propositions as invitations from actors, which includes customers, suppliers, distributors, buyers, sellers, and other actors, to one another to engage in service.	Chandler & Lusch, 2015
Service as a perspective on the provider's activities (business logic)	Perspective applied for an organisation's business and marketing strategies (provider service logic), the benefits and results of the service for the organisation.	Grönroos, 2008; Edvardsson, Gustafsson, & Roos, 2005
Service as a perspective on the customer's processes (customer dominant logic)	Focus is on how customers embed service in their ecosystem and processes by engaging different providers.	Heinonen & Strandvik, 2015

Notably, the service concept has developed from meaning merely activity or process (Clark, Johnston, & Shulver, 2000; Grönroos, 2006; Normann, 2001) into understanding service as customer service logic, provider service logic and customer dominant logic (Chandler & Lusch, 2015; Edvardsson, Gustafsson, & Roos, 2005; Grönroos, 2008; Heinonen, & Strandvik, 2015). When service is understood as an activity, the service concept is defined as a process where a service provider assists a customer in everyday activities such as cooking and serving a meal or cleaning a house (Clark et al., 2000; Grönroos, 2006; Normann, 2001). The customer service logic emphasises the role of the customer in value creation and how customers create value for themselves, whereas the provider service logic perspective focuses on creating a business model that is based on customers' value creation (Clark et al., 2000; Grönroos, 2008).

The complex and changing context of service has influenced the evolution of the service concept. Service research has traditionally focused on studying certain tasks in a specific context (Chandler & Lusch, 2015). As the context of service has changed rapidly, the priorities of service research have moved to understanding value creation in complex systems, multi-actor networks and collaborative contexts as well as investigating the changing roles of customers, employees and technology in the value creation process (Ostrom et al., 2015). Recently, the service concept has been defined as a perspective on a customer's processes (customer dominant logic) (Heinonen & Strandvik, 2015) instead of a perspective on the provider's activities (Edvardsson et al., 2005; Grönroos, 2008). Customer dominant logic focuses on how customers embed service in their own ecosystem and processes by engaging different providers (Heinonen & Strandvik, 2015). Due to the complexity of the service context, service experience is potentially affected by different dispositions and ecosystems, leading to unique, changing and fleeting service experiences (Chandler & Lusch, 2015).

The evolution of service innovation research follows lines similar to the service concept evolution; thus, assimilation, demarcation and synthesis have been the common perspectives on conceptualising service innovation (Carlborg, Kindström, & Kowalkowski, 2014). The assimilation perspective views service innovation as fundamentally similar to manufacturing innovation and as an introduction to new technology, whereas demarcation considers service innovations as distinct from manufacturing and aims to establish service innovation as distinct from product innovation. Demarcation researchers initiated the formation phase (1986–2000) of service innovation research (Carlborg et al., 2014). However, in contrast to product innovation, the view of service innovation as a more complex concept has been the perspective frequently adopted in recent studies (Martin, Gustafsson, & Choi, 2016; Storey, Cankurtaran, Papastathopoulou, & Hultink, 2016). This complexity is explained by the intangible nature of services and the need for radical innovations, as well as the importance of frontline staff involvement and external locus in service innovations (Storey et al., 2016). Furthermore, contrary to product innovations, service innovations typically consist of combinations of several innovations, which in turn can be service experiences, processes, behavioural changes, social aspects, service bundles, brand perceptions and business models (Martin et al., 2016).

A synthesis perspective emphasises that innovation processes are displayed widely in the economy and that all innovations can be considered as service innovations (Coombs & Miles, 2000; Witell et al., 2015). Carlborg et al. (2014) consider that the emergence of the synthesis approach is due to seeing organisational innovations and other non-technological innovations as an integral part of service innovation as well as applying the customer perspective to value creation, which makes the distinction between services and products irrelevant. When the synthesis perspective emerged, innovation research entered a mature stage (2001–2005) with a focus on deliberate customer involvement and the role of the customer in the planned innovation process (Carlborg et al., 2014). Customers were considered to be co-creators of value (e.g. Normann, 2001; Vargo & Lusch, 2004), which led researchers to ask why, when and how to involve customers in the service innovation process and how to learn from them (Abramovici & Bancel-Charensol, 2004; Alam & Perry, 2002; Matthing, Sandén, & Edvardsson, 2004).

The multidimensional phase (2006–2010) began to emerge when Karniouchina, Victorino and Verma (2006) called for service innovation research as a multidisciplinary and evolving research field encompassing both products and services (Carlborg et al., 2014). The dominant perspective during the multidimensional phase continued to be synthesis, while service innovation research began emphasising the multidisciplinary nature of service innovation research and the linkages between business strategy and service innovation (Carlborg et al., 2014). More recently, service innovation research has been building on service innovation as an approach to value creation (Lusch & Nambisan, 2015) through incremental and continuous improvements as well as radical and disruptive innovations (Christensen, Raynor, & McDonald, 2015; Christensen, 1997; Michel, Brown, & Gallan, 2008).

2.1.1 Dimensions of service innovation

Service innovation research is highly influenced by the ground-breaking work of Schumpeter (1934) and his idea that service innovation must include something new to the company and to the market, provide economic value, and make others in the market follow. As the context of service innovation has changed radically during the last two decades, the Schumpeterian perspective of customer needs as given or unproblematic has been replaced by focusing on the customer's processes, value-in-use and how customers, not the service provider, embed service in their ecosystem and processes by engaging different service providers (Heinonen & Strandvik, 2015). Since Schumpeter, service innovation has been studied actively, but the core question of its definition is still debated (Snyder et al., 2016).

When exploring what is unique in the service innovation concept, Snyder et al. (2016) identified four unique themes: degree of change, type of change, newness, and means of provision. The most common theme to categorize service innovation is the degree of change and separating radical and incremental innovations (Snyder et al., 2016). A more refined categorization based on degree of change was conducted by Gallouj and Weinstein (1997). They identified six types of innovation: 1) radical innovations, 2) improvement innovations, 3) incremental innovations, 4) recombinative innovations, 5) formalisation innovations, and 6) ad hoc innovations. Radical innovation takes place when a totally new service is created and the whole system is transformed, which also leads to renewed customer competences. The second type of service innovation, improvement innovations, may consist of improving certain characteristic of the service or improving the service process, both of which can vary significantly in scope and may therefore be difficult to identify. Improvement innovations are sometimes difficult to separate from incremental innovations where new elements are added, or old elements are substituted with new ones. Recombinative innovations create a new service by either bundling the characteristics of two or more existing services or by unbundling existing characteristics of a service and creating new autonomous services. The fifth type of service innovation is formalisation, which aims at standardising the service characteristics, putting them into order and concretising them. The final category, ad hoc innovation, is produced together with a customer and they emerge while solving a particular problem. Ad hoc innovation enhances the creation of new knowledge and competences and they should be formalised and codified to enable a non-random, permanent change of the state. Drejer (2004) argued that ad hoc innovation is not an innovation in a Schumpeterian sense unless it results in incremental or radical innovation and brings economic value. However, ad hoc innovation may also provide economic value by enabling premium pricing and enhancing long-term relationship building (De Vries, 2006; Gallouj & Weinstein, 1997).

Another category of innovation based on change is disruptive innovation, which Christensen, Raynor and McDonald (2015) argue is frequently inappropriately equated with radical innovations. In their view, disruptive innovation is created by a smaller company that challenges established companies by targeting the neglected segments and thus disruption starts from simple and affordable products instead of better and more profitable products. The customers' new desires pressure the companies to add functionalities and elements until the outcome is more complicated than the customers need, thereby providing room for a disruptive innovation. However, customers who are used to the 'better' product are usually not attracted by the new product, which is simpler, more convenient and affordable. In the longer run, the entrants start moving upmarket, thus attracting mainstream customers, which then may lead to disruption if bigger volumes are achieved. Therefore, disruption can be considered as a process, a temporal evolution of a service that may take several years or even decades to emerge (Christensen et al., 2015).

Another common theme is to categorise service innovation according to the type of change, which can be a new or improved service; new or improved ways in how the service is designed, produced and delivered; new customer interaction; new value system or business partners; and new organisational innovation, including the management of the innovation process as well as marketing (Den Hertog, Van der Aa, & De Jong, 2010).When all or most of these dimensions change, the innovation occurs on a system-level and can be considered as business model innovation. Service innovation on one dimension often requires changes in other dimensions, while services requiring multiple actors may require new revenue models, and new services may call for new competences, organisational structures and even a new organisational culture (Den Hertog et al., 2010). Unsuccessful service innovations may be a consequence of not recognizing what an innovation on one dimension requires from the other dimensions. For example, a technological innovation may not be supported by the old roles, customer encounter or organisation culture, which could also be more difficult to change. These interrelations have been identified as an important future research topic (Ostrom et al., 2015).

While there are different ways to categorise service innovation, newness has been at the core of the service innovation concept ever since Schumpeter. Newness can be understood as new to the world, new to the country, new to the region, new to the sector, new to the firm, or new to the individual (Alam, 2002; Den Hertog et al., 2010). It has been argued that a customer may consider any changes or improvements in the service experience or service offering as an innovation (Johne & Storey, 1998). Snyder et al. (2016) criticise service innovation research, stating that it mainly categorises newness as new to the firm and seldom studies customer value and financial effects. Conversely, Toivonen and Tuominen (2009) point out that market newness has been traditionally at the core of the innovation concept, but business press and policymakers have shifted the newness to new to the firm and base their definition of service innovation on the Schumpeterian view, stating that innovation also needs to be new outside the firm and replicable, which makes it beneficial for the larger society as others may follow the innovation. In the most recent service research studies, service innovation is viewed as recombination of resources in novel ways (Witell et al., 2017), which 'create value to some actors in given context' (Lusch & Nambisan, 2015, 161) by 'providing novel solutions for new or existing problems' (Vargo, Wieland, & Akaka, 2015, 64) and moving from merely focusing on new features of services into understanding the transformative role of innovative services in changing the way customers think, participate and create value (Lusch & Nambisan, 2015; Michel et al., 2008).

Innovating around a customer's role in value creation can lead to a change in the role of the user (proposing new ways to solve the problem), change in the role of the payer (changing what customers are paying for or changing the payer) or changing the role of the buyer (improving or redesigning the buying process) (Michel et al., 2008). Furthermore, service innovation may not create value only for customers, but for the whole ecosystem, including employees, company owners, partners and communities through new or improved service, new or improved ways in how the service is designed and produced and through organisational innovation or marketing (Ostrom et al., 2010). New types of services such as social network apps have led to new definitions of service innovation where the customer–provider dichotomy has been replaced by a wider view of actors (Witell et al., 2015) and service innovation is seen as 'rebundling of diverse resources that create novel resources that are beneficial (i.e., value experiencing) to some actors in a given context' (Chandler & Lusch, 2015, 161).

To conclude, even though there is a substantial body of literature on service innovation criteria, absolute novelty is difficult to justify 'since most innovations will be a mixture of emergent processes, adopted and adapted procedures which are in common usage elsewhere, and ideas, which become sharpened over time by realistic limitations imposed by the organisation' (Anderson, De Dreu, & Nijstad, 2004, 149).

2.2 Service innovation and new service development concepts

Service innovation and NSD are often understood as similar concepts; in fact, these concepts are considered to be interchangeable in many studies (Biemans, Griffin, & Moenaert, 2016; Menor, Tatikonda, & Sampson, 2002). More recently, there have been efforts to differentiate these concepts by defining NSD as a process aiming at developing a new service whereas the focus of service innovation is on the outcome (Patrício et al., 2018; Storey & Larbig, 2018). Other scholars have viewed service innovation both as a process and an outcome (Crossan & Apaydin, 2010; Helkkula, Kelleher, & Pihlström, 2012; Patrício et al., 2018), while in the NSD literature, service innovation is often claimed to be an outcome of the NSD process (Yu & Sangiorgi, 2018). However, considering innovation as an outcome is dominant in the innovation literature, even though there is a substantial body of literature aiming to understand the innovation process and to create models (Crossan & Apaydin, 2010; Damanpour & Gopalakrishnan, 2001; Van de Ven, Polley, & Garud, 1999). Many of the innovation studies share the view of innovation processes as non-linear, dynamic, flexible, iterative, discontinuous and causing stress to the people involved (Anderson, De Dreu, & Nijstad, 2004; Crossan & Apaydin, 2010; Van de Ven, 2007) in contrast to NSD processes, which are often illustrated as systematic approaches (Edvardsson & Olsson, 1996) and stage models aiming at fast launch processes and fewer mistakes (Zomerdijk & Voss, 2011).

Since the concepts of service innovation and NSD are often considered as interchangeable (Droege & Heras, 2009), the service innovation process has also been argued to be a structured, neat, and step-by-step unfolding process (Storey & Larbig, 2018). The need for simple and concrete practical guidelines for service innovations (Klaus, Edvardsson, Keiningham, & Gruber, 2014) has also enhanced the creation of formalised NSD processes. However, several studies have demonstrated that the attempts to formalise the service innovation process to achieve efficiency may inhibit experimentation, learning, creativity and radical innovations (Engvall et al., 2001; Witell et al., 2017). Therefore, companies often shift between the structured linear process versus a fuzzier iterative process, which requires coping with ambiguity and tensions (Carlgren, Rauth, & Elmquist, 2016).

The discussion of innovation processes has evolved from questioning whether innovation can even be planned, designed or managed, into studying organisational conditions which may stimulate innovations (Kanter, 2009) and individual capabilities that enable service innovations within the organisation (Den Hertog et al., 2010) as well as identifying tasks and dimensions in the service innovation process (Kanter, 2009; Kleysen & Street, 2001). Several researchers have studied how innovation evolves over time by creating process models while criticising the formal stage models, arguing that they may segment the innovation process artificially (Van de Ven, 1986). However, informal innovation processes, such as ad hoc innovation, that originate from customer interaction are often difficult to identify and therefore, replication does not occur (Gallouj & Weinstein, 1997).

One of the often-cited service innovation stage models was created by Johnson, Menor, Roth, and Chase (2000). They defined a new service as ‘an offering not previously available to customers that results from the addition of offerings, radical changes in the service delivery process or incremental improvement to existing service packages in delivery processes that customers perceive as new’ (Johnson et al., 2000, 3). Their aim was to create an optimal NSD model that would consider heterogeneity, intangibility and the role of customer contact in service delivery, differentiating NSD from new product development (NDP). The outcome of their research was a four-stage cyclic model that divided the NSD process into two planning stages covering design and analysis and two execution stages including development and full launch. In their model, the NSD process begins with formulating aims, ideating, concept development and testing (design stage), followed by business analysis and authorisation (analysis stage). The third stage includes designing service processes, systems and marketing, which are then tested and piloted (development stage). Finally, the new service is launched in full scale and a post-launch review is conducted (launch stage).

The service innovation process is often presented by identifying tasks or dimensions which are common in the service innovation process, including: 1) recognizing, exploring and looking for opportunities, idea generation and innovator activation; 2) persuading and influencing, creating alliances and ensuring the power for implementation; 3) creating a prototype of the idea, experimenting and evaluating; 4) commercializing the service (Kanter, 2009; Kleysen & Street, 2001). In order to accomplish these tasks related to the service innovation process, companies are said to require dynamic capabilities (Teece & Leih, 2016). The concept of dynamic capabilities was created by Teece, Pisano, & Shuen (1997) to describe higher-level activities that enable the company to exploit existing internal and external resources to address and control rapidly changing business environments. It has also been argued that, to understand innovation, the focus should not be on isolated and repeatable processes, but on innovation systems that consist of capabilities, cultural and other organisational aspects (Lawson & Samson, 2001; O'Connor, 2008) which are not easily imitated and which affect the firm's capacity to develop new services (Schreyögg & Kliesch-Eberl, 2007). Consequently, Leonard-Barton (1992) adopted a knowledge-based view and identified four dimensions of organisational capabilities that may affect innovation processes: 1) employee knowledge and skills which are embedded in 2) technical systems, 3) managerial systems that guide knowledge creation and control processes, and 4) the values and norms which define criteria for decision making in the firm. Hertog et al. (2010) continued this line of research, but their focus was on the individual level capabilities. They identified the following six individual dynamic capabilities to be essential for service innovation.

1. Capability to signal opportunities that arise from technological options and (potential) user needs, which requires interaction with users and empathic capability to understand users.
2. Capability to conceptualise service innovations that are fuzzier than tangible goods, which probably explains why innovation literature has not commonly identified conceptualisation as a dynamic capability.
3. Capability to unbundle, configure existing elements, and apply them to a new context.
4. Capability to co-produce and orchestrate across the ecosystem by managing and engaging the network.
5. Capability to scale and stretch as intangibility, cultural dependency and human component make it difficult to provide similar service in various channels.
6. Capability to learn and adapt by reflecting and tracking what succeeds and what fails and why.

These dynamic capabilities are aligned with the history of the company, the market in which it operates and the service value system, which all influence how rapidly these capabilities become obsolete (Hertog et al., 2010). However, to avoid fixation with existing capabilities, firms should encourage learning and experimentation (Eisenhardt & Tabrizi, 1995) as well as sharing knowledge and collaborating both internally and externally (Börjesson & Elmquist, 2011). Teece and Leih (2016) argue the old classical approaches (e.g. Porter's Five Forces) based on risk management and predictability are no longer valid in the uncertain environment, whereas flexible structures and dynamic capabilities, sensing, sense making, imagining, transformation capabilities and a culture of continuous renewal enhance the resilience of a company to respond and shape unknown futures.

2.3 Stakeholder involvement in new service development

Many of the traditional NSD studies are influenced by new product development (Barrett, Davidson, Prabhu, & Vargo, 2015), thus perceiving that value is embedded in the service offering (Vargo & Lusch, 2008) in contrast to understanding value as something that is co-created and becomes actualised in-use (Heinonen & Strandvik 2015). Traditional NSD studies have failed to consider value co-creation and value-in-use (Yu & Sangiorgi, 2018), while the more recent service innovation and NSD literature investigates customers, employees and external stakeholders as actors who may participate in the innovation process (Edvardsson, Kristensson, Magnusson, & Sundström, 2012; Ommen, Blut, Backhaus, & Woisetschläger, 2016).

The effect of stakeholder involvement (i.e. customers, employees and business partners) in business outcome is inconsistent, varying from positive outcomes (Alam & Perry, 2002; Alam, 2002; Ordanini & Parasuraman, 2011) to no effect (Menguc, Auh, & Yannopoulos, 2014; Mishra & Shah, 2009) to suggestions to carefully consider the ratio of costs to benefits (Homburg & Kuehnl, 2014). For instance, customer involvement in the service innovation process has been argued to lead to incremental innovation (Ordanini & Parasuraman, 2011). Customers' low contribution to the radicalness of service innovation has been explained by their reliance on pre-existing knowledge (Baker & Sinkula, 2007) and their tendency to limit new ideas mainly to hygiene factors instead of 'delighters' (Storey & Larbig, 2018). Even if new customer insight emerges through customer involvement, this knowledge can be disregarded if it collides with the prior understanding, thus causing feelings of ambiguity and uncertainty (Storey & Larbig, 2018). Conversely, it is claimed that enthusiastic users come up with ideas that fail to add value for the majority of the customers (Storey & Larbig, 2018).

Another analysis by Ordanini and Parasuraman (2011) shows that contact employee participation fosters both innovation volume and radicalness, while customer participation contributes mainly to innovation volume, and partner participation contributes to innovation radicalness. Although employees' role in service innovation seems to be significant, innovation activities in services are often carried out by employees who are not specially assigned to these tasks but act as intrapreneurs (Heusinkveld & Benders, 2002; Sundbo, 1997; Sundbo & Gallouj, 2000). Empowering the employees may facilitate service innovations, but when expectations for what is expected and which activities are encouraged are not explicit, innovation activities could be less effective as obstacles for innovative behaviours are not identified (Toivonen & Tuominen, 2011). Due to increased workload, employees can also be reluctant to contribute to the service innovation process (Johne & Storey, 1998). However, innovation success is not only explained by who participates in the innovation process; it also requires an understanding of how to design and facilitate participatory service innovation processes. Service innovation research has considered customer involvement as a source to discover the needs of the customer (the company gathers the information), as a co-creator of new solutions (customers developing together with the members of the company), and as an innovator (customers creating their own products) (Cui & Wu, 2016; Lusch & Nambisan, 2015). When a company is utilising customer involvement only as an information resource (Cui & Wu, 2016) or responding to the expressed customer needs, it may fail to uncover new insights into customer value creation and thus fail to drive customer needs (Storey & Larbig, 2018).

Customer-based market research typically reflects the customers' view of the current situation, thus supporting the current paradigm (Baker & Sinkula, 2007) without uncovering latent needs (Storey & Larbig, 2018). Conversely, understanding customers on a deeper level and revealing latent needs through observing and experimenting has been found to lead to more successful and radical service innovations (Edvardsson et al., 2012; Storey et al., 2016). Information about customer value has been considered difficult and expensive to transfer from the customers' context to service offering and implementation (Lüthje, Herstatt, & Von Hippel, 2005). Others consider customer involvement as a benefit to the company through lowering risk and improving feasibility (Carbonell, Rodríguez-Escudero, & Pujari, 2009).

Innovating culture, motivation system and resources dedicated to innovation are argued to be the most important conditions when creating service innovation with employees (Sundbo, Sundbo, & Henten, 2015). In addition, involving stakeholders already in ideation, ability to influence the innovation process, transparency and voluntariness in participation, as well as seeing the benefits of the process, contribute positively to how the innovation is both perceived and accepted by the stakeholders (Ommen et al., 2016).

To summarise, replicable stage-gate models have long been the norm in NSD processes. Decision making in these models is based on analysing the past and systematic pre-planning which is not addressing the unpredictable nature of innovation. The traditional model of entrepreneurship also builds upon prediction, searching for opportunities and applying predictable processes as innovation and entrepreneurship share the same roots drawing upon Schumpeter (1934). In the alternative entrepreneurial approaches of effectuation and bricolage, the underlying logic is one of control as the environment is considered to be uncertain and/or scarce. In this view the entrepreneur is seen as an innovator in the cocreation process together with its stakeholders (Roach, Ryman & Makani, 2016), whilst the uncertain and/or scarce environment calls for flexible processes while making the future to happen.

There seems to be many overlappings between CEB logics, innovation and NSD. Consequently, this research seeks to find out whether CEB logics are useful and appropriate in their conceptualisation and application to understanding new service development processes. To accomplish this, I first present CEB theories in more detail in the following section.

2.4 Entrepreneurial theories

During the past two decades, entrepreneurship research has claimed its legitimacy as an academic research field, which is proved by the increasing presence of entrepreneurship articles in the most influential management journals (Busenitz et al., 2014). Before this, the position of entrepreneurship research was questioned (Harrison & Leitch, 1996) as it covered a broad area of research that was not constituted by a conceptual framework but rather by the setting of small businesses or new companies (Shane & Venkataraman, 2000).

Schumpeter (1934) has influenced research on both entrepreneurship and innovation as he considered innovation to be a key function of entrepreneurship and entrepreneurs to be the actors implementing the innovations in a radical and discontinuous manner. His broad definition of entrepreneurship, 'the carrying out of new combinations we call "enterprise"', and of entrepreneurs as 'the individuals whose function it is to carry them' (Schumpeter, 1934, 74) set the grounds for studying entrepreneurship. However, for many years entrepreneurship research relied largely on theoretical frameworks imported from other domains (Fisher, 2012). The focus of entrepreneurship research was on the relative performance of companies and individuals, which is already explored by strategic management scholars and may not be a sufficient approach to measure entrepreneurship performance (Venkataraman, 1997).

Another weakness was the definition of entrepreneurship itself, as most researchers defined it solely in terms of the entrepreneur as an individual: who he or she is and what he or she does (Venkataraman, 1997). An entrepreneur was typically defined by their willingness to take a risk, thereby building upon Cantillon (c. 1680—1734), who set the grounds for entrepreneurship theories that shared similar ontological understanding of change and uncertainty (Hébert & Link, 1989). However, characteristics of people alone do not explain entrepreneurship, as the process of entrepreneurship is transitory and many people with heterogeneous backgrounds engage in this transitory process (Carroll & Mosakowski, 1987).

The conceptual framework of entrepreneurship was extended to involve not only the individuals, but also opportunities, when Venkataraman (1997) defined entrepreneurship research as a scholarly field, which studies how, by whom, and with what consequences opportunities are discovered, created and exploited in future products and services. Since then, organisation researchers have increasingly formed their research questions based on the conceptual domain of opportunity and asking how opportunities for the creation of products and services come to be, why certain people find and exploit these opportunities while others do not, and what different modes of action are utilized to exploit entrepreneurial opportunities (Shane & Venkataraman, 2000).

When trying to understand why certain people discover and exploit opportunities, it has been argued that the question is about discovering why certain people tend to respond to cues for opportunities in certain situation (Shane and Venkataraman, 2000). Information corridors partly explain why an entrepreneur recognizes these opportunity cues; people retain different stocks of information that influence their ability to identify particular opportunities and create mental schemas, which create a framework for recognizing new information (Shane and Venkataraman, 2000). Gilad, Kaish and Lobe (1987) claim that opportunity recognition requires prior information that complements the new information, which inspires an entrepreneurial conjecture. This prior information might be about customer needs (Von Hippel, 1986) or some detailed information about the production function (Brüderl, Preisendörfer, & Ziegler, 1992). The information necessary to recognize any given opportunity is not widely distributed across the population because of the specialization of information in society (Hayek, 1945), which is due to considering specialised information as more useful than general information for most activities (Becker & Murphy, 1992). Therefore, differences in opportunity recognition have been explained by specialised information as no two people share the same information at the same time (Venkataraman, 1997).

2.4.1 Causation, effectuation and bricolage logics

> ‘Opportunity creation, effectuation, and bricolage are three concepts that describe value creation and the central role of entrepreneurial action in that process’ (Welter et al., 2016, 5).

During the last two decades, these new emerging theoretical perspectives of entrepreneurship have challenged the traditional theories of entrepreneurship which focus on understanding entrepreneurial action through economic thinking, demand–supply imbalances (Casson, 1982; Kihlstrom & Laffont, 1979) and opportunity exploitation (Shane & Venkataraman, 2000). Alternative approaches challenge how entrepreneurs exploit and identify opportunities by describing the differences between the traditional causation approach and the emerging theoretical perspectives of effectuation and bricolage. The discovery view of opportunities (Shane, 2000; Venkataraman, 1997) considers them as something waiting to be discovered, pre-existing in the market, while the creation view of opportunities sees them as something to be actively created, a form of world-making (Fletcher, 2006; Sarasvathy, 2001). These prominent theoretical approaches to entrepreneurship have mainly evolved and developed independently of one another, even though they seem to have much in common (Fisher, 2012). However, more recently, several researchers have written articles trying to understand how these emerging entrepreneurship theories relate to one another and to the traditional entrepreneurship theories (Archer, Baker, & Mauer, 2009; Chandler et al., 2011; Welter et al., 2016).

Sarasvathy (2001) advanced our understanding of the entrepreneurial process in her ground-breaking research by identifying causation and effectuation as two distinct approaches to new venture creation. Effectuation theory is based on understanding that rapid change has led to a situation where the future is unknown, and entrepreneurs must make decisions about companies, markets and industries that do not yet exist. Using effectuation logics enables the entrepreneur to realise several possible effects and change the goals as new opportunities arise. Effectuation and causation approaches are found to coexist, overlap and intertwine depending on the actions and context of the decisions (Grégoire & Cherchem, 2019; Reymen et al, 2015).

Since Sarasvathy's (2001) article, there has been a growing volume of literature studying the use of effectuation within entrepreneurship (Read et al., 2016). One of the well-known models, that of Fisher (2012), created an updated framework by adding bricolage as another distinct element in new venture creation. Fisher's CEB framework attempted to integrate ideas from Sarasvathy (2001), Baker and Nelson (2005) and Chandler et al. (2011) in order to identify areas of both similarity and difference. The conclusion was that the traditional causation model of entrepreneurship needs to be combined with bricolage and effectuation in identifying and exploiting opportunities for a new product or service. Although causation is relevant in stable environments, effectuation and bricolage better describe the entrepreneurial processes in dynamic, non-linear and resource-scarce environments (Fisher, 2012).

The causation approach is seen to be linked to classical economic theories that were interested in how people ought to behave instead of how they behave in reality and assumed that economic actors are rational and, with perfect competition, only rational actors survive (Simon, 1959). This rational entrepreneur, who makes decisions for the company, strives to maximise the profit (Kihlstrom & Laffont, 1979) and makes planned strategy choices (Ansoff, 1987). The logic of prediction was called causation by Sarasvathy (2001). The foundation of entrepreneurship theories relies heavily on the causation approach, emphasising rational search processes, screening, selecting the highest expected return alternative, and then implementing (Caplan, 1999). Rational decision-making models emphasise opportunity discovery through a purposeful search process (Drucker, 1985) and goal driven behaviours when trying to pursue those opportunities (Bird, 1989). This kind of thinking has led to the success of business plans, which represent rational step-by-step thinking processes (Chandler et al., 2011).

'Causation processes take a particular effect as given and focus on selecting between means to create that effect' (Sarasvathy, 2001, 245). Therefore, the choice of means is driven by characteristics of the effect the decision maker wants to create and his or her knowledge of what is possible. According to Sarasvathy (2001), the principles of causation are:

1. Expected returns – causation models aim to maximize the potential returns for a decision by selecting optimal strategies.
2. Competitive analyses – causation models consider competitive analysis as an important part of the decision-making process.
3. Exploitation of pre-existing knowledge – causation models might be used when the source of competitive advantage is based on pre-existing knowledge.

4. Prediction of an uncertain future – causation models are based on future prediction, which then enables control. Decision makers tend to rely on systematic information gathering when they expect the future to be relatively predictable and measurable. According to Sarasvathy (2001, 251), the underlying logic is, 'To the extent we can predict the future, we can control it.' In the causation process, the effect is given and the decision process concerns a set of alternative means, which are considered as constraints. Chandler et al. (2011) identified causation as a reflective construct, where the subdimensions reflect upper-order constructs and therefore the logic of prediction determines the subdimensions.

In contrast to causation, the alternative theories of entrepreneurship suggest that opportunities are created through an iterative learning process rather than by exploiting existing opportunities (Alvarez & Barney, 2010). In effectuation processes, the decision maker has a unique role in solving the problems. An effect is constructed by the primary sets of means without certainty of market potential or even market. Initially, the idea of a company is more like an aspiration than a predetermined or optimal company. Instead of utilizing an identified opportunity, effectuation processes seem to include the very creation of the opportunity (Sarasvathy, 2001). Sarasvathy also integrated existing theories to provide evidence of an alternative paradigm along with causation. One of the theories she refers to is Mintzberg's (1991) research, which suggests that without effectuation processes and by relying on planning and prediction, there would be many non-starters.

A conceptual model of effectuation emphasizes the uncertain market conditions, which leads to the 'dynamic and interactive process of creating new artefacts in the world' (Sarasvathy, 2008, 6). Goals change in the dynamic environment, and the entrepreneur only has control over the means. Focusing on means when making decisions, entrepreneurs ask questions such as 'Who am I? What do I know? Whom do I know?' to uncover opportunities (Sarasvathy & Dew, 2005). The means consists of personal knowledge, skills and networks on an individual level and physical and organisational, as well as human resources, at company level (Barney, 1991).

As a result of their study, Chandler et al. (2011) propose that effectuation is a formative, multidimensional construct with three associated sub-dimensions, which are experimentation, affordable loss, and flexibility, and that pre-commitments are a shared dimension with causation. As a formative construct, effectuation flows from lower order indicators (Coltman, Devinney, Midgley, & Venaik, 2008; Jarvis, MacKenzie, & Podsakoff, 2003), which define the elements of effectuation and therefore the lower order indicators may be independent of each other (MacKenzie, Podsakoff, & Jarvis, 2005). Consequently, Chandler et al. (2011) suggest that there might be sub-dimensions that have not been identified, which calls for an iterative process with empirical studies.

In addition, Chandler et al. (2011) confirm that causation is negatively associated with uncertainty and that experimentation, as a sub-dimension of effectuation, is positively correlated with uncertainty. However, uncertainty is a complex concept and it is not clearly defined in many effectuation papers, including those of Chandler et al. (2011) and Fisher (2012). As Sarasvathy (2001, 252) explains, ‘if decision makers believe they are dealing with a measurable or relatively predictable future, they will tend to do some systematic information gathering and analysis within certain bounds’. Conversely, entrepreneurs tend to adopt effectuation as a decision logic under conditions of uncertainty.

Uncertainty can be explained by comparing it with the concept of risk; with both risk and uncertainty, the company cannot foresee what is going to happen, but with risk the possible outcomes are known, whereas with uncertainty, even the range of possible outcomes is unknown and the company comes across an unknown unknown (Teece & Leih, 2016). This means that the same environment might appear as a stable market for some entrepreneurs while others are aware of the unknown and consequently see the market as uncertain. For example, an entrepreneur might create an opportunity in a seemingly stable market by disrupting it. Schumpeter (1939, 243) called this revolutionary change in perceptions and expectations of stakeholders as creative destruction: ‘It was not enough to produce satisfactory soap, it was also necessary to induce people to wash.’

Effectuation challenges the assumption of certain superior characteristics of the successful personality or company. Rather, effectuation is about complex ecosystems, varying and developing markets shaped by individuals and communities and therefore, different kinds of entrepreneurs may be successful. In practice, this would shift the focus from ‘how to build a successful firm’ or ‘how to become a successful entrepreneur’ to ‘what types of ideas and opportunities should YOU pursue?’ and ‘Given who you are, what you know, and whom you know, what types of economic and/or social artefacts can you, would you want to, and should you create?’ (Sarasvathy 2001, 258). Effectuation suggests that to understand success, we need to first understand that failure is not the logical equivalent to not succeeding, but success comes through managing the failures, and the success of these companies cannot be explained by entrepreneur characteristics (Sarasvathy, 2001). Instead of trying to avoid failures caused by interacting factors which we are not even able to foresee, the effectuation approach encourages early experimentation, which also allows for failing early, utilizing contingencies that could not have been planned, and coming up with new ideas and new experiments without high investments. Experimental and iterative learning techniques are used when the decision maker considers that the phenomena is unpredictable (Sarasvathy, 2001). Sarasvathy (2001) summarises the principles of effectuation as:

1. Affordable loss rather than expected returns.
Effectuation determines in advance how much loss is affordable and experiments with as many strategies as possible within the boundaries of limited means. The decision maker prefers options that create more options in the long run over those that maximize returns in the present.

2. Strategic alliances rather than competitive analyses.
Effectuation emphasizes strategic alliances and pre-commitments from different stakeholders in order to reduce and/or eliminate uncertainty and to overcome entry barriers.

3. Exploitation of contingencies rather than exploitation of pre-existing knowledge.

Causation models might be used when the source of competitive advantage is based on pre-existing knowledge. When contingencies emerge unexpectedly, effectuation models might be preferable.

4. Controlling an unpredictable future rather than predicting an uncertain one.
As effectuation aims to identify the controllable aspects of an unpredictable future, there is no need for future prediction. When defining a market, the causation model considers the universe of all possible customers (Kotler & Armstrong, 1991), whereas the effectuation model might consider that the market consists of a community of people who are willing and able to commit enough resources and competences to run a company. The causation model assumes that the market existence is not dependant on the entrepreneur and therefore it is up to the entrepreneur to conquer the market. In the effectuation model, the entrepreneur creates the market by bringing in enough stakeholders who are also part of the process of what the company will become.

Causation is associated with a static and linear environment, while effectuation is associated with a dynamic and nonlinear environment, and in bricolage, resource scarcity describes the environment. Lévi-Strauss (1967) identified bricolage behaviours and described them as making do with whatever is at hand. In French, the verb 'bricoleur' was used in reference to ball games to describe a ball rebounding or to hunting, shooting or riding to describe a movement deviating from the direct course (Lévi-Strauss, 1967). Lévi-Strauss applied the word bricoleur in its later meaning of 'someone who works with his hands and uses devious means compared to those of a craftsman' (1967, 11) and 'expresses itself by means of a heterogeneous repertoire which, even if extensive, is nevertheless limited…, because it has nothing else at its disposal' (1967, 11). The set of resources is closed and therefore the bricoleur has to make do with whatever is at hand, regardless of the project, and the resources are acquired without any particular project in mind 'on the principle that they may always come in handy' (Lévi-Strauss, 1967, 11). The bricoleur starts the process in a retrospective manner, viewing the set of resources and considering how the set at hand may allow him to solve the problem. The possibilities of recombining the resources is limited by the history of each element and its predetermined features, which already possess a sense. Conversely, there are many recombination options and changing one element may change the effect significantly, the effect being difficult to imagine beforehand (Lévi-Strauss, 1967). Bricoleurs address the limitations set by the scarce environment by actively looking for solutions using the resources at hand and acting instead of thinking that nothing can be done due to scarce resources (Baker & Nelson, 2005). Resources at hand can be defined as free or cheap (Baker & Nelson, 2005) as well as not new (Duymedjian & Rüling, 2010).

Bricolage as an entrepreneurial process can be defined as 'making do by applying combinations of resources at hand to new problems and opportunities' (Baker & Nelson, 2005) in contrast to the engineering model of gathering needed resources for an intended design (Lévi-Strauss, 1967). Bricoleurs discover opportunities while utilizing resources. Instead of viewing opportunities as objective and external, they consider new value for forgotten, discarded, worn or single-use items, engage customers, suppliers and hangers-on in the project, create services using amateur or self-taught skills, and create markets by offering otherwise unavailable services, as well as refuse to consider standards and regulations as limitations (Baker & Nelson, 2005).

In constraint theories (e.g. Casson, 1982), scarcity is seen as an obstacle and resources as given, objective, unproblematic and not dependant on the specific organisation (Baker & Nelson, 2005). From a bricolage perspective, scarcity can be a source of opportunity creation (Salunke, Weerawardena, & McColl-Kennedy, 2013). Therefore, bricolage may enable a company to survive in competitive markets by exploiting new opportunities through inexpensive means and using resources at hand instead of using exactly the right types and levels of resources (Baker & Nelson, 2005). However, scarcity is a complex concept (Witell et al., 2017). Resource scarcity may refer to tangible resources such as equipment, finance, land, institutions and infrastructure (Barrett et al., 2015; Cunha, Oliveira, Rosado, & Habib, 2014) or intangible resources such as knowledge, skills, ideas, time and network (Baker & Nelson, 2005). Resource scarcity may be internal (e.g., employee capabilities) (Gupta, Chiles, & McMullen, 2016) or external (e.g. customers' lack of financial or competence resources to design and test the service) (Cunha et al., 2014; Heinonen et al., 2013) or potential partner organisations may not have resources to partner in developing services (Barrett et al., 2015; Srinivas & Sutz, 2008). It has been argued that a resource-scarce environment may lead to more creative solutions (Moreau & Dahl, 2005; Mullainathan & Shafir, 2009) and therefore companies may even create a scarce resource environment intentionally (Baker & Nelson, 2005). As a consequence of using only resources at hand, bricolage has also been said to reduce revenues, not to focus on new, demanding, customers (Senyard, Baker, & Davidsson, 2009), cause delays in the innovation process, and reduce service quality (Witel et al., 2017).

2.5 Summary: applying the CEB concepts to NSD

Research has increasingly moved away from identifying entrepreneurial traits (Read et al., 2016) to understanding how entrepreneurs identify and manage opportunities, and the role of cognitive scripts in decision making (Fayolle & Liñán, 2014). This appears to have many areas of overlap with how service providers identify and exploit new service opportunities (Bettencourt et al., 2014; Read & Sarasvathy, 2012). However, how service providers identify and/or create opportunities has rarely been studied (Read et al., 2016). In addition, Deligianni, Voudouris and Lioukas (2017) encourage applying CEB logics to understand complex entrepreneurial phenomena such as creating radical innovation.

When conceptualising innovations, I draw upon Garud, Tuertscher and Van de Ven (2013) to understand innovations not only as emerging new ideas but also as ideas that must be developed, marketed, and implemented to create value in use. This complexity is embedded in innovation processes which call for a more longitudinal approach to better understand the whole innovation journey (Van de Ven & Poole, 2017). To enable this I adopt process ontology, which aims to reveal how events, activities, and practises, in a rather complex way, come to continuously modify the entities we are studying (Langley & Tsoukas, 2010). Consequently, this research studies how an entrepreneurial business undertakes the development of new services and aims to answer the question of how service emerges, develops, and is implemented in a new venture context.

Therefore, the fundamental research question to be addressed in this thesis is; how an entrepreneurial business undertakes the development of new services by using CEB theories as a lens. In particular, I ask: 1) how CEB logics interplay, synergistically, as new services emerge (Smolka, Verheul, Burmeister-Lamp, & Heugens, 2016); 2) which of these logics dominates at the different stages in the service development process and in the different places where inputs into the new service are located; 3) whether these logics differ at individual, team or corporate level (Chandler & Lyon, 2001; Smolka et al., 2016); and 4) whether CEB are useful and appropriate in their conceptualisation and application to understanding new service development.

This chapter provided an overview of evolutionary developments in entrepreneurship and NSD theories. The following methodology chapter (Chapter 3) offers a more critical view on these theories by applying a process ontological lens both to CEB logics and NSD, while linking my research questions with the methodological choices.

3. Research Methodology

In this chapter, I describe my research journey and reflect on the methodological considerations using process-ontology lenses to explore the way in which a health service company undertakes the development of new services. My research reports on a deep longitudinal study of new service development processes within a single new venture that provides healthcare and wellbeing services. The following sections describe the main features of process research and continue by investigating CEB logics and NSD through process ontological lenses. This is followed by a description of the research process including selection of the research site, data collection methods, and analysis. The last section discusses ethical considerations.

3.1 Process research

Qualitative research encompasses a heterogeneous set of approaches with diverse ontologies and epistemologies (Gehman et al., 2018). To understand how entrepreneurial cognitive logics are used in new service development processes, I adopted a process-based methodology (Van de Ven & Huber, 1990).

Before choosing the methodological approach I carefully explored different qualitative research alternatives including grounded-theory (Gioia, 2004), case study (Eisenhardt, 1989b) and process research (Langley, 1999). Grounded theory follows an inductive approach by identifying similarities and differences among categories that start to emerge from the data (Gioia, 2004; 2017). Corley and Gioia (2011, 12) state that “a theory is a statement of concepts and their interrelationships that shows how and/or why a phenomenon occurs”. New concepts and their relationships then enable to understand phenomena while also being transferable to other settings and domains.

According to Eisenhardt (1989b) case study approach aims at theory building from cases to come up with valid, testable coherent and generalisable theory. She considers case study to be useful for both variance based and process based research which aims to answer how questions. Even though case study would have enabled to study processes, I was more interested in applying process research to study how things evolve over time. While case study focuses on identifying causes and relationships between variables to create a theoretical explanation with predictive power, process research in turn aims to find patterns and sequences of events (Langley, 1999).

Langley (in Gehman et al., 2018) presents several reasons to motivate the importance of process research, which I consider to apply also for my research. First, time has a central role in our world and second, capturing how service emerges by moving from A to B as the company grows explains the importance of studying processes. A third reason for using process approach lies in its capacity to reveal multiple consequences, which change over time; on short term the consequences might appear positive, but in the long run also negative consequences may appear.

When applying process research, entrepreneurship can be seen as a journey (McMullen & Dimov, 2013), whilst business ideas are understood to emerge iteratively in interaction with the external environment (Dimov, 2007). In this perspective, the development of new services is not seen as a process which has reached a state of stability but is an evolving and ongoing phenomenon. This may be best understood by researching the temporal progression of activities (Fachin & Langley, 2017; Langley et al., 2013). Process research studies how events unfold over time by systematically mapping changes in the invention and implementation of new ideas, focussing on the people who develop and carry out them, transactions with other stakeholders, the context in which the developments take place, and the outcomes (Van de Ven & Rogers, 1988).

As new service development concerns the whole process from pre-idea to post-implementation, it is influenced by cultural settings and networks both internal and external to the organisation. This complexity is challenging to research as it necessitates the following of people, decisions, activities, and events over time and on different levels (Garud & Giuliani, 2013) while nurturing the multilayeredness as the world is seen to be constantly changing in the process of becoming (Hernes, 2007). Therefore, I have employed a range of methods between 2013 and 2017, including observation, interviews and document analysis, which aided me to achieve a greater depth of understanding (Bryman, 2012; Easterby-Smith et al., 2012). These took the form of stories that people told, memos they wrote, and narratives about the organisation which explained what happened and who did what, when, and why (Langley, 1999; Van de Ven & Huber, 1990).

When applying the process research approach (Langley, 1999) to analyse in-depth NSD processes of a new healthcare venture, the focus is on the flow of events and how things change over time (Van de Ven, 2007). Consequently, process research is grounded on relational ontology, whereby events and experiences are seen to grow out of events and experiences that were before (Langley & Tsoukas, 2010). Based on this perspective, I view NSD not as reaching a state of stability but as an evolving phenomenon which may be explained and understood by researching temporal progression of activities (Fachin & Langley, 2017; Langley et al., 2013).

This essence of temporality in process thinking in Western philosophy can been traced back to Heraclitus (540–480 BC), who viewed stability as an illusion in the world, where everything flows: 'One cannot step twice into the same river, nor can one grasp any mortal substance in a stable condition, but it scatters and again gathers; it forms (endures) and dissolves, and approaches and departs' (in Nayak 2014, 8). A process point of view draws from a relational ontology, as Langley and Tsoukas (2010, 3) formulate it: 'namely the recognition that everything that is has no existence apart from its relation to other things'. They also refer to Farmer's (1997) example ('the student is reading') to compare substantive ontology, where stability is seen as the norm, with relational ontology, where stability is seen as an illusion and change as a normal state of affairs. In substantive ontology, processes incidentally happen to substances, which remain unchanged, whereas in relational ontology, the substance is constituted by experiences. In 'the student is reading' example, this means that the student is his or her experiences, and therefore the experience of reading is qualitatively different in different moments of time; thus, 'one cannot step twice into the same river' (Farmer 1997, 24).

A process researcher seeks to understand and explain how and why things come to be, develop, grow, and terminate rather than researching covariation amongst dependent and independent variables (Langley et al., 2013). The most well-recognised methodological approach amongst process research studies a process as an evolution relying on qualitative and longitudinal data to capture events, which enables one to understand changes (Langley, 1999; Langley, 2009; Pettigrew, 1990). In this kind of study, data analysis typically gathers together data from different sources to be unified as a temporal narrative by examining beneath the events and processes studied to identify underlying theoretical explanations (Fachin & Langley, 2017).

Process theories can also be approached from a positivist stance by testing theories, developing longitudinal time series, and using event history methods (Langley, 1999). However, it has been argued that in service innovation research, the researcher must understand the context and also the subtext of agency as it is the interaction between these two that allows us to understand innovation process on a deeper level (Garud et al., 2013). The subtext of agency is constituted from temporal experiences, which can be aspirations, current experiences of becoming, and the memories they generate (Garud et al., 2013). Process data typically consists of events that represent conceptual entities which might not be familiar to the researcher while studying how things evolve over time and why they evolve in a particular way (Van de Ven & Huber, 1990). Process research allows one to analyse NSD processes as a continuum where events that occur in different time and space affect the outcome. However, the challenge is to understand the singular events and reveal the thoughts people have, not to exaggerate easily available data or to identify very small and subtle events (Langley, 1999).

3.2 Applying process-ontological lenses

When researching how service comes to be, difficulties may arise while using concepts that fail to understand the proper nature of the phenomena and using concepts that stem from explaining order (Weick, 1988). Traditional entrepreneurship theories, which Sarasvathy has identified to be based on causation logic as well as many traditional NSD approaches (Yu & Sangiorgi, 2018), can be characterised as explaining order with their stage models and emphasis on planning. When using a process-ontological lens, organisations are seen to be in a state of becoming as an outcome of changing human action (Weick, Sutcliffe, & Obstfeld, 2005). Ontologically, process research considers change to be prior to organisation, and therefore organisation is emerging as a property of change (Weick et al., 2005; Tsoukas & Chia, 2002). As an organisation is understood to be an outcome of change, it is, therefore, a secondary accomplishment which aims at stability and prediction by setting rules, which then are applied reflectively, leading to emergence of an organisation (Tsoukas & Chia, 2002). In other words, organisation aims at channelling flow of human action towards certain ends by stemming change while also being the outcome of change (Tsoukas & Chia 2002).

Process research has recently started to play a prominent role in effectuation research, while the need to understand effectuation as a process has been recognised (Berends, Jelinek, Reymen, & Stultiëns, 2014; Garud & Gehman, 2016; Gupta et al., 2016; Jiang & Rüling, 2017). Even though the emphasis of effectuation studies is moving towards process research, most studies still focus on identifying Sarasvathy's four principles instead of studying how events unfold over time (Jiang & Rüling, 2017), thus missing temporality issues (McKelvie, Chandler, DeTienne, & Johansson, 2019). Therefore, in the following sections, I apply process ontology to critically view existing CEB and NSD theories.

3.2.1 Critical points of effectuation and causation

Sarasvathy's article (2001) has created a basis for the concepts of effectuation and causation. In this very article, she presents principles and propositions of causation and effectuation which have been further developed to dimensions and tested by several researchers (for a wider summary, see Read et al., 2016). Several scholars have compared and contrasted CEB logics and attempted to create measurements, which has revealed inconsistency in the dimensions as well as a need to better understand the concepts (Grégoire & Cherchem, 2019; McKelvie, Chandler, DeTienne, & Johansson, 2019). Effectuation and causation may also work in a complementary fashion

(Sarasvathy, 2001), but it is still rather unclear how and why the transition occurs (Read et al., 2016).

Since Fisher's paper was published in 2012, there have been several critical reviews of effectuation as a theoretical framework and empirical guide, those of Arend and Burkemper (2016); Arend, Sarooghi and Burkemper (2015); Garud and Gehman (2016); Gupta, Chiles and McMullen (2016); Read et al. (2016) and Reuber, Fisher and Coviello (2016) being especially noteworthy. Arend et al. (2016) have argued that effectuation as a theory is based on insufficient empirical testing and critical analysis, and they have recommended that more data should be collected by using field observations and inductive process research. When answering to the critics, Gupta et al. (2016) have stated that effectuation is a process theory, while Arend et al. (2016) evaluate effectuation as a variance theory even though they suggest a process research approach for further empirical investigations. In another response to the criticism presented by Arend et al. (2016), Read et al. (2016) have invited further research on effectuation and identified seven areas that require attention: the concept of control, the unit of deliberate practise, transitions between causal and effectual approaches, goals and pre-commitments, selection mechanisms, means and resources, and equity and cocreation.

This has caused a problem for those who wish to use CEB theory as the basis for empirical research as the terms, especially effectuation, are not yet stable in their meaning; there are variations both in the number of subdimensions as well as how the subdimensions are defined and interpreted. Furthermore, both Chandler et al. (2011) and Fisher (2012) have built on Sarasvathy's dimensions, but as can be seen in Table 2, seemingly small differences in interpretations of dimensions lead to rather varied operationalisations. One such difference seems to be when Fisher (2012) considers controlling the future to be a dimension of causation, whereas Sarasvathy (2001) considers prediction as a dimension of causation and control as a dimension of effectuation. However, Fisher defines prediction to be an approach to control the future, whilst planning, monitoring, and reporting are tools of control.

Table 2 Dimensions and operationalisations of causation

	Dimensions and operationalisations of causation
Sarasvathy (2001)	Expected returns
	Effect is given
	Selecting optimal strategies to maximise returns
	Selection criteria based on expected return
	Analysing long-run opportunities in the market
	Competitive analyses
	Conducting sophisticated market research and competitive analyses
	Exploitation of pre-existing knowledge
	Choice of means is driven by characteristics of the effect the decision maker wants to create and his or her knowledge of what is possible
	Identifying segmentation variables, segmenting the market, and selecting the target segment(s)
	Selecting, developing, and communicating the chosen positioning concept
	Designing marketing strategies and planning marketing programmes
	Organising, implementing, and controlling marketing efforts
	Developing profiles of resulting segments
	Prediction of an uncertain future
	Focussing on the predictable aspects of an uncertain future—to the extent we can predict the future, we can control it
	Long-term planning and forecasting
	Researching and selecting target markets
	Evaluating the attractiveness of each segment
	Identifying possible positioning concepts for each target segment
Chandler (2011)	Envisioning the end from the beginning
	Developing a strategy to best take advantage of resources and capabilities
	Having a clear and consistent vision for where we wanted to end up
	Maximising expected returns
	Analysing long-run opportunities and selecting what we think will provide the best returns
	Business planning and competitive analyses to predict an uncertain future
	Designing and planning business strategies
	Designing and planning production and marketing effort
	Exploiting pre-existing knowledge
	Organising and implementing control processes to make sure we meet objectives
	Researching and selecting target markets and conducting meaningful competitive analysis
Fisher (2012)	Starting with ends
	Identifying and assessing long-run opportunities in developing the firm
	Identifying an opportunity before developing anything: gather information about customer needs to identify a gap, interview customers, collect data about the market, analyse technological trends

Writing up or verbally expressing a vision for venture
Developing a project plan to develop the product and/or services
Analysing expected returns
Calculating the returns of various opportunities
Doing competitive analysis
Gathering and reviewing information about market size and growth
Gathering information about competitors and comparing their offerings
Controlling the future
Writing a business plan
Organising and implementing control processes
Writing up a marketing plan for taking the products/services to market
Establishing an internal reporting structure (management accounts and monthly reporting)
Designing and implementing a clear organisational structure

In their studies, Fisher (2012) and Chandler et al. (2011) focus on what they see as the four subdimensions of effectuation—experimentation, flexibility, affordable loss, and pre-commitments—which are, to some extent, different from the original dimensions presented by Sarasvathy (2001) (Table 3). Both Fisher (2012) and Chandler et al. (2001) have considered affordable loss and experimentation to be two different dimensions and combined pre-commitments with control of unpredictable future. The explanations of control of unpredictable future and strategic alliances also overlap somewhat with Sarasvathy's original article from 2001. Later, after recognising the confusion, Read et al. (2016) have tried to explain the difference between control as an outcome (causation) and control as strategy (effectuation). Thus, effectuation focusses on the elements that the entrepreneurs and their stakeholders can control to cocreate the future whereby the company has an advantage in contrast to anticipating future outcomes and using prediction as strategy.

Table 3 Dimensions and operationalisations of effectuation

	Principles of effectuation
Sarasvathy (2001)	Means orientation Taking a set of means as given and focussing on selecting between possible effects that can be created with that set of means Individual: starting by asking, 'Who am I, what do I know, who do I know, and what can I do?'; intuition and own experience Company: physical, human, and organisational resources Economy: demographics, technology, regimes, socio-political institutions

	Affordable loss rather than expected returns Experimenting with several ideas and failing early with lower costs Failing often, learning to manage the failures, and creating larger, more successful firms in the long run Strategic alliances rather than competitive analyses Pre-commitments with stakeholders to reduce uncertainty and entry barriers Exploitation of contingencies rather than pre-existing knowledge Exploiting unexpectedly arousing contingencies Building different companies in different industries Control of an unpredictable future rather than prediction of an uncertain one. 'To the extent that we can control the future, we do not need to predict it'—the entrepreneur creates the market by engaging stakeholders who commit to the idea
Chandler (2011)	Experimentation Focussing on short-term experiments to identify business opportunities in an unpredictable future Experimenting with different products and/or business models Providing substantially different product or service than first imagined Trying a number of different approaches until finding a business model that works Affordable loss Focussing on projects where the loss in a worst-case scenario is affordable Not committing more resources than the company could afford to lose Not risking more money than the company is willing to lose with the initial idea Not risking so much money that the company would be in real financial trouble if things do not work out Pre-commitments and alliances Emphasising pre-commitments and strategic alliances to control an unpredictable future Using a substantial number of agreements with customers, suppliers, and other organisations and people to reduce the amount of uncertainty Using pre-commitments from customers and suppliers as often as possible Network contacts provide low-cost resources Working closely with people/organisations external to the organisation to greatly expand company capabilities Focussing on developing alliances with other people and organisations Partnerships with outside organisations and people play a key role in company's ability to provide the product/service Flexibility Exploiting environmental contingencies by remaining flexible Allowing the business to evolve as opportunities emerge Adapting what the company is doing to the resources they have Being flexible and taking advantage of opportunities as they arise Avoiding courses of action that restrict flexibility and adaptability
Fisher (2012)	Experimentation Developing multiple variations of a product or service in arriving at a commercial offering

Experimenting with different ways to sell and/or deliver (revenue models, distribution channels) the product or service
Substantially changing the product or service as the venture develops
Creating different prototypes
Affordable loss
Committing only limited amounts of resources to the venture at a time
Finding inexpensive alternatives
Developing product or service using only personal resources
Flexibility
Responding to unplanned opportunities as they arise
Adapting what they are doing to the resources at hand
Rejecting courses of action like relationships or investments that will lock the company
Pre-commitments
Entering into agreements with customers, suppliers, and other organisations prior to having a fully developed service or product

Authors such as Werhahn et al. (2015) prefer to use Sarasvathy's initial (2001) set of four subdimensions: 1) affordable loss rather than expected returns, 2) strategic alliances rather than competitive analyses, 3) exploitation of contingencies rather than pre-existing knowledge, and 4) control of an unpredictable future rather than prediction of an uncertain one. However, Werhahn et al. (2015) have also added one dimension, means orientation, which Sarasvathy's original work considered as a definition of effectuation.

It can be concluded that operationalising of effectuation is challenging, which Chandler et al. (2011) also experienced as the items they constructed for their first study were not adequate to capture the relevant subdimensions of effectuation, and they had to turn back to Sarasvathy's original dimensions to redesign the items for the second study. Their study supposed that causation is a unidimensional construct emphasising planned strategies, whilst effectuation is a multidimensional formative construct. The study also suggested that pre-commitments and alliances are dimensions which are part of both causation and effectuation. Chandler et al. (2011) have noted that this might also be due to inadequately designed items. For example, the item 'using a substantial number of agreements with customers, suppliers, and other organisations and people to reduce the amount of uncertainty' does not consider only pre-agreements but agreements overall.

In addition, another item, ‘we used pre-commitments from customers and suppliers as often as possible’, fails to reveal the dominant approach applied by a company. To conclude, effectuation as a multidimensional construct is still considered to have unidentified subcomponents as well as challenges in understanding the meaning of already identified subcomponents.

Furthermore, scholars have also questioned the key arguments of effectuation: ‘Instead of focusing on goals, the entrepreneur exerts control over the available set of means—the things over which the entrepreneur has control’ (Sarasvathy, 2001, 252). In the literature, this foundational argument of effectuation has often been interpreted to imply that goals and vision are applied in a causation approach (e.g. in Fisher’s 2012 framework) but not in effectuation approach. Arend et al. (2016) criticise this view as there is rather strong empirical evidence that entrepreneurs usually have a goal or vision. However, the goal or vision can be preset, formal, specified, and well-structured, or it can be more general and aspirational, as Sarasvathy states in her early theory development: ‘Effectuation processes do not start from product, firm or market but rather from human imagination and aspiration’ (Sarasvathy 2001, 262). The opportunity creation, however, does not inevitably occur but requires an effectuator with inspiration and imagination to seize the contingent opportunities by using the available means to fulfil future aspirations. When applying Sarasvathy’s metaphors, the vision in causation is like solving a puzzle, whilst in effectuation, the visions resemble making a patchwork quilt. The difference is that when one starts working on a puzzle, one knows in advance exactly how the puzzle should look, which is one’s goal. When sewing a patchwork quilt one may have a vision or aspiration of how it might look, but that vision may change during the process, and one also allows it to change. Similarly, goals may change as they are constructed over time and affected by serendipitous events (Sarasvathy, 2001). Consequently, the criticism that Arend et al. (2016) raised towards effectuation theory regarding the nonexistence of goals can be seen more as criticism towards operationalisations based on Sarasvathy’s (2001) article rather than towards her ground-breaking article.

Finally, effectuation has been criticised as ignoring market needs and value creation in opportunity creation (Fisher, 2012; Arend et al., 2016). This criticism may stem partly from understanding value creation to occur only through formalised processes and partly from the argument that customers may be defined only *ex post* in effectual processes. When applying causation logic, value creation is typically approached by sophisticated market research like surveys and competitive analysis to find out the needs of customers and gaps in the market (Sarasvathy, 2001). Even though an effectuation approach does not utilise traditional market research methods, which does not mean that effectuators disregard value creation. Informal data-gathering methods like talking and listening to customers as well as experimenting and cocreating may contribute to value creation (Yu & Sangiorgi, 2018). In this way, effectuation is characterised by making pre-commitments and experimenting with customers prior to launching a service, thus indicating that customers participate in the value creation process and may be known before the service is bought. However, who the customers are in the future may vary as the service keeps evolving with no precise end.

3.2.2 Critical points of bricolage theory

The third approach in CEB theories is bricolage (Table 4). When researching entrepreneurial behaviour, Baker and Nelson (2005) identified three different ways to approach challenges: 1) making do by applying combinations of the resources at hand to new problems and opportunities, 2) continuing to attempt to acquire standard resources, or 3) avoiding challenges. The first approach describes bricolage, which utilises the resources that are around instead of trying to search for new ones; these existing resources are collected on the principle that one never knows when one may need something (Lévi-Strauss, 1967). In entrepreneurial settings, these resources can also be contacts and competencies which are ‘collected’ without any particular project in mind, thinking that they might be useful someday (Lévi-Strauss, 1967).

In several articles on bricolage in entrepreneurial or innovation contexts, the explanation of resources at hand has been rather unclear or incoherent. For instance, Fisher (2012) has interpreted Baker and Nelson’s (2005) ‘continue attempt to acquire standard resources' as 'to seek resources from domains external to the firm'. However, the foundational articles of bricolage have viewed resources at hand as both internal and external (e.g. a network that has been acquired earlier) (Lévi-Strauss, 1967; Baker & Nelson, 2005). Furthermore, Senyard et al. (2014, 2009) have operationalised resources at hand as existing resources, but they have not explained what these existing resources are, leaving it unclear whether they concern internal and/or external resources. Fisher's (2012) interpretation of Senyard et al.'s (2009) theorising seems to be that existing resources are internal as one of his operationalising of bricolage behaviours is 'uses existing resources (rather than seeking resources from outside)'. Senyard et al. (2014) conclude in their study that a high level of bricolage did not negatively affect innovativeness. However, as the aforementioned examples show, existing resources are not a self-evident concept, and it remains unclear to what extent companies act on bricolage, which is a key element in its outcome.

Table 4 Dimensions and operationalisations of bricolage

Fisher (2012)	Making do—take action to solve problems rather than questioning whether a workable solution could be found
	Experiments to solve problem (instead of trying to figure it out conceptually)
	Combination of resources for new purposes
	Combined existing resources in creating solutions
	Reused resources for purposes other than those for which they were originally designed
	The resources at hand
	Used existing resources (rather than seeking resources from outside)
	Physical inputs—used forgotten, discarded, worn, or presumed 'single-application' materials to create new solutions
	Labour inputs—involved customers, suppliers, and hangers-on in providing work on projects
	Skills inputs—encouraged the use of amateur and self-taught skills that would otherwise go unapplied
	Institutional/regulatory environment—rejected the limitations of the environment; worked around rules and standards
Baker & Nelson (2005)	Making do by applying combinations of the resources at hand to new problems and opportunities
	Cheap, nonstandard, easy, and fast
	A refusal to enact limitations
	Bricolage typically appears to involve a general awareness of existing practises and norms and a conscious willingness to abrogate them
	Bricolage creates space for these firms to 'get away with' solutions that would otherwise seem impermissible
	Rules

	Standards
	Even illegal issues
	Testing and rejecting institutional constraints and definitions
	Combination of resources for new purposes
	The process of combining resources for new purposes sometimes serves as a mechanism driving the discovery of innovations in the form of new ‘services’ from existing resources
	Skills
	Labour
	Physical
	Customers/markets

Resources at hand can be easier to understand when bricolage is viewed as part of the improvisation process. Improvisation takes place under time constraints as the design and execution of activities happen simultaneously, whereas bricolage can also be part of carefully planned processes (Miner, Bassof, & Moorman, 2001). When bricolage is enacted in planned processes, several questions can be raised, such as how resources at hand are defined in planned processes. If resources at hand are defined as not new or standard resources, then new questions arise: From which perspective are the resources not new or standard (e.g. company or industry)? Do standard resources differ in different industries? When is labour as a resource new or standard? Furthermore, if labour is described to be free or cheap, then scarcity is implicitly defined through financial resources. However, the scarcity may also concern skills, competencies, and knowledge (Barrett et al., 2015; Cunha et al., 2014; Gupta, Smith, & Shalley, 2006; Srinivas & Sutz, 2008; Witell et al., 2017).

When Baker and Nelson (2005) wrote their often-referenced article on entrepreneurial bricolage, they took a constructivist approach by building on Weick’s (1979) analysis that behaviour is limited and constrained by presumed limitations in the resource environment, which leads to failure to act. They enhanced the concept of making do into a refusal to enact limitations based also on their own observations of actors actively testing the limitations defined by institutional or cultural settings. However, refusal to enact limitations, as it is defined by Baker and Nelson in connection with making do, is not about limitations set by the resource environment but, rather, those set by the environment concerning the process or outcome (in contrast to their argument to ‘refuse to enact the limitations imposed by dominant definitions of resource environments’)

(Baker & Nelson, 2005, 329). Additionally, making do often leads to good enough and temporary solutions, but it does not necessarily test limitations set by the environment. Baker and Nelson's enhancement of bricolage is also contrary to Lévi-Strauss's (1967) argument that a bricoleur is limited by the meanings given to the resources at hand and that he or she remains within the constraints, in contrast to an engineer, who refuses to enact the constraints set by the environment: 'The engineer is always trying to make his way out of and go beyond the constraints imposed by a particular state of civilization while the "bricoleur" by inclination or necessity always remains within them' (Lévi-Strauss, 1967, 13). When analysing the examples that Baker and Nelson (2005) present to support bricoleur refusing to enact limitations, the conclusion that may be drawn is rather that a bricoleur acts on and uses combinations of resources at hand even though the outcome or the process may not fulfil standards defined by institutional or cultural settings or may not meet the regulations set by law. The examples below are used by Baker and Nelson (2005) to illustrate how bricoleurs refuse to enact limitations.

> Example 1. Quickly preparing a wheel with spoke wrenches and a screwdriver instead of following the standard industry practise.
> Example 2. By using amateur skills, he or she repaired electrical equipment; did carpentry, plumbing, sheetrock, roofing, heating or cooling installation, electrical work, backhoe or auto repair projects; and installed and maintained an illegal cable descrambler disregarding credentials, codes, and intellectual property law.
> Example 3. Burning anything in a makeshift furnace without exactly knowing the emissions standards and possible hazards.
> Example 4. Changed an exhaust pipe for a fouled catalytic converter, which was an inexpensive solution but would also increase air pollution and create risk for fines.
> Example 5. Made air conditioning repairs without a freon recovery unit, letting the freon into the atmosphere.

However, these examples represent action regardless of presumed resource limitations, using only resources at hand and making good enough solutions from the service provider's point of view. Thus, the examples mainly illustrate that bricoleurs take actions to solve problems by using resources at hand (Fisher, 2012) even if, as a consequence, industry standards or legal requirements are not met, which may even lead to environmental or human damage. This can be contrasted with 'refusing to enact limitations' being a starting point to actively address limitations caused by meanings set for things or addressing cultural or institutional limitations by coming up with new solutions which would have an option for scalability. In this way, a refusal to enact limitations implies a proactive approach to find new solutions, which can be long-term, conscious attempts to see if the limits are real, where the limits are, or even to change the limits. Bricoleurs do not actively look for new solutions, which might require new resources, which often leads to 'handyman' kind of businesses (Lévi- Strauss, 1967), and no radical innovations are created. Actually, the definition of bricolage used by Nelson and Baker (2005)—'making do by applying combinations of the resources at hand to new problems and opportunities'—already implies that bricolage is limited by the resources at hand, not that it is refusing to enact limitations beyond the resources at hand. This element of relying on existing resources instead of acquiring new ones may partly explain why companies depending on bricolage do not grow (Baker & Nelson, 2005). Bricolage may enhance creating new ideas and implementing them on a small scale, but applying only resources at hand may not enable growth.

It is also rather contradictory that Baker and Nelson (2005) introduced the concept of refusing to enact limitations in an article titled 'Creating Something from Nothing'. As Arend et al. (2016) have argued, 'we know that one can't make something out of nothing'. Even Baker and Nelson (2005, 356) themselves conclude in their article, 'At the broadest level, our answer to the question "How do you create something from nothing?" is by refusing to treat (and therefore see) the resources at hand as nothing'. Treating resources at hand as nothing seems to stem from the causation tradition, which emphasises set effects as a starting point for entrepreneurial processes (Sarasvathy, 2001). On the other hand, it may also originate from the historical view which considered resources as tangible things (Constantin & Lusch, 1994) in contrary to a view that anything an actor can draw on to create something can be considered as a resource, including competencies, knowledge, or skills (Vargo & Lusch, 2004). Considering intangible resources as nothing may lead to a misunderstanding that human resources are less relevant or not even enough in entrepreneurial processes. This becomes apparent in

Schumpeter’s (1934) work and in several other studies which have emphasised the importance of excess amounts of resources in creation of radical innovations that can be better mastered by larger companies (Bradley, Wiklund, & Shepherd, 2011; Nohria & Gulati, 1996). Indeed, in other studies, scarcity has also been shown to enhance innovation performance (George, 2005), while good resource availability may lead to risk aversion, irrational optimism, and complacency without motivation to explore the unknown (Levinthal & March, 1993).

Both effectuation and bricolage share the view of resource scarcity as a source of creativity instead of a constraint. There are also several other dimensions that may reflect both theories and contrast them to traditional entrepreneurship theories: resources as given instead of effect as given, action instead of planning, engagement with stakeholders at the early stage instead of competitive analyses, and iterative experimentation instead of a linear process (Fisher, 2012; Vanevenhoven et al., 2011; Witell et al., 2017). This has raised the point that even though bricolage and effectuation are often presented as two separate theories, the concepts overlap (Arend et al., 2015; Chang & Rieple, 2018). However, operationalising both effectuation and bricolage has been seen as challenging, leading to different dimensions or different interpretations of the same dimensions (Fisher, 2012) and calling for deeper understanding of the dimensions. For example, means as given has been considered a shared dimension with effectuation and bricolage, but this conclusion implicitly supposes that there is no difference between means and resources. Sarasvathy (2001) considers means to be at the individual level (who they are, what they know, and whom they know), at the level of the company (physical, human, and organisational resources), and at the level of the economy (demographic, technological, and socio-political).

In effectual processes, these means are understood to transform also into previously non-existent resources (Read et al., 2016) and are, therefore, not limited by the resources at hand. This is a relevant distinction if one asks the question that Read et al. (2016, 531) raised: ‘What difference does it make if people act as though they believe in an effectual worldview? What difference might it make for entrepreneurship scholarship, pedagogy, and practice?’ One can continue: what difference does it make if people act as though they believe in a bricolage worldview? To illustrate what this could mean in practise, we can use Baker and Nelson's (2005) findings to describe how companies consistently and repeatedly using bricolage did not grow, whilst those selectively using it were able to grow as they were not limited by the organisational identity associated with bricolage. As a consequence of using only resources at hand, bricolage has been claimed to reduce revenues, not to attract demanding customers (Senyard et al., 2009), to cause delays in innovation processes, and to reduce service quality (Witel et al., 2017).

In addition, effectuation has been criticised for restricting entrepreneurs' options by considering means as given (Arend et al., 2016) while failing to delineate means and resources. However, this argument is, to some extent, based on weaknesses of many effectuation studies; by using think-aloud protocol in nonreal situations (Sarasvathy, 2001), means are implicitly considered synonymous to resources, and samples consist of students (Dew, Read, Sarasvathy, & Wiltbank, 2009; Smolka et al., 2016). For example, in Smolka et al.'s (2016) research, the sample is comprised of student entrepreneurs whose annual sales exceeded 50,000 euros only in 26.4% of the cases. Consequently, Read et al. (2016) have suggested that delineating means and resources in effectual processes is an important future research topic and, thus far, an open question.

Several researchers have also viewed service innovation processes from a bricolage perspective (Salunke et al., 2013; Witell et al., 2017), and many of their studies are conducted in naturally resource-scarce contexts including the public sector (Fuglsang, 2010), a base of the pyramid (Linna, 2013), and developing countries (Halme, Lindeman, & Linna, 2012).

As stated, scarcity in the service innovation process may also concern competencies, skills, and knowledge (Spring & Araujo, 2017). The concept of bricolage has also been used to explain such service innovation processes which combine resources for new purposes through unplanned, serendipitous, and improvised processes (Ciborra, 1996; Miner et al., 2001). Bricolage appears to be connected with creativity, social and network skills, and a tolerance for both failures and unordinary behaviour, which are all assumed to impact on company outcomes (Baker & Nelson, 2005). Seynard et al. (2014) have also made some first attempts to test the relationship between bricolage and innovativeness in new ventures. Based on their findings, they consider the bricolage domain of using a recombination of resources for new purposes to be central to innovation studies.

When viewing service innovation using bricolage as a frame, Witel et al. (2017, 291) define the concept of bricolage ‘as a set of capabilities related to improvisation and making do with what resources are available’. If bricolage is a capability related to improvisation, then the implicit assumption in this definition is that service innovations are simultaneously designed and executed under a time constraint. Nonetheless, bricolage can also be enacted in planned processes, not only under time constraints, even though it is often linked to improvisation (Baker & Nelson, 2005). What Witel et al. (2017) describe in their paper as improvisation seems to be closer to the concept of experimenting. One of the improvisation examples they describe is about service delivery engaging relatives, neighbours, and friends to help elderly patients. They used this ‘improvisation experience’ when they later started creating a new service element. However, improvisation elements are missing in their example, whilst the sources they refer to use the concept of experimentation. Therefore, the proposition ‘improvising capabilities are positively associated with service innovation outcomes’ seems to have little foundation based on the data that they presented.

Witel et al. (2017) have also associated networking capabilities with bricolage. However, their empirical examples of networking are rather about conducting market research by observing and interviewing customers. Based on their case analysis, they propose that networking capabilities can be either positively or negatively associated with service innovation outcomes. The negative outcome in the case they presented occurred as a result of interviewing potential customers and asking about their needs. Their conclusion was that as the customers were not able to express their needs and preferences, the service innovation outcomes were negative. When analysing their approach, it seems that the case may not be about networking capability but instead about how customer understanding is gathered and how these insights are utilised and developed further.

The examples above illustrate that one of the problems in researching service innovation and what enhances it seems to be the approach of investigating service innovation as separate items or elements instead of understanding it as processes whereby the past, present, and future affects how service emerges. For example, when gathering customer information as in these two cases presented by Witel et al. (2017), several questions remain unanswered: How can companies empathise with customers and understand their lives? How are new ideas built on customer understanding, and how is the data interpreted and analysed? How are the customers and other stakeholders engaged in the ideation? How are prototypes created and experimented on? Are the potential customers engaged, and how are they involved in experimentation? In Witel et al.'s (2017) case, the company seems to have considered potential customers as objects instead of actively engaging them as subjects in the innovation process. Therefore, the statement presented by Witel et al. (2017), 'networking capability (collaborating with customers) might have only a negative influence on the service innovation outcome when the customers lack the necessary resources (competencies and skills) to clearly articulate their needs', mainly represents the company's lack of capability to understand and empathise with the customer (Liedtka, 2014; Yu & Sangiorgi, 2018). Witel et al. (2017) conclude that it might bring some new insight into networking capability in a service innovation context if the perspective would move from generic networking to different types. The question remains, however, whether this an issue of networking capability or rather one of empathy, creativity, ideation, experimentation, and cocreation competencies (Edvardsson et al., 2012).

3.2.3 Developing new insights within new service development processes

Matalamäki (2017) has argued that from 2012 to 2016, effectuation research had already reached the intermediate stage of development because effectuation logic is already associated in contexts other than new ventures (Brettel, Mauer, Engelen, & Küpper, 2012; Coviello & Joseph, 2012; Kalinic, Sarasvathy, & Forza, 2014; Werhahn et al., 2015). Matalamäki (2017) has also identified four main research streams touching upon effectuation: entrepreneurial expertise (Dew et al., 2009), effectuation together with causation (Berends et al., 2014; Reymen, Berends, Oudehand, & Stultiëns, 2017), innovation and product development (Brettel et al., 2012; Coviello & Joseph, 2012), and internationalisation (Kalinic et al., 2014; Nummela et al., 2014). Several scholars have studied both effectual and causal logic in innovation and product development processes (Berends et al., 2014; Blauth, Mauer, & Brettel, 2014), whilst bricolage theory has been applied to understand service innovation (Fuglsang, 2010; Salunke et al., 2013; Witell et al., 2017).

However, how service providers identify and/or create opportunities has rarely been studied (Read et al., 2016). This is an important omission, especially in novel healthcare settings that involve the emotional and/or physical wellbeing of their users, factors that are becoming more important in healthcare providers' thinking. The sector is also subject to profound changes in customers' expectations concerning their own power and self-determination, as well as the application of technology and use of data in preventative healthcare.

As stated (section 2.2), service innovation and new service development are often understood as rather similar concepts (Biemans et al., 2016; Menor et al., 2002). Lately, there has been efforts to differentiate these concepts by defining NSD as a process aiming at developing a new service, whereas the focus on service innovation is on the outcome (Patrício et al., 2018; Storey & Larbig, 2018); there are also those who view service innovation not only as a process and outcome but also consider the value cocreation perspective (Helkkula, Kowalkowski, & Tronvoll, 2018; Vargo, Wieland, & Akaka, 2015). However, the NSD process is still often argued to contribute 'to developing systematic approaches to service innovation' (Yu & Sangiorgi 2018, 40). This argument is in conflict with service innovation literature which commonly shares the view of innovation processes as nonlinear, flexible, iterative, and discontinuous (Anderson, et al., 2004) in contrast to new product development processes, which are often illustrated as systematic approaches (Edvardsson & Olsson, 1996) and stage models aiming at fast launch processes and fewer mistakes (Zomerdijk & Voss, 2011).

There have also been attempts to formalise the service innovation process to achieve efficiency, but this has been found to inhibit experimentation, learning, creativity, and radical innovations (Engvall et al., 2001; Witell et al., 2017).

Service innovation can be considered a more complex concept in contrast to product innovation as the latter is often a combination of several innovations and may refer to service experience, process, behavioural changes, social aspects, service bundles, brand perception, and business models, or combinations of these (Martin et al., 2016). Furthermore, service innovation can be understood as an approach to value creation (Lusch & Nambisan, 2015) through incremental and continuous improvements as well as radical and disruptive innovations (Brentani, 2001; Michel et al., 2008).

Goal-directed and formal NPD processes are identified as applying causation logic, while small firm product innovation processes are found to follow effectual logic (Berends et al., 2014). Small firm product innovation is consequently considered to be chaotic, unplanned, and ad hoc (Berends et al., 2014), whereas best practises leading to success typically comprise formal NPD processes, specific strategies, measurements, and even 'closing NPD projects with completion dinners' (Barczak, Griffin, & Kahn, 2009, 4). Similarly, service innovation processes as flexible, iterative, and discontinuous can be associated with effectuation logic, whilst NSD as a systematic and planned approach can be associated with causation logic. Even the term 'development' in itself can be associated with causation logic, while originating from heuristics that consider planning to lead to better business outcomes. One of the main streams of new product development is based on the understanding that successful product development can be achieved through rational planning and execution (Brown & Eisenhardt, 1995), and it seems that new service development still builds on this notion to some extent. Even in process studies, the language and ontology of substance is retained because the world is dominated by nouns instead of verbs describing change and action (Langley et al., 2013) while viewing stability and order as the normal state of reality (Tsoukas and Chia, 2002).

The process ontological view of the world, which is in a state of becoming, is often found to be more difficult to operationalise, which partly explains the dominance of nouns over verbs (Langley et al., 2013). The need to control or manage complexity easily leads to simplified linear models, which miss complexity as a generative force for innovations (Garud et al., 2013). In NSD, the underlying assumption often seems to be to come up with models that are simple enough to be implemented and disseminated in practise (Yu & Sangiorgi, 2018). Therefore, the NSD models typically represent rational processes, which aim to help in building successful services.

To summarise, the recent emphasis of effectuation research has moved towards the process research approach as there are still difficulties in operationalising the items of CEB. The criticism of CEB logic that I presented earlier stems in part from scholars focussing on the principles associated with CEB logic (Jiang & Rüling, 2017) instead of examining CEB processes as they unfold over time. Even papers that claim to apply process research are driven by variance-oriented designs, which is caused by differences in what is understood as a process and by studying individual links within constricted temporal horizons without considering how processes unfold over time (McMullen & Dimov, 2013). Therefore, longitudinal research combined with participant observation is required to understand even the micro-processes (Nummela et al., 2014) that underlie decision making in NSD processes.

Drawing on relevant literature from the fields of new service development, innovation, and entrepreneurship, I examine how different types of entrepreneurial cognitive logics—namely, causation, effectuation, and bricolage—influence the new service development process. This is especially relevant as the role of a formal NSD process as the only way leading to success and creating innovation has been questioned. Furthermore, much of the CEB-related research is conducted by researching technology-based ventures (e.g. Reymen et al., 2017; Fisher, 2012), with few studies on industries that rely to a large extent on service employees, such as the health-care sector.

To contribute to understanding this phenomenon, I consider how NSD might be better understood by adopting a process ontology. I follow the conceptualisation of Garud et al. (2013) to understand service innovation as processes which cover not only the emergence of an idea but also its development and implementation. Therefore, the question of how service comes to be is a complex one comprising how the initial invention came to be, how it changes during the development phase, and how service continues to evolve during implementation. Several researchers have also called for process research with retrospective and longitudinal research design to better understand processes leading to innovative outcomes (Jiang & Tornikoski, 2019; Servantie & Rispal, 2018; Welter, Mauer, & Wuebker, 2016). I decided to follow the research of Pettigrew (1990) to study a single case with good access, which allows one to follow several actors and to study a new venture in-depth. There are both entrepreneurship scholars and scholars applying process research methodology who have recently chosen a similar approach (Servantie & Rispal, 2018; Fachin & Langley, 2018).

3.3 Data collection methods

When studying how new services come into existence, the researcher often combines historical and current data (Langley, 1999) as new ideas require time to emerge and to be implemented as an outcome of nonlinear processes (Garud et al., 2013; Van de Ven et al., 1999). Therefore, my set of empirical material is varied including offline and online observation, documents, interviews and photos (Table 5).

Table 5 Data collection methods

Data Type	Sources	Quantity
Offline observations	Everyday operations in Heltti Growth forum meetings Heltti Management Team meetings Internal development meetings and events Customer events Social events (lunch, dinner, sauna, exercising)	2–5 days a week from Feb. 2016 to Jan. 2017, total of 564 pages of field notes

Online observations	Facebook postings Blog texts (51) Internal community platform Slack WhatsApp messages e-mails (252) Heltti webpage HelttiMe digital channel Wellmo app	8 different channels
Documents	Shareable documents aimed at internal or external use Growth Forum meeting minutes 2015–2017 (one long document 54 pages) Heltti Management Team documentation PowerPoint presentations Excel documents with budget Business plans Customer surveys and interview documents	134 documents
Interviews	Semi-structured interviews Customers (16) Partners (4) Heltti employees (17) Heltti founders (2) Heltti managers (4)	43 interviews, 399 pages
Photos	Taken by me or Heltti's employees and managers Heltti's official photos	54 photos

My ontological perspective allowed the use of qualitative interviews and participant observation, shifting between the roles of an external observer and internal participant. Participant observation and first-hand experience in a particular social or cultural setting, as well as interviews and discussions, is a natural way to collect data in the field (Atkinson & Anthony, 2013). Observation as a data collection method emphasises the importance of social, historical, and cultural context where interviews, textual materials, and diaries are produced (Atkinson et al., 2001). When applying ethnographic methods like observation, culture creates the context within which processes, behaviours, or social events can be described in detail (Geertz, 1994). The value of observation is in its ability to reveal socially shared and acquired knowledge by accessing the lived experiences of the members in the organisation (Van Maanen, 2011).

To capture NSD processes and to understand what the organisation is today, my research also includes retrospective elements to analyse the event history (Pettigrew 1990; Van de Ven & Huber, 1990). To this end, I used retrospective interviews and naturally occurring data from 2013 to 2017 with a focus on meeting memos, presentations materials, customer research material, social media, and newspaper articles as well as internal and external digital channels. During the one year of participant observation, I had almost daily informal discussions with the owners, sales and marketing people, nurses, doctors, psychologists, physiotherapists, customers, and partners. In addition to informal conversations, I conducted interviews with people who represented different kinds of actors in NSD processes. My data comprises altogether 43 semi-structured interviews (owners, employees, partners, and customers), ethnographical material (45 meetings, conversations, field notes, and a diary), and archive data (memos of the meetings, research data, newspaper articles, social media materials). In the following sections, I explain my data collection methods in more detail.

3.3.1 Interviews

Interviews are commonly used to study CEB logics (Jiang & Tornikoski, 2019; Sarasvathy, 2001; Servantie & Rispal, 2018) and are also conducted in NSD studies (Yu & Sangiorgi, 2018). However, innovation studies traditionally focus on the managing director as a single respondent (Van de Ven & Rogers, 1988) and entrepreneurship studies on the entrepreneur (Fisher, 2012). My approach was to study new service development processes by including representatives from different stakeholder groups involved in NSD processes. My sampling strategy was to first interview the two founders as well as all employees and managers of Heltti. When observing the meetings, participating in the everyday life of the company, and interviewing the founders, managers, and employees of Heltti, I gradually found out who the other internal and external actors involved in new service development processes were.

Therefore, I also interviewed those partners, who seemed to play the most important role in Heltti's NSD processes.

Another group of interviewees consisted of client companies that I chose from an Excel sheet provided by Heltti. I chose to select those which represented different kinds of companies based on turnover, industry, company age, and number of employees. The persons chosen to be interviewed were Heltti's contact persons as they were better able to express their views as a company client and in the most cases also as an end user of Heltti's services. In practise, these two roles are often interwoven. I approached the contact persons of the customer companies by e-mail and asked for permission to interview them. Some of the partners that I interviewed were also customers of Heltti, which allowed me to interview them in their double roles.

After each interview, I briefly analysed the interviews to find if any new themes emerged. I sent e-mails to only several company customers at a time, conducted the interview, transcribed it, and briefly analysed the data. I continued to contact and interview the company clients until the same themes started to emerge. Ten company clients answered that they were too busy to participate in the interview, or they did not respond to the e-mail I sent, and I finally ended up conducting 16 customer company interviews. The interviewees were mainly managing directors or human resource managers of the client companies, and almost all of them were also end users of Heltti's services. These client-company and end-user perspectives especially presented new insights and enabled me to understand the complexity of the value creation in new service development processes.

I started the interviews in February 2016 and continued until January 2017. The number of employees increased gradually during my one year of observation from 18 in the beginning of my fieldwork period to 28 when I ended, while the number of customers increased from approximately 200 to 300 client companies, which employed about 5,000 people. I interviewed the founders of Heltti as well as all the employees who had been working at least two months by the end of January 2017, and these were mainly conducted on company premises. We used the same rooms where the nurses and doctors had appointments with their patients for the interviews. The company premises were often occupied, so we also used a restaurant space in the same building. All interviews were conducted face to face, audio recorded, and transcribed. Almost all the client interviews took place in the client company's negotiation room or in the customer's own office room.

My semi-structured interviews consisted of open-ended questions, which allowed interviewees to relay their stories, followed by my asking probing questions to arrive at richer detail and letting unanticipated stories and statements emerge. I aimed at having a role as a listener and facilitator of the conversational interview to encourage the interviewee to tell more. The broad questions led to discussion in which the interviewees' answers shaped the course of the interview (Charmaz, 2006; Myers, 2013).

Partner interviews started with asking them to tell about the partner company and its services and to explain how the company was born as all the interviewed partner companies can be considered new ventures themselves. After these questions, the discussion centred on their relationship with Heltti and the NSD processes they had experienced there. Customer interviews focussed on value creation by touching upon the role and expectation of OHC services and continuing with how and why the customer relationship with Heltti started as well as reflecting upon the customer journey.

In all of the interviews, the interviewees had an active role in the topics that emerged, which allowed rich insights into processes by evoking their personal experiences regarding what happened (Van de Ven & Poole, 2017). Because of this, the interviews varied, ranging from 35 minutes to two hours; some interviewees needed only a couple of guiding questions, and some who answered rather briefly required more probing questions. In addition, when new themes and insights emerged during data collection, I returned to contact some of the interviewees. When starting the fieldwork, I did not know much about Heltti and OHC services, and as it became apparent, neither did I know about the everyday operations of a new venture. This kind of state of innocence is considered to enhance the researcher's ability to observe as it may lead to being more sensitive and open to insights and learning, but it may also lead to misunderstandings, embarrassments, and cultural oversights (van Maanen, 2011). However, even though I encountered many less familiar worlds to me, I still had my own presuppositions since all people have a foundation of knowledge (Rock, 2001) which affects what they see, how they see, and how they interpret what they see.

Table 6 provides a list of the interviews conducted in this study. All the interviews were conducted one at a time, recorded, and transcribed into a total of 399 pages of text. As stated in the ethics application submitted to the University of Westminster, only the role of the interviewee is mentioned to ensure anonymity. I am aware that a more detailed description of the interviewees might have enabled a deeper understanding of the findings for the reader.

Table 6 List of the interviews

	Name/ pseudonym	Organisation	Role	Length of the interview in minutes
C1	Rose	Customer	Customer/office manager	59
C2	Kathryn	Customer	HR manager	34
C3	Adison	Customer	Managing director	39
C4	Lily	Customer	Operations management	59
C5	Ellie	Customer	Office manager	35
C6	Grace	Customer	Customer success manager	37
C7	Mila	Customer	HR manager	52
C8	Victoria	Customer	HR manager	50
C9	Hannah	Customer	Office manager	55
C10	Penelope	Customer	Managing director	34
C11	Olivia	Customer	Managing director	35
C12	Stella	Customer	HR manager	55
C13	Jacob	Customer	Managing director	34
C14	Matthew	Customer	Marketing manager	55
C15	Aria	Customer	Entrepreneur	55
C16	Natalie	Customer	HR manager	42
E1	Sophie	Heltti	OHC nurse	39

E2	Mike	Heltti	OHC physician	55
E3	Helen	Heltti	Psychology	62
E4	Sarah	Heltti	OHC nurse	50
E5	Maria	Heltti	Physiotherapist	76
E6	Amanda	Heltti	Communications manager	55
E7	Emily	Heltti	OHC nurse	80
E8	Noah	Heltti	OHC physician	44
E9	Joan	Heltti	OHC nurse	38
E10	Shirley	Heltti	Psychology	7
E11	Rachel	Heltti	OHC nurse	44
E12	Brandon	Heltti	Administration assistant	45
E13	Ava	Heltti	OHC nurse	54
E14	Lucas	Heltti	OHC physician	40
E15	Emma	Heltti	Salesperson	60
E16	Charlotte	Heltti	Salesperson	54
E17	Amelia	Heltti	Communications manager	54
F1	Laura	Heltti	Founder, psychology, service development, and technology	127
F2	Jack	Heltti	Founder, CEO	113
M1	David	Heltti	Chief OHC physician	54
M2	Carla	Heltti	Sales manager	53
M3	John	Heltti	Operations manager	69
M4	Anna	Heltti	OHC nurses’ personal trainer	50
P1	Andy	Partner organisation, Company A	Managing director	35
P2	William	Partner organisation, Company B	Managing director	56
P3	Luke	Partner organisation, Company C	Managing director	53
P4	Sheila	Partner organisation, Company D	Interior designer	54

3.3.2. Observation

I researched Heltti as a participant observer (Atkinson, 2013) for 12 months from 2016–2017, which is often considered a typical time period to claim that one has learned and understood at least a portion of the behaviours and habits of the organisation studied (Van Maanen, 2011). When gathering the data, I participated in Heltti's weekly meetings, internal and external events, development days, and daily work. However, the daily work that I attended did not include any patient encounters to avoid ethical concerns.

A long period of participant observation reveals the feelings and interactions between people, but it also easily leads to getting attached to people one is researching. Heltti's culture was very open, inviting, inspiring, and caring, which made it easy to become 'one of them'. When analysing the data, this inclusion allowed me to see new service development processes from the company's perspective, but it also made me more subjective in my own beliefs, emotions, cognitions, and personality (Van Maanen, 2011). To reflect what I saw, heard, felt, and understood, I kept a diary in which I tried to express how my thoughts developed and how I experienced different events. By writing this down, I was able to make an account of a passing event and reconsult the occurrence afterwards (Geertz, 1994). As van Maanen (2011, 219–220) has written, 'Ethnographic sympathy and empathy comes from the experience of taking close to the same shit others take day-in and day-out (or, if not taking it directly, hanging out with others who do)', which typically leads to difficulties and anxieties but, in my case, also learning, appreciation, and joy.

During this one year, I adopted the role of a participant observer working in Heltti's open office space and participating in two different weekly meetings called Heltti Management Team (HMT) and Growth Forum (GF). All Heltti's employees were expected to participate in the one-hour HMT meetings, which took place each Thursday at 2:00 p.m. The name of the meeting implies equality and the self-management principal, both of which were considered as organisational cornerstones in Heltti. In practise, HMT meetings resembled weekly information meetings, while the longer GF meetings were forums for discussing important information concerning the new venture and making decisions. The GF was open to all Heltti employees, though the owners and managers were expected to participate in these meetings.

GFs were usually arranged once a week starting at 7:30 a.m. and lasted two and a half hours. The meetings usually started and ended at exact times as the CEO and founder of Heltti, Jack, was very precise in keeping timetables to enhance efficiency. During the observation period, the core team in the GF consisted of the two founders, chief occupational physician, sales manager, operational manager, and OHC nurses' personal trainer. The GF provided me with an excellent opportunity to examine decision-making and new service development in Heltti as it was the forum where most of the important issues were discussed and decided. In these meetings, I mainly acted as a silent and discrete observer.

During the one year, I participated in 45 internal meetings, which touched upon creation, development, and/or implementation of services. I recorded and transcribed all meetings into 564 pages of text. My aim was to transcribe each interview and meeting within a couple of days to still remember what was unsaid as well as to build on the interview questions and see what started to emerge from my data and what kind of new theoretical understanding I would need to analyse what was emerging. Observations during meetings and other events contributed naturally occurring data, which enabled me to see my initial theoretical framework in a new light and triggered me to explore other theoretical concepts (Dubois & Gadde, 2002).

I was also invited to different customer events and personnel events as an internal participant. The benefit of this approach was that I encountered the complexity of the organisational life as I was able to observe what happened behind the scenes and at the scene. Getting to know the people, their work, how they work, and everyday life in a new venture brought me inside the organisation. In the meetings, I had the role of a silent observer, but in more informal events, I was more like one of the staff. For example, I participated in two Helttiway events which the founders organised to enhance team spirit, sharing future visions and developing ideas together. These two-day events took place in the countryside for distancing from work. In these events, I participated in fun team activities including cocreating values for Heltti. In Finland, going to a sauna and swimming are often part of the evening activities, which I also joined.

3.3.3 Documents and online observation

As mentioned, one reason for choosing Heltti as a research site was the open access it allowed. Right from the beginning of my observation period, I was given access to all of Heltti's internal digital channels, including WhatsApp, Slack, Google drive documents, and g-mail account but excluding all channels which handled any patient data. Starting from January 2013, the founders of Heltti documented their process and thoughts in Google Drive, which formed an interesting data set for my reseach. Heltti's employees worked in different towns and locations; therefore, digital forums played an important role in their everyday activities, information sharing, and getting answers to practical issues. These channels also served as a forum where new ideas were presented, discussed, and further developed. I also gathered data from the external online channels consisting of Heltti's web page, blogs, and Facebook page. I copied materials from these different online channels, comprising altogether 423 pages of written materials, 134 documents and 54 photos.

Additionally, I had my own Wellmo app and HelttiMe accounts, both digital platforms that Heltti offers for their customers. Through the Wellmo app, Heltti aims to enhance healthy behaviour as part of preventive healthcare. To better understand how these preventive services are implemented, I participated in a walking competition called 'Tackle the Darkness' as part of the Heltti team. The aim of the competition was to increase daily steps during the darkest time in Finland. This observation experience lasted approximately three weeks as I walked to my interviews around Helsinki.

Following the veins of Fachin (2016) I also consider online and offline data to be intermeshed while allowing one to understand the flow of events. Both online and offline observations helped me to understand topics that appeared in the interviews and further elaborate my questions to hear the personal stories and reflections. However, I noticed that my knowing sometimes guided me to assumptions, which affected the way I formulated questions. Participation in the different forums and everyday life in the organisation easily led me to make my own interpretations, and sometimes I found myself asking too guiding or detailed questions only to confirm the hypothesis that I had already composed. When I noticed this happening, I tried to formulate my questions more openly and let the interviewee guide the discussion.

By the end of my observation period, I had also lost some of my sensitivity whilst being immersed in Heltti's culture. A good example is when I was interviewing a customer who disliked all of Heltti's services and wanted to stay in the role of an object as a patient. In my reflections, I noticed that being immersed within Heltti's culture had made me somewhat blind to diverse views such as these.

3.3.4 Limitations

My participant observation started in January 2016, which was almost three years after the formal company registration. As this research also studies the early steps of the new venture and looks at the events retrospectively, it has some limitations; when we look back at what happened and know what we know today, it affects what we remember, how we explain causes for events, and how we build continuities (Pettigrew, 1990). The historical data is often sparse and synthetic, whilst the current data is richer and finer but, on the other hand, also includes a lot of noise, thus it might be difficult to separate what is actually relevant (Langley, 1999). Nonetheless, to understand how service comes to be, field observations are necessary to place the researcher in a temporal and contextual frame of reference (Van de Ven & Rogers, 1988). However, it is also important to understand the events and context which have led to the present situation by conducting retrospective data collection (Van de Ven & Rogers, 1988).

The data collection methods that I used had different temporal orientations; documents were embedded in the past, and observation was embedded in the present, while interviews allowed me to collect temporally versatile data (Langley, 1999). Looking back to make sense of what has happened allows temporal distention (Weick, 1995), but it also brings limitations. For instance, interviewees may rationalise their past decisions to project a more desirable image of themselves (Salancik & Meindl, 1984), or they may mispresent past events to maintain self-esteem, security, or social acceptance (Huber & Power, 1985). In addition, people are not able to recollect all their experiences (Rubin & Schulkind, 1997), and it may also be challenging to identify which experiences are of importance. To this end, I have used different data collection methods by collecting supplementary and collaborative information. Even though the retrospective interviews represent only limited insight into the events of the past (Czarniawska-Joerges, 2004), they still helped to construct the initial temporal account of certain processes. Once I had conducted the interviews and listed the events, I crosschecked and supplemented the events with documentation data. At times, this allowed me to rearrange the order of the events or see the impact of events in a different light while getting a richer account of what had happened.

When retrospectively interviewing experts like the founders of Heltti, the researcher might hear a story of what needs to be or what might be as people look back in the light of the presence. Similarly, the effects of the founders' decisions may be overstated, and connections between action and outcome may be oversimplified as a consequence of arranging the order of events to be more rational than they actually were (Starbuck & Milliken, 1988). The way in which one interprets events is also affected by one's role in the events as people tend to identify bad results and mistakes if they have not been involved and, contrarily, see good results when they are in central roles (Starbuck & Milliken, 1988). It also seemed that especially the founder and CEO of Heltti, Jack, who is an active public speaker and writer, had practised and retold the same story of Heltti many times.

When using retrospective data to examine the use of CEB logics, recall biases are likely to occur from interviewees' inability to remember their thinking processes (Chandler et al., 2019). What might also be important is the flow of micro events, which even the person him- or herself may not be able to identify in real time and even less so after time has passed. The founders remembered the journey of Heltti well as the processes played a crucial role in their lives, but they had also discussed and reflected upon the events and processes many times afterwards. Both founders were also good at reflecting on their own thoughts, but especially Jack seemed to actively apply reflection to make sense of what had happened in order to learn. On the contrary, for the other stakeholders like partners and customers, it was harder to remember the events and thinking processes as the events were less important for them. Heltti was ‘just one customer or service provider amongst others’ without leaving any particular engrams. The partners were also clearly concerned about not saying anything negative about Heltti whilst emphasising the importance of their own services for the company. Therefore, most of the partner interviews remained rather thin.

Observation, in turn, allows gathering rich data, but it is still limited to events accessible to the researcher (Czarniawska-Joerges, 2004). Consequently, when researching how service comes to be in a new venture context, it is not possible to access or identify every bit of information that may be of value as the full context of anyone’s life is not possible to access. Especially in a company like Heltti, where work is often carried out in informal settings, where work and free time are not always separated, there is limited opportunity to observe all such events that might be of value for the research. During my observation period, there were also sensitive strategic issues which were not discussed in GF meetings when I was present. This was never directly communicated to me, but I was able to read between the lines that due to my presence, some topics were not on the agenda and were discussed elsewhere. Additionally, my presence and the knowledge that I was recording the meetings seemed to cause frustration for some of the GF participants, thereby affecting what was said and how. Nevertheless, both offline and online observation enabled me to immerse myself in Heltti’s culture, whilst these gaps in access also allowed me to see how others with no access to these events might experience their work at Heltti.

It has been argued that writing necessitates participation (Emerson, Fretz, & Shaw, 2011), which calls for reflexivity about the researcher–researched identity dynamics regarding how we influence people and how people influence us: are we insiders or outsiders, similar or different to respondents, engaged or distant, neutral or intervening?

(Cunliffe & Karunanayake, 2013) Before I chose Heltti as a research site, I was not aware of it as a company, and I was not particularly interested in the industry it represented. My knowledge of occupational healthcare was mainly based on my personal experiences as a user of OHC services. During the one year, I was surprised by the overall enthusiasm, courage, and ability to work under pressure shown by the people working in Heltti. I grew to like and appreciate both the people in Heltti and the company's services. I found myself often wondering about the emotions and feelings I had towards Heltti and the people working there in order to reflect how my own values affected my interpretations of what was happening. Thus, to see events in more abstract terms or to find out what I was seeing, hearing, and experiencing represented required distancing myself. Detachment from the data was easier after some time had passed, but at the same time, I had lost some latent knowledge which might have been of value when analysing the data.

I also often felt uneasy in my role both as silent listener and participant observer. The fact that few people were participating especially in the GF meetings and the open, informal atmosphere seemed to emphasise my silent role. I recorded the meetings but also simultaneously made notes using my laptop. In the beginning, I was only listening, but I found that my role as a 'secretary' influenced less of what was going on and sort of legitimised my presence in the meetings. However, my presence clearly affected what was discussed and how. It seemed that in Heltti Management Team meetings, it was easier to 'hide in the crowd'; meanwhile, my presence as a researcher was less evident. However, as time passed, people in Heltti became used to me being present, also in GFs. Still, the role of a silent listener seemed for me to be less complicated than the role as a participant observer in some of the events because I was concerned how my participation in the discussions might affect the processes I was researching. In the narrative that I tell in Chapter 5, I explicitly mention if I noticed that my actions affected the processes.

Close observation of meetings and everyday practices enabled me to gain a broader cultural understanding. As time passed new interpretations of the events started to emerge while gaining both deeper and wider understanding of what had happened. This kind of shifting between interpretations and observations is stated in my following field note:

> I found out a new interesting factor, which probably affected the recruitment decisions: Carla is planning to travel around the world. In the last HMT meeting she told that this had been her dream for a long time and now she was able to go as two new sales recruitments were finalised. Was this all the time the real reason when making decisions and not the ’rational’ reasons that were presented in the discussion? (Field notes 9.9.2020)

When making interpretations of the data I tried to maintain a distance that enables understanding patterns that the actors themselves may not see (Barley and Kunda, 2001). However, spending several years first closely observing, collecting data and later analysing it, I was myself also shaped by what I experienced, saw and found out about the phenomenon. As Rouleau (2010) explains, social embeddedness helps the researcher to establish trust to get in contact with the participants. Therefore, after each day when I collected data, I reflected in my field diary about how people influenced me and how I influenced people (Cunliffe & Karunanayake, 2013).

During the research process I noticed that I got better in reflecting while continuously asking myself what am I seeing, what might affect what I am seeing, how my understanding has changed today and why. My data gathering started with familiarising myself with the research site by reading all material I was able to find about Heltti. My first impressions of what Heltti is and what is happening in Heltti were influenced by the CEO of Heltti, who I interviewed first. After continuing the interviews with the employees of Heltti and observing the everyday life in Heltti, I felt like being in a magic house where new doors, that I was not aware of, started to open.

3.4 Abductive approach

My research journey can be tracked back to 2013, when I was doing my work rotation period in Finland’s oldest service design agency, where I participated in several projects as a service designer. In discussions with the other service designers, I soon realised that even the best service innovations are not implemented if employees are not engaged in the change process. Cocreation with customers and employees seemed to be essential in service design processes, which, in practise, often delayed scalability of the new service innovations and led to rather costly change processes. When starting my doctoral studies, these very practise-oriented questions guided my topic choice as I started exploring theories of employee engagement, change, and service design.

Later, discussions with my supervisors helped me to refocus the research problem and see the complexity of the service design process. When starting my study, literature gave me ideas of what to observe and look at, but the underlying pre-assumption in my research is that knowledge can be found in the field (Atkinson, 2013). To allow openness, I did not have any predetermined set of analytic categories before starting the fieldwork (Locke, 2001) but chose to apply theoretical pluralism as the insights from the field emerged and conduct theoretical and empirical investigations in parallel (Van Maanen, 2011). The abductive approach that I employed is about using concepts from different theoretical traditions as a lens through which to look at the data as well as enriching theories by taking ideas from the data and attaching them to theoretical concepts (Langley, 1999). My exploratory and abductive research process was interactive, creative, interpretive, and selective as it is based on the understanding that it is impossible to see what lies ahead (Rock, 2001), and therefore the research process is a continuous movement between theoretical knowledge and empirical understanding (Dubois & Gadde, 2002).

3.4.1 Scoping the research problem

Applying the abductive approach, in the beginning, the research question was open to allow new ideas to emerge. In such a nonlinear approach, research questions, data, analyses, and concepts that I used were constantly revised (Locke, 2001). In my study, the broad question of 'how service comes to be' gave me a vague idea of what and how to collect data. Following the veins of Tsoukas (2009, 298), who emphasised the situated specificity embedded in small-N studies, I started with a question of 'What is going on here?' whilst connecting the answer to a more abstract question of 'What is this a case of?' I went to the site with the following questions:

- How does a service company achieve its service?
- How is service development implemented?
- What happened and why?

To answer these broader questions, I asked the following sub questions:

- Who is involved in new service creation?
- What is going on in service design operations?
- How do they design a new service?
- What has the change process been?
- What are the outcomes of NSD processes?
- What was the intention of the company? What did they try to achieve?
- What are the most positive aspects for the case company? What is working, and what is not?

Baszanger and Dodier (1997) consider this openness a methodological requirement of ethnographic observation: the need to ground phenomena when observed in the field, the open approach for features that cannot be seen in advance, and a research process which is not limited by lists made in advance. Notably, ethnographic observation aims at 'thick description' (Geertz, 1994) through an iterative process which tries to reveal the many interpretive layers in the process of reconstructing the actor's own world (Rock, 2001). My research problem guided my empirical enquiry to the richness of organisational life, which is also a paradox because the deeper one goes, the less complete the analysis is as there is no bottom; as Geertz has stated, 'cultural analysis is intrinsically incomplete' (Geertz, 1994).

3.4.2 Selecting the research site

When I started to look for a company that would be an interesting research site, I limited my selection to a single organisation to deeply understand the NSD processes in the new venture context. Such a focus lends itself to exploratory investigations to understand NSD processes. I selected Heltti because of the expansive site access it afforded due to its open organisational culture, as well as the potential to research service innovation, transformational services, and service design. Heltti had employed service design logic before and after establishing the company and has been an exemplary case of service design in several business and healthcare seminars and other events. I also found out later that Kuula and Haapasalo (2017) researched Heltti in the context of continuous and cocreative business model creation.

My initial aim was to study Heltti's service design process and how the service design concept is applied in the company. From the beginning, I understood service design to be a capability which is not only possessed by a professional designer but, rather, that is embedded in the organisation and can be employed by anyone (Simon, 1969). However, I soon encountered the paradox that Carlgren (2013, 42) explains in her thesis: 'Since any concept that is integrated will adapt to the context of that particular organisation, and eventually disappear when it is naturalized, it may be hard to discern what is and what is not part of that concept'.

Contrary to Carlgren (2013), whose first aim was to investigate the application of design thinking, my approach from the beginning was to consider service design as a lens through which I investigate the events taking place in the organisation. However, applying the nonlinear research process to the empirical world and what is going on in reality led to reorientation of my theoretical framework towards CEB logics during the very early steps of my fieldwork period (Dubois & Gadde, 2002). I started my analysis with an open reading of the process data by asking 'what is going on here in terms of new service development?' to be open to different possibilities (Alvesson & Kärreman, 2007; Fachin & Langley, 2017). When analysing the data, I realised that to understand how service is achieved in an innovative new venture like Heltti, I needed to apply both entrepreneurship theories and service innovation theories. Thus, the topics and frameworks emerged through experimentation, discovery, and nonlinear processes, which called for writing and rewriting (Van Maanen, 2011).

I later discovered that service innovation research has mainly focussed on large firms (Witell et al., 2017), even though new ventures are considered as important for economic growth, and the normative discourse is that new ventures are desirable. Heltti is an interesting research site not only as a new venture but also because it aims at decreasing healthcare costs by shifting the focus from the traditional reactive and disease-treatment-oriented OHC to enhancing preventive care and wellbeing. The service offers OHC and wellbeing services to knowledge workers by deploying the business model as advocated by Den Ouden (2011), which describes the service offering to be a meaningful and transformational innovation which addresses the different levels of stakeholder value. In the case of Heltti, the OHC service aims at improvements and uplifting changes amongst employees, organisations, and the ecosystem (Anderson et al., 2013). The service, which aims at changing behaviour, disrupts the traditional structures and requires a longer time period for value creation to be realised; quite importantly, as a radical solution, it was not evident if the business model would be a viable one accepted by the customers.

Heltti aims to challenge the traditional design of the service for OHC practises by focussing on the design and provision of preventive services, offered for a fixed monthly fee, and by handling approximately 70% of their services digitally through eHealth solutions, which is in contrast to the traditional face-to-face service delivery methods. Digital services have entered into global healthcare with an aim to enhance its quality and safety by storing and transmitting data, supporting clinical decisions, and facilitating care from a distance (Black et al., 2011). This new context of service is expected to disrupt particularly the healthcare market in the future (Patrício et al., 2018).

3.4.3 Coding the data

Langley, in Gehman et al. (2017), argues that researchers often apply abduction even though they might have labelled their approach as inductive. She supports her argument by explaining that having no *a priori* theory is illusory as researchers enter the research site with their existing knowledge of theory combined with the idea of their future research interest. When collecting data, new interesting angles emerge, which leads them to search for relevant theories enhancing their understanding of what they observed and what their own contribution to knowledge might be. Abduction as an iterative process between empirical observation and surprises which requires passaging between knowing and not knowing, deliberation and serendipity, social connection and self-expression, and engagement with the data and detachment from the data (Klag & Langley, 2013).

I found it often difficult to cope with these passages. For instance, in the beginning of my observation period, I only had a vague idea of what I could expect to find. As soon as I encountered CEB theories, it was more difficult for me to see the world without that particular lens. Similarly, participating in the everyday life of Heltti, observing, and interviewing brought me deeply into their practical problems, joys, and everyday life, which can be considered as 'the researcher's skills for entering into contact with the other, establishing a relation of trust and considering themselves as partners in the research rather than outside observers' (Rouleau, 2010, 261). At the same time, immersing with the culture leads the researcher to look at the world through certain cultural lenses.

When starting the analysis process, the first codification was theory driven (Jay, 2013) using Nvivo analysis programme. Following the lead of Servantie and Rispal (2018), I first used Fisher's (2012) codification to find evidence of causation, effectuation, and bricolage. The first conference paper in Design Management Academy in Hong Kong (Lassila, Rieple, & Ennis, 2017) was based on this approach. Like several other researchers (Chang & Rieple, 2018; Servantie and Rispal 2018), I also noticed that the operationalisation of CEB used by Fisher (2012) led to overlapping and difficulties in categorising the data. I also noted contradictions when analysing the data through Fisher's categorisation as it led to including data in all categories of CEB, which did not actually support the particular CEB logic as I had observed it in Heltti. I realised that when using Fisher's (2012) operationalisation, I ended up categorising data into certain categories without thinking of the underlying cognitive logic. Therefore, my operationalisation followed the framework but not necessarily the underlying cognitive logic.

Instead of refining conceptual framework as Servantie and Rispal (2018) did in their data analysis, I followed the veins of Chang and Rieple (2018) by analysing the data inductively. This round of data analysis started with an open reading, where I asked, ‘What is going on here in terms of new service development?’ to open possibilities for analysis (Alvesson & Kärreman, 2007). I simultaneously consulted literature and became especially interested in the discussion that had started to take place around effectuation and causation (Arend et al., 2016). The question that Read et al. (2016, 513) raised ‘what difference does it make if people act as though they believe in an effectual worldview’, caused me to think what this means methodologically. By analysing the data inductively, I started to see that single actions failed to explain decision-making logics regarding NSD in Heltti. Instead, process methodology and especially Langley’s articles enabled me to understand what was happening in this new venture.

The analysis process included arranging the events in temporal order, drawing on visual maps, identifying meaningful events from the qualitative incident data, arranging events in temporal brackets, and developing a narrative (Langley, 1999; Langley et al., 2013). The event analysis started by identifying events that were critical for understanding how service emerged over time and studying the chain of events by creating an event history list (Van de Ven & Poole, 1990, Gehman et al., 2013). This list helped me to arrange the extensive amount of data from different sources, understand the order of the events, and gain some preliminary insights into how different data sources changed and deepened my understanding of how Heltti’s service came to be and evolved further. Following Jiang and Tornikoski (2019), I arranged the data into a timeline without using any theoretical lens to code the data. I identified a final set of 337 events and listed these in temporal order in Excel sheets. In process research, ‘it is important to note that the sample size for a process study is *not* the number of cases, but the number of *temporal observations*’ (Langley et al., 2013, 7). I also drafted visual maps using the Visio programme, which abled me to understand the flow of events and their connections during the whole four-year study period. These visual maps that I created demonstrate processes in Heltti by offering a rich picture of events during the passage of time (Gehman, Treviño, & Garud, 2013).

With the creation of the event history list, I also used Nvivo to arrange all the data in a timeline. This enabled me to narrate the story of Heltti, presented in chapter 4, and analyse the applied logic in each event. This analysis was conducted by arranging the data in a timeline in Nvivo and then continuing the analysis using CEB theory as a lens. To not miss the context and flow of events, I also analysed the transcribed interview and observation data by using different colours to highlight the use of causation, effectuation, and bricolage, thus drawing upon Servantie and Rispal (2018). Analysing the data in the context and as a flow of events by using the different colours helped me to see who was applying certain logic, in which context the logic was applied, and what the dominant logic was when decisions were made. These colour codes visualised when and by whom each CEB logic was applied, whilst the context of the data and the flow of events enabled me to see how different logics interplayed in decision making.

Analysing the data in temporal order also allowed me to identify the applied CEB logic based on events in the past, present, and future, not only on single behaviours taken out of context and temporal flow. Instead of focussing on the CEB logic frequency, I studied the flow of events considering that 'each event arises out of, and is constituted through, its relations to other events' (Langley et al., 2013, 3).

When using the colour codes to identify the use of CEB logics, I applied the coding themes derived from Sarasvathy's dimensions, developed further by Dew et al. (2009) and applied in several recent effectuation studies (Reymen et al., 2015; Jiang & Tornikoski, 2019; Werhahn et al., 2015). The five dimensions are the 1) underlying principal for decision making (goal-oriented/C, means-driven/E, resource-driven: using resources at hand, reusing resources for new purposes/B), 2) the attitude towards unexpected events (avoiding unexpected events, planning/C, exploiting contingences, future is seen as unknown, controlling the future, experimenting/E, focussing on the present to solve the problem by using resources at hand/B), 3) attitude towards external actors (internal locus/C, external locus/E, internal or external depending on needed resources/B), 4) view of risk and resources (expected return/C, affordable loss/E, using only resources at hand/B), and 5 view of the future (prediction/C, creative, future as shaped/E, focus on present problem solving/B). Table 7 provides examples of data coding by using these dimensions and empirical indicators.

Table 7 CEB logics, empirical indicators, and examples

Cognitive logics	Empirical indicators	Examples
Causation	Underlying principle for decision-making: goal-oriented, goals determine action	In the beginning of 2016, the management team created clear goals which were monitored and frequently communicated to the employees.
	The attitude towards unexpected events: avoiding unexpected events, following the plans	Most of Heltti's nurses had their background in bigger healthcare companies that applied causation logic and where both the processes and their workday were planned almost by the minute. Working in Heltti, where contingences were continuously exploited, was difficult for the healthcare personnel: 'I think that these national customers wouldn't have been necessary at this point. Economically, they probably were important, but the ideal would have been that we could have planned everything with David. We could have planned everything ready with a specific group of (internal) persons, make sure that whoever would come to work here so she would know how we do things here' (Emily, OHC nurse).
	The attitude towards external actors: internal locus	During the third operational year, customers were less involved in ideating new services: 'I think that especially in our own industry, the challenge is that customers are not able to wish for anything. (…) We (ourselves) need to come up with the ideas how to offer added value and different customer experience' (John, founder).

	View of risk and resources: expected return	Jack made a 40-page investor deck to present the market, Heltti as a company, as well as the growth aims and plans. The aim was to collect 500,000 to 1 million euros.
	View of the future: predicting the future by analysing the past; future is seen as a continuation of past	Getting customers for the newly opened health clinic in a new town was unexpectedly difficult. This made Laura long for planning and analysis: 'When we think about new investments, we should make better analysis (…) do more market analysis to see if we really need it' (Laura, founder).
Effectuation	Underlying principal for decision-making: means-driven	As a lawyer and CEO, Jack was used to being a subject, having control of his own life, being healthy and appreciated, whereas as a customer in healthcare, he felt that his professional role was blurred and he was treated as an anonymous object, a patient, someone who is sick. In Heltti, he wanted to change this.
	The attitude towards unexpected events: exploiting contingences; unknown future; controlling the future; experimenting	The founders of Heltti considered efficiency (from customers' point of view) to be an important element of Heltti's service. The initial idea was to achieve this fast and easy service for customers with a Heltti car, which would drive where the customer would be. This proved not to be feasible. By coincidence, Laura contacted a service provider with a chat solution for healthcare context, which became one of the core elements of Heltti's service.
	The attitude towards external actors: external locus	When the founders started creating Heltti's service, they cocreated it with dozens of people during one year before starting the operations: 'We talked to all people who just were willing to listen; that was an important factor. I remember once when we were cross-country skiing for a couple of hours with a person who knew the industry, I had slides in

		my mobile phone, and we had a look at them' (Jack, founder).
	View of risk and resources: affordable loss	In the beginning, the founders' main investment was their own time. As they got the first pre-commitments, they started their own financial investments as they had made a conscious decision not to apply for external funding before knowing whether their business concept was successful: 'We decided that the only thing we shall invest is my time, so the moment we registered Heltti, I resigned from the health company, and we did, like, slave work, all work that we did during the first year until we stated that there is demand for this, we have customers, and we get sales' (Laura, founder).
	View of the future: creative, future as shaped	The founders of Heltti wanted to change how OHC operates in Finland by moving the focus from medical care to preventive healthcare and keeping people healthy. They saw that this, in turn, required changes in the pricing model, role of the patient, and organisation culture. The story of a Chinese village doctor became one of the key vehicles to shape the future.
Bricolage	Underlying principal for decision-making: using resources at hand, reusing resources for new purposes, good enough solutions	Premises, digital tools (especially internal tools), and interior design were based on good enough solutions to save money: 'Otherwise we have done everything with our own savings. This, then, led to that in the next room; the television which is used as a screen is from my parents' home. We have a lot of these kind of cost-efficient solutions' (Jack, founder).
	The attitude towards unexpected events:	During the first year of operation, resources were scarce. The service evolved daily as new: 'At that point, when the customers started coming, it was very concrete action.

	taking action to solve problems by using resources at hand	(…) Of course, our resources cause quite a lot of limitations, both financial and human resources. (…) But what can we do with these resources, and what makes sense to do and how?’ (Emily, OHC nurse).
	The attitude towards external actors: involving customers, suppliers, and hangers-on to deliver the service	Customers and suppliers were invited to give presentations in energy and on HR mornings, which were part of Heltti’s service package.
	View of risk and resources: using only resources at hand	Heltti’s digital systems were developed step by step in line with incoming revenues.
	View of the future: focus on present problem-solving	When starting operations, there was no proper health management system in use in Heltti; Excel was an easy and cheap solution at that point but caused a significant amount of manual work and dissatisfaction amongst the employees in the long run.

However, using data from different sources (including naturally occurring data, e.g. observation data) and analysing it in temporal order enabled me to identify the applied CEB logic based on events in the past, present, and future, thus, not focusing only on single behaviours taken out of context and temporal flow. Many of the CEB researchers (Fisher, 2012; Servantie & Rispal, 2018) have realised the challenges when coding only single actions as the same evidence could apply to both effectuation and bricolage (e.g. experimentation) or causation and effectuation (e.g. partnerships). Servantie and Rispal (2018) decided to more deeply analyse their data to find specific components that could be attached to the three CEB approaches. As an example, they mention using the combination of experimentation and affordable loss to describe effectuation, vision combined with planning to describe causation, and vision with improvisation to describe bricolage. This implies that to identify which logic was applied, one must study the decision-making processes and the underlying logic, not only single actions. Therefore, in my study, the events were not coded only as single actions but as viewing decision-making in the context wherein the decision was made and studying the processes before and after the event to understand the impact and role of single actions in the decision-making process; this was also done to understand diversity in the applied cognitive logics and consequences of this diversity. To view decision-making as processes, I had to go back and forth in the data to understand how and why activities were developing the way they were. Therefore, the data analysis process was not linear and stepwise but, rather, also involved going back and forth between different analysis methods.

Next in my analysis, I applied temporal bracketing to examine comparative units of analysis within the longitudinal data I had gathered. These temporal brackets unfold sequentially in time, helping to transform the shapeless and plentiful process data into blocks and showing progressions as well as discontinuity in the temporal flow (Langley, 1999). Bracketing seeks to identify temporal patterns by looking at the order, interconnections, and sequences of the events as well as paths, their divergence, and cycles of the phases (Langley, 2009). This permits one to look at the use of CEB logics in successive time periods of events and how the changing context impacts the application of the cognitive logics (Langley et al., 2013). Bracketing allowed me to identify three phases of change in Heltti characterised by a shifting balance amongst dominant CEB logics. Although certain marker events as triggers helped me to define these periods (Jay, 2013), the boundaries are fuzzy as things are in continuous change and responses to triggers are multi-layered, complex and evolving (Tsoukas & Chia, 2002).

In addition to bracketing, I used a narrative to tell a rich contextual story of Heltti, which describes how events unfolded (Langley et al., 2013). Whilst bracketing enables refining the data, it may also lead to losing the richness and complexity, thus not being able to fully explain what happened (Buchanan & Dawson, 2007). In contrast, reconstructing the processes as a narrative allows presentation of the temporal evolution as constructed by the respondents (Rhodes & Brown, 2005), thus allowing diversity and multi-voicedness (Fachin & Langley, 2017). Narratives are also argued to show insights into organisations by enabling better explanations through being close to the phenomena under study and thus creating grounds for better process theory (Pentland, 1999).

After having listed the events and mapped them, I started to analyse what was said or written of each event. Using the temporal brackets and events under each bracket as a frame, I analysed the data using Nvivo. Thereby, I was able to combine data from different sources and construct a narrative around the events. Following Pentland's (1999) suggestion, the narrative of Heltti includes the following five features. 1) The story is sequential in time with a clear beginning, middle, and end, starting with the emerging idea, having harder times in the middle, and ending with prospects of a brighter future. 2) The founders of Heltti are the focal actors through the whole story, accompanied by Heltti's employees as the story continues. In the last 'episode', the new management team enters the scene. 3) My aim is to present the narrative voice from several subjective viewpoints. Therefore, I interviewed multiple stakeholders and combined the interview data with other data sources such as offline and online documents to find nuances, distinctions, and different stories. One of the identifiable voices is that of the CEO and founder, who is reflecting what is happening from his own ontological stance and also setting grounds for what is right and wrong in this particular cultural setting. However, his voice represents efficiency, experimentation, and change-oriented view, which then collides with the traditional, stable, and 'soft' world of healthcare represented by many of the healthcare employees. 4) The evaluative frame of reference, the 'underlying voice', is actually change which creates the measurement for 'right and wrong'. This voice of change is signalled and experienced by different actors in various contexts in different ways. 5) Finally, the story includes indicators, the scene, attributes, and other relevant information which aim at revealing some of the underlying assumptions, thereby enabling an interpretation of the events.

All interviewees had their own story of Heltti to tell, which was affected by their earlier experiences, the way they experience the present, and how they see the future. The story of Heltti also includes several shorter stories enacted by people to legitimise their actions (Czarniawska-Joerges, 2004) and to shape processes (Orr, 1996).

3.5 Ethical considerations

Recognising and actively addressing the ethical dimension of research is a fundamental part of the research governance process (Guillemin & Gillam, 2004). As my research concerns healthcare services, I needed to pay special attention to ethical issues. However, my study is not a form of medical research; the respondents do not belong to any vulnerable group of people, and I did not have access to Heltti's patient data. The participants of my research consist of the owners and personnel of Heltti, suppliers/partners, and client companies. Client companies are Heltti's business to-business customers, represented mainly by managing directors and human resource managers, who act as contact persons for Heltti. All interviewees were over 18 years, and they were interviewed as employees or managers/owners of the companies that they represent. All the client interviews took place on the client's company premises.

My research follows the Code of Research Good Practice 2014/15 of Westminster University. My data gathering and use are done according to The Data Protection Act 1998. Consent was obtained before the interview, stored securely in a locked writing desk, and destroyed by crushing after.

Participant observation was conducted during meetings, events, and everyday work. During the observation or interviews, I did not have any access to patient data. The information contained in patient documents is confidential according to Finnish law (19.12.1889/39). In addition, the use of healthcare services is confidential information, and therefore no patient names were given to me nor made available for me. When contacting the customers of Heltti, I was given the names of the contact persons of the client customers to avoid sharing any confidential information. Heltti strictly followed the principles that information acquired while at work shall not be disclosed to outsiders without written consent from the patient. An outsider is considered a person who does not participate in the care of the patient or care-related tasks, and these people also included those employees in Heltti who were not employed as care-taking personnel. The personnel working at Heltti are bound by confidentiality, and the interview question were designed not to include any confidential patient information. The meetings that I attended were all open to others than care-taking personnel, which already ensured the internal control of patient information confidentiality. All information regarding Heltti's patients is discussed and stored in such forums and systems where only the care-providing personnel has access. I, as a researcher, did not have access to these forums and systems, and I did not request any access. The documents that I used in my research consist of material which is publicly available (blogs, Internet page, etc.) and the company's internal documents, which do not include any patient data.

Prior to the sessions, each interviewee was provided a copy of the Participant Information Sheet (Appendix 1) and Participant Consent Form (Appendix 2) approved by the Research Ethics Committee of University of Westminster, and its contents were fully explained. All interviewees signed a participant consent form, which indicates that they participate in the research voluntarily and that they have a right to withdraw from the research. All data was made anonymous, and only the role or title is mentioned. Individual identities are kept confidential unless I was provided explicit consent to do otherwise. A separate agreement has been signed with Heltti to allow me to observe their meetings and use their documents as research material. It has been agreed that Heltti Oy as a case company can be mentioned in all research publications and presentations.

4. Service emergence in Heltti

This chapter narrates a thick description of the story of Heltti as a chronologically ordered account of events in the new venture's life. Descriptive narratives play an essential role in almost all process research, allowing temporal embeddedness, richness, contextual detail, and complexity (Langley, 1999). Drawing on van Maanen (1995), this narrative embraces ambiguity instead of being precise, exact, and trying to apply theoretical definitions. As Langley (in Gehman et al., 2017) has suggested, separate to the narrative, I also analyse the data by using visual mapping, which shows how different events are connected and the order of events. Chapter 5 then presents these findings through the lens of CEB theories.

My investigation covered four years altogether, from the time when Heltti as a company did not exist to when their turnover exceeded one million euros. I study both individual and organisational levels by first researching the accounts of the two founders, Laura and Jack, who were later joined by new organisational members with their own pasts, presents, and futures shaping the decision-making logic that they apply.

This story of Heltti is structured around main events, which are, in turn, dismantled into phases resonating with Heltti's employees', managers' and owners' interpretations of what was happening (Langley, 2009), as well as with small business growth models (Greiner, 1989; Churchill & Lewis, 1983). However, these SME growth models fail to capture effectual processes which occur before any conscious actions to start acquiring customers and establishing a company. Growth models have also been criticised for presenting symptoms instead of underlying processes (McMahon, 1998) as well as for suggesting a linear progression instead of fluctuation (Dobbs & Hamilton, 2007). Therefore, this study answers the call for adopting a longitudinal research design, which enables capturing temporality and the underlying logic as a new venture emerges (Dobbs & Hamilton, 2007; McKelvie et al., 2019).

Table 8 Heltti's timeline

	Date	Event
1) Before Heltti	2006	Jack resigns from his job as a lawyer in a well-established law firm and joins a start-up.
	2011	Jack leaves the CEO position when the company has reached a turnover of eight million euros.
	2012	Laura is dissatisfied with her job, and Jack is wondering what to do in the future.
	6.12.2012	Story 1: Wine and a fireplace at a winter cottage—the idea of Heltti is born.
	January 2013	The first version of Heltti's service concept is created.
2) Existence	January–May 2013	Talking to people and interviewing potential customers. Oracles' night—testing the concept.
	March 2013	Story 2: Story of the Chinese village doctor earning by keeping people healthy. An OHC chief physician is found. An idea of digital services emerges, which leads to story 3: 70% of all customer contacts are handled through digital channels.
	April 2013	Heltti is officially founded.
	June 2013	Service design workshop: designing customer journey—story 4: no white coats, no calling by last name.
	September 2013	The idea of Helttinet is born. The first customer agreement is signed.
	October 2013	Rental contract of the premises is signed.
	November 2013	Heltti clinic design is created.
	December 2013	The first OHC nurse is recruited.

		Phone call to Netmedi leading to partnership.
	February 2014	Heltti starts operations. Chat becomes the most important feature of HelttiMe.
	March 2014	The first media exposure. Partnership with Wellmo
	June 2014	A new sales manager is hired. The first customer with over 100 employees signed.
3) Survival	April 2015	Sales stagnate.
	May–June 2015	Two newly recruited nurses leave.
	October 2015	The OHC chief physician leaves.
	November 2015	Wide positive media coverage.
	December 2015	The first customer with over 400 employees.
	January 2016	The new chief doctor starts. Active search for partners and outside funding.
	May 2016	A promising partner negotiation fails.
	May 2016	The first recruited Heltti nurse resigns.
	May 2016	Helttiway event: co-creating the values.
4) Take-off	June–December 2016	Several new services are created.
	June 2016	Information about the construction work on current premises. A service provider resigns their contract with Heltti.
	July 2016	A new solution for Heltti’s emergency service is created
	August 2016	Idea of a customer wellbeing officer is created.
	September 2016	Idea of a tribal chief is created.
	November 2016	New investors are found.

	Heltti 2.0 project started.
May 2017	Moving to the new premises.
October 2017	Starting to apply Teal principles (Laroux).

Table 8 provides a timeline of the main events in Heltti during the study period. 'Before Heltti' is when the company did not yet exist even as an idea. Starting my story well before the company was founded aims at understanding how the novel ideas of Heltti emerged (Garud et al., 2013). This is based on a process ontological view that to understand what is happening in a certain moment, one must first understand what has been (Langley & Tsoukas, 2013). Applying process ontology and understanding that change is prior to emerging ideas gives importance to events that took place before the idea of a new service was explicitly expressed (Tsoukas & Chia, 2002; Van de Ven & Huber, 1990).

The accounts of the first seeds of Heltti rely on the two founders' and their company partners' retrospective narratives of what happened as well as on the documents that the founders and their partners have created. Jack and Laura frequently documented their ideas in Power Point and Word document formats, which they updated and changed along the way. In these documents, the iterative nature of the emerging service becomes visible. The first presentation was dated '24.1.2013', which is approximately 1.5 months after Laura and Jack recall having started talking about starting a new venture in OHC. The presentations comprise altogether seven different versions, the last one being dated '13.12.2013'.

During the existence period, the idea of Heltti was already born, whilst the focus was on validating and experimenting with the idea with different stakeholders; thus, the locus shifted from internal to external. Starting the operations led to the survival period, when creative solutions were needed to cope with scarcity, growth, and changing roles of both the healthcare personnel and user. During the existence period, expectations for a brighter future were high but were not fully met, leading to an emotional roller coaster. Finally, during the take-off period, Jack was able to attract new resources, and the creation of Heltti version 2.0 started.

Before narrating Heltti's story, I first briefly introduce the Finnish occupational healthcare sector and Heltti as a research site. To offer a contextual understanding of Heltti's service as an innovation, I also explore value cocreation in healthcare services, thus offering the reader a context for the value creation processes in Heltti.

4.1 Background of the research site

Occupational health care company Heltti was presented as an example of an innovative service company in several articles in 2015, when I started to look for a research site. Heltti's managing director, Jack, was earlier the managing director of Law Firm X, which Jack himself described in the following way:

> From the beginning, we wanted to challenge the legal industry and build the best place to work within the industry. Right from the beginning, we started to grow fast, mainly due to modern corporate culture of Law Firm X emphasising good leadership and work-life balance that helped us to attract experienced lawyers with good legal skills and networks. Also, our digital services helped in building differentiation at the market (Jack, LinkedIn article, 27.10.2018).

In one of my earlier work-related projects, I had interviewed several people in Law Firm X. Based on this experience, I assumed that as Jack was leading the company, Heltti might offer both open access to research daily operations as well as interesting data from a service innovation perspective. Later, these assumptions proved to be true (see section 3.4 for a more detailed account of selecting the research site). Additionally, what made Heltti an interesting research site were its aims to decrease healthcare costs by shifting the focus from the traditional reactive and disease-treatment-oriented OHC to enhancing preventive healthcare and wellbeing.

Heltti was founded in April 2013 in Helsinki, and it started to operate in February 2014. In 2012, before Heltti was established, there were seven bigger private OHC providers in Finland which more or less operated with the same business model. The founders of Heltti, Laura and Jack, considered that OHC services had not changed for a long time, and there was need for renewal. Their view was that service offering was based on

Social Insurance Institution's (SII) instructions instead of real customer needs. Consequently, Heltti was established with the premise to disrupt the OHC sector in Finland. The aim of the two founders was to pursue an alternative way to organise and offer OHC services by challenging the medical-care-oriented OHC model.

Table 9 Heltti in figures, 2013-2018 (Suomen Asiakastieto Ltd., 2019)

	12/2013	**12/2014**	**12/2015**	**12/2016**	**12/2017**	**12/2018**
Turnover (1,000 euro)	2	119	576	1,219	2,625	4,031
Change in turnover %	-	4362.5 %	384%	112%	115%	54%
Profit (1,000 euro)	-9	-53	-141	-211	-1,003	-1,209
Profit %	-450%	-26.6%	-24.4%	-16.8%	-38.1%	-30%
Personnel	-	-	10	19	42	54

Right from the beginning, the two founders had ambitious growth expectations. In five years, Heltti has grown to employ 54 persons in seven towns in Finland with a turnover of 4 million euros. However, the profit still remained negative in 2018 (Table 9) mainly due to heavy investments in new locations and digital systems. The investments were partly enabled by several well-known Finnish investors, who invested approximately 2.5 million euros in Heltti in 2016 and 2018.

4.1.1. The occupational healthcare sector in Finland

Heltti operates in the OHC sector as a part of the Finnish healthcare service system, which had been considered a success story until the 21st century, when health and social care expenditure started to grow in an unhealthy way, doubling since the beginning of the millennium (Teperi, Porter, Vuorenkoski, & Baron, 2009). The record-breaking speed of aging partly due to life expectancy increasing by four years between 2000 and 2015, combined with an increasing number of lifestyle diseases, further accelerated increased costs. Consequently, OECD has urged Finland since 2003 to improve its healthcare system. The efforts to solve the problems culminated in the largest-ever social and healthcare reform (SOTE) proposed by the Finnish government. However, the reform, which was projected to save 3 billion euros annually by transferring healthcare and social services to entities that are larger than municipalities, has so far failed to pass (Kangas & Kalliomaa-Puha, 2018). The latest attempt ended in the resignation of the Finnish government in March 2019.

Currently, primary health care is organised by municipal health centres and specialised medical care by hospital districts. All residents in Finland are entitled to healthcare services with a primary focus on preventive healthcare. Despite the claimed focus on preventive healthcare, unhealthy lifestyle choices, including smoking, alcohol, physical inactivity, and dietary issues, are claimed to result in 28% of all diseases in Finland (IHME, 2016).

Health spending per capita in Finland was 2,981 euros in 2015, which accounts for 9.4% of Finland's GDP being less than the EU average. Public funding covers 74% of the total healthcare expenditure. Funding for healthcare is arranged through municipalities with taxation rights and the statutory National Health Insurance (NHI) scheme, which covers all Finnish residents, and it is run by the SII. The NHI also subsidises approximately half of the OHC costs as, in Finland, employers are responsible for organising and providing health services for their employees. OHC is supposed to co-operate with employers and employees to prevent problems resulting from work and to enhance employees' health (OECD, 2017).

Occupational healthcare in Finland has been looked upon by many countries, but as the costs have risen, a question of its real value in enhancing health has been posed. According to SII's (2018) statistics, approximately 1 833,300 employees were entitled to OHC in 2016. The figure comprises 87.1% of all employees in Finland. SII reimbursed employers 339 million euros in 2015, the total cost for the OHC services being 782 million euros, which accounts for 4.7% of the total healthcare costs in Finland. Private health clinics represent over 50% of the market, serving 1.2 million people, and the rest is divided between the public healthcare clinics and companies' internal healthcare clinics (SII, 2018). In 2012, there were almost 6,900 people working in the OHC in Finland, consisting mainly of OHC physicians, OHC nurses, physiotherapists, and psychologists (OECD, 2015).

Even though the existence and development of OHC has been justified by preventive services, medical care has gained more emphasis in practise, leading to continuous balancing between medical care and preventive services (Martimo & Mäkitalo, 2014). Therefore, the discussion around OHC services has been whether they should cover only preventive healthcare services and work-related health problems or include all healthcare of employees. This question is part of a wider discussion of how to organise healthcare in Finland, where costs and equal access to healthcare are important concerns. In addition, the changes in work and increasing significance of psychosocial working conditions (Martimo & Mäkitalo, 2014) have raised discussions in the healthcare sector.

4.1.2 Prologue - value cocreation in healthcare services

This section serves as a prologue to the story of Heltti. It explores Heltti's services by utilising the voices of employees (E) and customers (C). The aim of this section is to provide the reader with a context which helps in understanding Heltti's service and the contradicting value creation processes in radical innovations embedded in change. This section may seem to be out of order, but it is here to show what value-in-use is in health care context, thereby setting the scene for Heltti's story. When applying the modern value concept, the focus of NSD studies should also be on value-in-use and customer processes, not only on the offering (Heinonen & Strandvik, 2015; Verma et al., 2012). Thus, when an innovative service is viewed from a service logic perspective, the focus is on what these innovative services do or change in terms of customer value creation (Patrício, Gustafsson, & Fisk, 2018), whilst customers cocreate value both through service provision and resource integration (Vargo & Lusch, 2011; Lusch & Nambisan, 2015). Heltti offers a particularly interesting context for the research as business customers consider value-in-use not only from organisational perspective but also based on their individual goals (Macdonald, Kleinaltenkamp, & Wilson, 2016).

Many of the CEB studies are based on researching new ventures in the technology industry (Fisher, 2012), thereby representing service industries based on explicit knowledge which is embedded into objects (Storey & Larbig, 2018). Heltti's services are based on tacit knowledge, requiring an interaction between customers and Heltti's personnel, which is in the core of service experience and a key element of service innovation (Storey & Hull, 2010). As experiential services are fuzzier, NSD processes tend to be more complex (Storey, Cankurtaran, Papastathopoulou, & Hultink, 2016).

According to the value-in-use view, innovation is about developing new approaches to create value (Vargo, Wieland, & Akaka, 2015). By applying this view, I have explored Heltti's service as 1) a new service concept, 2) a new customer interaction, 3) a new revenue model, and 4) a new delivery system. However, Heltti as a service provider has proposed certain value, but the users and customers determined the value-in-use in their own social context consisting of norms, values, and beliefs (Chandler & Vargo, 2011; Vargo & Lusch, 2008). Thus, Heltti's new service offering changed value creation, leading to both positive (value cocreation) and negative accounts (values co-destruction) (Table 10). For instance, preventive healthcare was seen both as negative ('the message that we don't treat diseases, we prevent them, is like, oh my god, for what do we then need you?' [C16]) and positive ('Heltti is a partner who helps us to take care of our people in a new way by emphasising wellbeing' [C12]).

The customer experience is a result of encounters at different touchpoints (Patrício et al., 2018). Overall, evaluation of the customer experience is still not a sum or average of the different touchpoints as the impact of different touchpoints varies (Voorhees et al., 2017), and seemingly small details play an important role (Bolton, Gustafsson, McColl-Kennedy, Sirianni, & Tse, 2014), as in the following customer comments:

> My own experience is rather confused. I never remember the passwords, and I don't know how long I should wait to get an answer. I haven't experienced the easy process (C4).
>
> It is similar as if I would write to my friend. I don't need to think about how I express myself as the doctors are easy to talk to, and they speak a normal language (C2).
>
> There is a warm atmosphere. Last time I was there, they offered me porridge (C3).
>
> I want the doctor to be an authority. When the doctor has similar casual clothes as I do, I don't feel like I'm talking to a professional (C9).

Not only the touchpoints during a particular customer journey were of importance but also one's earlier experiences and ongoing life affect how the interviewed customers experienced the value of service (Heinonen et al., 2010). Customers bring their past experiences, the present situation, and the way they think about the future into each touchpoint and service interaction; therefore, the value of the customer experience is constantly re-evaluated in the interactions and in the context of the customer's life (Vargo & Lusch, 2008), leading to experiencing the same service in a rather different way:

> What is it that is so fabulous there? This preventive healthcare, I don't see what I would get there that I don't already get from Competitor B. All these digital gadgets, I don't understand (C16).

> Heltti's model fits our fast-action model very well. You don't need to visit there three times and wait and book appointment times (C10).

Table 10 Heltti's service - value-in-use

Outcome of NSD	**Potential value-in-use**	**Organisational value-in-use**	**Individual value-in-use**
New service concept: a) A focus on enhancing wellbeing, not on medical care b) Disruptive and innovative approach	Preventive health care leading to healthier employees: 'Our process starts right away because it is the OHC nurse who is the first contact, so the treatment starts right away, and you don't need to wait to get to the doctor' (E16). 'We genuinely want to think together with the employees how we can help them and enhance health so that the company also benefits from healthier employees' (E1). 'Being like them—innovative and disruptive—Heltti is like our customer companies are. They want to disrupt accustomed things; they want to be on the crest of the wave. I think we fit well together' (E17). 'What I always emphasise is that we are a forerunner and aimed at growth companies for the needs of knowledge workers' (E16).	Co-destruction: 'The message that we don't treat diseases, we prevent them, is like, oh my god, for what do we then need you?' (C16) 'OHC and wellbeing are two separate things' (C8). 'I don't really see it in our everyday life' (C4). Cocreation: 'Heltti is a partner who helps us to take care of our people in a new way by emphasising wellbeing' (C12). 'We talk about people, not employees. Stress and urgency are our main topics. Heltti's preventive healthcare is what we need, not medical care' (C3). 'Heltti is the future; we could look like them, learn from their action model' (C7). 'They are a small company, so they understand growth companies' everyday life. It is modern and new like our company. Flexible' (C2). 'I was inspired by the thought that Heltti is disruptive like Company L is' (C5). 'They are forerunners' (C1). 'Our people experience that this partner is on our level. Similar vision and values' (C3).	Co-destruction: 'I don't know what the value for me has been. I cope without' (C1). 'Nice that they try to do things differently, but have they really succeeded? That is a totally different thing' (C8). Cocreation: 'I am excited about Heltti's idea right from the beginning that they think about health, not diseases. I am a real Heltti fan and supporter' (C11).
New customer interaction: a) Change in roles: self-manager, collaborative care, person-centred care b) Customer experience: feeling of equality, empathy, relaxed, and energetic	Enhancing wellbeing: 'Then we have tools like Wellmo. It encourages yourself to exercise' (E12). 'We do personal and group coaching. Technology and distance coaching play essential roles' (O4). Feeling cared for, appreciated, and equal: 'We are really spontaneous and natural without hiding behind professional roles. We are ourselves' (E2). 'We are genuinely human-driven' (E15).	Co-destruction: 'Everything that we can outsource and thereby ease and streamline so that we can focus on our work' (C4). 'It is such things that need to function without us having to think about it' (C8). Cocreation: 'When our people have met their people, they have experienced it as communication between people, not as being a line or a system' (C3).	Co-destruction: 'Their way of communicating, approaching, it is sort of relaxed. Not so correct. Not everybody likes it; they perceive it differently' (C1). 'I want the doctor to be an authority. When the doctor has similar casual clothes as I do, I don't feel like I'm talking to a professional' (C9). 'I got a little shabby image; its [premises] looked like self-made' (C4).

	‘We shake hands when meeting, offer coffee. Our premises are not designed so that the doctor would be sitting higher or by a computer when they meet our patients or members. It is more like interaction between two people’ (E12). ‘We don’t have hasty appointments. We meet in peace so that we can focus on problems, and if there is something else we can take care of them all at once’ (E14). ‘What is most important is the feeling that the member gets and how we regard them. They are not just social security numbers or back or elbow. We try to encounter holistically’ (E5). ‘Our customers invite us to their parties, and we play volleyball with them’ (E5). ‘Here the whole health clinic has been rethought. This is a sort of homely place. In my opinion, you feel like that a person is truly encountered, and we acknowledge, and we are present’ (E1).	‘Peer-inspiring works. That plays a rather big role’ (C6). ‘Heltti people exude joy and positive spirit, which is contagious’ (C7). ‘Customer has very important role in the co-operation when we together plan and think wellbeing’ (C12). ‘Extremely straightforward and nice, sort of homely and easy to approach. It is really nice. That is what we want to be as well’ (C10).	‘I am a self-driven person; I don’t need any external support’ (C10). Cocreation: ‘It is like going home in a good way’ (C2). ‘There is a warm atmosphere. Last time I was there, they offered me porridge’ (C3). ‘It is like a very homely office, not like OHC. It is nice and sparkly. Sort of warm feeling. Colours feel calming’ (C6). ‘Like each having their own style, honest. Sort of friendly, and you always get a warm and professional answer’ (C6). ‘It is very personal; they always seem to have time for me. I feel that treat me like a human being, not as someone trying to get sick leave’ (C2).
New revenue model: fixed pricing	Ability to control costs: ‘This fixed price interested me a lot. When working in health clinics, I always felt that the customer paid a high price without any visibility of what the product would cost’ (E15). ‘Meaning: encourages to keep customers healthy; sort of disruptive innovation; fixed price has brought a new good incentive; it brings preventive healthcare into the spotlight; Heltti has brought up the meaning of the whole work, why we do this’ (E8).	Cocreation: ‘Costs were one reason. We didn’t have control with Competitor A. We wanted this so that people don’t just run to the doctor with their diseases and problems always when they have some pain’ (C1). ‘Competitor A offered the whole package even if it was not in the agreement. Then they invoiced us. Now people are back in line’ (C8). ‘Heltti is the budget version’ (C16).	Co-destruction: ‘They have a fixed price, so they don’t order laboratory tests or examinations. It has to show; otherwise, it wouldn’t be profitable’ (C9).
New delivery system: digital channels	Close to customer” ‘We want to deliver our members and other people such a message that we are close’ (E4). Lowers the threshold to contact OHC: ‘In addition to distance services, everybody has their own nurse who answers the phone and chat messages,	Co-destruction: ‘Those who have to visit there find it challenging. It is quite far away’ (C1). ‘The average age of our crew is 47–48, so it is not that easy for them to start using all this’ (C7). Cocreation:	Co-destruction: ‘It is not clear for me when to use chat or when to use the phone or what’ (C1). ‘My own experience is rather confused. I never remember the passwords, and I don’t know how long I should wait to get an answer. I haven’t experienced the easy process’ (C4).

	and they are similar people like you are yourself' (E5). Efficiency: 'Most of our services are distance services, whilst the need for face-to-face visits diminishes, and our members and customer companies save valuable time' (E12). 'People can contact us when it is convenient for them. In the long run, lower threshold decreases sick leaves' (E13).	'Visiting a doctor takes easily half an hour plus transport. You can contact Heltti by phone or through chat, which lowers the threshold' (C3). 'Heltti's model fits our fast action model very well. You don't need to visit there three times and wait and book appointment times' (C10). 'The low threshold is great in Heltti, and I hope that our people would easily use distance services' (C12).	'What is it that is so fabulous there? This preventive healthcare, I don't see anything that I would get there that I don't already get from Competitor B. All these digital gadgets, I don't understand' (C16). Cocreation: 'It is similar as if I would write to my friend. I don't need to think about how I express myself as the doctors are easy to talk to, and they speak a normal language' (C2). 'It is very practical. I have really liked it' (C5).

Customer experience is subjective and event- and context-specific, relating to an individual's own life, including interactions with different networks (Helkkula, Kelleher, & Pihlström, 2012). What is considered as value of service innovation is different for different people, and it is subject to change as the service emerges (Helkkula & Pihlström, 2010). Therefore, different customers have different experiences of the same service because customers are different, the same customers are different at different times, and the encounters are different due to the heterogeneous and emerging nature of the service. The aforementioned reasons have been found to be especially important in the healthcare sector, where customers often undertake a range of value cocreating activities aimed at enhancing their wellbeing and health (McColl-Kennedy et al., 2012).

The development that has taken place in service research has also emerged in healthcare by emphasising value cocreation and the customer's role as an active cocreator of value (McColl-Kennedy et al., 2012). This is also due to growing interest towards health services amongst service researchers (Elg, Engström, Witell, & Poksinska, 2012; McColl-Kennedy et al., 2012; McColl-Kennedy et al., 2017). Healthcare has also been approached from a broader view by transformative service researchers, who study wellbeing and elements that influence it, like quality of life, access, stress, inclusion, and community (Rosenbaum & Smallwood, 2011; Sweeney, Danaher, & McColl-Kennedy, 2015; Yao, Zheng, & Fan, 2015; Zayer, Otnes, & Fischer, 2015). However, further research is needed to more fully understand the effects of the changing role of the healthcare customer, especially as cocreation practises may differ individually as healthcare customers cocreate value in varying ways (McColl-Kennedy et al., 2017).

There are still many obstacles like hierarchical power structures and professional barriers (Greenhalgh, Humphrey, & Woodard, 2010) that prevent the change of the customer role into active cocreators who manages their own care, even though there is evidence that the changing role has several positive effects like reducing hospital costs (Lorig et al., 2001), better customer satisfaction (Lorig et al., 2008), better quality of life (Sweeney et al., 2015) and health outcomes (Vetter-Smith et al., 2012), and even lower overall mortality (Stock et al., 2010). Despite the positive evidence, there is rather little progress towards customers being an active value cocreator (Gibson, Britten, & Lynch, 2012). This change is cultural in its nature, thereby going beyond the professional healthcare professional and the customer and, thus, including interaction with different actors in the ecosystem (family, friends, Internet sites, and online communities); this leads not only to changing roles but also different responsibilities, activities, and interaction (Frow, McColl-Kennedy, & Payne, 2016; McColl-Kennedy et al., 2012). Digital communities and sites have enabled customers to cocreate value, which can be described as more human, preventive, and holistic (Tian et al., 2014). However, my research showed that digital communities and services are not always experienced as creating only positive value in healthcare. Healthcare users may also feel that they are left alone to 'Google their own treatment'. Neither are the discussions in digital communities always positive nor bring positive feelings, but they may cause fear due to horrifying descriptions of symptoms and wrong diagnosis. However, the digital means may also serve as a channel which enables contacting the healthcare professionals with a lower threshold, as in the case of Heltti.

McColl-Kennedy et al. (2012) have stated that understanding what creates the change in the customer role at different touchpoints during the customer journey and how that change can be managed is an essential research topic. This change cannot be achieved without leadership and management processes that support these new practises (Payne, Storbacka, & Frow, 2008; Ramaswamy & Gouillart, 2010), which are often confronted by values, norms, legal issues, and professional culture (McColl-Kennedy et al., 2017). The changing behaviour concerns both employees and customers who might be unwilling to accept the new roles (Bowen, 2016). An active role of the customer can be seen as a threat amongst professionals as it is often interpreted that it would lead to customers choosing the services, medications, and treatments (Bower, 2003).

In Heltti's context, value constellation is cocreated not only with companies as customers, end-users (employees of the customer companies), Heltti's employees, Heltti's partners, customers' partners (e.g. insurance companies), and Heltti's digital systems but also with other service providers and end-user networks. As customer experience arises from both subjective and intersubjective data, it is important to understand Heltti's customer experience both in the context of their work life and private life (Heikkula et al., 2012).When studying how Heltti's service has come to be, the importance of purpose elements in customer experience started to arise. In the internal meetings, complaints from certain company customers were regularly on the agenda, whereas others were embracing Heltti's services in different channels. When interviewing Heltti's customers, I started to understand how what one is and values as a company (organisation culture) as well as who one is and values as a person affected the customer experience.

In addition, cognitive similarity describes the extent to which there is symmetry or resemblance between persons, concepts, or objects, leading to attraction (Murnieks et al., 2011), which also helps to explain differences in how Heltti's service is experienced by customers. Similarity also matters in decision-making processes, which may cause bias through exhibiting more favourable attitudes towards people who are similar to us (McPherson, Smith-Lovin, & Cook, 2001). Consequently, it has been suggested that individuals using effectual or causal decision-making approaches are attracted by similar others, thus favouring individuals and organisations resembling their own decision-making approach (Murnieks et al., 2011). However, the purpose of this study is not to make a comprehensive analysis of different organisation cultures but mainly to show the complexity of customer experience and value cocreation or co-destruction, especially in the healthcare setting. Understanding customer value creation has become especially essential in healthcare settings as the costs of healthcare keep increasing at the same time when researchers have realised how the role of the customer/patient affects future development and solutions in healthcare (Hardyman, Daunt, & Kitchener, 2015). The view of the customer as a passive object of healthcare has been relevant in history (Berry & Bendapudi, 2007; Payne et al., 2008), whereas the more contemporary view sees the customer being a subject and cocreator who, together with healthcare professionals, has an active role in improving his or her own health and wellbeing (McColl-Kennedy et al., 2018; Ostrom et al., 2015).

To summarise, value creation in healthcare is a rather complex phenomena, whilst healthcare services are often considered an obligation (MacGregor & Wathen, 2014) and associated with sickness, risk, and reluctancy (Berry & Bendapudi, 2007). Since the role of the customer in healthcare has been redefined, it has opened up new frameworks to look into healthcare services, including customer positivity and participation (Gallan, Jarvis, Brown, & Bitner, 2013), motivating customers to adhere to advice (Seiders, Flynn, Berry, & Haws, 2015) and resulting in e-services which enable customers to take more active roles in their own wellbeing (Tian et al., 2014).

With these changes in mind, the following sections narrate the story of Heltti. The narrative provides a rich account of the events, illuminating for the reader how Heltti's service emerged and evolved, thus allowing the 'reader to judge the transferability of the ideas to other situations' (Langley, 1999, 695).

4.2. Before Heltti

> It was in the Independence Day 2012 at a skiing cottage when the rest of the family was already sleeping, and I had a couple of glasses of red wine, as I got this big eureka moment. Damn, it has been in front of me all the time. What can you do if your grandparents are doctors, parents are doctors, brother is a doctor, cousin is a doctor, uncle is a doctor, cousin is a doctor, and you are the black sheep in the family? And even your own wife is working in the healthcare sector. (…) Suddenly it glinted that, damn, this is the next thing; it is a healthcare company, and it is particularly in occupational healthcare. I had a very concrete image of it all, and the best thing was that it sounded like a good idea even in the next morning. (Jack, founder)

Jack likes to tell stories, and the story of him sipping wine at the ski cottage is the one he tells different audiences to describe how everything started. When Jack's wife, Laura, explains what happened, she tells a more cocreational story in which they both had been discussing for quite a while already about their experiences in OHC and comparing those with the experiences Jack had when creating the challenger model in the law industry.

> Jack told me the following morning that 'I have been thinking something like this', so I said that you can't have because I have had similar thoughts. Most obviously we had been preparing it quite a long time because we both got the idea at the same time, and we still compete over whose idea it really was. (Laura, founder)

Even though this is when the intention of establishing a company was expressed, the seeds of Heltti were planted long before the event of sipping a glass of wine took place. The time before Heltti, includes events that are relevant to understand how Heltti's service came to be. The locus during this first period is on the founders; thus, the main characters in this early birth story are two passionate and enthusiastic people, Laura and Jack, who are also a married couple. Both of them have multidisciplinary education backgrounds, including business studies. Laura has a master's degree in psychology, but she never finished her studies in business school.

> I am a 43-year-old mother for three children and a dog. I have a master's degree in psychology, and I have also studied in a business school, but I never graduated. I still tell everybody that I am both a psychology and a businessperson because both of them have guided my career. (Laura, founder)

After graduation, Laura started working in international business consulting, which she considered at that time to be really 'cool'. After a couple of years, she realised that she did not actually like consulting work and changed to conducting personal and psychological assessments in an HR company. However, this also started tiring Laura after several years, and she took a 1.5-year sabbatical leave to think what she would like to do in the future. During the leave, she became interested in OHC and started as an OHC psychologist in a big Finnish health clinic. Soon, she was asked to co-ordinate the service development and to lead all the 100 psychologists in Competitor C (a health clinic pseudonym, as are all the other company names hereafter) as a head of development. In that position, she had an opportunity to see how OHC management is organised in a big, nationwide healthcare organisation, and she learnt the basic operational principles of OHC. The size of the company opened doors to many places as different interest groups were interested in co-operation.

Laura often reflected upon her own experiences when working in the leading position in OHC. She was not satisfied with the leadership of Competitor C and how things were run in OHC. During half a year, she was actively thinking what to do; should she change to work for one of the competitors, and would her life then be completely different? The answer was no as all the competitors seemed to have the same issues. She liked to work in the OHC sector, but after considering changing to other service providers, she did not believe that any of them would offer any better work atmospheres. Afterwards, she understood that she had not yet realised what was actually wrong with the traditional OHC system.

Jack, Laura's husband, has two master's degrees in law and business. After graduation, he started in the oldest law firm in Finland and worked there for seven years. He thought that it was his life's career, and he knew quite well how his career would proceed. He even knew the day he would retire: 'I could have put it in my calendar even.' He did not have any reason to change his job as he liked his workplace and the company. Less than ten years before Heltti was established, several of his lawyer colleagues contacted Jack and told him that they are about to start a new kind of project in law business. Jack met the new entrepreneurs before his summer holidays, and the issue bothered him during the holiday to that extent that he was not able to sleep.

> I wondered if I had the courage to leave such a secure career in a well-established company and join a start-up project. At the end, I thought that usually people don't regret things they have done but the things they haven't done. This is a cliché, but I compared being a partner in the oldest law firm in Finland to creating something totally new in my work life, something that would stay permanently. I had a feeling that I needed to try. (Jack, founder)

These were the starting steps for establishing Law Firm X, and Jack led it for five years from 2006 until 2011. The company grew rapidly during those five years into one with an eight million euro turnover. According to Jack, the four main owners decided at that stage to give up their operational leading positions so as not to end up as bottlenecks for the company growth; Law Firm X was planning to internationalise, and therefore it needed new processes and a new professional leader.

During the first months after Jack had left the CEO position, he felt like a burden was removed from his shoulders. Even though he continued working with customers, Jack also had more spare time, which was a new feeling to him. After a while, he started as a chairman in a growth company association as well as made some investments in a couple start-up firms and joined as a board member in several others. In the beginning, he was relieved to not have any business responsibilities, but soon he realised that he could not start slowing down. Now he should find the next thing, something that he could be passionate about. For some time, he waited for the big thing to come until he realised that he had to create it himself. When thinking about what that venture could be, he started to reflect on who he is: what he has enjoyed and what he is good at. He noticed that the greatest moments he had experienced were the ones when he had been building a challenger model and disrupted a traditional industry; he wanted to make a change.

> I still remember thinking 3.5 years ago in the autumn that the big thing will not come across me; I need to create it myself. And the next insight occurred, and retrospectively it is easy to think what caused the next steps. But at that time, I came to the conclusion that the greatest moments in work life have been the ones when I have been creating a challenger model in a conservative business field. Exactly what we did in Law Firm X: challenge the established actors in the industry, succeed to grow, and get publicity. It is extremely fascinating; it glues the team together and creates a great working culture. (Jack, founder)

Jack also enjoyed creating good workplaces and challenging the traditional, hierarchical, and bureaucratic organisation cultures. As the CEO of Law Firm X, he had achieved good results in the Great Place to Work competition. When looking at the new opportunities, he wanted to create another good workplace and to focus on B2B service businesses because he considered these to be his special competence area whilst also thinking that his expertise is in the customer service sector.

> The second issue, all in all, is to create great workplaces. In Law Firm X, we achieved third place in the Great Place to Work competition, and we were number nine in Europe and the best in Europe in the law industry. Even though competition was not tough in that sector, but still… And a third thing is that I have competences in the customer service business, not in game industry or something else. My expertise is not focussed there. (Jack, founder)

After coming up with an idea to start a new company in OHC, Jack began to think what it would be like to establish a new company in the healthcare sector which would be led in a totally different way than any healthcare organisation had been before. Jack also thought that OHC services especially called for a fresh, entrepreneur-driven concept because that sector in Finland was mainly run by three big companies which all had suffered from image problems caused by different tax optimisation arrangements and international ownerships.

The process culminated in mutual discussions between Laura and Jack and ended up as the idea of starting somethings new in OHC. The initial idea emerged in the interaction between Jack and Laura and their past, present, and future encounters. The next question was whether Jack and Laura would be willing to start the project together as a couple, which would mean sharing the same work community. Their first intuition was that either one should abandon the idea because they were not willing to start a family business, which they considered to be in conflict with their role as professionals. However, their professional interests seemed to intersect at this point: Laura's experience in OHC and Jack's experience in building new business. After a month of discussions and thought, they decided to take the chance as 'if you don't dare to do anything, you will neither get anything' (Laura, founder).

4.2.1 Aiming at disruption

After the decision to start a new venture was made and a broad idea of the new service was created, Jack started to search for information about the Finnish OHC and make some calculations to find out if the idea was feasible. The first budget draft was dated right after the New Year, 2.1.2013, and it included a forecast for 15 months starting in October 2013. Jack had estimated the monthly turnover, costs, sales budget, capacity, and personnel needs. The turnover in the end of 2014 was forecast to be over one million euro. It was thought to be generated through maintenance fees (monthly fee), medical healthcare (time-based fee), coaching and consultation services (only mentioned, not budgeted), as well as through two service packages: good workplace package and healthy employee package (monthly fee). In the beginning, the main aims were to create good workplaces, enhance the wellbeing of the employees, and create a great workplace in the health sector. Jack's calculations included the following service offering (Excel calculations 2.1.2013):

1) Good workplace: company investigations and maintenance plan (50–240 euros per month) + wellbeing package (240–900 euros per month)
2) Healthy employee (personal investigation 350 euros and maintenance 500 euros)
3) Medical healthcare (price per minutes)
4) Other services (coaching and consultation)

5) Maintenance fee 10 euros per month + 3 euros per month per employee

The founders wanted to create an alternative approach in OHC, which they often labelled as ‘disruption’. The experience of establishing Law Firm X and the change that Jack had been involved with inspired him to look to other traditional sectors in need of change.

> It was also a really good combination that I didn’t know the industry at all. As a CEO of Law Firm X, I had seen the invoices. I considered them as withholding tax that now I needed to pay them. I didn’t consider them anything else than half-public costs. The fact that I came outside of the industry enabled me to create something new. At the same time, Laura knew that some limitations do exist.
> (Jack, founder)

Jack actively followed the latest research and also referred to different researchers when explaining how and why they utilised certain approaches to develop their business models. When talking about disruption, he often referred to Christensen (1997), who forecasted that changes would happen in the healthcare industry in the same way that has happened in many other industries especially as the Medicare expenses were increasing rapidly.

Inspired by disruption, Laura and Jack had the aspiration to change several issues in the OHC sector. Their aspirational goal was to bring healthy years and wellbeing for half a million Finns. This would be implemented by focussing on the initial role of OHC, which is to keep employees healthy with the help of preventive healthcare services. Changing the fee-for-service business model into a fixed pricing model would enable the company’s customers to control their OHC costs. Laura and Jack also wanted to modernise OHC services and improve the efficiency of the service. The fourth change concerned the hierarchical work culture dominating the healthcare sector.

When Jack started thinking about Heltti’s services, he wanted to change the whole logic of traditional OHC. Jack and Laura even wanted to get rid of OHC as a term because it linked the services with the old health-check-focussed activities. Their purpose to create a new venture in OHC was to disrupt the industry by offering such services for knowledge workers which would increase healthy living years and enhance health. The founders planned to achieve this purpose by creating a wellbeing service station, which implied that the customer would be serviced in a similar way as cars are serviced in the gas station to identify potential problems before they actualise, thus supporting wellbeing and not waiting until they get sick. These ideas of focussing on wellbeing and taking control of one's own health also play an important part in Jack's identity. Jack is an enthusiastic sports man who participates in Ironman competitions, marathons, and weightlifting competitions. Based on his own experience, OHC did not offer any preventive healthcare services for him, which is actually the original purpose of OHC services stated in the Finnish law.

Furthermore, Laura and Jack consciously utilised the power of language in shaping reality. For example, they preferred calling the end-users 'members' like gyms call their customers instead of 'patients', which implies that someone is sick. The ideas of enhancing health also materialised in the company name, Heltti (a Finnish version of the English word 'health') and in Heltti's logo with four hearts symbolising wellbeing.

Meanwhile, Laura started to actively search for information to find out why the OHC sector functioned the way it did. She talked to people, read research reports, and benchmarked both national and global actors like Keizer Permanent to see how and why they function the way they do. She found validation for her thoughts that the existing business models, which are based on the number of used services or the length of the appointment, do not encourage offering preventive healthcare services. Laura had found out that 60 to 70% of OHC services are related to medical care and 30 to 40% to preventive healthcare in Finland. She also came to the conclusion that it was rather the authority instructions that guided the OHC service offering than actual customer needs.

Another factor that was close to Laura's heart was efficiency in OHC services. She questioned the common procedure in health clinics that an OHC appointment always required a personal, physical visit to the health clinic, which she found to be inefficient.

> Always when I need some professional OHC service, so I need to know a) from whom I book the appointment, and then I b) need to make the appointment and then go and spend my valuable work time going to the other place, and then I get

the service which I am satisfied with or not and come back to my workplace or home. (Laura, founder)

The efficiency issue was first solved by a Heltti car service. This was such an important value-adding element of the service that the very first presentation document of Heltti starts with a picture of the Heltti car (Figure 1). The idea was that service would come wherever the customer is, and this was thought to be implemented by doctors and nurses driving the Heltti car and meeting the customer at the workplace or at home.

Figure 1 Heltti car (presentation 24.1.2013)

The Heltti car idea followed the disruption principles they had learnt: imagine first a dream service without considering the costs. In the case of the Heltti car, the calculations soon showed that the idea was not feasible.

> Like one of our very first ideas was that we would have a Heltti car, and the doctors would drive to the workplace or to the home so that if you are sick, you would never need to leave anywhere as the doctor would drive to the yard, take care of you, and go to the next yard. We buried the idea after we calculated what it would cost if the doctor would start to drive to single persons. We figured out quite soon that it would not fly. (Laura, founder)

Another crucial element of this disruption approach was the pricing model which was planned to be something else than the fee-for service model that the competitors were using.

> Therefore, it was quite clear that we need to change the business model. The reason why it was so clear was that customers criticised the framework agreement. It is analogical to a situation that you go to a bar, and your company offers the

> drinks. The bartender has the company credit card, and then you can order whatever you want. This easily leads to a situation where you think that 'I probably should take champagne even if I would like to have water because the company is paying'. Or the bartender thinks that even if the customer would like to have water, it is better to sell him champagne because 'I get the bonuses. (Laura, founder)

However, changing the pricing model turned out to be one of the biggest concerns in Heltti's survival. So far, SII had compensated healthcare costs that were based on the fee-for-service pricing model. The essential question was if SII would also compensate OHC costs based on fixed pricing. The compensation is paid directly to employers, who are also the ones applying for the compensation. As the compensation covers about 50% of the costs, this is an essential factor when choosing an OHC service provider. As a lawyer, Jack investigated the issue, concluding that SII would accept the fixed-pricing model. Later, Jack found out that this decision, which was essential for the success of Heltti, caused him and others working in Heltti a significant amount of work, pressure, and frustration as it took years before Heltti came to terms with SII.

The fourth element in the founders' disruption approach originates from Jack's experience as a customer in the healthcare sector and his personal observation of its hierarchical culture. Hierarchy amongst healthcare personnel reflects the organisation culture, which the user of the services also encounters. As a lawyer and CEO, Jack was used to being a subject, having control of his own life, and being healthy and appreciated, whereas as a customer in the healthcare field, he felt that his professional role was blurred and he was treated as an anonymous object, a patient, someone who is sick. Jack communicated these feelings and experiences once again in the form of a story, which helped him to verbalise the abstract customer journey. These experiences that Jack had as a customer and user of healthcare services framed the first insights which were to become the cornerstones of the company's customer experience design.

> What we wanted to do is that practically when you ring the bell, the person who has an appointment with you comes to open the door. So we turn the waiting the other way around so that the doctor waits and not the member who has come to wait for you. (…) There, I got this idea that what if I would shake the whole work culture, those hierarchies and other things? That instead of nurses having their own rooms and doctors having their own rooms and they go for lunch in their own groups and then the medicine companies offer even a better lunch for the doctors, and the nurses pay themselves for that somewhat poorer lunch, what if I would

> shuffle this so that they all would have similar chairs, and they would sit next to each other? And what if we would turn this so that the nurse would be the internal customer of the doctor and in a way above in the hierarchy in that situation? These were issues that fascinated me a lot. (Jack, founder)

In these stories, the urge for change seemed to be amongst the main triggers that made Laura and Jack start their new venture.

4.3 Existence—Heltti comes to be

Whilst the discussion regarding the new venture had so far involved mainly the two founders, during existence period, the external locus was strong, including informal discussion with the people they knew (section 4.3.1), customer interviews (section 4.3.2), cocreating with professional designers (section 4.3.3), creating a partner network (section 4.3.4), and actively selling Heltti's service to get pre-commitments (section 4.3.5.).

> As I had practised service design a little bit, so I got an idea that instead of doing the same as we did in Law Company X (the company he had established earlier), that we sat in a room behind the closed doors and sometimes we made a hundred Power Point slides, sometimes 30 and other things. We knew some five years ahead how we are going to run the business. Here, we did it the other way around in that sense that the first thing we did after deciding to start a new venture, we started contacting our old acquaintances. (Jack, founder)

Jack's words set the scene for the second episode in this story. The focus during this existence period was to think what the service would be, how it would be delivered, and who the customers would be. After Laura and Jack had decided to proceed with the new venture, they started very openly and actively talking about their idea 'with anyone who was just willing to listen', as Jack said. These discussions were a combination of codesign, prototyping, and gathering understanding of customers' contextual and personal experiences as well as the first steps to building customer contacts for the new venture.

> And we sort of developed the concept all the time—what would the services be at what price, how does it differ from the services provided by other service providers—and quite in the end, we started thinking about the technologies and systems that we would use. Maybe these three cornerstones are still present—

> focussing on knowledge workers, a thought about distance services, and fixed pricing—and those we kind of iterated forward. (Laura, founder)

Exposing the yet rather vague idea rather bravely was something that Jack had learnt earlier in his career when working with other growth companies. In fact, in Laura's view, Jack's wide network was one of the most critical advantages they had. The network enabled an easy access to decision makers in companies, which the founders considered to be of interest. Later, the network also helped in acquiring resources: investors, employees, or customer. The founders also decided not to seek investors in the beginning but try to cope with minimum capital and invest their own time.

> We decided that…our Jack has a wide experience of growth companies, and we stated that we take a different approach, not the traditional one that you take investment in the company, get a certain amount of money, and then they start to develop the service, the concept with the invested money. We decided that the only thing we shall invest is my time, so the moment we registered Heltti, I resigned from the health company, and we did, like, slave work, all work that we did during the first year until we stated that there is demand for this; we have customers, and we get sales. (Laura, founder)

4.3.1 The story of the Chinese village doctor

Interaction with people took both informal and formal embodiments. When eight weeks had passed from the eureka moment at the skiing cottage, the founders arranged a mentor meeting called an oracles' evening. The oracles consisted of people with different knowledge and competencies and whom the founders knew and trusted. On this first oracle evening, Laura and Jack showed their first presentation and asked the 'oracles' to comment on, challenge, and praise their ideas. In addition to these arranged meetings, Laura and Jack talked to people in more informal occasions. This enabled the founders to understand more about customer experience, but it also helped them to create solutions and validate their ideas.

> We talked to all people who just were willing to listen; that was an important factor. I remember once when we were cross-country skiing for a couple of hours with a person who knew the industry, I had slides in my mobile phone, and we had a look at them. Someone might consider this as intrusive, but he was that kind of a guy that he liked it. It gave us security about the fixed pricing and industry

> practises and other stuff. Active communication, getting feedback, and not being afraid of revealing business secrets—that has been important. (Jack, founder)

During one of these informal discussions, an old acquaintance of Jack's told a story of a Chinese village doctor, which turned out to be a crucial story to explain why Heltti exists, how they operate, and what their services are like. However, the story of the Chinese village doctor not only enabled communicating the essence of Heltti, but it also created a new angle from which to look at the value creation of Heltti's services. The very reason to exist could take form and power from this ancient story. Jack stated that he understood right at that moment when he heard the story how powerful it was.

> Another thing is that instead of making NDAs of everything and being quiet, we should talk much with different kinds of people. I talked about our idea with one person, and I told him that we had proceeded, and we had discussed about a fixed pricing model. He stated that 'Jack, it is like…have you ever heard about the story of the Chinese doctor?' People in the village paid for the doctor, but by no means did they pay based on the number of clinical visits and operations. Instead, all the healthy villagers paid. Based on that principal, the better the villagers felt, the better the doctor earned. He had financial incentives to keep the villager healthy. (Jack, founder)

The story changed Laura and Jack's view of what the role of fixed pricing was as they understood that it was not only about pricing, but it was about a totally different business model. This is how the story of the Chinese village doctor became the story and vision of Heltti.

4.3.2 Gathering customer understanding

In addition to actively talking to people, Laura and Jack interviewed several HR managers, financial directors, and other people who represented interesting potential customer companies and who made decisions about healthcare services within their companies. The founders wanted to get a deeper understanding of the customers whilst also starting to build sales contacts. Laura and Jack conducted the interviews by themselves as they considered the interviews as giving them important customer insights and connections, which might later lead to customer relationships. On the other hand, conducting the interviews by themselves was also part of their cost-saving approach. For Jack, interviewing the customers as a start-up entrepreneur in the healthcare sector was a new experience, which made him think about his professional identity. He felt somewhat uneasy with his new identity in front of the unknown future. Jack questioned the rationale of the whole project as everything felt difficult, whilst in the background there was a thought that the whole project might fail.

> It was an extremely healthy experience. It required a lot of humbling. At that point, I had been building Company X to a 10 million company, and it paraded in the top in different kinds of competitions and in newspapers and other things. So pushing the reset button and starting from scratch in a totally different field, it requires courage. The very first contacts—that, in fact, I am not a lawyer now, but I have this new business idea which I would like to present. The threshold was really big, but it got lower every time, and I gained a lot of power from those encounters. There is a lot of talk about the inconvenience zone, and I did anchor there quite firmly at some point. (Jack, founder)

Laura and Jack made an interview guide and followed it to some extent during their interviews whilst trying to allow the interviewees to rather openly tell about their experiences. The founders interviewed OHC customers about the use of current services, what are they satisfied with and dissatisfied with, and how much they are currently paying for the services. As Jack and Laura considered productivity and wellbeing to be important elements of OHC services, they included those topics as part of the questions regarding current services. They also asked the interviewees to ideate around the dream service of OHC.

Interviews gave the founders information about what people were satisfied and dissatisfied with and what their expectations were. Laura's overall interpretation of the outcomes was that many of the decisions makers were dissatisfied with the services and with the OHC supply, but they were satisfied with the contact person. What disappointed Laura was that when asked about the future services in OHC, the customers seemed unable to imagine beyond what was.

> A third observation was that they were not able to ideate or think outside the occupational health care agreement when we tried to get something [about] what else it could be that your people would like to have other than the traditional. Ideating that what if this would be a candy store, what would you choose? And then we got very little wider understanding of it…that people had blinkers on their eyes. (Laura, founder)

The value creators of OHC services identified by the interviewees were mainly based on the traditional healthcare view of seeing OHC services as mainly providing medical healthcare services and seeing the role of the customer as a passive recipient of the service.

> We noticed that the biggest satisfaction factor was accessibility that the facilities are close, and somebody answers the phone, and you easily get an appointment time. Kind of that if I have some concern, I can easily meet OHC professionals. Another satisfaction factor that we identified was the contact person. We go back to this empathy issue that if there is a doctor that bonds with you, then it creates a very strong glue between the health company and the customer. Otherwise, it seems that OHC services are considered as a medical service even though the core of OHC should be in preventive services and in the means of making sure that the work is not dangerous to your health. (Jack, founder)

On the other hand, the comments about non-transparent invoicing and service providers aiming at maximum profits resonated well with Jack's own views.

> But then the biggest things which made me think was, and now this is a straight quotation from one HR manager, that 'OHC is a black hole where we shovel the money'. (Jack, founder)

The interviews made the founders understand that the customers' view of OHC was based on the traditional model, whilst the respondents were unaware of the recent developments in healthcare. Some considered OHC to be a low-interest service, describing it as uninteresting, old-fashioned, and not developing. The expectations for a low-interest service are commonly that the service process is smooth and easy 'as if not knowing that it exists'. Whilst the elements that customers were satisfied with were mainly based on the traditional medical model, those that caused dissatisfaction were linked with service providers still applying the traditional medical model instead of offering any preventive healthcare. However, if Jack and Laura had started creating services based on the expressed needs, they would have probably ended up with a rather different service concept and service elements.

Jack and Laura were well aware that the traditional medical approach also affected what customers were able to identify as value creators. The founders' view was that the approach in which the physician is the authority and decision maker who decides the medical tests and treatments and the focus is on diseases not only leads to emphasising medical care instead of preventive healthcare but also enables OHC service providers to increase invoicing without transparency or 'permission' as the authority of the physician cannot be questioned. Even though some of the customers were not satisfied with the pricing system, they still did not see a fixed-pricing strategy as a solution. Some of the interviewees supported this view by answering that the impact of the OHC services are more important than the price, and fixed pricing might affect the quality of the service. However, according to Jack, these interviews played an important role in what the service would be.

> I think that we succeeded well in creating the business model. We succeeded because we did not fix anything before we made the interview round. If we had only thought amongst ourselves, we would have been much closer to what this industry is at the moment. My guess is that we succeeded because we had almost information overload of customers' thoughts. (Jack, founder)

It seems that the interviews helped the founders to understand their potential customers better, but Heltti's service concept was not directly derived from or affected by the 'solutions' that the interviewees presented. Quite the contrary, it could be argued that if the founders had based their service concept on these interview answers, they would be much closer to the traditional industry. For instance, even though the customers saw the cost-based pricing as problematic, many of the interviewees did not consider fixed pricing to be a solution to the problem. Despite not getting support for the idea, the founders still decided to experiment with the fixed-pricing model. The interviewed customers also emphasised easy and smooth access to medical services (doctor's appointment) by thinking of a rather traditional customer journey and channels.

However, preventive healthcare and wellbeing were elements that the interviewees found to improve productivity. These were still not topics that came up when Laura and Jack asked about OHC services as the customers saw OHC as mainly providing medical healthcare services. In addition, the more formal interviews with the contact persons of potential customers seemed to be mixed in the founders' minds with the less formal discussions they had with other people in their network who were not directly connected with the traditional healthcare system and were able to suggest more unconventional solutions.

On the other hand, the customer interviews proved to be a good way to get access to potential customers. During the interviews, Laura and Jack had only told people that they were bringing something new to the OHC market but did not reveal much about the new service concept. The founders arranged a second appointment with the interviewees who wanted to hear more about the new venture. During the second meeting, people showed interest towards the concept and asked more detailed questions, which gave confidence to the entrepreneurs. What was most rewarding for Laura and Jack was that some of these appointments ended up as first sales deals.

Networking and interacting with people also served recruitment purposes. Laura and Jack needed to get a physician on board because without a chief occupational health physician, the operations could not get started. One of the people Laura and Jack interviewed was Jim, whom they considered to be one of the most influential professionals in the Finnish OHC industry. The aim of the discussion was mainly to find out if Jim could recommend any doctors that might be interested in joining the new venture. However, it was Jim himself who became the first chief occupational health physician of Heltti.

> A hard nut to crack or, how should I say… a problem to be solved in the spring 2013 was how to get doctors. This was the biggest headache (laugh)… so it was quite evident that without a chief occupational physician, there is no possibility to establish any occupational health care provider. (…) Then we found Jim through recommendation. (…) In the end of the meeting, Laura asked if Jim himself would be interested. I almost said to Laura afterwards that you can't really ask something like that. But as it happened, Jim was interested, and he joined us. This was a good example of having courage to ask. Without finding a doctor, this idea would have stopped already at this point. (Jack, founder)

When Jim joined the team as a chief occupational physician, Jack and Laura were able to establish the company as they now had all the required expertise. In Finland, OHC services cannot be provided without an OHC specialist who also has a license for the operations. Jim not only had the required expertise, but he was also interested in joining the new venture and doing things differently. According to Jack, Jim looked at the existing OHC services critically and wanted to make a change whilst also being interested in the business side. Jim became the third partner in Heltti.

4.3.3 Creating customer experience through interior design

The founders considered the design of the health clinic to play an important part in creating customer experience. Through their contacts, Laura and Jack found an interior designer, Sheila, who was also interested in service design. Sheila had not designed health clinics before, so she had to find out what the legal requirement for a health clinic were. She assumed that there would be many regulations, which would also explain why all the health clinics look and feel rather similar. Sheila soon found out that it is not the legal requirements that shape the interior design of health clinics because there were rather few regulations.

> Valvira (National Supervisory Authority for Welfare and Health), yes, it is Valvira (who supervises medical facilities). I found out what the hygiene regulations are, accessibility regulations were already in place, but how about, for example, soundproofing and hand wash sinks. I hadn’t done any health industry projects, so I didn’t know where the limits go. But then again I felt that I might whistle in the dark, but regulations are claimed to be the cause for many choices in typical healthcare clinics. However, in fact it is due to easiness that there are plastic surfaces that can be washed with a pressure washer. There were surprisingly few regulations. They were more like recommendations. A hand wash sink was necessary, and soundproofing was a recommendation. (Sheila)

Jack’s ideas of non-hierarchical organisation played an important role in creating customer experience, thereby heavily affecting interior design (Figure 2). The interior design was supposed to reflect the equal roles of customers and healthcare professionals. Jack was consciously thriving for unconventional solutions which would challenge the traditional norms in the healthcare sector.

> I could say that we have succeeded with how we think about our premises. We started challenging the conventions. We have received a lot of positive feedback both for our premises and for our different attitude. But then again there are people who think that this is not a proper health clinic at all. (Jack, founder)

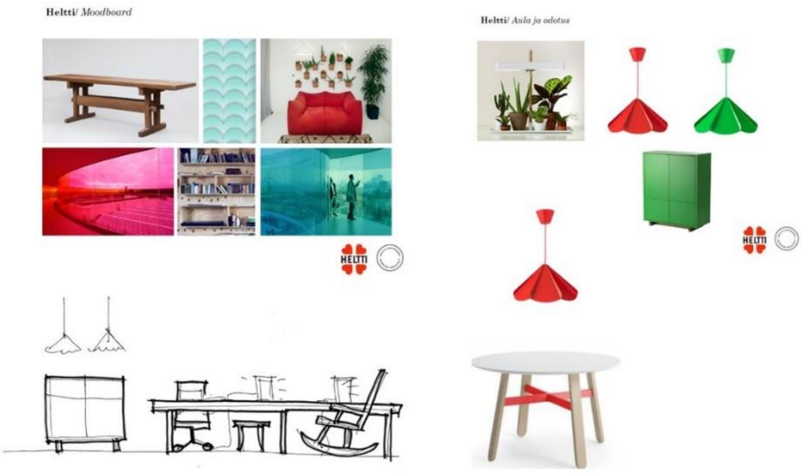

Figure 2 Mood boards and sketches for Heltti by interior designer Salla Kantokorpi. Copyright with permission.

The aim was also to create a homelike feeling when entering the premises instead of the traditional white and clinical interior of health clinics (Figure 3).

> Here, the thoughts start to define rather well. It somehow started so that we started consciously distancing ourselves from the waiting room, like, and clinical, cold, and clattering (laugh) blank that customers like…or patients are horrified and waiting under lights which make everyone look sick. Somebody calls you in, and you are like the underdog. That was probably what we started to work on. How do we create equal encounters and sort of that you are an equal human being who meets a specialist, and you are a customer and not so that you are a sick patient meeting someone superior to you? (Sheila)

Figure 3 Interior design of Heltti by interior designer Salla Kantokorpi. Copyright with permission.

Even though Sheila considers her role as a designer to be making change, in this project, the disrupting ideas came from the founders of Heltti. Sheila herself admits that Laura and Jack helped her to see the OHC industry in a different light. She found the project to be really motivating as she was not only designing the premises and even the customer experience, but she was ultimately designing healthier lives for people.

4.3.4 Utilising contingencies - the birth of Heltti's digital services

The two core elements in Heltti's service were to keep people healthy and to offer efficient service, bringing it close to the customer. In the first presentations created by the founders, these cornerstones were implemented by coaching and the Heltti car driving to the customer, which were both rather employment-intensive solutions. After the calculations showed that closeness to the customer could not be achieved by physicians driving to customers, it was time to think of other solutions. After discussing it with people, including several start-ups with health-related digital solutions; analysing what the trends in the healthcare sector are; and making feasibility studies, digital and technological solutions started to emerge. The concrete solutions to these issues derived, to a high extent, from utilising contingencies, which led to new formulations of what the service is: activating people to take care of their own health and utilising the latest e-health technology by creating HelttiMe and HelttiLine services. The value for the customer was expected to be created by not having to spend time in transportation and lowering the threshold to use the services. E-health technology was expected to exploit health analytics and provide self-care methods as well as activity tools to enhance health.

When starting to think about digital solutions, the first option the founders thought of was to make video consultations and appointments. Soon, the founders identified a potential partner who would be able to deliver the systems for video services. At the same time, Laura was trying to find someone who could start creating a health management system for Heltti. With that in mind, she called the managing director of Company A, assuming that they would deal with health management systems. During the phone conversation, she found out that Company A's service was actually a chat that allowed the patient to communicate with the healthcare personnel in a protected environment.

> HelttiMe came by accident. I contacted Company A when I heard that Company A has a health management system. I still remember it when the managing director called, and I was doing my shopping in a department store. (…) We had negotiated with another company about a video appointment solution. Back then, four years ago, it was something new, and we thought it would be our thing, and we thought we could collaborate with the video appointment provider. But their system was done with a very complicated code, and we ended those negotiations, which was really good because that is not our thing. Then I heard somewhere about Company A and that they have some health management system. It was really a coincidence. And I don't know how we decided that chat. What we decided was that appointments should be able to be conducted somehow distantly and that it would be embarrassing if we can't do OHC distantly. So it was a happy coincidence. (Laura, founder)

The service offered by Company A was initially created for cancer patients to improve patient experience by enhancing personalised and continuous care, psychosocial wellbeing, and patient participation. Besides being able to offer an interesting service, Company A seemed to share the same premises with Heltti: wanting change in healthcare by changing the role of the patient, continuous development, and being a start-up.

Heltti's founders decided to experiment with Company A's service by iterating around a couple of design sprints. Both the employees and the customers liked the chat, so the owners made a fast decision to start using the software. At that point, they didn't yet know that it was to become one of their main tools in communicating with their users. When starting the operations, video appointments were supposed to be the main digital channel.

In December 2013, the founders had made an agreement with another service provider which was to provide the systems for Heltti's digital services. At that point, Heltti's digital services had four layers: Company U's video appointment, Company U's medical report, Heltti.me (care and treatment processes, gamification, community), and Heltti's services (Figure 4).

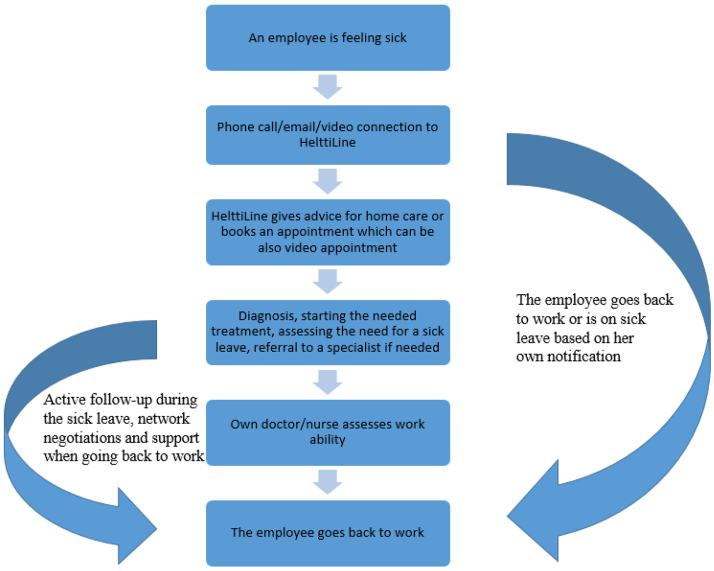

Figure 4 Heltti's user journey (Heltti's presentation materials, December 2013)

However, through experiments, Company A's chat service proved to be simple and easy to use, which quite dramatically changed the role of digital services as well as the systems to be designed. It came as a surprise for Laura how important Helttime service turned out to be.

> We wanted more Helttilike language and outlook. In the beginning, it was designed by engineers. I told them right in the beginning that it is too dull, but it is made for a cancer centre. We developed the language and other things further always when we had 100 members, and when we had 200 members, we would like to have these features, and it would be nice to get this information directly. It has developed along the way as we have used it. (…) Then at some point, we stated that this is our number-one tool, a tool for communication. This is the thing! This is a rather typical process. This is how the development goes. In really high speed, we have made, like, fast decisions. (Laura, founder)

Heltti's NSD proved to be also important for Company A's own new service development, which had earlier mainly focussed on cancer patients. This was the beginning of a partnership that lasted for four years.

In addition, Heltti needed a patient data management system, or that was what Jack first thought until he was having a lunch with a person from his network, and they were discussing Heltti. At that point, Laura and Jack were thinking about buying the patient data management system and wondering what kind of system they should choose. However, the salespeople for these systems seemed to be very busy all the time, and they were hard to catch. When a salesperson finally presented one of the systems, Jack had a hard time following the presentation. The whole system seemed very complicated and needed several keystrokes to get to the next field. Jack, who came outside the health industry and who was used to ERP systems, found the world of patient data management systems to be quite frightening, and he shared these thoughts with his lunch companion, who, according to Jack, said, ‘If you are creating a business models for 2010, you can’t choose a system from the 1980s. You need a totally new one’. When they continued the talk about budget issues, Jack’s acquaintance claimed that a standard patient data management system would cost tens of thousands of euros per year and that it is possible to get a system coded only for one’s own company with the same price.

The same lunch companion recommended a talented programmer who worked as a one-man team. When Jack contacted the programmer, he found him to be flexible, cost-efficient, and able to provide agile solutions. The idea of Helttinet as their own system was born. The aim was not to create a patient data management system but a wider health management system which would also include health aims and different kinds of health measures, instructions on how to reach the health goals, and other tools that would enable people to take care of their own health. Because the health management system was seen to be an essential part of the service, Jack started to consider that it was even an advantage to keep it under their own control. However, later on, it turned out that creating the health care management system from scratch was a long and critical process as it required a substantial amount of financial resources. As mentioned, Jack and Laura had decided to start with a small amount of capital by using their own savings to start the business. Therefore, they favoured cost-efficient solutions, which meant using their own time and skills as much as possible, settling with worn furniture, experimenting on a small scale, and developing digital systems step by step. In the case of the health management system, this was an approach that many employees criticised later, and Jack also questioned the rationality of the decision afterwards.

To start developing the digital systems, Laura and Jack applied for 50,000 euros from the Finnish Funding Agency for Innovation (Tekes). To apply for the financing, a project plan needed to be written. This happened one year after the idea of starting a new venture in the OHC industry was officially born.

> What has been characteristic for our way of doing things is that during the first year, the only external finance we received was approximately 50,000 euros' support from Tekes. We used it to plan a data system for health management. Otherwise, we have done everything with our own savings. This, then, led to that in the next room; the television which is used as a screen is from my parents' home. We have a lot of these kinds of cost-efficient solutions. Therefore, we conducted the customer interviews ourselves, and due to budget reasons, we have used a lot of our own time. (Jack, founder)

The outcomes of the project were to create 1) a new innovative business model to serve the health of knowledge workers, 2) a Helttime user interface in mobile devices enabling services to follow wherever the customers is (OHC in your pocket), and 3) combining patient management system with health data, which allows combining the analysing and reporting of health data. Laura and Jack had also understood that digital technologies enable customers to take greater control of their own health whilst changing the role of the patient from an object to an active doer.

At the end of 2013, the founders also created a business plan in Power Point format. It seemed to serve mostly presentation purposes by the purpose of Heltti and presenting the service concept, customer journey, and service elements. The plan also introduced the owner team and steps of action within the next two months. However, many things presented in the plan were about to change even before the planning horizon of two months was over.

4.3.5 Pre-commitments

The founders had an active sales approach whilst trying to reduce risk by actively negotiating for pre-commitments. Therefore, the last few months before starting the operations officially focussed on finding the first customers and doing active sales work. This approach led to signing the first customer contract in October 2013 in a situation where there were no services available yet, no employees, and no premises. The first person to sign the contract was amongst Jack's former business contacts. Getting the first customer was an important step because after that, it was easier to sell the services as the founders were able to say that they already had other customers. However, according to Jack, he encountered the real moment of truth in October 2013 when the rental agreement for the premises was to be signed. Laura and Jack discussed what would be the right time to sign the rental agreement; should they wait until they get more customers, or should they sign the rental agreement first?

> The only thing that is not flexile is the rental agreement. If you sign a three-year contract without having any employees, any customers that is the first paper that can take the company to bankruptcy. (…) I still remember the lunch when we decided that we just have to dare [to sign the contract] or that we don't get any customers if we sell a service which has no premises and no employees. The only thing we can offer is promises of what will be. (Jack, founder)

As the rental agreement was signed, it was time to find the first OHC nurse. Once again, the founders realised how powerful word of mouth is and how important it is to discuss the venture openly with different people as the first nurse, Emily, was found with the help of the network. Emily was ready to leave her appreciated and well-known service provider to have more responsibility and be more independent in her work.

4.3.6 Heltti's operations start

On 2 February 2014, Heltti was ready to start operations as a company. The healthcare clinic was opened with one full-time nurse; Laura herself was able to work as a psychologist, Jim was working as a chief OHC physician, and Jack as the managing director. When the clinic opened, Heltti had several companies as customers and 30 end users, whereas the typical industry average is 1,500 end users per nurse, which rather clearly demonstrates the scale of Heltti's business when they started.

The first year in operation was action-oriented, focussing on sales and setting up the basic processes. In the beginning, there was not that much pressure on the healthcare personnel due to a low number of customers. All process were created basically from scratch by using available resources.

> At that point, when the customers started coming, it was very concrete action. (…) But it was really about thinking what is our way of onboarding, what is our preventive healthcare and coaching, and what is our way to deal with medical care when a nurse is in a central role. In the beginning, it can be that someone can do it their own way, but when we notice what is good, then we start creating practises how we work and what could be the model for it. (..) Of course, our resources caused quite a lot of limitations, both financial and human resources. (…) But what can we do with these resources, and what makes sense to do and how? But we made do and continue creating the processes… it is sort of a never-ending thing, I suppose. (Emily, OHC nurse)

According to Jack, after opening the first Helttilä, as the clinics are called, the next critical thing was to recruit Carla. Whilst the number of customers was not that high in the beginning, Laura was able to handle both sales and psychology work. However, Heltti's growth aims were ambitious, and as soon as the business growth allowed, Carla started as sales director and a shareowner in August 2015. The owners were highly impressed by Carla, who appeared to meet the expectations set for her: being the leader of sales as well as bringing direction and energy to the sales work. When looking back, Laura and Jack thought that this recruitment was one of the most critical ones.

When Carla came along, there was one nurse (Emily, OHC nurse), one doctor (Jim), Laura (who handled psychology services as well as sales and all kind of development tasks), and Jack was working as a CEO and handling administration tasks, but he was also working as a lawyer in Law Company X. The organisation was small, and the focus was on sales, getting new customers, and learning how the new business model works in practise. When Carla started, Heltti had 20 client companies; after a year of Carla being in charge of the sales, this number rose to 130.

To boost sales further, Jack actively tried to get publicity, and as a result, several magazines and newspapers published articles about Heltti. Jack considered that publicity also brought credibility to the company. Spring 2015 was a time of fierce selling, developing services, and refining processes. The health management system was not ready yet, so Excel was used for documentation purposes. An important victory in a psychological sense was to get the first bigger customer with over 400 employees in

June 2015. This was the first time Jack thought that maybe Heltti's idea really could be successful.

4.4 Survival—on a roller coaster

> And if I now think about those phases, so we have all the time proceeded with minimum capital. In other words, all the investments in Heltti are our own investments. It means that we have all the time (laugh) had scarce resources, and that might have created some innovative courses of action because we haven't had that million to invest in concept development. (Laura, founder)

The above comment presents Laura's interpretation of how Heltti's service concept evolved during the first years: experimenting with different ways of doing things by applying scarce resources. Scarcity was characteristic during the survival period; there was a rather continuous lack of financial resources, human resources, and time resources. However, this was not only remembered as a negative period in Heltti's history, but good things also happened as the section heading, 'on a roller coaster', implies. The list of critical events in Heltti's timeline also indicate ups and downs: 1) sales stagnate, 2) two newly recruited nurses leave, 3) the OHC chief physician leaves, 4) there is wide positive media coverage, 5) the first customer with over 400 employees starts, 6) the new chief doctor starts, 7) they are actively searching for partners and outside funding, 8) a promising partner negotiation fails, 9) the first recruited Heltti nurse resigns, and 10) there is a Helttiway event: cocreating the values (Table 8). As can be seen, during this time period, employees, customers, change, and growth play a more prominent role in the story of Heltti.

4.4.1 Scarce resources

There were several months during the beginning of 2015 when nothing important seemed to happen. Starting the business had been a huge effort, and the following year and a half could be characterised as working hard with scarce resources and having high pressure regarding sales. When looking at statistics in the beginning of 2015, it shows that the outputs per hour per person were high. Things were going rather well; there were plans to open new pop-up clinics and even to enter a new town. New nurses were hired, and as the team was growing, Laura and Jack felt that they were able to take their first vacation since establishing the company one year ago. They considered this a remarkable achievement because they felt that Heltti was no longer dependent on any one single person. However, this was only the calm before the storm.

The beginning of 2015 was also a busy time as Heltti obtained many new customers, and the focus was on managing them. The growth required more personnel and caused pressure on still underdeveloped processes and systems. Unfortunately, two newly recruited nurses turned out not to fit into Heltti's culture, and this caused distraction amongst the employees. It affected the workflow and feeling in the company and was also costly for the new start-up. When the other employees reflected afterwards on the situation, they thought that the reason for these wrong recruitments was that there was a gap between the expectations and reality in Heltti.

> Well, at the same time when I started, a new occupational health care nurse, Iris, started. We started the same day, and we both had high expectations, but Iris left or was made to leave. She clearly didn't know where she was coming to. I felt that it was a classical sales problem. She had been offered more than Heltti was able to deliver: a little more finished, more structured, clearer job duties. In reality, our OHC nurses need to be very self-driven, very flexible, and to be able to stretch very concretely. Days will sometimes be longer, and systems don't work, and all kind of things need to be solved and other things. (…) This was the second unsuccessful recruitment within a short time. (…) It must have been a rather devastating thing. That was the first pain point. (Helen, psychology)

Helen's retrospective interpretation was that the newly recruited employees had started with high expectations, and they were excited about the image of Heltti, which was glorified by the inspiring start-up culture. Mike, one of the OHC physicians, thought that Heltti's reality appeared as hectic and chaotic to the employees, who were used to the traditional work culture in healthcare. Experiencing the uncertainty and the emerging nature of the service put the rosy first impressions to a test.

> I suppose no one who is fully satisfied will leave her workplace. Hmmm…I haven't discussed this with people, so I'm only guessing what the reasons could be, but I think that certain occupational groups like healthcare nurses and myself, the amount of work and even to some extent the chaotic situation in managing the work or the lack of managing the work, so it was a one big thing. (Mike, doctor)

Laura and Jack were very aware that they had not succeeded with the recruitments, which they considered to affect Heltti's growth opportunities. They both actively reflected on what went wrong and why. One of the reasons the founders identified was that Heltti, as a small and rather unknown company, had difficulties finding personnel. Even if there were applicants, they did not necessarily have the skills and competencies needed in Heltti. The traditional OHC setting is rather different. In a small company like Heltti, the expectations for every single person were high.

> One reason is that when you are a small company, you don't have much choice. You cannot choose from ten persons. You need to be satisfied with what you get even though your intuition might say that something like this might come up. (Jack, founder)

Most of the potential applicants to Heltti were working in well-established, bigger companies. Changing to a start-up which might not succeed in the long-run and which was known not to have a well-functioning data system was considered a risk.

> Hmmm…well, I had thought it for a long time that this would be a good workplace (…). Of course I wondered that Heltti was rather small in the spring and still is. That was the biggest doubt at that point. I also knew that the information systems here are primitive, and I was, of course, sceptical that how would I cope with them and how they will develop (…) I was even thinking if Heltti would still exist next year, so that is it a wise alternative to change from a big traditional workplace into a small, new growth company? (Lucas, doctor)

One of the nurses, Rachel, voiced her concern not only about losing her job in Heltti, but she was also distressed about how working in Heltti would affect her own status in the job market.

> I thought that what if this goes to bankruptcy, and I burn all the bridges behind me, and I don't get any jobs? (Rachel, nurse)

Jack identified another factor that might have caused the unsuccessful recruitments: their own inability to communicate clearly about the work culture in Heltti. In a situation where Heltti had difficulties in recruiting new employees, combined with a high urge to grow, it was tempting to paint a rosier picture of the company than what actually was.

> The other part is probably due to inexperience and ineptness to communicate what this is like as a workplace. (…) We failed in communicating about our culture, and then maybe our expectations were different. (Jack, founder)

According to Anna, who worked as a personal trainer for the OHC nurses, the reason for terminating the work contract of the newly recruited nurse was not openly communicated, which caused insecurity in the organisation.

> There was some uncertainty about the reasons of the work contract termination, why that one contract was terminated. There were conflicting understandings of the reasons, and it was rather challenging for the new recruitment because people had not yet overcome the former case. That affected the whole atmosphere during the spring and summer. I believe that it also slowed down developing things because we were not able to create the best possible dynamics. (Anna, OHC nurses' personal trainer)

The solution to succeed better with the recruitments was to include Heltti's current employees in the recruitment process and, using a simulation task, to demonstrate what the work in Heltti actually is. In practise, this meant that the applicants had several interview rounds with different Heltti employees. The final decision of the recruitments was then discussed with all the employees who had been involved with the recruitment.

4.4.2 Making loss

There were also other matters that negatively affected the atmosphere. After the stable beginning of the second year, Heltti started making a loss every month, and the growth stagnated. The owners needed to invest more in Heltti to cope with the payments.

> Went through Carla's sales analysis. Heltti's hit rate has decreased steadily, August-September deals not as expected. (Growth Forum memo 13.8.2015)

There were several occasions when the liquidity situation was really poor. According to Jack, the reason for the down curve was that the attention turned too much inside Heltti without looking at what was happening out there in the world, which led to falling sales.

> We got a lot of customers in the beginning of 2015, but then we had a difficult spring. We got lots of customers in the beginning of the year, and our focus moved in receiving them. Meanwhile, we didn’t contact new customers so much. (…) We didn’t feel good. Everything happened slower than we had thought. At the same time, the company was making a loss every month. It was a hard time. I noticed that when talking to people and when they asked, ‘How is Heltti?’ I needed to change to sales mode and say, ‘Yes, we are doing fine’. If I had told the truth, I would have said that everything is happening slowly and other things. It seemed that Heltti had lost its direction. (Jack, founder)

To cope with the poor financial situation, the first solution was to focus on and invest more in sales. There was also discussion about increasing prices and cutting down services from the service packages. What also increased the worries was that competitors were following and launching their own digital channels, wellbeing services, and fixed-pricing models. The whole existence of Heltti seemed to be threatened.

There was a rather wide consensus amongst the owners and employees that 2015 was difficult, but the explanations differed. According to Jack, the main problems were slow growth and poor sales figures, whereas employees thought that the problems were caused by the high sales, employee shortage, poor digital systems, and continuous change.

> In my opinion, last year was characterised by survival, mainly due to these changes in the personnel because there is always the question that who will then manage their customers. It has been especially critical when people leave, and before we are able to get replacement, the situation is rather burdensome. Our doctoral resources have also been insufficient since last summer, but especially that spring was… And we haven’t had such…in a way, Jim has been the chief physician, but he has not been here a lot physically and what was really even his input. This has all pretty much relied on nurses. (Maria, physiotherapist)

Jack was present in Heltti only part time, and the employees felt that he failed to fully understand the challenges that the employees were experiencing. Many of the employees felt that they were drowning with all their tasks, and sales was mainly focussing on how to get more growth.

> It influenced my life both at work and at home. I tried to balance the situation and find out what is the right amount of work so that I wouldn’t be working in the evenings and during the weekend and around the clock. (Joan, nurse)

> During the autumn, it was about extinguishing the fires. We had quite a hassle and employees changing. In fact, my workdays here were rather…I worked overtime to some extent, and my days were fully booked, and there were a lot of current matters to take care of. (Mike, doctor)

The founders had chosen to develop the digital systems step by step to create better outcomes by experimenting but also not to invest more than the turnover allowed. Therefore, the digital systems were underdeveloped, causing troubles for the employees and slowing down their work. Sometimes, development projects were started, but they were never finished, which caused frustration.

> There was a Medireceipt project. There were also some other small projects. We needed quite a lot of different kinds of systems. We worked a long time developing an automatic response system for the health surveys. (…) This development project was never finished, partly due to lack of money and partly because the service provider didn't have time. There is a phenomena in these development projects that they are never fully completed, and it is frustrating. (William, doctor)

> We have a lot of manual work because the automatisation has been swallowed by other things which is one more sign that the people who manage the costs don't do the work we do. Of course, it doesn't feel such a big thing if you are not doing it. (Emily, nurse)

The scarce resources and negative profit figures were not the only issues that burdened people working in Heltti. Implementing a radically different service in OHC while rejecting limitations had its own consequences which are discussed in more detail in the following section.

4.4.3 Rejecting limitations

Rejecting limitations whilst creating new solutions turned out to be time-consuming and caused stress when Heltti's service was up and running. The OHC sector in Finland is a regulated and highly competed market, with a few large service providers who all have rather similar business models. The legal environment sets many boundaries concerning required documents, licenses, and expertise which aim at ensuring quality and safety in healthcare services. Another group of boundaries set by law concerns the operational implementation of OHC services. As the whole healthcare sector is rapidly changing, it puts pressure on interpretations of the law and constant reframing of instructions. However, these new interpretations are applied reactively.

Heltti had rejected limitations by introducing digital services and a fixed-payment model in OHC. Consequently, one dark cloud over Heltti's business was SII, which rejected the compensation applications which were based on the fixed-payment model. Heltti's customers made the application for the compensation themselves based on Heltti's calculations and documents. This situation was threatening the whole business model. Heltti's customers reacted to this situation in different ways; some of them were rather disappointed and directed their frustration towards Heltti, but many customers were also supporting Heltti as a pioneer which was brave enough to fight against what some of them considered old-fashioned regulations.

Jack, as a lawyer, seemed to be certain that SII had misinterpreted the law and believed strongly that in the end, the fixed-payment model would be accepted. Jack had made an appeal to the Social Security's Appeal Council, and in November 2016, they got the first decision saying that Kela should rehandle the applications from 2014 as there were no grounds for the rejection. This was a happy day in Heltti, and a big burden was removed, even though Jack knew that something could still come up during the new handling process. It had taken almost two years before Heltti got a green light from the authority, which would prove that their business model was entitled to the same compensations as all the traditional OHC models. However, at this phase, the customers, owners, and employees were not yet aware of this happy ending that would take place two years later.

4.4.4 Some light in the tunnel

As a positive sign, the sales started to grow, supported by two new Heltti locations in autumn 2015. Even though the decision to open the two new locations seemed not to be an economically sound decision, the owners remembered that the people they interviewed when creating the concept had emphasised that value is created by being close to the customers. The founders wanted to invest in customer experience by opening new locations, and it also boosted sales. The whole autumn was a time of growth and development. However, new locations also meant reorganising the work, whilst employees needed to shuttle between the locations. This was a big change for the healthcare personnel, who were used to working in one location and often even staying in the same appointment room for the whole day. The owners themselves seemed to enjoy the nomadic nature of their work, which might have prevented them from anticipating the consequences of how the employees experienced their work in several locations. When employees started moving between locations, it also negatively affected efficiency and increased costs.

Autumn 2015 was remarkable in Heltti's history also because bigger companies started to get interested in their services. Heltti as a small company had challenged the established OHC businesses by focussing on the smaller companies with knowledge workers, who were overlooked by the incumbents. Jack recognised that Heltti was now moving upmarket when established companies began to consider them as a threat.

> Like the most challengers, also Heltti's occupational healthcare for knowledge workers found its first customers amongst brave, fast, and small companies. Even though we want to stay as the best OHC partner for the small knowledge companies, we are delighted by also getting bigger companies interested in our services. (Blog post 18.11.2015, written by Jack)

Not only had more established companies and healthcare professionals become interested in Heltti, but the media also started publishing more stories about Heltti. This was due to the company's new PR person, Amanda, who worked as a consultant and was used to dealing with media. Publicity increased web page visitors tenfold, and companies started actively contacting Heltti. Jack considered that at this stage, Heltti had become a company to be taken seriously; it was no longer a start-up.

> If I define a start-up as a company which does not yet know what the business model is, so we already know what we do and how this business works. We are already an established business. It also brings along the danger that we become blind to things that should be changed. We need to be careful to experiment and change and develop all the time. (Jack, founder)

The fast growth caused high pressure for the operations, especially for the health team.

Under these circumstances, the weak links became more visible. Therefore, in the end of 2015, Jack and Laura agreed to end their cooperation with Jim. The organisation had grown, and a doctor was needed every day, but Jim did not have the option to start working full time in Heltti. The lack of a doctor started to be one of the biggest bottlenecks in Heltti, and it could be seen in everyday activities as well as in development work. Jim was working on average only one day a week in Heltti, which turned out to be problematic as the business started booming sooner than expected. The growth plans seemed to be megalomaniacal, but they started to come true. More physicians were needed, but Jim still had his full-time job in another company. This led to the conclusion that Jim resigned, and a new doctor and partner, David, started.

Employees had not been satisfied with the doctoral situation, so they were generally revealed that a new full-time doctor was found. The owners understood that the doctoral situation was not optimal, but this became evident only when operations had fully started. Retrospectively, the choice of the chief OHC physician appeared a poor one to the employees, but when the decision was made, it seemed a veritable gift for Laura and Jack.

> Hmmm…the basis and the way that medical matters starting with agreements and how practical issues should be handled, so it has been rather light and thin. I think that the optimal situation would have been to have an experienced chief physician involved already when the company was established. (Mike, doctor)

However, even though the employees were relieved about the change, it caused confusion because once again the actual reasons for this change were not thoroughly discussed with them. When a co-founder resigned, it made Mike wonder whether there was something that the employees were not aware of: ‘Don’t the owners even believe in the concept?’

> Hmm...This doctoral situation was rather confusing, and we were not informed, or maybe they could not even tell us what it was all about. (…) And then, I don’t know, is there something that people think that whether this idea will work? So if people know it right from the beginning when it was established, so have they lost their faith? I don’t know. (…) Probably what I think is that, objectively thinking, it is not very good that one of the founders resigns in a newly established company, but on the other hand, it was a big decision, and maybe it was a very essential decision. Better later than never. (Mike, doctor)

Having an option about who could replace Jim made it possible to change the chief OHC physician. The new candidate for the chief OHC physician, David, contacted Heltti himself. He had worked in a big health company, and after its listing, he was ready for new challenges. Tim was looking for reformers in the health sector and was ready to jump into a small company with high growth expectations. Fortunately, David was able to start in the beginning of 2016. Many employees considered his recruitment as a big mental change which brought certainty and credibility. There was a significant amount of pressure on David when he started, but he seemed to meet the expectations.

> To fill the gap, we got David, who is replacing Jim, raised to the power of six. David really benefits and helps us, and he has brought a lot of structure and form here. I feel that David’s arrival was the most critical thing. Some things that we have really been waiting for, and he seems to fill the big shoes very well, so good that he came. (Helen, psychology)

Both David and Carla also became owners of Heltti the same time they were recruited. Even though the four partners had very different educational backgrounds, they had all been involved with growth companies: Jack in several growth companies including Law Company X, Carla in a rapidly growing construction company, and David with a 13-year experience in a healthcare growth company with a turnover over 100 million euros.

Despite the difficulties with recruitments and sales, 2015 ended in a more positive situation. Sales were growing, and new customers were starting. However, the fast growth put pressure on processes, and the feeling of urgency increased. The next year was going to be remarkable for Heltti in many ways, but the main defining factor was growth.

4.4.5 Contradictions and tensions

As Jack expected, the turnover was growing during the third year, but profit figures kept being on the minus side. The owners had been steadily investing more money in Heltti to cope with the payments. This caused stress for the owners, who were still unsure of the concept’s profitability. Whilst Laura was worried about the fast speed of growth and inadequate calculations, Jack was worried that the focus was about to shift once again too much on internal development instead of on customers and looking back instead of going forwards. In addition, John had been backing up Jack's views. The following conversation in the GF illustrates these different views:

> Jack: Then our profit calculations. The positive side is that our monthly turnover has been growing. (…) Then on the other hand, we can see that we have steadily made loss all the time. My own aim is that we could build a proof of concept and a business case, but then after that, we would put our foot on the accelerator, but that has not happened yet, and it doesn't seem to happen during the autumn either. This is a financial matter, but I think that it is motivated to ask, as a company providing professional services, we don't need to choose between growth and profitability, but we can have it at the same time, so what is due to investments, and what is only inefficiency and unprofitability?
>
> Laura: If we take the problem-driven approach, I think that the problem is that we have put our foot on the accelerator without, as John nicely put it, making calculations of how, for example, our main clinic would operate without all these other clinics and locations. We have sort of accelerated, but we haven't stopped to have a look whether this model really works. We have opened new ones and recruited more people and all. I don't know if we have ever really calculated that is this profitable.
>
> ------
>
> Laura: As we are not able to pass the break-even point, and we have been in business with this model for several years, so are we doing this right? We always make ad hoc decisions and do things accidentally: 'We got this kind of a customer, so let's take this kind of a new person'. How do we make sure? Yes, we make our decisions fast and intuitively, but how could we make sure that we don't make decisions too fast and too stupidly? I have a feeling that we do something wrong because we scuffle as we don't even reach the zero line.
>
> John: Our basic business is not unprofitable. We make loss because of our growth stuff. I think it is better to make decisions, and then we can go back and state that it was a poor idea. Let's keep it dynamic and not think too much.
>
> Jack: Every decision needs to fulfil two criteria: A) it needs to be consistent with our values, and it needs to take us towards our aims.
>
> Laura: I shall criticise us all here. For example, the opening of Tampere in such a large scale, and we might consider that in such a small company, we have so large an administration team. Very good experts and it is an investment, but these decisions have quite a long payback time. I don't have a solution, but we should think about this. When we think about new investment, should we need better analysis of the numbers? For example, the decision about Tampere was quite ad hoc. I don't even remember how we made the decision. In a sense, some companies might do a little bit more market analysis, so would we also need to do some?

> John: The decision about Tampere was good because we learnt a lot. We have sort of done it now, and now we know that we need to start with smaller steps, and we need to hire a salesperson first. If we hadn't done the decisions, we would not know how to enter Oulu or Turku. It was a good thing.
>
> Laura: It was an expensive decision.
>
> John: It is not going to ruin our firm. Now when we enter Oulu or Turku, we know what one salesperson is capable of doing, how much time does it take, and where the clinic should be located. I think it was good that we failed, and we learnt, but it did not ruin the firm. It was not something that would jeopardise our whole firm, something like entering five different locations in Sweden.
>
> Laura: We have talked a lot that we should be able to follow gross profit and turnover separately, either so that one of us does it, or then somebody creates it for us.
>
> John: I think somebody should create it.
>
> Jack: We need to remember that no matter how fine a rear-view mirror we create, it does not take us forward. (GF 18.11.2016)

Making loss continuously caused growing pressure for efficiency. Recruitment discussions took up a big part of GF meetings because finding the candidates was not easy, even though there was a growing number of people interested in working for Heltti. New service ideas requiring additional human resources were constantly thrown in the air in GF meetings. What was confusing was that when looking at the numbers only, there seemed to be overcapacity, but at the same time, employees were suffering from work overload. Whilst finding the right people was challenging, requiring constant recruitment processes as some recruitments in the past had been failures, it also affected the whole organisation. Thus, the new recruitments were done carefully this time. There were several interview rounds for the applicants, sometimes even three rounds, and the fellow employees participated in the interviews. This took a significant amount of time from the people who were responsible for the recruitments and also from the employees who participated in the interviews.

Another factor that was considered to affect profitability was brought up by Laura: overserving the customer. The appointments took longer than in traditional OHC service because serving coffee and having time to discuss matters fully were considered important to make a relaxed and welcoming feeling for the customer.

Moreover, digitalisation of the service changed the nature of the work, and there were no ready-made models or practises to follow. For the nurses, this change appeared as interruptions and fragmented the nature of the work, causing loss of control. Planning the workday was difficult because acute cases appeared with ad hoc tasks. The nurses coming from the traditional OHC world and wanting to know what the next day brings had difficulties adapting to Heltti's work culture. The work included a large amount of speaking on the phone, consulting on the digital channels, and working in a team with doctors and other professionals. Heltti's nurses were especially surprised by the hectic work rhythm.

When creating new services and service innovations, processes and ways of working will often change. Even though the owners were very aware of this, many of the employees felt that they were left alone with the chaotic work and poor systems. This was probably partly due to not having a full-time chief physician until David started. After David, the new chief occupational physician, had familiarised himself with Heltti's practises, it did not take him long to find out what needed to be developed.

> Our service grounded to a halt, especially during the last year. Practises and systems have been unfinished, and there has been some mess in the service. Difficulties in making appointments, the e-receipt has not worked, and all that accumulates, bothers employees, and irritates our customers as we haven't succeeded so well… (David, chief OHC physician)

The management team—Carla, Jack, David, and John—all had experience with new ventures; therefore, they were mentally prepared for the ups and downs of a growth company. However, many of the employees were not. They mainly came from big, established companies, some even from the public healthcare side. Most of the employees were used to working in an environment which is more stable and planned. The need for planning to get a feeling of controlling one's own work appeared in some comments.

> Hmm…we have not succeed… I think that these national customers wouldn't have been necessary at this point. Economically, they probably were important, but the ideal would have been that we could have planned everything with David. We could have planned everything ready with specific group of persons, make sure

that whoever would come to work here would know how we do things here. (Emily, OHC nurse)

In the beginning of 2016, when I started my interview round, people in Heltti still recalled all the difficulties they had experienced during the past year. These harder times seemed to have caused a gap between the employees and management. A negative atmosphere had taken over, and that was the lens that many of the ‘older’ employees seemed to use when looking at their everyday work life. They also felt that the promise of a non-hierarchical organisation where everybody would be involved with decision-making had not been kept.

> I would have expected somewhat clearer leadership so that the organisation would be flat and that all the employees would belong to the management team. All decisions that just could be possible to be decided by the whole staff should be brought to all employees. There should still be some kind of leadership to bring a feeling of safety so that someone would lead a little, shepherd, set some frames. At some level, I thought they would have invested more in this, yes. (Helen, psychology)

When David started in Heltti, he was surprised about the gap between the owners and the employees as he was expecting to join a non-hierarchical organisation.

> Another thing that surprised me was that even though hierarchy is almost non-existing, or officially it doesn’t exist, but in practise it does exist. People are quite clearly divided into management and employees. There is some kind of disappointment with the management actions and not keeping the promises. There has been difficult relationships in a way. This has been surprising. I was not prepared for that. (David, chief OHC physician)

Some of the dissatisfaction seemed to be based on the gap between management with business backgrounds and employees with healthcare backgrounds. The employees thought that the management was unaware what the everyday work of the healthcare personnel in Heltti really is. This negative talk culminated around growth-related issues (new customers, new locations) as well as underdeveloped systems and processes, which were considered neither stable nor manageable.

> Sales doesn’t understand production and the owners’ vision and wish to be seen in social media and give a certain image, and all that goes beyond everything else. This hard work gets less attention. And then there are days when I just think that I’m so poor (laugh). (…) I have anyhow trusted our owners in business matters,

> and I know they take care of that, and they have those competences, but they can't even know about OHC things as they have never done it. It has brought challenges that I have seen myself that are not sustainable solutions in the long run. But then again, as an employee, this is difficult to explain to someone who has not worked in OHC. (Emily, OHC nurse)

On the other hand, managers were sometimes frustrated with the nurses' talk about too much work and sense of urgency at the same time when they themselves were working hard and not complaining. Laura and Jack also seemed to have an implicit assumption that to have freedom at work, one needs to have self-direction, which means that the keys to manage one's work are in one's own hands. What was also typical, especially for Jack, was that he tried to look for new solutions and avoided looking back too much and getting stuck in thinking what went wrong. He admitted making mistakes and reflected to learn, but then he tried to find solutions from what lies ahead, not getting stuck in what was already done. This kind of thinking was new to some of the employees, and they had difficulties coping with it. Seeing that the company was making a loss and still experimenting with all kinds of new processes made some of them miss good plans and a stable environment.

Considering all of the aforementioned elements, it is not surprising that especially the longest-serving employees voiced their concerns that management lacked the ability to understand their work and realities. The management emphasised growth and sales, when at the same time the employees felt that they were not able to cope even with the current workload.

> At the moment in this growth stage, we have a lot of pressure, but to really understand that pressure… Kind of irritatingly, I feel that some of the employees feel that the management doesn't really understand what is really happening in their work. Everybody is fully occupied with their own duties, and then the management, they haven't done exactly the same work that nurses and doctors are doing. (Sarah, OHC nurse)

> Probably what is missing is some kind of support for work-related stress amongst our own employees. That is part of our service. It is kind of that the shoemaker's children go barefoot; we have forgotten it. (…) But from the employer side, there is very little support for coping with the workload. (Anna, OHC nurses' personal trainer)

In Heltti, the employees experienced continuous change whilst trying to manage with systems that were ‘never ready’, causing stress and frustration. At the same time, nurses especially had difficulties in coping with their new roles and tasks. In their earlier work as OHC nurses, the day was planned for them, and they knew what to expect; now they needed to manage their time by themselves, not necessarily knowing in advance what was going to happen each day.

These tensions seemed to culminate in the spring of 2016, when a nurse and a physician, Emily and William, resigned: Emily to work for another OHC service provider and William to focus on his own start-up. Emily was the first-ever recruited Heltti nurse, which caused her resignation to be a rather shocking news for the other nurses. Before Emily started to work elsewhere, the managers had a discussion with her, and the following reasons for her resignation were documented.

> Emily resigned and will have her last workday 12.4. Feedback from Emily and her reason for resigning:
>
> - HR management: not systematic, working hours are not monitored (more work hours required than has been agreed)
>
> - Leadership and atmosphere: clearer communication about business aims, limitations, etc. Management is experienced as distant or separate (flat organisation sounds falsified); the management is not enough present in Heltti, no understanding about the actual operational work and no will to listen or react to messages.
>
> - Working conditions: heavy workload, tools are inefficient, office routines/services are weak, physical working conditions are poor, other than healthcare-related, work is exhausting (taking care of the garbage, etc.)
>
> We shall arrange an event with Heltti people to talk about good workplace, wishes, work time, and how to monitor it. On the agenda in the management meetings in the future. (Growth Forum memo 31.3.2016)

This document was openly shared with all people working in Heltti. Emily’s resignation came as a surprise to the other employees, even though she had frequently brought up the work overload.

> This latest nurse resignation has been the biggest challenge. Because I have…because nurses have been rather overloaded here, and this had been a fact, and that is part of what happened last year. And then some people feel that even

> though these things have been discussed, they have not proceeded, but this was still quite a dramatic change. (Sophie, OHC nurse)

> Emily has been our inspiration. She has been here from the beginning, and as a person she is…she jokes and creates [high] spirit. I hope that we could have discussed this more amongst us nurses, but unfortunately there is such a hurry that we didn't have enough time. (Joan, OHC nurse)

Emily's resignation made other nurses think how difficult their work situation actually is. The resignation served as concrete evidence that despite all the positive talk, there were tensions that had been overlooked. The workload issue with the knowledge that the company was making a loss was also stressful for the employees. Heltti's employees felt responsibility for their customers and were worried that they would not be able to keep their promises regarding preventive healthcare.

> Maybe the critical thing is that when there is so much workload and somebody resigns, so there is a worry that how can we keep our promise for the customer, serve them well, and also do preventive work? There is all the time the worry when you try to keep track what is going on in the company. (Maria, physician)

There was also another physician who left Heltti during the spring of 2016. Many employees felt that these changes were not discussed, which led to speculations and negatively affected the atmosphere.

> Jack: Another thing that has influenced us is when Emily decided to leave. When we think that she had the longest career as an employee in Heltti and she had a certain role in our organisation culture, when that kind of a person decides to leave, of course it hurts. But on the other hand, when we think how that has helped us to develop, then we can also see the good sides of it for our organisation. We noticed that if someone like Emily leaves, we can cope, and we can even improve. It means that this organisation would survive whoever leaves, be it Carla, or me, or Laura, or Mike. It is a rather important thing that no one is irreplaceable. (Helttiway, 19.5.2016)

The comment above was presented in the Helttiway event in May 2016. I was also invited to the event, and following Pettigrew's (1990) approach, I used the opportunity for further data collection. I asked for permission to arrange a visual event history timeline with some descriptive data based on the interviews I had conducted in Heltti and asking the participants to reflect upon what they saw. This interactive dialogue brought out some new interpretations and views which would not have been possible when gathering data from the respondents individually (Pettigrew, 1990).

Even if the data is descriptive, it can have an effect on how people reconstruct social reality and lead to Hawthorne effects (Pettigrew, 1990). In this case, the major effect of the reflections seemed to be that employees felt heard and the owners came to realise that some of them consider a gap to exist between themselves and the owners.

> Jack: One project that I would like to be successful within a certain timeframe is that we could eliminate from our clouds and gaps this thing between the owners and employees. For me personally that is an utmost strange thought both as a human being and as an employee and as a professional. In my opinion, we should try to find ways to create such an organisation where we don't have this gap. (Helttiway, 19.5.2016)

The discussion in the Helttiway event made Jack think of how to get rid of the gap, which came for him as a surprise. It was exactly the opposite of what he was striving for to create a good place to work. Already in the next Heltti Management Team meeting, Jack introduced a possibility for all the employees to buy Heltti shares and become owners of the company. This opportunity had been documented already in the creation stage in 2013, but clearly the discussions facilitated by the researcher affected the decision of the execution time. Earlier, there had been five shareowners; Laura and Jack owned approximately 84% of the shares, and the rest were divided amongst Carla, David, and John. The invitation to buy Heltti's shares attracted seven employees, who bought altogether approximately 4% of them. This meant that at that time, most of the employees were also shareowners of Heltti.

4.4.6. Traffic of stories

During 2016, the growth caused pressure on leadership and organisation culture. When work life in the beginning had been rather uncomplicated with few employees and customers, there seemed not to be that much need for active and conscious culture-building. During the harder times, the focus had been on everyday survival and acquiring new customers. When new customers and new recruitments started to come in, the situation in Heltti began to look better businesswise, which also calmed the atmosphere to some extent.

Both Helen and Amanda consider Jack’s role as a person who nurtures and develops the culture as an essential part of the company.

> And then I would give credit especially to Jack as part of the director team. In my opinion, he is like a creator of Heltti spirit, and he is digging the leitmotif; what is our core, what we want to do in Heltti, and how does it show. He verbalises how we do things and reminds us what has already been developed. He does it very consciously. It is about leading the culture, and I think that if Jack was here more, it would have a positive effect. (Helen, psychology)

> Yep, I have more or less painful experiences about poor leading, so I was positively surprised that there is still good leadership and good leaders in Finland. That delights and surprises me when I’m working with them that how good leadership can enable so many things. (Amanda, communication manager)

There were also expectations that Jack was not able to fully meet. This was partly due to his still working in Law Company X half of his work time during the spring of 2016. Even when Jack was doing his ‘other half’ for Heltti, he was often meeting customers or other people in his network. In his opinion, it was important for the organisation as a whole to focus outside, where the inspirations, contacts, and growth were created. Jack seemed to be the bellwether who inspired and encouraged the employees. His presence and attention to the everyday work were probably more important than he realised.

> He, of course, still does a lot of other work as well and is out there meeting partners. He is not very much present here, and Jack’s role could be even more significant. (…) It has been somewhat surprising, even though I just gave credit to Jack about leading and leading the culture, but it has bothered me during this autumn and winter that there has not been that much conscious emphasis on that as I think that this kind of an organisation like Heltti would want and need. (Helen, psychology)

The good workplace was one of Jack’s favourite topics and also one of the cornerstones when he started creating Heltti. However, the focus during the first two years had been on survival, growth, and developing processes, whilst employee experience had received less attention. When things started looking better in the beginning of 2016, only for a while though, it was time to put the issue on the agenda.

> Jack: On the other hand, my dream about an ideal workplace in a subjective sense has been, well, a place which doesn't spy on employees, where hierarchies are low, and where there is no need to follow vacations or working hours or other things. Salaries could be public through the whole organisation. The only thing that matters is that customers and members are satisfied, but the style is free. (HMT meeting 8.4.2016)

It was not only the easier times that made Jack shift the focus towards cultural issues. As the competitors started to follow Heltti with their digital solutions and fixed-pricing models, it became clear for Jack that in the end, cultural factors were the best way to distinguish Heltti from the competitors and were also something that is rather difficult to copy. Jack often referred to an 'employees first, customers second' principal, arguing that good employee experience leads to good customer experience.

> Jack: In my opinion, if we think what Heltti is, so there has been a continuum that in the beginning, Heltti was a business model or maybe a pricing model, and then we had a technological chat or something, so today Heltti is more and more the people of Heltti and their way of working with our customers, and that is the biggest differentiator. So what kind of a crew we have here and what is our attitude when we encounter our customers or how we talk with those people who visit us that is the most essential [part] of Heltti today. That is probably our strongest factor to distinguish ourselves. (Helttiway 19.5.2016)

However, the perceptions of Heltti as an organisation vary amongst employees and owners. What seemed to fascinate many employees of Heltti was the young and disruptive image of the company. They wanted to identify themselves with an organisation which is making a change in contrast to the 'boring, old-fashioned' OHC health clinics. In the everyday discussion, the young age of the employees was rather often emphasised and considered as a prerequisite for the change. Preventive healthcare, freedom in work, digital solutions, and a start-up spirit inspired the young employees.

> Well, I had the interest of doing things in a new way, the enthusiasm and a sort of desire to renew OHC. I am a little bit younger, and many OHC nurses are older. It is good that new vacancies open up when older nurses retire. But then on the other hand, there is quite a huge gap between the younger nurses and those who have worked in OHC for a longer time. Quite often, the work and work habits in a larger organisation are based on the way how things have always been done, and those habits are difficult to change because the organisation is very stiff. As a young person, I'm interested in finding out how health technology can be utilised in OHC and to develop oneself. (Sarah, OHC nurse)

> For me, Heltti is a positive tonic which disrupts and shakes old, dusty procedures. In the centre, we have the customer-driven approach and digitalisation. On the other hand, we renew old structures with a new organisation culture. (Carla, sales manager)

Healthcare personnel are traditionally seen as professionals whose personality disappears under the white coat or other uniform which legitimises their authority. The employees in Heltti wear their own clothes and are allowed to apply their own style at work. This wholeness as a person in the workplace was also emphasised in HMT meetings, where everybody described how they are doing. These topics often included some personal matters. It was also not uncommon to see babies or young children participating in the meetings.

> Well, for me this is at least a good workplace, fabulous colleagues, such…well…of course, also a physical place where I come to work, but it is not only that I go to work, but I sort of live Heltti. I don't mind if someone sends a message in the WhatsApp group during the weekend. We are like a rather intense and close team. (Maria, physiotherapist)

> It feels that you can use your own personality when working. And in a way you can encounter people in your own way. For me, the work community is very important, and I knew that here they want to invest in that. It was essential for me to know what kind of people we have here and what kind of feeling there is and the fact that we don't work alone here. (Sarah, OHC nurse)

When employees were thinking about what Heltti is by comparing it to the competitors, they often contrasted between the fee-for-service pricing and fixed pricing and how that affected their everyday practises in many ways. The main message of Heltti, keeping people healthy, resonated well with nurses' images of their own work as someone who is working for a greater good, not only for money.

> Overall, the fact that someone altruistically…in a way gets such a feeling that they genuinely want good for people, and it sort of glows from them that they have not only established a business to make money but to make good. That is easy to sign. (Helen, psychology)

> We surely do have differences. In Competitor A, you say that come to see the doctor for almost everyone or not everyone. (…) In the former workplace, the employer was saying 'make money, make money'. (Rachel, OHC nurse)

> The customer has been involved in this in a totally different way than in Competitor B. What would you like and what we could tailor for you, what would

> benefit you the most? We don't think how we get the most money. That was also the approach in Competitor B that we tried to consider the customer, but in the end, it was money which was talking. It is really good that we have fixed pricing. It brings so much more possibilities, and neither one needs to think what this costs. (Ava, OHC nurse)

Sarah reflected that doing things differently had opened horizons for her to think differently.

> I really started to think about that question that what Heltti is…so it is a workplace in principal. But then it is also a way of thinking, a thinking model. I feel that now I regard new people in a different way. And I consider new tasks and things with an open mind. When I think that we try to do in a new way, so I give them a chance as well. (Sarah, OHC nurse)

One of the main differences between a traditional healthcare company and Heltti was said to be in the community, in the team. This was a factor that both managers and employees were almost unanimous about.

> As a workplace, this is absolutely fabulous. The community and the team are brilliant. The culture, organisation, and procedures are very distinct from the traditional health clinic. (David, chief OHC physician)

> I would like to emphasise this community character compared to the previous way of working. That is a big thing. Work is totally different compared to the previous work. You might meet your colleagues if they happened to be in the coffee room in the same time. What we do together with nurses is that 'what shall I do about this?' It might take 10 minutes, and somebody answers in the WhatsApp or answers, 'Where are you that can we talk?' Self-development and professional development are in a totally different position here. (Ava, OHC nurse)

Even though many of the employees had chosen Heltti as a workplace because they knew that it offered a very different work environment, there was also a desire to plan and have fixed processes.

> I would like to say that the whole Heltti is a success, but we have still many internal things that don't function so well. I hate the word 'process', but what I mean is that there is no plan that when this, then that. On the other hand, that is exactly what I wanted to get rid of. At least we have a great work atmosphere. (Rachel, OHC nurse)

> The fact that we don't have a very structured way of working and how things are done, which on the other hand is good because then people can choose what the good is, but on the other hand, many of us come from traditional, established

companies, and they might consider it agonising when, for example, the HR processes are not fine-tuned. (Amanda, communications manager)

The biggest difference in professional roles compared to traditional OHC is in the role of the nurse. In Heltti, the nurse makes the treatment assessment and decides whether it is an acute case or not and if it needs a professional consultation. A nurse also has more responsibility compared to the traditional OHC companies, and at the same she is the first contact for the end user. The nurse is in the centre, and she guides the end users to doctors, psychologies, and physiotherapists.

In Heltti, nurses and doctors work very closely together. If the nurse is not able to make treatment decisions, doctors are nearby to consult with them. Heltti’s nurses described that in the traditional OHC setting in Finland, a nurse might have three physical examinations in the morning, lunch, a workplace visit, and some reporting work. This allows the nurse to plan the day and work alone. In Heltti, the work is unpredictable and done in teams. Instead of treating patients with a flu, doctors take care of more demanding cases like work ability cases or demanding diagnostics which cannot be treated distantly. Doctors consult nurses every day in many situations, and in in this way, Heltti’s overall way of working is multi-professional. Doctors and nurses work side by side and sit in the same open office (Figure 5).

Figure 5 Team workspace in Heltti

Here we are in the same premises with the doctors. I don’t need to agree an appointment time from a doctor in order to ask. We have named Sarah as a doctor,

> fake doctor, as she has learnt so much when working with the doctors. (Rachel, OHC nurse)

When observing how the healthcare team worked, I was particularly surprised by the good team spirit. They were all sitting in the same room, most of them even at the same long table. Employees consulted each other regularly and discussed different solutions. Nurses were discussing issues together, nurses and doctors consulted each other, and psychologists consulted doctors. Consequently, teamwork challenged the traditional role of the doctor, which David particularly reflected upon:

> You are required to be open-minded and to have a fair size of an ego so that you are not bothered that nurses 'thou' you and speak to you informally and send you text messages and all those kind of things. There are doctors who don't want the nurses even to talk to them if you don't talk to them first. (David, chief OHC physician)

William considered the open office to be both challenging and rewarding. Working in the same space with the nurses enabled solving problems and asking question as they appeared, which, in turn, was experienced as fragmented work practises.

> Here, even half of my time is spent in the open office. It lowers the threshold for consulting, which, on the other hand, brings challenges because it causes interruptions. On the other hand, if you are a person who is not disturbed by interruptions and you are social, then it is really rewarding. (William, OHC physician)

The low threshold of consulting also enhanced self-development and professional development, which took place within everyday practise. This was not a conscious aim which would have been documented anywhere, but it seemed to have become an important outcome of the teamwork practises. Simultaneously, the roles of the nurses and doctors became closer, leading the nurses to use the same language as the doctors:

> We consult each other, especially in medical care matters which come through phone calls or chat, instead of forwarding all matters that the nurses don't know to doctors, so they sort of consult that matter orally amongst themselves. And if a nurse has started to wonder, 'Did I give the right kind of instructions?' we have a look at it together and learn together. There is also a lot of peer-to-peer learning. I have noticed that nurses use the same phrases as I use, and they start imitating them and use them. (William, OHC physician)

Moreover, it was not only the roles of the nurses and doctors that changed, but also the role of the patient was expected to transform. Therefore, Jack preferred to talk about members who have an active role in their own wellbeing. Thus, Heltti's employees had learnt to question the impact of traditional OHC practises where a patient is seen as a passive object.

> The difference is really big. (…) We help you. In Competitor B, the patients are passive, and they go and visit there to see the doctor. (Ava, OHC nurse)

> They [competitors] make it look good, and nothing will really change, which means that the person meets a nurse once in five years when it is time for a health check. There is nothing else instead of you contacting the doctor when you are sick. (John, operations manager)

Changing roles along with the young and disruptive image aroused interest among Heltti's employees as well as customers. Even though there are many customers who like Heltti's services, that is not the whole picture. Heltti's employees felt that their work was important, but at the same time they experienced that some customers considered OHC as a necessary evil.

> From the customer point of view, the big challenge is that our relationship is based on law. When that is the starting point, it is very difficult to build a relationship which would work well. Good cooperation calls for inclination. At the moment, the level of cooperation is so, so poor. We have some very good companies, but on average the companies think that as we have to have this, so we have it. (William, OHC physician)

When bigger, more established customers started using Heltti's services, the amount of negative feedback increased. The decision to start using Heltti's services was usually done by the employer, whilst the users of the OHC services were accustomed to the traditional OHC service model. Especially doctoral services and health checks aroused discussion amongst the new customers.

> Customer are still fixated on taking laboratory tests even though the most sensible way would be us doing lifestyle education. We could intervene in stress, insomnia, relationship problems, smoking, use of alcohol, eating habits, and exercising. But our customers are not yet used to our way of working, which is a big problem. The big challenge is visible particularly in bigger companies with older employees who are used to going for health checks for decades. They don't consider the new approach as a good one. (William, OHC physician)

As users of OHC services, many people were used to booking appointment times by themselves, whereas in Heltti, they first encounter their own nurse, who then makes a decision of how to proceed or, in many cases, is already able to consult the user. Several customers made their own internal surveys on Heltti's services, which revealed that medical care, appointment times, and locations are the most common factors that caused dissatisfaction. Also, the unclear situation with SII compensations for companies caused severe problems for Heltti. The Finnish SII had not yet accepted Heltti's fixed-pricing model for years; therefore, Heltti's customers had not yet received compensations for the OHC costs that they should have been entitled to.

4.5 Take-off - towards Heltti 2.0

Expectations for growth and improved internal processes were high in the beginning of 2016, when period 4 in Heltti's history started. The high growth expectations required investing in new services and clinics, entering new cities, and recruiting new salespeople as well as healthcare personnel. The high aims were also achieved as Heltti's turnover increased from 0.5 million euros in 2015 to 2.6 million euros at the end of 2017.

Growth and new investments called for more finance. Therefore, in the spring of 2016, the owners and managers, with Jack in the lead, negotiated strategic alliances to grow faster. Thus far, Heltti had been financed only by the owners' investments, cash flow, and 50,000 euros of external funding. To finance the growth, Jack was willing to start looking for investors as he considered that Heltti's business model had already been proven to be profitable even though the break-even point had not yet been reached.

> We have succeeded in creating a business model that is profitable. It was not at all sure in the beginning. It could have happened that it would not have been profitable, and we should have had to bury it, but we have succeeded in making it profitable. We have succeeded in changing the thoughts of occupational healthcare users, and if you now ask any of our competitors do they have a chat channel, they all say yes, and three years earlier none of them had it. So the competitors are following us in certain matters. (Jack, founder)

The year 2016 started with setting clear aims, which were also continuously monitored. To monitor goals, statistics about customers, end-users, and visits were also collected more systematically and presented graphically. This striving for a more systematic approach was also considered in recruitments when a new person, John, was hired to take care of the operational development.

> John's role really…so John has a Master of Science degree in technology like Carla. John's role will be shaped according to our growth needs, but in the beginning, he will probably be in sales. He is very engineering-oriented in his actions, so he will lead our development projects and take them further, including many of the things we talk about today, or at least some of them, so that we get some systematism also in those actions. (Laura, founder)

In addition to systemisation, Jack's aspiration for high growth was rather explicit as he communicated the growth aims to all employees on a regular basis in HMT meetings. The main focus during 2016 was to get positive business results and to achieve well-functioning processes. Heltti's specific aims in 2016 were as follow:

1. Heltti is known as a forerunner in enhancing health and wellbeing and as a capitaliser of digital tools.
2. Heltti is known for smooth practises in healthcare and wellbeing.
3. Customers: Start-ups and growth companies in the capital area and in Pirkanmaa know Heltti as the first choice in OHC.
    1. A couple of new bigger companies have dared to become Heltti's customers.
    2. 240 customer companies, 3,500 members.
    3. Five locations and a couple of mobile premises in customer premises.
    4. 18 employees (Helttiäinen, as they call them).
    5. Turnover 1.2 million euros, positive result.

Development focus 2016/H1 is on smooth internal processes, 2016/H2 on improving customer and member experience (both digital and physical).

In the first Heltti Management Team meeting in January 2016, both the company aims and the roles of the owners were discussed. It seemed that all kinds of organisation charts were avoided in Heltti to avoid a hierarchal image; therefore, the roles of the owners were presented as a matrix (Figure 6).

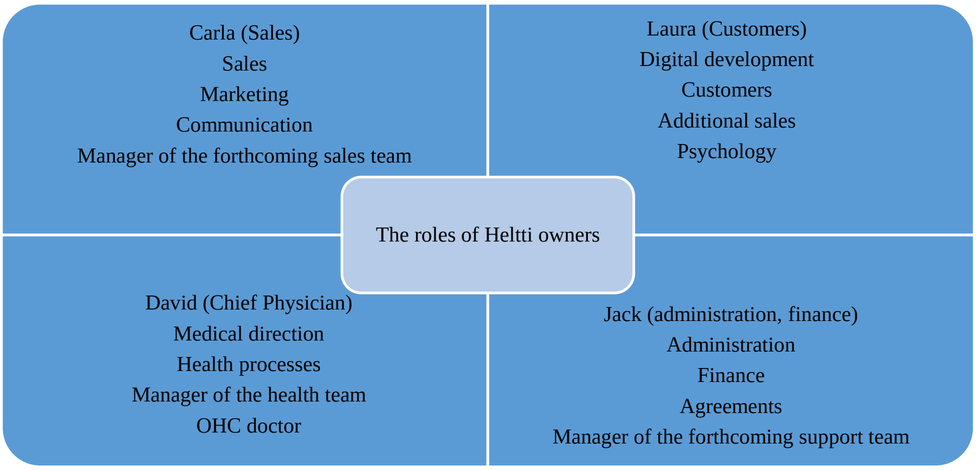

Figure 6 Heltti management team

Jack was focussed on following the figures and the aims that had been set. It might be that the partnership negotiations were also having effects in the background as Jack wanted Heltti to be in good shape when entering the partnership. The aims were discussed and monitored after each quarter. As planned, the development projects in the beginning of the year focussed on smoother internal processes, which aimed at efficiency and being able to manage one's own work better. These development projects included creating clinical pathways of core diseases, developing or even changing the current patient management system and archiving system, and agreeing on calendar principles. The growth put pressure on the rather basic operational development.

4.5.1 Partnership negotiations

Reaching high growth figures required external resources. One option was to enter into a partnership with a bigger company. Several alternatives were considered, and negotiations with one partner kept Jack occupied during the spring of 2016. Jack made different kinds of scenarios and calculations regarding the future with an assumption that the potential partner would own Heltti's shares and there would also be operational cooperation. The founders had been applying affordable loss principle, which meant a rather cost-conscious approach in purchases and investments, developing systems incrementally, and recruiting personnel only when certain customer numbers had been reached. Getting a partner who would benefit Heltti operationally and financially would allow faster growth and new investments.

Quite surprisingly, the partnership negotiations were kept a secret from the employees for several months until the agreement started to turn into reality. This was against Heltti's open communication principal. However, Jack justified the decision not to tell about the partnership negotiations due to fear of losing focus on what is important:

> Jack: One classic trap for companies is that when they undergo negotiations, they lose focus. Focus is on the negotiations, and then everyday work suffers. We have tried to avoid that and keep the focus on the normal activities. (HMT meeting 8.4.2016)

Some of the employees felt somewhat betrayed as they had realised that something was happening, but they did not know what it was. The HMT meetings usually had a rather positive atmosphere, and the employees rather seldom brought up any negative issues concerning management. Helen (psychology) was one of the few employees who dared to directly state if something was bothering her. For Helen, openness, freedom, and belonging were important elements in her work, and she was rather upset about the secret partner negotiations. She had been experiencing that leadership seemed missing, and now she had an answer to the question she had been wondering about. Helen thought that what Jack was fearing happening to the employees had happened to him: the partnership negotiations had occupied Jack's mind, which Helen experienced as missing leadership:

> Helen: So we have had a feeling that now they are doing something, and we don't know what they are doing, and nobody cares about our work. (HMT meeting 8.4.2016)

Jack agreed that his focus had been on the partnership negotiations, but he thought that things would now go in a better direction as the negotiations had been successful. However, in the end of May 2016, it became clear that the partnership negotiations failed. For Jack, this was a big setback as he had firmly believed in the success of the project and worked hard for it.

The setback with the financial negotiations made the problems with customers and poor profit figures look even worse. Contrary to his normal cheerful and energetic self, Jack summarised his feelings in the HMT meeting on 16.6.2016: 'Honestly said I have bad feelings. In three words: the whole world ready right away', meaning that he was under high pressure, he had many things to do, and new financial negotiations needed to be started to survive in the future. Despite seemingly easy and fast decision-making, Jack did have his doubts and worries, which he also openly communicated to the employees. There was still the open question of how to finance the growth.

When the partner negotiations failed in the spring, Jack started new negotiations with a rather different approach. He started contacting several individual investors who belonged to his network. The aim was to collect 500,000 to 1 million euros to develop the digital customer experience, build new premises, and recruit new employees as well as to enter several new towns.

Finally, in November 2016, Jack was able to convince investors and get the financing that he was aiming for. The new investors were people from top positions in Finnish companies. They represented varying competencies including technology, branding, digital services, and internationalisation. Jack used his network to get the right kind of people to benefit Heltti not only through their investments but also with their skills and network.

4.5.2 New ideas emerging

During the first two years, the focus in Heltti had been on developing the existing service. After the decision was made to search for external investors, the speed of creating new accelerated: new service offerings, new premises, many new roles, and new digital systems were created. New ideas emerged from discussions with customers, colleagues, and partner companies. The accelerated speed combined with the open innovation approach also brought up concerns. John, the new operations manager, who preferred to analyse, organise, and prepare presentations to back up his suggestions, thought that the main issue in service development concerned prioritising as the resources were scarce.

> Our challenge in service development is that we have a lot of ideas, but what do we really do, and what shall we invest in? I have a long list of things that should be taken further. How do we develop our service? (John, operations manager)

Laura brought up her concerns about the speed and action-oriented approach, which failed to see things holistically and to challenge the most obvious solutions.

> Laura: When I look at my calendar, we are all running at a very high speed. I feel that we are running beside the train, and we don't dare to hop in the train. I personally would benefit from seeing a big picture of where we are going. (GF 8.11.2016)

> Laura: I argue that in the beginning, when we had so…when we did things in a new way and we questioned things much more ourselves. Now when we are in full gallop, we just don't see it anymore. (GF 16.11.2016)

There were several competing views regarding the courses of action: what should be developed, what new services should be created, and how they should be created. There was heavy incentive to focus on improving the internal processes as they were slowing down everyday work. Both customers and employees complained about the basic medical care process, thus encouraging improvement of the existing processes. John tried to challenge this view by arguing for the need to create a 'wow effect' in order to be a disruptor in the OHC sector.

The following sections narrate a story of seven different NSD processes that emerged during 2016. The NSD processes described were chosen based on what the managers and employees considered as a new service of Heltti.

4.5.3 Mindfulness Monday

It was Carla, the sales manager, who brought up Mindfulness Monday as a good example of how new services are created in Heltti. The idea for Mindfulness Monday and Bodybalance Wednesday came from Heltti's physiotherapist, Maria. Maria is described by several colleagues as an energetic person who has many ideas and who exercises whenever and wherever.

> Now our physiotherapist suggested that could we arrange mindfulness mornings in our new Otaniemi premises or something similar for our members. (…) That is an example that you can just suggest something freely, and others comment, 'That is a really good idea; let's experiment'. We suggest a new idea for our people, like, monthly, and then we see how it starts emerging. (…) All this comes from own initiative; we don't have any formal process. It comes through experimentation culture. (Carla, sales manager)

Maria started thinking how Heltti's already existing event concepts, HR Morning and Energy Mornings, could be modified for something that she is good at and what she likes doing. She explained that the idea for the body maintenance event came to her mind when she was thinking about Heltti's premises in Otaniemi, which weren't fully utilised. The other Heltti events were in the city centre, whilst there were very few activities offered in the other clinics. Reflecting on what she likes to do, what she is good at, and what other human resources are available in Heltti, she came up with the idea of Mindfulness Monday and Bodybalance Wednesday.

> We have been planning, or we have, nice premises in Otaniemi, and we have customers there, but we have not had much presence there. A couple of weeks ago, we got an idea that we could start arranging once a week Mindfulness Monday and Body Maintenance Wednesday, which are open. This idea, it just came to my mind one evening. There was no process; it just came to my mind. We have nice premises, and we have had Energy Mornings here [headquarter premises]. (Maria, physiotherapist)

After Maria got the idea, she communicated it to her colleagues, and Helen, the psychology, joined right away in designing the new service with her. The fast process was enabled by Heltti's culture, which encourages all employees to come up with ideas and experiment. Heltti's fixed-pricing model is also considered an enabler in this because these new services are included in the fixed price.

> Maria is our excellent physiotherapist and also a great idea generator. She has very strong wellbeing focus, and she really comes up with these ideas all the time. This idea came concretely from Maria, but in general, I come with the ideas myself, or some of my colleagues come up with them. (Helen, psychology)

Maria and Helen had a short planning session before they informed customers about the event and implemented the service for the first time. Both Mindfulness Monday and Bodybalance Wednesday followed a loose script, which left room for improvisation. There were only a couple of participants at the events, which Maria and Helen did not consider as a failure but a as a good opportunity to experiment with the new idea. Afterwards, the two reflected on what worked well and what could be done differently. They also posted a short feedback form for the participants to collect some comments. The reflections and feedback helped to develop the events further, whilst the service kept evolving.

4.5.4. Developing Heltti's emergency service

Developing Heltti's emergency service might not appear as a new service at first glance. However, this story illuminates rather concretely how Heltti's managers and founders solve problems and turn them into opportunities which might have unforeseen consequences for NSD in the long run. It all started when Competitor B announced just before summer vacation that they wanted to terminate the contract with Heltti. Heltti's emergency service was handled by Competitor B in the evenings and during the weekends, when Heltti was closed. This practise was based on an agreement between Heltti and Competitor B. However, the relationship with the service provider had been complex as Competitor B was also offering OHC services; it was a supplier for specialist services for Heltti as well as Heltti's own OHC service provider. Laura had discussed with their contact person the problems that Heltti's customers had when utilising Competitor B's services, and the week after that, Heltti received the resignation notice.

> Competitor B resigned the agreement due to the competition situation. Sure, there were big challenges, and it didn't work well, and we brought it up and wanted

> changes. That was probably one reason why they wanted to finish it. We had one-month resignation time in the middle of summer, so it was quite a challenging timetable for us. (John, operations manager)

When the matter was discussed in Heltti's GF, the first reaction was that this would cause a large amount of extra work in the form of payment commitments as well as dissatisfaction among customers. The discussion started with focussing on the problem and seeking obvious solutions.

> Anna: Does this mean that all our customers who have received a referral as an appendix concerning weekend and evening services…so from now on everybody needs to have their own commitment of payment?
>
> Jack: Precisely.
>
> Carla: We could instantly send everybody a commitment of payment as a pdf, so in the future they need to use that before we have been able to negotiate a new deal.
>
> (…)
>
> Carla: So far, they (customers) have been able to go to Competitor B, and their name has been in the system. There are quite many of these cases, and this is quite worrying.
>
> Jack: That is what Competitor B is aiming at. They want to complicate our position in the competition.
>
> Carla: We make the corrective measures, but what is our long-term plan? (GF 23.6.2016)

Carla's question changed the discussion, and John and Carla started looking for new solutions. Anna was still, at this point, mainly focussing on limitations.

> John: Are we be able to expand HelttiLine opening hours?
>
> Anna: Not with these resources.
>
> David: How many do we have of them? Hundreds?
>
> Carla: Yes, you are right.
>
> Anna: HelttiLine doesn't help if we don't have doctoral services.
>
> John: But we can still give the commitment of payment.

> Carla: We have hundreds of them, closer to a thousand.
>
> John: We probably can't make it during the weekend, but during the week, we might be able to lengthen HelttiLine hours so that we could give the commitment of payment. In the long run, we have to arrange the service during the evenings and weekends anyhow. (GF 23.6.2016)

The team discussed an option to outsource the call service from a healthcare provider who is also their customer. Then the discussion turned again to payment commitments and how to deliver them for the customers. It soon became clear that sending the payment commitments would be rather complicated. The discussion turned again to finding other solutions.

> Carla: One alternative would be to make a fast move and lengthen HelttiLine opening hours. We could agree with Partner G how much each call would be. Would it be ten euros or 20 euros? Then we would get rid of these payment commitments once and for all. In that case, it would be a positive message to our members that we finish our cooperation with Health Clinic One, and in the future HelttiLine will help you.
>
> Jack: What would this mean in practise?
>
> Carla: So when you have some troubles in the evening or during the weekend, you can call HelttiLine and get a payment commitment.
>
> Anna: You get the concurrent review.
>
> Carla: Yes, so that should you get the appointment today, tomorrow, or should we get you an appointment in Heltti or a payment commitment to other service providers… (GF 23.6.2016)

Finally, Jack tried to think how the problematic situation could be turned into something that benefits Heltti's image. Carla, on the other hand, looked at the opportunities from the customers' point of view.

> Carla: If we would be able to make a fast change, it would be a magnificent news to our customers, and we could tell them that HelttiLine is open a lot longer. (GF 23.6.2016)

This discussion ended up with the decision of having longer opening hours for HelttiLine. Outsourcing HelttiLine services during the evenings and weekends seemed to be the most cost-efficient and employee-friendly solution. Heltti's employees were not considered an option because it would lead to evening and weekend shifts, which was seen to affect the employee experience negatively. However, outsourcing the service would have required new technical solutions for HelttiLine, which would then allow sharing the line and not being dependent on the location. The first and most obvious candidate to take care of the outsourced service appeared not to be possible. The solution for the problem was provided by a start-up which offered part-time jobs for retired healthcare professionals.

> They are also a start-up who are establishing their business, and they hire pensioners, and they want to activate them. Their mission is rather noble in a positive sense. They genuinely want retired people to have something meaningful to do, and they can work from home in a flexible way and utilise the long experience that they have. (…) All this fits well with Heltti's mind-set. (John, operations manager)

The different technical solutions were analysed, and a decision was made to use Zendesk customer support system, which was ready for use in August 2016. The situation, which seemed rather catastrophic before the summer holidays, was solved, and new solutions were implemented within less than two months. Competitor B resigning the contract led to improving the availability of HelttiLine services and building new technical solutions, which enabled taking care of HelttiLine regardless of the location.

When deciding to use Zendesk, the focus was on customer experience and overcoming the practical obstacles. What was not considered in the meeting was that it would also enable employees to work remotely. This single factor seemed to affect how employees felt that they were able to control and manage their work.

> It is brilliant that now you are not physically tied to the phone, but you can be at home. I am working in another Heltti clinic on Mondays for half a day, so I can answer there. (Rachel, OHC nurse)

The improved service that required new technical equipment (Zendesk) also allowed personnel to work remotely. Suddenly, answering HelttiLine was not considered as inconvenient as earlier.

4.5.5 New wellbeing service station

In September 2016, the growth accelerated as four new employees were recruited, two new locations were opened, and negotiations with several bigger companies started. The headquarters served as an ideal of how the premises should look to ensure similar customer experiences. The headquarter premises, which were designed in 2013, were based on the founders' ideas of what a healthcare service station should be like. The interior design was supposed to create a look and feel based on equality, joy, and a homelike feeling (see section 4.3.3). The founders consciously created a service environment which provided a visual metaphor for their services and differentiated Heltti from the competitors.

When Heltti was informed about the huge construction work in the yard of the current premises, Jack encouraged looking for different options regarding future premises. This task belonged to John's responsibility area, and he made an analysis of how the customers are scattered around the capital area and what the different options could be. It started to become clear that staying in the old premises was not an option due to problems that the construction work in the yard would cause both for the customers and employees. Timing was good because the minimum period of the rental contract was expiring, and there was need for more space, and new financing was necessary anyway.

Already at the very early stage, the vision of what the new premises would be differed significantly. Healthcare personnel wanted to have their own space to talk freely without being afraid of revealing confidential information. The administration and sales team considered it important that everybody should share the same space to avoid a division between different teams. Jack also thought that it was important for him to see in action how the service is implemented. When starting to plan the new headquarters, Jack's vision was to develop the premises even further.

> Jack: If we think how Heltti would look like in the future, it would be magnificent to arrange an ideation event where we could have even high-flown ideas of what a dream OHC clinic and service station would look like. (HMT 8.9.2016)

Both premises and communication of Heltti deliberately had a homespun feeling to differentiate it from the bland and stylish competitors. Jack also saw the new premises as an opportunity to challenge the assumptions in the healthcare sector and create future-oriented solutions. John had a more pragmatic approach, being responsible for the project and knowing limitations that the options had. Carla, in turn, considered that the premises should be designed considering the nature of the work that different teams are doing.

> Carla: This is based on basic office design [looking at the drawing of the suggested spaces]. It is a draft, of course. But I would not question and blow up this design. We should think of what kind of work the health team and a salesperson are doing. (GF 21.9.2016)

Laura was concerned about the customers and how they would experience the unordinary environment.

> Laura: We need to remember, Jack, that is a very good thought, but let's remember the first feedback we got from our first customers when they visited us: 'Oh, you have an open office here. Are you talking about our stuff aloud?' They paid a lot of attention to that. (…) I would be really careful. We are in a very conservative sector anyhow. (GF 21.9.2016)

However, Jack was not giving up his future-oriented views whilst emphasising that no one is able to please everyone when creating something new.

> Jack: At the expense of making someone angry and resigning the agreement, I would go all out, have more rock 'n' roll, and even more deviations from the current practises. We could genuinely work towards something that it will look like ten years from now. (GF 21.9.2016)

In the end of November 2016, it was decided that Heltti would move from the current premises to the city centre. John was in charge of finding out where the clinics should be located and how they should be designed. The increasing rental costs combined with costs of the interior design caused some pressure. Whilst John saw the small interior design budget as a limitation, Jack encouraged designing the new premises in a completely different way so that it would not look like a health clinic at all.

The same interior designer who designed the first Heltti clinic was chosen to do the work for the new clinic. When starting to design the new headquarters, the vision was to develop the premises even further. The intention was to engage everybody in Heltti to ideate what the new health clinic would be like. These ideas were presented in weekly meetings, in digital channels, and in a special ideation event. After these ideation activities, the interior designer created illustrative drawings (Figure 7) which were discussed and implemented.

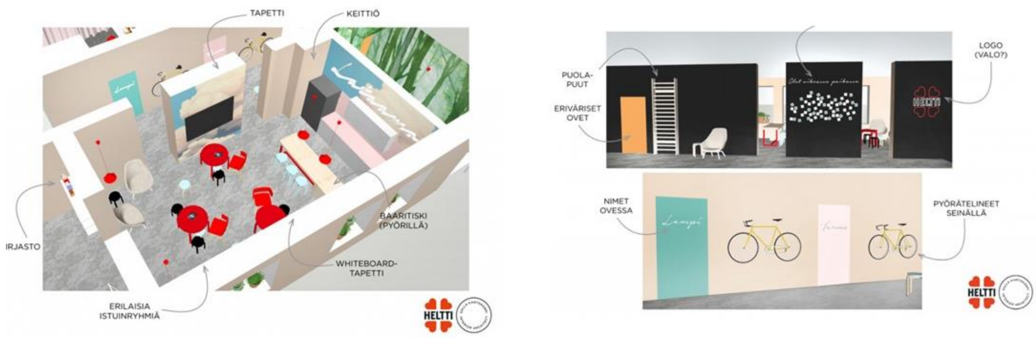

Figure 7 The design of new Heltti headquarters by interior designer Salla Kantokorpi. Copyright with permission.

The new headquarter premises were officially opened in May 2017. When entering the premises, customers were encouraged to change into slippers to create a homely feeling. The waiting room was designed like a café (Figure 8), where the customer could work and enjoy a cup of coffee whilst waiting for the appointment. The appointment rooms followed the same design as in the earlier Heltti premises with round tables and red chairs.

Figure 8 The new Heltti headquarters—the waiting room and corridors

4.5.6 Digital services

In contrast to the physical premises, due to scarce resources, Heltti's digital services and systems had not been developed as fast as many of the employees and customers would have expected. Creating and developing digital systems step by step caused frustration when people encountered the consequences in their everyday work. In the healthcare sector, the demand for documentation and digitals systems is high, including security issues. In Finland, the sector as a whole took big steps in digitalisation and patients' rights to access her own health data. Competitors also started to have their own digital solutions, which they had developed with much higher financial resources. In October 2016, there were already some potential customers who turned down Heltti's offer, saying that their current service provider is already offering digital services. Consequently, it became evident that Heltti might even be falling behind in digital development compared to their competitors. Therefore, during the autumn of 2016, one of the most important aims was to get outside finance. When Jack and Laura started to develop Heltti's digital services a couple of years earlier, they had applied for financing from a Finnish funding agency for technology and innovation, and this was the approach they decided to follow again.

> Laura: I am applying for product development and innovation money. We make our service design and documentation, so designing customer journeys for members and corporate clients. Another thing that we do is building the digital customer journey for members and building the dashboard for the customer. Third, Helttinet extension, so interface and functionalities. Fourth, data hub, what we crush in it and share for everyone. (GF 19.10.2016)

To get this funding, a written project plan was needed. Laura and John were responsible for the project, which was one of the top priorities in 2016, and it was often discussed in the GF.

It had been Jack's vision to develop their own digital systems so as not to be dependent on service providers. He considered that in the core of digital service development. However, all these discussions regarding digital services included internal people only. Anna reminded everyone that customers should also be heard. David's answer to Anna's suggestion shows that for him, listening to customers means asking about customers' needs and then fulfilling them, which would lead to creating something that already exists.

> David: Testing is a big thing, and we should allocate our time. No one else can test it. If that is not done, it doesn't serve us.
>
> Anna: And then we could also listen to what customers have said and what they would like to have.
>
> David: That is really important, but if we proceed purely market driven, we start doing the same things as Competitor A is doing: medical care fast and nearby, whenever someone wants it. (GF 18.11.2016)

To keep up with the changing and uncertain environment, it was decided to recruit two digital experts for Heltti. Everyone in the GF meeting seemed to be somewhat afraid of the big investment, which had no certainty of revenue. However, many customers and Heltti's own staff had realised that Heltti's digital systems had started to be outdated. As the environment was considered to be unknown, there was once again discussion of how far ahead things can be planned.

> John: The fact is that we don't know where we are in a year. If the market changes or the strategy changes or something, we shouldn't think too far.
>
> Carla: Good to go through this in our management meeting tomorrow because this sounds quite frightening.
>
> Anna: This kind of technology leader we should have had right from the beginning. That guy needs to have his own vision, and it needs to be big, and it needs to meet with ours. I don't believe that they are only doers. They should have a shared vision with us how they are supposed to carry it on.
>
> Jack: Tomorrow we can say that this sounds big and scary and that is what this is. This is now our super project. (GF 14.12.2016)

John and Laura wrote a six-page project plan to get finance for developing Heltti's digital services. The concrete planning and implementation of new digital services started in January 2017.

4.5.7 Tribal chief

Getting finance made the future look brighter, and new service ideas started to emerge again. The operations manager, John, was active in coming up with new ideas which he thought would enhance customer experience and add value for the customer. The idea of membership benefits was something that John had been thinking already before he started in Heltti. His vision was that there would be one person taking care of member experience, including sports clubs, extra service sales, events, member satisfaction measurements, and the whole membership programme. This was how the idea of a tribal chief was born.

John had been working in both small and large companies whilst enjoying different kinds of employee benefits. When changing from a bigger company to a smaller one, he experienced concretely what it is to lose the benefits he was used to. Reflecting on his own experience, he started to make a list of benefits that he had noticed would be of value. When John was asked to tell how the idea emerged, he first mentioned customer needs, but he soon continued explaining that the ideas actually emerged from his own experience.

> All these membership things also come from customer needs, maybe not directly, but it is also based on my own view of what is missing from a small company and how they could be activated, how we could offer the same benefits for the smaller companies that bigger companies already have. For example, when I left one of my earlier employers, I lost my gym membership, which was twenty euros per month. In a way, it is a small thing, but it still irritated me… (John, operations manager)

John also shared the understanding that customers are not able to imagine new services because their premise is what exists today.

> I think that especially in our own industry, the challenge is that customers are not able to wish for anything. They are so accustomed to the traditional, medical-care-focussed OHC that they are not even able to think that OHC could do things differently. We need to come up with the ideas how to offer added value and different customer experience. (John, operations manager)

John presented the idea of membership benefits as creating a new role, member experience guru, who would be responsible for building a member benefit programme. When presenting the idea in the GF, he brought up both the service experience side and how to cover the costs of this new recruitment. Getting extra sales by acting as an intermediary for different service providers had been on Jack's agenda earlier, so he became interested in John's idea right away.

> John: At some point, we should have a member experience guru or customer manager for members who would really focus on the service experience which is other than healthcare: customer satisfaction surveys, events, member benefits, creating a member benefit programme. I think that the sales would cover the salary costs or at least the customer would stay.
>
> Jack: Member master. I agree that if we would start actively thinking about extra sales and totally new products and other things that are not our own but which we could be the intermediary. If we have 3,200 members, there is a lot of potential. (GF 1.9.2016)

John kept elaborating on the idea whilst testing it in sales negotiations with bigger companies. He thought that this would be a way to differentiate the company from the competitors, improve customer experience, and build loyalty.

Recruiting a tribal chief was on the agenda again when Jack had encountered a good candidate with passion and diversified competencies for the position. However, Anna suggested that physiotherapist Maria would be good in this role as she had been doing similar things already. After this discussion, several external candidates were interviewed for the position. One of the applicants made a good impression on John, who would have been ready to make the recruitment. Carla and Anna gave strong support for Maria as they thought that she was known to have the required skills, and she was interested in the tasks. Jack was balancing between the risk of recruiting someone new for such a position and Maria having time to handle the task alongside her role as a physiotherapist. As competitors were following with their fixed-pricing and digital tools, it created an urgency to create something new, and, thus, Jack considered a tribal chief to have an important role in Heltti.

> Jack: We need to have ambition when we start doing it. The world is full of good ideas and poor implementation. Whoever the person is, there needs to be

> challenging aims, and of course we support it, but it cannot be like when someone just has time. We go to win the battle that we decide to accomplish. (GF 23.11.2016)

The decision about the tribal chief was put on the table at this point. In the next meeting, Jack suggested not to hire a new person for the position as he had made calculations and was worried about the increasing costs. Nobody really commented on the suggestion, and it became a decision not to recruit anyone new for the position. After another week, the new roles were discussed again in a GF meeting, and John was ready to agree that Maria would take the role of a tribal chief along with her job as a physiotherapist.

4.5.8 Customer wellbeing officer

Another new role was the idea of a customer wellbeing officer service was to offer support for customers' HR people in wellbeing matters, and it was an outcome of several processes. One of the events which played a major role in how the service came to be took place in Law Company X, where Jack used to work as a CEO and was still one of the main owners. Law Company X had suggested that Heltti take more holistic responsibility of their employees' wellbeing.

> I think it was after visiting Law Company X. They think about wellbeing in a way that I have never seen... (…) They would like the OHC to take care of coordinating their wellbeing programmes, which has certainly not been the role of the traditional OHC. (John, operations manager)

Whilst thinking about the solution for Law Company X, John was also thinking how to solve Heltti's coordination issues with bigger companies, which would have several Heltti nurses in different towns responsible for different units. Nurses had been complaining about not having enough time for enhancing wellbeing. As a solution, John thought that a nurse and Shirley, Heltti's psychologist with a business background, could work together with bigger company customers. Shirley would have the responsibility of developing wellbeing, and as she also had business competencies, she could be the contact person in business matters. She was considered to bring new resources, which could then be turned into new services.

> Shirley said that she could do this, and she was really excited. In the future, we need to see how we allocate resources and what kind of roles we have with bigger companies. In big companies, it is very important to keep HR people satisfied. They have totally different needs. Our nurses are able to do it, I don't doubt that, but they don't have time. That is the challenge when you are taking care of HelttiLine and you do all that everyday stuff. It is difficult to disengage yourself from all that and make a strategic wellbeing plan. It is easier for Shirley. I think it is better to bring more people to take care of the customer relationship. Shirley could be the business contact person and expert in wellbeing. (John, operations manager)

The suggestion of an HR coach aroused two other discussions; the preliminary concept of one nurse assigned for one big company was not optimal. Carla suggested that a key account manager would be a solution for that problem. Anna agreed that new solutions were needed because nurses had too much of a workload due to underdeveloped processes and systems. However, nurses were eager to work more with wellbeing issues. When the nurses were recruited, it was considered important that they would match with Heltti's values and with the dynamic organisation. This also caused expectations for the people recruited in Heltti. Many of the nurses were interested in preventive healthcare and being involved with creating new solutions. The dilemma was that the daily medical healthcare services kept them occupied, which did not correspond to their expectations. From the administrative side, there was pressure to keep the nurse's role as efficient as possible, which easily led to rather traditional suggestions like creating a key account manager role. However, these suggestions were not accepted by Anna, who represented the health team in the GF and who had already experienced the traditional OHC model and knew what the outcome would be. Anna saw that a key account manager would be one step towards the traditional OHC practises and towards hierarchy and power distance, whereas a psychologist as HR coach would also be doing the basic work together with the other health team members.

> Anna: That is good because in the big houses, the key account manager pulls the strings together with the management team, and operational stuff is left out, and they do the practical work, and then there becomes the gap, and then we serve the management, and employees are left… Then it would be something new than those who actually are with employees. Of course, it requires quite a lot, but if they work as a team, they can share it. It is good if that person is a psychologist so it could be doing that work. (GF 11.8.2016)

The change of the title from key account manager to HR manager to corporate personal trainer and finally to customer wellbeing officer indicated the changing thinking processes. Whilst in the beginning, the role of the key account manager was mainly to solve communication and administration issues between the customer and Heltti, corporate personal trainer was seen as a new service adding value for the customer by enhancing wellbeing.

When John was afterwards reflecting on what had happened and how the idea of corporate personal trainer emerged, he first said that the need for the service emerged from customers.

> This corporate personal trainer (CPT) idea arose from customers' needs and sales' needs. A customer had indicated that we should develop something. (John, operations manager)

When reflecting more on the matter, he came to the conclusion that the idea was actually based on his own knowledge and experience.

> To be honest, the idea came from me. The starting point was that I have quite many bigger firms with over 500 employees in my sales pipe. I know that competitors are already offering key account managers. They are used to having one person coordinating the team, and they even demand key account managers in the offers, and we don't have it. (John, operations manager)

John's original idea was based on having a more traditional key account manager role, but Anna, as a voice of the nurses, resisted that idea.

> My own thinking was based on recruiting key account managers to take care of the bigger customer, and I discussed this in the Growth Forum. It got quite a lot of resistance because nurses have poor experiences from their old firms where the account manager becomes a boss who doesn't understand the substance, and they start bossing and making guidelines that do this and that. The nurse is the one who loses. I noticed that when we tried to take this further, it made the hair stand on end for many nurses, especially Anna. (John, operations manager)

John's thought about the CPT resonated well with Shirley's thoughts and her experiences with the individual users of Heltti's services.

> The key account manager started with an idea that we would need a more strategic view in process development. Laura and Jack asked if I would be interested in the role. I said that I have been thinking about having a more sparring role myself. It cannot be a key account manager because that is not Heltti spirit. I think it was Jack who suggested CPT. (Shirley, psychology)

CPT as a new service emerged through several processes. John and Laura were thinking what to offer bigger customers; Shirley had her own experiences when working with individual customers, and both Carla and John had identified the need for coordination with the bigger customers, OHC nurses having a heavy workload and the urge to work more with preventive healthcare, earlier experiences how similar situations had been solved, and the organisation culture of equality and doing things differently than in the traditional OHC. Serendipitously, John had a meeting with one of Heltti's customers which gave him the idea of an HR coach. The needs of the former customer served as an inspiration for the corporate personal trainer idea, which was elaborated on in the GF. This sill rather vague idea was presented to customers, several of whom were interested in the idea and bought the service as part of the package included in the fixed price. The CPT service concept was cocreated together with the customer and experimented on whilst already implementing the service. However, the CPT service kept evolving; the name was changed to customer wellbeing officer, and it also became a service offered separately.

4.5.9 Wellbeing services

Wellbeing services had been at the core of Heltti's service concept right from the beginning. Even though the OHC service package already included wellbeing services, they were also considered as a potential source of extra revenues. In 2015, Heltti had arranged several tailor-made wellbeing projects, which turned out to be more complex to implement than expected. However, there was still interest in getting extra sales through wellbeing services.

In the autumn of 2016, it was still not clear what Heltti's wellbeing services were. The answers to this question were manifold, depending who was answering the question. The planning of wellbeing projects was mainly done by Laura, who then presented the ideas in GF meetings. When presenting the plans, Laura focussed on Heltti's image benefits, price setting, and sales aims.

> Laura: Yes, I would like us to decide that Heltti Sleeping School would start in October. There are three big aims. One is that our brand would get a profile in a professional theme, not in a boring way. This would also be a marketing effort to support sales of wellbeing services and OHC. The idea is that we would have a product called Sleep School, and it could be sold separately. As an investment, it would mean that I have received an offer for creating the marketing materials and a campaign page.

John was worried that customers were not involved in developing the new service, and thus there was no guarantee that they would be willing to buy the service. Therefore, he suggested to Laura that she could conduct a pilot case to test the idea. However, Laura preferred to proceed with making good marketing materials and start selling, whilst John kept pushing the idea of a pilot.

> Laura: We would need good sales materials. We would have a nice presentation, own logo, and a campaign page. (…) What do you think?
>
> John: I think that if we do it, we should do it properly. The question is should we first make a pilot and test it with a customer? We would see how it works and how it should be done in practise. We would get experience, and after that we could make a campaign. If we now make a campaign, it might be unnecessary.
>
> Laura: I would do a nice set of slides.
>
> John: Why do we need a slide set for a pilot?
>
> Laura: We could already start selling. (GF 14.9.2016)

Instead of cocreating with customers, Laura interacted actively with potential cooperation partners when developing wellbeing services. She searched contacts and inspiration from different events and dared to ask people rather openly. The aims, profit targets, service offering, potential partners, approach, and whole wellbeing concept changed and evolved all the time. One month after the above discussion, wellbeing projects had been decided to be included as part of normal services and not as something offered as extra services. This was told to the employees in an HMT meeting.

> Jack: We think more and more that wellbeing projects should not be sold as separate services, but they should instead be combined as part of our normal services. In November, we shall have Sleep School, and we make videos about how to recover, and Company W could be a partner in this project. (HMT meeting 13.10.2016)

The wellbeing project ended up being a campaign with a sleep theme called 'Finland rising with the help of sleep'. The campaign consisted of three challenges: 1) leaving your mobile phone outside the bedroom, 2) sleeping one hour more, and 3) paying attention to sleep ergonomics. The sleeping school was not aimed directly at generating sales, but it rather tried to build the professional image of Heltti. However, already in the next GF, the question of wellbeing services as separate service packages was raised again.

> Carla: I would combine this with the Sleep School product that we could sell. How is it packaged? We should have it in our site.
>
> Laura: It has a price and a concept. I would still wait until we start it. (…) Part of our customers will get the Sleep School included in their fixed price.
>
> John: We should crystallise what is included in the fixed price and what will be invoiced separately.
>
> Laura: It is coming later. It is very essential. We should understand it and also get others to understand it. (GF 19.10.2016)

Laura showed a presentation with three new service offerings that she called campaigns, one of them being the above mentioned sleep campaign. The discussion continued with first aid training, which would also be offered to customers. Jack saw all this as first steps towards a wellbeing net shop, which had been his vision for some time. From that perspective, profitability in the first experiments was not that relevant.

> Jack: Really good that this is now created. Now as we have a list of these products, we could think what else we could have. Part of it could be done by ourselves; some part could be done by someone else, partly digital, partly physical products. Through this, we could create a wellbeing net shop. (GF 19.10.2016)

Then the discussion turned into thinking what the focus of Heltti actually is: is it wellbeing, or is it OHC? Having the image of a wellbeing house was considered too soft. Thus, it was decided that wellbeing services serve as a tool in sales situations if the potential customer is not yet ready to make an OHC agreement. Another reason for the difficulties around wellbeing services might be that it was never really discussed what those services actually are. Instead, the question kept hanging in the air, and the same topics were discussed again and again.

> Carla: We could contact some twenty customers and ask their experiences and wishes. It would be best to listen to them. Then it would be easy to agree that we have these kind of things, and I can come and tell more. Then it is easier to make product packages when you have more concrete stuff.
>
> Jack: Our OHC is a continuous service; it is reoccurring revenue. Now we talk about wellbeing services. We should not be dazzled that if we sell ten thousand euros of wellbeing projects, and the value is ten thousand. If we sell one thousand euros' OHC agreement, the value is fifty thousand euros. It is five times more valuable than the wellbeing project. We should start with a customer-driven approach, see what their needs are, and fulfil those. (GF 19.10.2016)

After a month, the same discussion continued. Once again, it turned into thinking of what the wellbeing services are.

> Laura: What are the extra wellbeing projects?
>
> John: A question to you, Laura: what do you sell to our current customers?
>
> Laura: That extra wellbeing project.
>
> David: The point probably is that they get one that is included.
>
> Carla: Should we put extra coaching?
>
> Laura: I understand that if you want to have extra coaching, you get fifteen per cent off.
>
> John: This discussion shows that we don't have an understanding about our wellbeing services, to be direct.
>
> Laura: We don't have an understanding of what is included in the packages and what is not.
>
> John: It is worrying that we don't know what is included in the fixed price.
>
> Carla: We have a mental contradiction as we should keep our members fit, and therefore extra sales are difficult. (GF 16.11.2016)

In November, information about the wellbeing projects was placed on the web site, but there had not been time to actively sell them. Consequently, there were no wellbeing projects sold by the end of the year.

4.6 Epilogue

In five years, Heltti has grown to be a medium-sized company with almost 60 employees in 2018 whilst offering OHC services to approximately 500 company customers and 9,000 users. The turnover has grown from 1.2 million in 2016 to 4 million euros in two years. The emphasis has shifted from new service development in 2017 to developing organisation culture. These efforts culminated in February 2019, when Heltti won second place amongst medium-sized companies in the Great Place to Work competition in Finland.

The new organisation structure in Heltti is said to be based on self-organising and self-management following Teal principles (Laroux, 2014). Heltti calls their new organisation structure ‘ball pool organisation’, which illustrates non-hierarchical and consensus-driven decision making. It manifests that anyone in Heltti has the power to make a decision within his or her responsibility area after having consulted the team.

> There are no superiors nor hierarchical structures in the ball pool organisation. On the contrary, the organisation consists of self-driven teams and functions with responsible persons, who all have power to make decisions concerning their own work. (Heltti Culture Book, 2018)

Wellbeing service offering has grown to nine different service packages including the customer wellbeing coach service described in section 4.6.6. The tribal chief idea developed into member benefits, which aim at enhancing health and wellbeing.

In 2017, Heltti was able attract 400,000 euros in external funding to develop its digital services and another 2 million euros in autumn 2018.

5. Analysis: CEB logic as a lens to NSD processes

> ‘A useful analogy may be to imagine that the innovation journey is like an uncharted river. Most people cling to the river bank, afraid to let go and risk being carried along by the river’s current. At a certain point, some people are willing to jump in and trust that they can manoeuvre the river. While going with the flow of the river, they begin to look ahead and guide their course onward, deciding where the course looks best, steering around boulders and snags, and choosing which of the many channels and branches of the river they prefer to follow. Because some have developed skills and practiced traversing various river currents, falls, and obstacles, they manoeuvre the river better than others who have not learned to swim well. While this increases their odds of success, no one controls the river.’ (Van de Ven et al., 2017, 41)

This analogy is a useful description of how service comes to be, and it is why I have chosen to use a process methodology and the theoretical lens of entrepreneurial cognitive logics to explain the new service development process. My contribution is therefore to both CEB logics theory and new service development theory. In order to achieve this, I analyse the events and processes that I narrated in Chapter 4 to show how causation, effectuation and bricolage logics were applied as services emerged. Thus, the thesis moves from a rich, descriptive narrative that allows readers to get close to the phenomena (Pentland, 1999) and make their own interpretations (Langley, 1999) to explain how service came to be in Heltti by applying CEB logics as a lens. In the following chapter, Chapter 5, I apply temporal bracketing and visual mapping to examine the flow and order of events within the longitudinal data I gathered. In contrast to the rich, descriptive narrative, temporal brackets helped transform the shapeless and plentiful process data into blocks, thus showing progressions as well as discontinuity in the temporal flow (Langley, 1999). In my analysis, I take the stance that single events or artefacts alone do not allow us to make conclusions concerning the underlying logic(s); rather, we need to find out what has been and what will be, which then allows us to understand what is happening at a certain moment (Langley & Tsoukas, 2013).

More specifically, the aim of this chapter is to show how causation, effectuation and bricolage logics interplay as service evolves, while also touching upon why and how certain logic(s) are applied in different events. I study NSD processes and answer the research questions that I presented in the first chapter: 1) how causation, effectuation and bricolage interplay, synergistically, as new services emerge (Smolka, et al., 2016); 2) which of these logics dominates at the different stages in the service development process and in the different places where inputs into the new service are located; 3) whether these logics differ by individual, team or corporate level (Chandler & Lyon, 2001; Smolka et al., 2016); and 4) whether causation, effectuation and bricolage are useful and appropriate in their conceptualisation and application for understanding new service development.

To accomplish this, I present how planned, intentional and unintentional processes interplay as service emerges, while researching what has been, what is and what will be. Obtaining a clearer understanding of how the different CEB logics interplay sheds also light on the complexity of operationalising CEB approaches. The first section focuses particularly on complexities in operationalising CEB logics by showing how the shift from studying single behaviours and actions to studying process and impacts of actions changes our understanding of decision-making logic for certain events and over time. The second subchapter, Section 5.2, reveals how the dominant CEB logics shifted as time passed. Despite the dominance of certain logic(s), all three CEB logics were applied in different situations and by different actors, leading to diversity in cognitive logics, which in turn sometimes caused tensions and disagreements (Section 5.3). Finally, I analyse several NSD processes in more detail, with an emphasis on the creation of new service.

5.1 Impact of actions

Relational ontology enables us to study not only actions but also the impact of the actions, as well as the interactions of agents in the process of becoming instead of predetermined categories (Langley & Tsoukas, 2010). Therefore, when studying causation, effectuation and bricolage only by trying to identify a certain behaviour in one specific moment, without knowing what has happened before, what will happen afterwards and why a certain behaviour occurs, one cannot make conclusions regarding which of the CEB logics is applied. To this end, process studies enable an understanding of how and why things emerge, develop, grow or terminate over time

(Langley et al., 2013). In process studies the conceptualization of the process is grounded in the underlying logic, which is formed by cognitive processes (Van de Ven, 1992; Langley & Tsoukas, 2013), rather than by single actions or artefacts.

The anchoring element of causation is said to be prediction (Sarasvathy, 2001), which is often operationalised as planning and analysing the past (Fisher, 2012; Chandler et al., 2011). However, what people understand as a plan and as the role of a plan differs. As Mintzberg (1981) has stated, it is important to ask 'What is planning, anyway?' He criticises the view of defining planning as something that takes the future into consideration because every decision is somehow affected by how the decision maker sees the future. Therefore, Mintzberg (1981) has argued that an operational definition of planning should include the aspects of explicit and systematic analysis, formalised procedure and articulated results. How the future is perceived then affects whether and how planning is applied. Consequently, the ability of leveraging contingencies is not determined by the existence of a business plan, as 'having a business plan does not imply a lack of ability to leverage contingency – the important issue is the entrepreneur's willingness to change when confronted with new information, means or surprises' (Read et al., 2009, 574). Therefore, when studying single actions only, it sometimes seemed that the founders of Heltti applied causation logic. However, when I explored what has been and what will be and thus tried to understand what happens at a certain moment (Langley & Tsoukas, 2013), these seemingly causative single actions turned out to be part of effectual processes. I describe and analyse these processes in more detail in the following chapters.

5.1.1 Single behaviours and processes

After deciding to start a new company, the founders of Heltti, Laura and Jack, started validating their ideas by making calculations and setting aims, which are actions associated with causation logic. Causation is claimed to correlate positively with business growth, which is explained by the importance of having aims and making calculations to see what is feasible (Smolka et al., 2016). It is also psychologically comforting to define future revenues and costs, even though the forecasts might be wrong (Dew & Sarasvathy, 2001), which might also explain Jack's behaviour. Jack made the first calculations based on still rather vague ideas in order to determine if their ideas were feasible.

> 'It didn't take many weeks, and we already had the first plans how this would look like and would this be financially sound' (Jack, founder).

In these first calculations, dated January 2013, the predicted turnover of Heltti was 1 029 972 euros and profit was expected to be 124 538 euros during the first year in operation in 2014. In reality, the turnover aim of one million was achieved two years later, in 2016, while the aim of positive profit was not reached as of 2018. In addition, the service offering, which was forecasted to generate the turnover, changed dramatically between the time when the idea of Heltti was born in December 2012 and before operations started in February 2014.

For Jack, the first scenarios and calculations were not based on well-structured analysis, nor did he use any plans to guide action (e.g., a business plan). Scenarios and calculations were instead used rather as tools that allowed changes as a consequence of applying effectuation logic (Read et al., 2009): discussing with people, utilizing contingencies and imagining possible futures. Calculations also helped Jack and Laura with committing solely to affordable loss, which is one of the key elements of effectuation (Sarasvathy, 2001). They seemed to understand that the feasibility of the business model cannot be forecast, even though the calculations brought them comfort and security to proceed with the idea. The 'business plan', on the other hand, was necessary to communicate about Heltti with stakeholders. This resonates well with a story that Mintzberg (1984) told of an entrepreneur who applied effectuation logic for decades until he had to make a plan for investor purposes. This 'plan' served the articulation and justification purposes of an intended strategy, which already existed.

When developing the principles of causation and effectuation, Sarasvathy (2001) used think-aloud protocols to understand what entrepreneurs were thinking when they faced problems and made decisions. She grounded the principles of effectuation and causation on cognitive processes and the underlying logic. To illustrate how the underlying logic and cognitive processes could be considered when operationalizing CEB logics, I apply the items Fisher (2012) used in his study to identify the causation of actions that can be identified in Heltti during the early days of the new venture (Table 11).

Table 11 Operationalisation by Fisher (2012)

Item of causation (Fisher 2012)	Identified in Heltti
Identified and assessed long-run opportunities in developing the firm	Yes
Calculated the returns of various opportunities	Yes
Wrote a business plan	Yes
Organised and implemented control processes	No
Gathered and reviewed information about market size and growth	Yes
Gathered information about competitors and compared their offerings	Yes
Wrote up or verbally expressed a vision for venture	Yes
Developed a project plan to develop the product and/or services	Yes

When examining Laura and Jack's single behaviours, several were related to causation according to Fisher's (2012) operationalisation: gathering information about the current national OHC market, benchmarking international actors in the health care business, knowing about the laws and regulations in the health care business, learning about the occupational health care market in general, feasibility calculations and aim setting. However, these might not be considered indicators of causation logic if we use the attitude towards unexpected events as an empirical indicator and study processes. In this case, the focus is on how the actors react to contingencies; do they leverage contingencies or try to avoid them while following the plans (Read et al., 2009; Jiang & Tornikoski, 2019)? This complexity of the processes can be explained from the relational ontological stance by suggesting that 'any act of creation is simultaneously an act of discovery and vice versa. We discover existing ideas to create new ideas or we creatively imagine new ideas, leading to discovery of what is possible' (Garudi & Giuliani, 2013, 158).

Jack's following statement, which was mentioned earlier, illustrates how his thinking changed from causation to effectual since starting his previous new venture, and it also answers the question presented by Read et al. (2016, 531): 'What difference does it make if people act as though they believe in an effectual worldview?'

> 'I had familiarised myself with service design, and there we got the idea that, instead of doing the same, we did in Law Firm that we sat behind closed doors, and sometimes we created 100 slides and sometimes 30 slides. We knew five years ahead what we are going to do. Here, we really did the opposite, and we started talking with people, which were mainly my old contacts. I had good contacts to decision makers and growth entrepreneurs from my earlier position.' (Jack, founder)

To conclude, when understanding causation, effectuation and bricolage as cognitive logics, conclusions based on single behaviours or a certain artefact (e.g., a business plan) fail to capture the nature of the processes. The cognitive processes may vary even though the outcome is a goal, a budget plan, competitor analysis or business plan. Therefore, we cannot operationalize causation as having a plan and effectuation as having no plan. A plan in effectual processes can be also a tool for experimenting or documentation. A plan may be instrumental and written only to satisfy the financer; therefore, it may not indicate anything about the underlying cognitive processes related to how service comes to be. Thus, researching behaviour by examining single actions such as writing a plan is not enough to conclude whether causation, effectuation or bricolage logic is applied. The mere existence of a plan is not an indication of cognitive processes, but we need to study what happened before, during and after to understand the agency of the plan and the difference it makes.

5.1.2 Transforming means into resources

Delineating how means can be transformed into resources (Dew et al., 2016) may help understand the difference between effectuation logic and bricolage logic, as well as to answer the critiques presented by Arend et al. (2016) on effectuation restricting entrepreneurs' options to available resources only. Bricolage and effectuation are claimed to have similar premises, and using the framework created by Fisher (2012), I was able to identify several behaviours associated with both effectuation and bricolage when the idea of Heltti began emerging. However, if we study the underlying logic, somewhat different thinking processes can be identified: effectuation concerns taking the means as given and selecting from among effects (Sarasvathy, 2001), and bricolage concerns making do by applying combinations of the resources at hand for new purposes (Lévi-Strauss, 1967).

Effectuation is not limited by the resources at hand, and this difference enables effectual entrepreneurial new ventures to grow, whereas the logic of bricolage is to use the resources at hand and not actively seek new solutions that might require new resources, which often leads to 'handyman' kinds of business (Lévi-Strauss, 1967), and the company will not grow (Baker & Nelson, 2005).

Table 12 Examples of means mediated into resources

Means	Resources	Event	Consequences
Whom you know: network's network Who you are	Human resources	Customer interview: Finding the chief OHC physician	Enabled to register the OHC company (a chief OHC physician is a prerequisite)
Whom you know	Intellectual resources	Talking with an acquaintance about the NV: Story of Chinese Village doctor	Creating the business model of the new venture
Whom you know	Intellectual resources	Interacting with service providers of sports and wellness, virtual mental health, storing information of your own health and mobile wellness solutions	New service elements: digital services (HelttiLine and MyHeltti), e-technology, activating people to take care of their own health
Whom you know	Intellectual resources Human resources	Talking with an acquaintance about patient management systems	Idea of creating a health management system (Helttinet) Finding an IT expert
Whom you know	Human resources	Service design workshop	Customer journey and physical service elements (premises) Finding an interior designer
Whom you know	Human resources	A contact recommends an OHC nurse	The first OHC nurse is hired: operations can start

Whom you know	Human resources	Phone call with a digital service provider	Heltti Car is replaced by digital channels (HelttiMe)
Whom you know	Financial resources	Investor negotiations	Enabled creation of Heltti service concept 2.0

In Heltti, the emergence of the idea started from the means available for Laura and Jack, but they knew from the beginning that they needed new resources, e.g., human resources in order to be able to establish a health clinic and grow rapidly. However, they used the means available to them and transformed them into resources (Table 12). For instance, Jack had access to a wide network, which enabled him to identify and access key persons. He had already created these contacts (whom he knows) and credibility (who he is); this helped him acquire new human resources that might have been otherwise challenging to access for an unknown, new venture. The means gave access to resources, but transforming the means into resources required both courage and the ability to see opportunities.

When describing how means may be transformed into resources, I apply the cooking example that Sarasvathy (2001) has used to explain the difference between causation and effectuation processes. In Sarasvathy’s example, a causation process starts with a set menu. The role of the chef is to buy the ingredients and decide how to effectively prepare the meal. However, if the cooking starts by seeing what ingredients are already available, thinking of different alternatives that might be created from them and then cooking by mixing the available ingredients, effectuation is applied. In these examples, the effectuation process resembles bricolage (making do with whatever is at hand by creating new combinations). Therefore, neither of these examples describes what was happening when the idea of Heltti emerged through effectuation processes. Hence, if effectuation process starts with means, then the start of the cooking process does not focus on the available ingredients (resources); rather, it focuses on the means: whom I know, what I know, who I am, my experience and intuition. Based on these means, the experimentation starts, which might require buying new ingredients (resources), but the outcome is not known (effect). We can illustrate this with the process employed by Ferran Adrià, the chef-owner of El Bull, as described by Svejenova, Mazza and Planellas (2007):

> ‘The chef’s creativity is focused on new concepts and techniques. A concept, “foam” for example, is based on a single idea and as such allows experimentation with variations along its dimensions such as taste (e.g. carrot foam), temperature (e.g. hot foam), texture (e.g. air, as a lighter form of foam) etc. Similarly, a technique such as spherification permits the making of caviar-like balls from apple or melon juice, or yolk-like forms from peas.’ (Svejenova, Mazza, & Planellas, 2007, 13)

> ‘One such method, deconstruction for example, consists in taking a known dish, and then altering the temperature and texture of all or some ingredients. When we try it at first, in visual terms we don't recognize it, but in the end our memory makes us recognize the original dish.’ (Svejenova et al., 2007, 14)

When the cooking metaphor is applied to Heltti, the process would be rather similar to that of El Bull. Laura and Jack started the cooking process by considering what means (knowledge, experience, network, and intuition) they had and what they wanted to eat themselves and offer guests. After, they looked at several new concepts and techniques to gain inspiration; they created their solution of what to cook and how to cook based on the means available to them. When cooking, they acquired new ingredients as needed, experimented with ingredients and techniques by adding, replacing or removing ingredients and changing techniques to create something that did not quite exist before.

Jack and Laura employed the affordable loss principal and invested only what they could afford to lose. Jack wanted to obtain proof that the business model was profitable before they sought external investors. Earlier studies have shown that following the affordable loss principal (Smolka et al., 2016) or using the resources at hand (Baker & Nelson, 2005) may stagnate growth. However, this might also be due to challenges with operationalising and interpreting these principles, which I have already discussed in Chapter 3. Thus, in effectuation processes, means may transform into resources (Read et al., 2016) and therefore are not limited by the resources that are readily available for the entrepreneur. Therefore, means may enable the entrepreneur to acquire, e.g., more financial resources. In Heltti’s case, Jack utilised his network (whom he knows) and his reputation (who he is) to acquire investors, whom he considered able to contribute to Heltti not only financially but also through their means. This is not in contradiction with the affordable loss principal because Laura and Jack still limited their own investments to what they could afford to lose. Affordable loss was achieved by limiting their own investment and thereby limiting their own risk, while adding other investors to share the risk. Affordable loss can also be connected with the principal of experimenting, that is, developing step-by-step and seeing what happens. When customers accept the idea, or what has become of it, then the entrepreneurs may invest more. Affordable loss is also connected with the principal of precommitments: starting the sales at an early phase, agreeing to precommitments, cocreating the service and investing more when demand for the service is proven. Flexibility and precommitments have been shown to be positively related to venture performance (Smolka et al., 2016) while also enabling the use of the affordable loss principal.

Later, Sarasvathy's (2001) 'means as given' transformed into 'means-driven' (Dew et al., 2018), which better describes the nature of means as a driver not as a limitation, thus describing effectual processes even more accurately. This might enable us to understand the nature of means, which serve as a bridge to different resources. In contrast, bricolage logic considers resources as given, or, as it is often formulated in bricolage literature, as resources at hand.

5.1.3 Stories as a vehicle for mediating means into resources

Stories played a critical role in how service came to be in Heltti. Thus, describing how Jack used stories as a vehicle to transform means into resources offers one way of answering the untouched research topic of delineating means and resources in CEB logics (Read et al., 2016). The effects of stories in organisations vary from sharing values, exchanging knowledge (Whittle, Mueller, & Mangan, 2009) and developing trust to motivating (O'Gorman & Gillespie, 2010) and legitimisation (Golant & Sillince, 2007). Jack used stories skilfully, frequently as organisational symbols, to legitimate the new venture (Lounsbury & Glynn, 2001) by communicating socially constructed meanings, which has been found to help with acquiring resources (Zott & Huy, 2007). These stories Jack told seemed to help in confronting legitimation issues as a new venture (Low & Abrahamson, 1997), thus enabling access to different resources (Lounsbury & Glynn, 2001). Jack started to construct stories that legitimised their means and aspirational goals by coherently addressing 'questions about who they are, why they are qualified, what they want to do and why they think they will succeed', which has been found to be beneficial when a service emerges through complicated, nonlinear processes (Lounsbury & Glynn, 2001, 550).

Story 1: Drinking wine

The first story of Heltti explains who Jack is and why a respected lawyer chose the occupational health care industry. By telling this situated story, Jack explains his beliefs about himself, thus developing and maintaining his life story and self-concept (McLean, Pasupathi, & Pals, 2007). Moreover, even though Jack himself has no experience in the health care sector, by talking about his relatives, he aims to gain legitimation for his choice.

> It was in the Independence Day 2012 at a skiing cottage when the rest of the family was already sleeping, and I had a couple of glasses of red wine, I got this big eureka moment. Damn, it has been in front of me all the time. What can you do if your grandparents are doctors, parents are doctors, brother is a doctor, cousin is a doctor, uncle is a doctor, cousin is a doctor and you are the black sheep in the family? And even your own wife is working in the health care sector. (…) Suddenly it glinted that, damn, this is the next thing, it is a health care company and it is particularly in occupational health care. I had a very concrete image of it all, and the best thing was that it sounded like a good idea even in the next morning. (Jack, founder)

The fact that Jack is a lawyer whose aim is to disrupt OHC market was frequently emphasised in articles written about Heltti. The Finnish Entrepreneurship Federation published one of the first media exposures with the following title:

> A lawyer intends to shake occupational health care
>
> Jack, The owner of the Law Firm X and board member of the Boardman, network aims to disrupt occupational health care (Finnish Entrepreneurship Federation, 7.4.2014)

Story 2: Chinese village doctor

Serendipity plays a role in the second story, which emerged through exploiting contingencies. When Jack told this story of a Chinese village doctor, he started by explaining how he heard the story for the first time because the event itself resonated with Heltti’s value proposition. A person in Jack’s network told the story of a Chinese village doctor triggered by the idea of Heltti's services. Encountering this story enabled Jack to combine the ideas of fixed pricing and enhancing wellbeing to demonstrate the value and relevance of their new service (Lounsbury & Glynn, 2001). Through this ancient story, the unfamiliar, new approach was turned into something easy to understand and was legitimated by framing the new service through a metaphor (Salancik & Leblebici, 1988). During the customer interviews, fixed pricing had raised questions about quality issues among the potential customers, whereas the Chinese Doctor story changed the fixed pricing to be an incentive for keeping people healthy.

> Another thing is that instead of making NDAs of everything and being quiet, we should talk much with different kinds of people. I talked about our idea with one person, and I told that we had proceeded and we had discussed about a fixed pricing model. He stated that Jack, it is, like, have you ever heard about the story of the Chinese doctor? People in the village paid for the doctor, but by no means did they pay based on number of clinical visits and operations. Instead, all the healthy villagers paid. Based on that principal, the better the villagers felt, the better the doctor earned. He had financial incentives to keep the villagers healthy.
>
> When I started to think about this, I wondered that, where did we lose this business model? Now, we have financial incentive to keep the people sick in our classical model. This opened my eyes to understand that we shall turn this upside down and enter the market with a fixed pricing model. And we were already prepared, that this kind of pricing model requires us to create services for healthy people. But what we were not prepared for, and this is something we learnt only after starting our business, was that it is not only a pricing model, but it is a whole business model. It turns upside down most of the things we are doing, how we do it and where we aim at in our business, what we measure, what is good and what is bad. (Jack, founder)

During the early days of Heltti, the Chinese village doctor story was often combined with the message of modern health care utilising digital tools (Figure 9). This served as a contrast, but mentioning the digital tools also avoided associating Heltti's services too concretely with ancient health care methods as such.

Figure 9 The Chinese village doctor (Heltti's presentation 13.12.2013)

Story 3: The white coat story

The third story illuminates how Heltti's service experience differed from the competitors'. The white coat story was based on Jack's own vision of what the service experience would be, thus serving as a critical intangible resource. The story about the doctor being the person in control and above the patient, while the patient is in the role of an object, reveals the underlying assumptions of power in the health care service setting. When creating Heltti's service, one of the most important goals for Jack was to create a non-hierarchical organisation in health care, thus changing what he understood to be the dominant culture in OHC in Finland. The doctor's white coat symbolises medical authority and respect (Hochberg, 2007). Jack's story of the white coat reveals how the hierarchical culture is embedded in OHC practices in ways such as interior design, processes and cultural practices. A story, as an intangible resource, revealed the emotion and feelings that the service creates, which is otherwise difficult. Later, this story also served as a script for videos that demonstrated Heltti's customer journey.

> We wanted to rethink what happens when you come to the health care clinic, even though we don't use that term (health clinic). If we think about the classic image, when you come here and ring the bell, then the buzzer starts ringing, and you open the door and you go and enrol yourself in the reception, you inform who you are and who you are going to meet (…) Then he calls you, 'Lassila'. Then you go to

> the room and it furnished so that there is a big table, and the doctor has a big good chair with a high backrest. (…) The whole situation is designed so that the doctor has all the signs of authority and the other one, be it, e.g., a lawyer in this example, so he is put in every respect in a submissive position. (…) What we wanted to do is that practically when you ring the bell, the person who has an appointment with you comes to open the door. So we turn the waiting the other way around so that the doctor waits and not the member who has come to wait for you. (Jack, founder)

The white coat story was a vehicle to communicate Heltti's intended service experience for different stakeholders (Lounsbury & Glynn, 2001). The service experience that Jack wanted to create was also embedded in interior design and the layout of the premises. The 'look and feel' of Heltti became an important element of Heltti's service experience and one of the concrete artefacts of disruption. Even though Heltti's premises were carefully designed, scarcity and handyman solutions, which are associated with bricolage (Lévi-Strauss, 1967), became especially apparent in its original premises. When making decisions about the location, Jack considered the rental agreement to be a major risk for a new company while trying to find an affordable location. He rationalised the choice of the location within a sports centre by being close to other services also aimed at enhancing health. However, the location was far from the city centre and was not easily accessible. The clinic itself was situated on a cellar level at the end of a long corridor, and the visitors needed to pass people in their sports outfits putting their bags in lockers. It also became rather apparent for the customers that the interior design solutions were based on affordability. The closed front door, someone personally coming to open the door, the unconventional interior design and the cheerful welcome were all rather surprising elements for a health clinic. The whole health clinic, with its 'look and feel', combined with the unconventional customer journey, seemed rather experimental. By highlighting the contradiction between the traditional customer journey and Heltti's customer journey, the founders aimed at appealing to an emotional level.

Story 4: At Heltti, 70% of all health issues can be handled remotely with the help of our technology and digitally advanced health team.

> 'We are changing the way people think about visiting a doctor, the disruption is similar to what has happened in banking', describes Jack, CEO and co-founder of Heltti. 'Going to the doctors can mean picking up your smartphone and using a digital connection.(…) We believe health care shouldn't aim for as many patient visits as possible, but for finding the most effective ways to treat people and prevent illnesses,' he says. (Finnfacts 18.1.2017)

One of the core elements of Heltti's service was that it would be efficient by being close to the customer. This was something that Laura in particular actively advanced, as she had found the traditional service delivery as inefficient. The first idea was to achieve closeness via a Heltti car which would take the doctors and nurses to see end-users, wherever they were. This was soon found to be too expensive. Through interacting with digital service companies and studying future trends in the health care industry, the solution was found in digital services. Together with a partner company, the founders started cocreating the HelttiMe service, which would help the user follow their own health data and give access to new kind of caring processes, e.g., through video connection. HelttiMe was planned to include both social and gaming elements. However, before these ideas were implemented, a new opportunity emerged. By coincidence, Laura found another service provider that could provide a chat service that allowed the patient to communicate with the health care personnel in a protected environment. The service was tested through a pilot project, and later, HelttiMe chat evolved to be the most common channel to make contact with Heltti. Exploiting this contingency appeared to be one of the key solutions in Heltti's early history.

When the founders realised that HelttiMe chat was one of the cornerstones of their service, they started actively communicating that 70% of health issues are handled remotely with Heltti, thus aiming at positive reinforcement to use the digital channels and symbolising the modern nature of Heltti's services. All of these four stories of Heltti were actively communicated in various media, in events and in interactions with different stakeholders.

5.2 Temporal shifts of CEB logics

As explained earlier in this chapter (Section 5.1.1.), I explored the flow of events, which revealed that, for example, seemingly causative single actions can be part of effectual processes. In order to analyse the flow of the events, I made an event history list, used colour coding to highlight the use of different CEB logics when analysing the flow of events in the research data and created visual maps. Visual mapping allows the presentation of the events horizontally, thus showing parallel events, the order of the events and their rough duration (Langley, 1999). This approach enabled the identification of the underlying logic instead of making conclusions about the applied CEB logic based on single behaviours. Section 3.4.4 describes the data analysis process in more detail.

In line with recent CE studies in international growth processes (Nummela et al., 2014) and CEB studies in the context of social entrepreneurship (Servantie & Rispal, 2018), my findings show that the dominant logic shifted from a flexible decision-making logic (effectuation) to a more formal decision-making logic (causation) as time passed. In the case of Heltti, CEB logics shifted over time from the dominance of effectuation within Period 1 to a combination of effectuation and bricolage in Period 2, after which the dominant logic changed to a combination of effectuation and causation in Period 3. Despite the shifts in the dominant logic, the NSD processes studied in Heltti were often means-driven (see more in the Section 5.4).

The outcomes of this process research also support earlier findings showing that perceived uncertainty plays a central role in explaining the shifts in applied logic in a complex manner (Jiang & Tornikoski, 2019), the application of cognitive logics is actor-dependent (Sarasvathy, Kumar, York, & Bhagavatula, 2014) and that both temporal as well as situational context cause variety in their use (Nummela et al., 2014). In Heltti, the shifts in the dominant logic were reactions to changes in how the environment was experienced, from uncertain to scarce and finally stable as the company grew and learnt through experimenting with ways of acting in specific situations.

Figure 10 visualises the period during which the study took place (2012-2016) and shows the dominant logics deployed. These periods are a way to structure the descriptions of the events by identifying breakpoints and discontinuity in the applied cognitive logics, while the visual map shows precedence and parallel processes in the passage of time (Langley, 2009). Drawing upon Langley and Truax (1994), Figure 10 presents the event chronology coded in the following ways. First, the form of the boxes indicates the nature of the event, whether it includes a major decision (sharp-cornered rectangles), activity (round-cornered rectangles) or whether the event is out of the firm's control (ovals). Second, the three horizontal bands indicate the context of the event by mapping them onto human resources, operations and events concerning the external environment. Third, the rough time scale shows how different events unfolded as Heltti's service emerged and evolved. In the previous chapter, I narrated a detailed story of Heltti that provided contextual understanding and allowed more complexity (van Maanen, 2011), while visual mapping enables the presentation of a large quantity of data in a rather small space (Langley, 2009); thus, both analysis methods support each other.

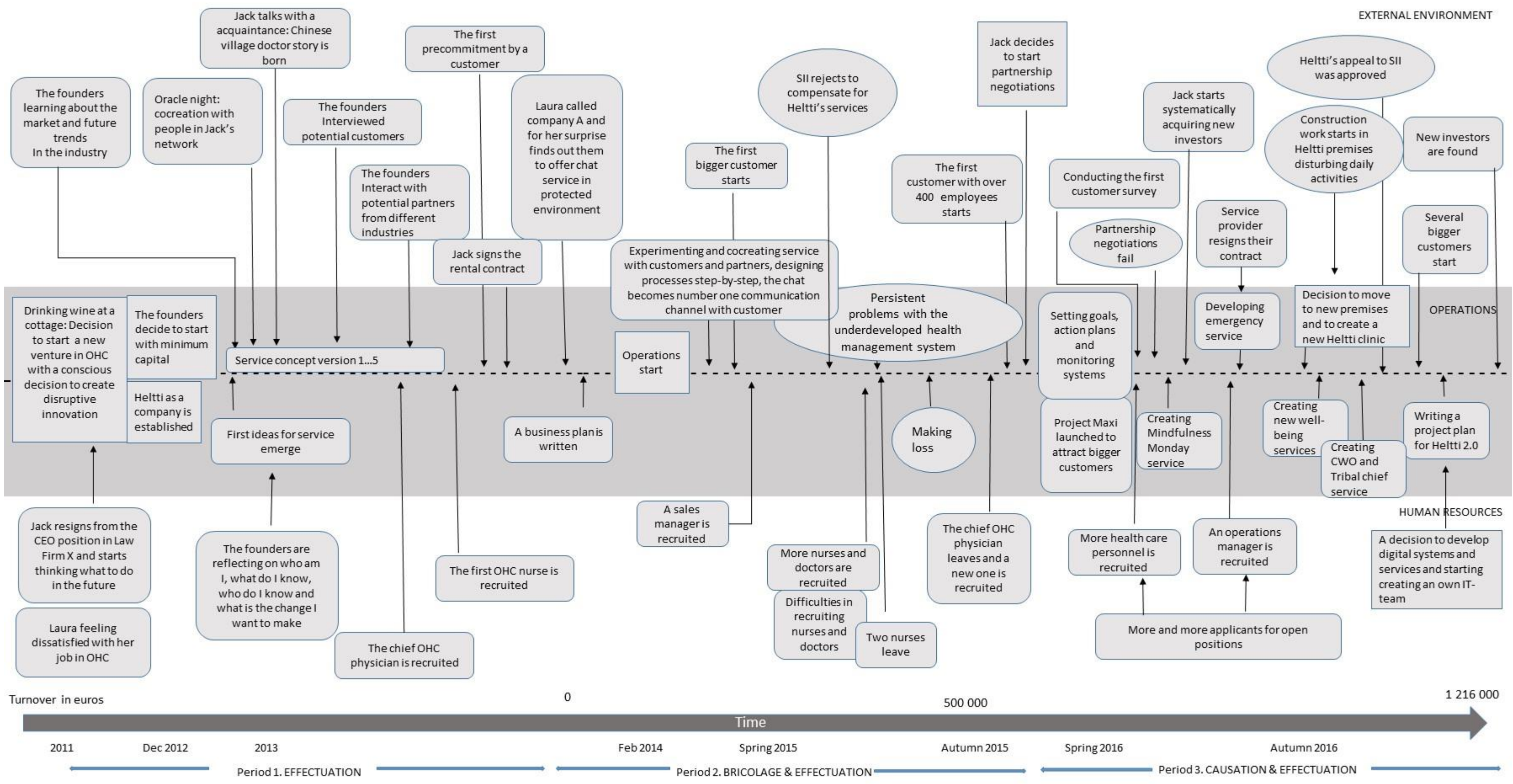

Figure 10 Heltti - the flow of events 2011 - 2016

5.2.1 Period 1: Dominance of effectuation logic

As the narrative of Heltti revealed, in the beginning of the new venture, everything was in a state of becoming, while the founders applied means-driven decision-making. The environment appeared uncertain because the founders only had a vague idea of what the service would be, there was no proof that customers would accept the initial ideas of the founders and Jack was not familiar with the OHC industry. On the other hand, both Laura and Jack saw uncertainty as an enabler and thus thought that everything was possible. The founders did all of the work with no running costs, which allowed flexibility and free experimenting. The founders of Heltti applied the following approach, which Bicen and Johnson (2015) have found to lead to successful innovations: 1) deliberately aiming at disruption in the OHC market by questioning the existing business models, 2) considering both latent needs and business needs as well as technological trends and 3) validating their ideas by experimenting iteratively (Bicen & Johnson, 2015). The approach followed no predetermined process, and it exploited contingencies that became available by interacting with people. This experimentation required a willingness and ability to change and develop the original ideas.

The processes which led to emerging ideas started many years before the founders consciously began to think and talk about establishing a health care company (Sarasvathy, 2001). Jack and Laura both had their own experiences, career paths and life situations, which all impacted the means available to them. These processes that led to emergence of the idea of Heltti form a complex entity, as many different actors and interactions between these actors shape the cognitive processes (Korsgaard, 2011). The same premises that Jack and Laura had might have ended up with many other effects. The first ideas seemed to spring from Laura's experiences as an OHC service provider and her discussion with Jack, combined with both of their own experiences as customers and users of OHC. These experiences and discussions made them think that there was room for improvement and change. When they reflected upon Jack's earlier experience of creating a disruptor model in the law sector, the founders started thinking that there was a possibility to make a disruption model in OHC sector, as well, as it was a traditional and hierarchical industry. Jack had earlier experience of fixed pricing and creating non-hierarchical work places in the Law Firm X, and these formed the two cornerstones for the new venture in the beginning. The third cornerstone arose from Laura’s experiences as a user of OHC services; she wanted more efficiency, as she did not want to waste time going to the appointments; therefore, she wanted to bring the service closer to the customer. Her knowledge and experience as a psychology and development manager in OHC also brought wellbeing and brain health elements to the service.

When the two founders of Heltti described their behaviours while reflecting on their thoughts during the early stages of the new venture, decision-making associated with causation was almost totally missing from their stories. In contrast, Jack and Laura thought that competitors had designed their business models by seeing constraints on possible means that were caused by the environment, and that many of the actors in OHC saw the environment as stable and linear. The founders believed their new venture challenged this conventional thinking and the dominant view of the market. Jack, who also had previous experience with new ventures, said that he explicitly tried to avoid long-term planning.

Before creating the idea of starting a new venture, Laura and Jack had wondered what to do in the future and reflected on the following questions: Who am I? What do I know? Who do I know and what can I do? What is my intuition? What is my own experience? These questions have been identified as elements of effectual processes (Sarasvathy, 2001). In Heltti, the ideas emerged from the means of both Laura and Jack, and the ideas developed further in interactive processes between the two founders. Through the available means, different resources also became available (Read et al., 2016); for example, people they knew became important human resources when cocreating new services and, later, also as employees. Thus, effectual processes are not limited by the resources at hand, as the available means can be transformed into versatile resources.

When Laura and Jack created with the idea of starting a new company, the main trigger seemed to be situational: they both wondered what they would do in the future. Laura was not satisfied in her former job, while Jack wondered about his future after giving up his position as a CEO several years earlier. Answering the means-related questions combined with disruption intention led to the formulation of the aspirational goal of creating a wellbeing service station. The initial ideas were derived from means through both conscious and unconscious processes. After the founders explicitly decided to start something new, the focus of thinking moved towards transformational aspects (Venkataram, 2012). The aim of the founders was to disrupt the OHC market by creating radical innovation (Gallouj & Weinstein, 1997). Jack already had experience with what he called disruption by creating a new service concept in the law industry. These individual experiences created a knowledge corridor, which enabled the two founders to see opportunities they might not have seen without the experience of creating a new venture in the law industry (Ronstadt, 1988). From the innovation point of view, what Jack did not know was also important, as he was not limited by taken-for granted issues and could see what was 'wrong' with the current business models and practices. As Jack came outside the health industry, he had no need to protect his own professional status. Jack was active in finding new solutions as well as applying what he had learnt when working in other industries and positions. On the other hand, earlier experience may also limit the opportunities the founders identified, making them blind to different options (Shane, 2000). However, having experience in different industries and diverse knowledge-sourcing relationships has been found to increase the potential of identifying a larger number of and more varied opportunities (Gruber et al., 2013).

The initial ideas were then cocreated by the two founders, who kept in mind the aspirational goal of creating a wellbeing service station. This goal was to be achieved by 1) moving from a fee-for-service based model to a value-based service offering, 2) bringing the services to workplaces and homes and 3) building the best work place in the health sector in Europe. After generating these initial service ideas, the founders of Heltti started validating their ideas by interacting with different people. New ideas were tested as they appeared in a rather open, fast and iterative manner (Sarasvathy, 2001). At this phase, before the operations had started, experimenting essentially meant talking about the idea with different stakeholders, as well as listening what they thought about the idea and what new ideas started to emerge through the interaction.

Heltti's service emerged and evolved with fluid and open-ended processes, and the initial ideas served as stimulation for number of new ones (Schroeder, Van de Ven, Scudder, & Polley, 1989) rather than as a planned process. Jack deliberately tried to avoid any systematic planning approaches, as he believed more in action than planning and more in future-orientation than market analysis, which he believed offered only historical data (Dew et al., 2018). The guiding principal of the two founders was to 'talk with anyone who was just willing to listen', thus actively enhancing serendipitous moments where new means-ends might start to emerge. Jack also envisioned broad diversity in his network, especially in terms of industry. Moreover, interactions with different people mediated access to human resources, information, finance, partnerships and precommitments. Jack especially emphasised the external locus and future orientation instead of planning internally and analysing history. Interacting with people of diverse backgrounds and envisioning collaboration with a broad range of partners describes Jack's heuristics as he exploited new combinations of changing means (Dew et al., 2018).

The first ideas for a new service that Jack and Laura generated, which derived from means (Table 13), thus applied effectuation logic (Sarasvathy, 2001). When Jack explained how the idea originally came to be, he reflected upon his past (what he knows, whom he knows, who he is and who he has become, his experiences), his present (life situation, family, work, finance, activities, understanding of oneself: where do I come from, what do I identify myself with, what am I good at) and the future (what am I capable of doing; what is my ontology; how do I understand reality and human nature; what we are and what are we capable of doing as leaders, as employees, as individuals in the context of wellbeing; how I see the future; how I see myself in the future; how I see the world in the future). It is probably that none of these means alone would have led to the creation of the idea, but together, they interacted in a rather iterative way.

Laura's reflections focussed on her dissatisfaction with OHC services, which she had experienced as a customer and as an OHC service provider; this can be considered a typical trigger for service creation processes, as innovation is often traced to dissatisfaction and tension (Van de Ven, Andrew, 1986). She sensed that the aims of preventive health care and present practices were not aligned. When talking with Jack, she started to realise what was wrong in OHC and the origin of her dissatisfaction. Laura also considered that their timing was fortuitous, as the interest in health care industry was growing: ‘When the whole industry is in the turning point, it is easier to start the disruption and change’.

Table 13 Examples of means and disruption intensions of the two founders of Heltti

I am a disruptor, aiming consciously to change, creating my own future and growth. (Jack, founder)
I am a Great Place to Work leader, good work places are non-hierarchical (Jack, founder)
I enjoy taking risks (Jack, founder)
I am cost-conscious and efficient (Jack, founder)
I am a sportsman, and I take care of my own wellbeing (Jack, founder)
I follow and know about the changes in the environment (Jack and Laura)
Many of my relatives are working in health care sector (Jack, founder)
My experiences of OHC as a customer (Jack, founder)
My experiences of OHC as a patient (Jack and Laura)
I am a lawyer (Jack, founder)
I want a new challenge in my life (Jack, founder)
My experiences in working in a leading position in OHC (Laura, founder)
Our mutual discussions – how things are now and how things could be in OHC (Jack and Laura)
My experience as an employee in OHC (Laura, founder)
My insight as a service provider in OHC (Laura, founder)
My experience in working in a leading position in OHC (Laura, founder)
I’m dissatisfied with my work (Laura, founder)

By studying events as the service emerged, it is possible to track how the initial and rather vague idea based on effectuation processes (who am I, what do I know, who I know) turned into something that the founders expected to be of value for the customer (Table 14). With Heltti, the choice of the business sector (OHC) was affected by the founders’ education, work and entrepreneurial experience, as well as close relatives working in the sector and the interest in wellbeing. Jack particularly identified himself as a disruptor, having built confidence in the earlier successful venture.

Table 14 Means driven processes - emerging service of Heltti

Establish something new in OHC Relatives in health care sector Own interest and experience in OHC Seeing an opportunity in a traditional sector which has not changed (experiences, observations, discussions) *Who I am; What I have experienced; What I know; What am I good at*
Aiming at disruption Experience and earlier success in disrupting Desire to create my own future Rejecting limitations Dissatisfaction as a customer Dissatisfaction as an employee Dissatisfaction as a user of the services *What I have experienced; What I know; What am I good at; Who I am; What is the change I want to make*
Fixed pricing model Value for the customer: Control over the costs, enables forecasting of costs, supports wellbeing and preventing sickness, as the service provider has the incentive to keep users healthy Personal experience as a customer and a user of the service Personal experience as a service provider Personal experience of developing a fixed-pricing model Benchmarking health care services globally Investigating why OHC operates the way it does in Finland Research reports on health care *What I have experienced; What I know; What are the existing solutions; What is already known about the changes and challenges in the market*
Good work place Service offering: Wellbeing state of the personnel, wellbeing service plan for the company, leading support, atmosphere measurement, service actions according to needs Value for the customer: Role change from object to subject; user's active role in taking care of her own wellbeing Personal experience when creating a great place to work organisation Personal experience as an employee and director in OHC *What I know; What I have experienced; What am I good at; What I value*
Medical care Service offering: Medical services are available, but not the business driver Value for the customer: When you are sick, you are taken care of

Obligatory in OHC *What are the requirements*
Close to the customer Services at customer’s office or at home: Heltti Car Value for the customer: efficient and easy access to service, lowers the threshold to use the services A firm relationship between the company and Heltti Personal experience as a user Personal experience as a service provider *What I have experienced; what I know; what I value*
Wellbeing services Service offering: Up-to-date measurements, brain health Being inspired by others in the sector (e.g., Kaiser Permanente) Personal experience as an employee in OHC Personal experience as a sports enthusiast Knowing about changes that have taken place: digitality in health care and wellbeing, the nature of the work is changing, wellbeing challenges of the society *What I know? Who I am? What is happening in the environment? What is predicted to happen?*

During the preceding year, before operations started, Laura and Jack actively interacted with many potential customers, users and other stakeholders at both formal and informal events (Toivonen & Tuominen, 2009), where ideas were cocreated and tested. The two founders of Heltti actively and consciously utilised contingencies that emerged from this continuous interaction with different stakeholders.

Laura and Jack also interviewed potential customers by directly asking about their needs and wishes regarding the OHC services. After, Laura was surprised that customers were not able to imagine a dream OHC service. However, the founders understood that the customers based their answers on the current situation and utilised those answers to understand their lives and latent needs, instead of deriving ideas directly from expressed customer needs (Michlewski, 2008; Utterback et al., 2006).

5.2.2 Period 2: Interplay between effectuation and bricolage

The first two years after the operations started were a time of actively selling, creating processes, experimenting with what worked and what did not and trying to survive financially. Service offering, service processes and service elements evolved constantly; pertinently, this was while financial and human resources were scarce. Experimenting was part of everyday activities, as Jack encouraged both the managers and employees to 'think that how could we do things differently'. Even though resources were scarce during Period 2, Heltti's service continued evolving by experimenting, for example, with pop-up health clinics, mobile wellbeing solutions and digital health checks.

The founders and employees of Heltti had not yet experienced significant pressure during the first year in operations, as the business was still in small scale. After Jack hired a new sales manager to increase the sales, growth started to accelerate, which made the underdeveloped processes, lack of liquidity and human resource scarcity concrete during the second operational year. Scarce human resources were also a threat to Jack's ambitious growth aims in terms of customer numbers, which he regularly monitored. This scarcity then triggered the use of bricolage logic and making good enough decisions in recruitment as well as in service and system development.

Applying effectuation logic by exploiting contingencies as they appear sometimes led sometimes starting things, experimenting, but not implementing them fully or suddenly changing the course of action when another opportunity appeared. In the case of Heltti, this caused frustration among the employees who, during this time, were not aware of the status of the processes or the reasons for not continuing the original process. Not following the plans was particularly challenging for health care personnel, who had previously worked in large, established companies. Changing from a stable work environment to Heltti, where experimenting, changes and uncertainty illustrated the course of actions, made many health care employees miss the feeling of control that was enabled by causation logic, with its linear processes and stable environment in the traditional health care companies (see more in section 4.5.5).

The founders had a strong intention to 'disrupt the occupational health care market and respond to the customer need in a new way' (Heltti presentation 5.4.2013) by focusing on preventive health care and enhancing health. To achieve this aim, Laura and Jack tested and consciously rejected institutional constraints and definitions in OHC, which Baker and Nelson (2005) consider typical for bricolage. However, as I explained in Section 3.2.2, rejecting limitations was not a consequence of using resources at hand; rather, it was a prerequisite for the change that the founders aimed to achieve.

Abrogating existing practices and norms caused resistance both from the regulators and customers (Hwang & Christensen, 2008). This in turn caused pressure and extra work for all the founders and employees of Heltti. Jack's earlier experience and knowledge had made the founders aware that encountering resistance from customers and regulators was part of the change process. Therefore, Jack regularly reminded the employees that all of the customers would not accept Heltti's service, and developing the service based on customer feedback would lead to adapting it to resemble the traditional service in OHC. By testing and rejecting limitations, the founders of Heltti did not see the environment as given; rather, they saw the future as something that could be cocreated together with the stakeholders (Dew et al., 2016). Hence, by applying effectuation logic, the founders aimed to reshape the environment to create a transformational outcome (Sarasvathy & Dew, 2005).

Another concern during Period 2 was how to cope with liquidity issues and how to find employees that would cope with the changing role and work of health care personnel. This scarcity triggered the use of bricolage logic, leading to good enough solutions when making decisions about human resources, digital systems and implementation of service. Hence, scarce human resources led to good enough recruitments, which then led to dismissals, which in turn had negative effects on the atmosphere among employees. Human resource scarcity impacted the whole organisation, negatively affecting the atmosphere and increasing the workload, and at some point it was considered to slow growth. Human resource scarcity was partly due to the fact that Heltti had difficulties finding applicants, particularly those who were willing to work in an unknown start-up and who would cope with the changing work of health care personnel in Heltti. Health care personnel also experienced heavy workloads because Jack insisted on recruiting only when the number of customers exceeded certain levels, and he avoided recruiting people to positions other than production.

Baker and Nelson (2005) have described how companies using bricolage experience slower growth because they were limited by the associated organisational identity. As a consequence of using only the resources at hand, bricolage has been claimed not to attract demanding customers (Senyard et al., 2009), to cause delays in the innovation process, and to reduce service quality (Witell et al., 2017). All of these consequences can be identified in Heltti, e.g., customers criticised the homespun premises and inconvenient location, the step-by-step creation of digital services took several years, and service implementation was not always considered professional. Tasks that required no particular expertise were executed together regardless of role, which increased the amount of work, but also enhanced feelings of togetherness. Tensions arose because the health care personnel came from established organisation where the work division was clear and tasks were specified. One issue that the nurses experienced as particularly inconvenient was that they were assigned to take laboratory samples. Usually, in OHC clinics, there is a specialised laboratorian who takes the laboratory samples. However, the founders considered nurses taking the laboratory samples to be good enough and an inexpensive solution in the beginning when volumes were still small. The difficulty with the good enough principal was to know what was good enough when considering the company's image, customer experience, efficiency and recruitments.

Bricolage also had negative consequences on how Heltti's employees experienced their work, and these were mainly associated with the 'make do' principal, which was applied to premises, digital systems and, to some extent, also to human resources. All employees, managers and founders experienced scarcity in everyday activities because coping with limited resources led to solutions which were often labour intensive. One such solution was not to acquire a costly patient management system, but to use resources at hand and use Excel-tables, which was rather time-consuming.

On the other hand, Jack as a CEO deliberately aimed at making scarce financial and temporal environments in order to decrease planning (internal locus) and encourage interaction with stakeholders and selling (external locus). Jack considered scarcity to be enabler (Bicen & Johnson, 2015) by increasing creativity and bringing better business results. In the CEB literature, scarcity is often implicitly considered only as financial scarcity, although it may concern also other resources, such as time and human resources. Jack deliberately made time resources scarce while emphasising efficiency: meetings should start and end on time, decisions should be made fast whenever possible and action is taken without thorough planning. The rationale seemed to be not to waste working hours, but also that scarce time resources bring better results. Thus, bricolage logic can also be applied intentionally to avoid slack.

5.2.3. Period 3: Interplay between causation and effectuation

It has been suggested that effectual flexibility of utilising contingencies can be combined with exploring different options based on calculations and setting long-term goals, thus applying a causal approach (Zheng & Mai, 2013). Similarly, strategic planning can be combined with a means-driven and experimenting approach in NPD processes (Smolka et al., 2016). Positive thinking and creating long-term goals (Gielnik et al., 2014) enables determining growth ambitions, which have been found to contribute positively to business success.

A combination of effectual and causal logic emerged in Heltti during Period 3. In Period 1, the founders of Heltti experienced the environment as uncertain, which led them to deploy effectuation logic while thinking that everything was possible. Bricolage logic was triggered by increasing scarcity, as the company started to grow and faced the resource limitations in Period 2. During Period 3, the environment was experienced as more stable through learning what worked and what did not, and they noticed that more customers were adopting the service. Within this period, a causation logic started to emerge more strongly for the first time, in which both long-term and short-term plans were made, with given effects and clear aims set and monitored by collecting statistics, performing analysis and making predictions. However, as Smolka et al. (2016) have said, causation can be combined with a means-driven and experimenting approach in NPD processes, and indeed, this was observed in Heltti, thus supporting the earlier findings that causation and effectuation are, to a large extent, applied simultaneously (Dutta & Thornhill, 2014; Harms & Schiele, 2012; Lingelbach, Sriram, Mersha, & Saffu, 2015; Reymen et al., 2015; Sitoh, Pan, & Yu, 2014). A making-do approach, which is associated with bricolage, clearly diminished during Period 3, while strategic plans included a strong growth intention triggered by the new financial opportunities, thus leading to causation logic. Reymen et al. (2017) have noticed that scarcity may trigger bricolage logic even after episodes of causal dominance. My study shows that the mere future expectation of increasing financial resources led to planning more formal processes.

Effectuation's positive thinking (Townsend et al., 2018) and causation's creation of long-term goals (Gielnik et al., 2014) are both known to support growth ambitions, which in turn have been found to positively contribute to business success. The effectual flexibility of leveraging or exploiting unplanned opportunities was combined in Heltti with exploring different options based on calculations and setting long-term goals (Zheng & Mai, 2013). New services were created by applying effectual logics that were means-driven, aspirational, experimental and that exploited contingencies. Even if causation logic was applied in strategic planning, daily business decisions utilised effectuation logic, thus leading to changes in the strategic plans as needed (Sarasvathy, 2001): effectual flexibility enabled the utilisation of the opportunities that the ever-changing reality offered. A making-do approach, which is associated with bricolage, clearly diminished during this phase, while strategic plans included a strong growth intention triggered by the new financial opportunities, thus leading to causation logic (Ladstaetter, Plank, & Hemetsberger, 2018).

Balancing causation and effectuation was difficult for Heltti's employees, managers and founders. During the third operational year, Jack also started actively screening for new financial opportunities, which was interpreted as a call for causation approach on a strategic level while also creating new innovation opportunities. Better financial resources enabled planning, and the internal locus began to take over. Additionally, the causation approach was interpreted to allow a more professional image, which was needed to convince and attract more and more demanding customers, as well as investors. Therefore, the two new recruits (Chief OHC physician and Operations manager) in the management team were expected to create clear operational processes and better support systems. Both had experience in leading and building operations in a systematic way. However, while organisations learn and improve at organising, they are found to be unable to keep pace with environmental demands, thus leading to obsolete outputs (Sorensen & Stuart, 2000), which Jack seemed to be aware of. Therefore, Jack explicitly tried to encourage action and a self-driven approach instead of organising and planning, which he believed led to stemming change. I also identified events when external funding options were about to actualise, and Jack recognised that the logic of the management team members turned towards causation, and he consciously tried to guide decision-making towards bricolage and effectuation.

According to Nummela et al. (2014), external funding and the change of a key person appear to trigger causation logic, while similar incidents may trigger different cognitive schema as a consequence of person's interpretation, which is based on earlier experience (Weick, 1979). My study indicates that even the expectations of future external funding led to applying causation logic, as external funding was considered to call for a more organised approach to convince the investors, such as setting specific goals, making plans to reach the goals and establishing monitoring systems. Even though formal planning increased during Period 3, the NSD processes studied were still means-driven. In addition, the expectation of more funding triggered NSD processes that were not enabled by the scarce financial environment. Thus, prioritising existing business over service innovation may not stem from effectuation logic, as Berends et al. (2014) have argued; rather, it may be due to the scarcity of both time and financial resources.

During the third operational year, Heltti's business started to appear more stable, while both the turnover and customer numbers reached the ambitious aims. The environment was experienced as more stable through learning and gaining confidence about the success of the service concept. When a company comes into being, there is a need to predict behaviour, which leads to planning and standardisation; the employees of Heltti also experienced this. From process ontological view, planning and organising concerns stemming change, which conflicts with the effectual view of seeing uncertain environment as an enabler, embracing the versatility of ideas and experimenting with different alternatives. Consequently, causation logic may even hinder the creation of new innovations.

Effectuation in Heltti manifested as a feeling of continuous change due to experimenting and exploiting contingencies. The feeling of continuous change was also supported by emphasising the disruptional nature of Heltti. Service implementation, in both the operational process dimension and the experiential dimension, was influenced by the dominant logic of effectuation. This led to avoiding planning and standardised processes, as well as being proud of non-existing common guidelines, which is manifested in the employee comment: 'Here, I was told that everybody can do how they see the best'. Many employees enjoyed the freedom to experiment, be flexible and let people find their own ways of doing things. This approach worked to some extent, when there were few employees, but it became more challenging as the number of employees increased.

There were also employees who longed for the planned and standardised processes that they were used to in the health care sector. Problems arose, as there was no explicit distinction made between the operational dimension, which was implicitly expected to be clear, smooth and efficient, and the experiential dimension, which was expected to be anticipating, adapting, dynamic and value-based (Nixon & Rieple, 2010). In the case of health care services, safety and liability issues also affect the operational dimension. When there was no clear understanding of the differences between these two dimensions, it caused frustration and dissatisfaction. A key person change brought more clarity to this issue, as the new Chief OHC physician, David, tried to organise the operational dimension by applying causation logic with clear plans and processes, while still allowing flexibility in the experiential dimension. In addition, the co-created values of Heltti were thought to serve as guidelines for the experiential dimension.

5.3 Diversity in cognitive logics

Diversity in the cognitive approach has been mainly associated with positive outcomes, assuming synergy between causation and effectuation (Murnieks, Haynie, Wiltbank, & Harting, 2011; Smolka et al., 2016). These findings are often based on researching individual entrepreneurs and businesses or innovation outcomes instead of studying CEB logics on the venture team or organisational level. Distinguishing between the logics is not easy, and companies and individuals fluctuate between them (Kalinic et al., 2014). Consequently, the items of causation and effectuation logics are often researched with an underlying assumption that these two approaches are used in parallel, but that they do not affect each other, or they are applied in different stages (Reymen et al., 2017) or in different business functions leading to synergy (Smolka et al., 2016). However, my process study reveals that the interplay between the different logics not only led to synergistic effects, but also caused tension, paradox and contradictions.

5.3.1 Conflicting logics

In growth companies, the entrepreneur makes decision, but there might also be an entrepreneur team or management team as well as employees who all contribute to decision-making. These different actors may also apply different cognitive logics (Sarasvathy et al., 2014). Researching the NSD process on the individual, team and organisational levels, as time passed, I found that applying the different logics may also create conflict, thus leading not only to positive outcomes but also to frustration and tensions within the new venture.

The founders of Heltti, Laura and especially Jack, strongly influenced how decisions were made, even though their expressed intention was to emphasise low hierarchy. Although many people contributed to the decision-making, a company’s actions are found to be to some extent a reflection of how its managers or entrepreneurs think about the issues the firm faces (Schein, 1983). When analysing the naturally occurring material, the influence and role of Jack as a CEO seemed to play a rather important role based on his identity and ontology: how he sees the world, what human nature is and what a human is capable of. In addition to the strategic decision-making, Jack influenced micro events with his feedback, comments, decisions and actions. Many of these micro events played an important role in how and what Heltti's service came to be.

Jack can be characterised as a forward-looking and future-oriented person, which did not prevent him from shifting between past and present, as well (Shipp, Edwards, & Lambert, 2009). Temporal research implies that, when a person makes current decisions, he is affected by how he recollects the past, perceives the present and anticipates the future (Shipp et al., 2009). In that sense, time is not only objective but also subjective (George & Jones, 2000); thus, the future is never 'black', as we all see the future in a certain light. Jack had earlier experience as an entrepreneur in a new venture, and he was involved with the Finnish new venture network in different ways. Jack actively sought inspiration from the foreseen changes in the environment and tried to move forward with the river of reality. He hated being stuck with things and 'looking at the rear-view mirror', and he emphasised action and future orientation.

In addition to focusing on the future, Jack also appreciated scarcity. He believed that scarcity enhanced creativity and efficiency, and he thought that plentiful resources lead to unnecessary planning and developing. Jack created consciously scarce time circumstances in meetings, appreciated fast decision-making and preferred tight deadlines. Additionally, scarce financial resources were not only a consequence of a lack of options, but they were also a conscious choice to cope with minimum capital before the business model proved to be successful. Jack thought that good-enough solutions give space for experimenting, iterating and abandoning ideas that failed to add value. Even though Jack's decisions making logic could be characterised as effectual, he was also strongly goal-oriented. When he considered the business model successful, he started investigating external funding options and also applying causation logic in strategic planning.

Laura's background was in well-established companies where causation logic based on rational decision-making typically dominates, presupposing well-structured goals and enabling a strong internal control (Dew & Sarasvathy, 2001). When she observed and reflected on how differently decisions were made in Jack's world, she started seeing opportunities for change in her own work environment. In the beginning of the new venture, when everything still seemed possible for the founders, Laura also mainly applied effectual logics. During the more difficult times and when effectual processes led to undesirable outcomes, her thinking processes transformed towards causation dominance. Overall, it seemed that Jack fluctuated between effectuation and causation logics depending on the nature of the decision in a rather constant manner, while Laura's thinking processes fluctuated between causation and effectuation in a more unpredictable way. These shifts stemmed from the two founders' backgrounds, how they experienced the present and how they saw the future for a certain event.

The founders of Heltti consciously recruited people with new venture background as managers; they chose people they thought would be able to understand the work in a growth company. In particular, using effectuation logic to cope with unanticipated consequences has been found to be crucial when selecting collaborators during the early phases of a new venture (Jiang & Tornikoski, 2019). Recruiting health care personnel for Heltti was more challenging, as they often worked in established health care organisations that typically applied causation logic. These different cognitive logics caused tensions between the people working in Heltti. Causation-oriented employees tended to consider managers applying effectuation logic as utopians or not knowing how things are done in the industry. In contrast, effectuators became frustrated with people who looked back, planned and analysed instead of orienting towards the future, taking action and experimenting. In addition, bricolage with scarce resources and good-enough solutions were rather surprising for the employees from the established organisations. Approaching decision-making from these different logics caused stress, arguments between people, mistrust, doubts and even questioning the existence of the whole venture. When problems arose, the 'wrong' approach was often blamed for the problems.

Many people naturally seek stability and clarity, which partly explains the use of causation logic, while 'people have basic physiological limitations of not being able to handle complexity' (Van de Ven & Hudson, 1984). Planning and sharing goals with employees are said to bring a sense of comfort and confidence (Eisenhardt, 1989a), but in Heltti, they also brought a feeling of false security, as well as frustration and stress when the business was continuously unprofitable. In addition to increasing the sense of participation and commitment (Locke, Latham, & Erez, 1988), the goals with high growth aims also caused pressure for the employees, who experienced heavy workloads. Despite Heltti's strategic level goals and plans, contingencies were actively exploited, and new services were created by applying effectuation logic, which appeared chaotic and unprofessional for some employees. Decision-making without prediction has been found to feel psychologically uncomfortable, and from a causation perspective, irrational and unjustified, whereas effectuation considers uncertainty as a process and a resource (Dew & Sarasvathy, 2001).

When new solutions were created, different CEB logics often conflicted. While the diversity of team members may contribute to creativity, it may also lead to conflict between different logics, especially as effectuators anchor their decisions in who they are and their gut feelings (Sarasvathy & Dew, 2005; Butler & Williams-Middleton, 2014). Actors applying causation logic wanted to analyse the past in order to make well-informed decisions, while the effectuators saw that the future could not be predicted, and the only way to know was to experiment. When creating solutions by following a causation approach, solutions were created by analysing the past, using solutions that had previously worked well, asking how can we do things better, trying to solve flaws and aiming at organising and standardising in order to be able to predict the behaviour. In the NSD context, the actors applying causation logic are guided by a specific goal, while focusing on constraints, routine, on-going work and incremental innovation (Butler & Williams-Middleton, 2014). The effectuators aimed at accelerating change by looking at the future, challenging the current practices and solutions, asking how it could do the right things (Teece & Leih, 2016) and taking a problem as an opportunity to change things into better. In Heltti, the often-outspoken principal of developing services was to think how things could be done differently and why they are done the way they are instead of choosing the most obvious solution.

5.3.2 Situational triggers

My study supports the earlier findings showing that the situational context also causes variety in the use of CEB logics (Nummela et al., 2014), thus leading to shifts between the CEB logics regardless of the dominant logic. These situational triggers included events such as sudden problematic situations, external funding opportunities, dissatisfaction among customers, business failures and changes of key persons. Organisations are found to respond to external influences, but the way they respond varies depending on how the members of the organisation see themselves and the environment leading to evolving, multi-layered and complex responses (Weick, Sutcliffe, & Obstfeld, 2005), which becomes evident in the following examples.

Some people in Heltti changed their logic from effectuation to causation when faced with an unanticipated consequence, e.g., a poor financial situation, failed experiment or negative customer feedback. In these situations, causation seemed to present stability and offered comfort from 'knowing'. Those who had previously experienced effectual processes were more confident and ready to accept failures as part of the innovation processes. Effectuators tried to turn the failures into positive outcomes by correcting the situation, challenging old assumptions and innovating. Jiang and Tornikoski (2019) have found that, when entrepreneurs do not perceive uncertainty, they primarily apply causation logic, while unanticipated consequences lead to perceiving uncertainty, thus triggering effectuation logic. My findings show that unanticipated consequences may also lead to deploying causation logic in a search for rational decision-making and certainty through systematic analysis, calculations and monitoring. Thus, taking the process ontological stance, in Heltti, unanticipated consequences led to applying causation, effectuation or bricolage logics based on the actor's past experience, how the actor experienced the present and how the actor saw the future.

Thus, when unanticipated consequences occurred, even some of the decision-makers who usually used effectuation logic started to apply causation logic. Applying causation logic in such situations led to accusing effectuation logic for the failures, while missing the rational approach that they thought would bring success. For example, when deciding to open a new location in Tampere, an effectuation approach was used. The decision was not based on any market analysis, but entering Tampere was a long-term aspirational goal, which became suddenly possible to achieve as the new Chief OHC physician lived there. The effectuation approach was applied rather unsuccessfully in terms of achieving the set customer numbers during the first half of a year, which led to questioning the approach and calling for more analysis before decisions were made. Conversely, there were also those who thought that experimentation was the only way to know and learn. Thus, opening the new location in Tampere was considered an experiment and a learning process that would help with entering new towns in the future. Additionally, frustration with negative profit figures and making losses, as well as negative customer responses to Heltti's service, caused other similar discussions and reactions.

5.4 Means-driven NSD processes

The NSD process is typically presented as a stage model, which starts with the formulation of new service objectives (Yu & Sangiorgi, 2018; Johnson et al., 2000) and is driven by market situation and competitors while aiming at efficiency and success (Froehle & Roth, 2007). However, my study shows that NSD processes in Heltti often applied effectuation logic and were means-driven, thus supporting the findings which show that small companies deploy effectuation logic in contrast to mainstream best practices of setting goals, planning and investing in resources, which are typically identified in larger companies (Berends et al., 2014). Similarly, experienced executives have been identified to assume that a priori market research enables decisions based on prediction, whereas experienced entrepreneurs reject this a priori knowledge assumption, instead believing that new knowledge emerges constantly (Dew et al., 2018).

In this section, I analyse Heltti's NSD processes starting from the time before Heltti and continuing with several other NSD processes that took place during the third operational year. I had three criteria when choosing the NSD processes that I study in more detail: 1) one or more employees, founders or managers mentioned that particular service as an example of Heltti's new service, 2) it was expected to create new value for the customer and 3) I was able to study and obtain data of the processes from multiple sources. Table 15 summarises and describes Heltti's new service development outcomes and the identified triggers that may have initiated the NSD processes, as well as cognitive processes that seemed to underlie idea generation.

Table 15 Heltti's NSD outcomes, triggers and idea generation

	Description	**Trigger**	**Idea generation**
The initial service concept of Heltti	Heltti offers OHC services with a focus on preventive health care at fixed price for knowledge companies. Heltti brings health services close to the customer through several digital channels. Heltti facilitates customers' experience by enhancing the sense of empowerment and equality.	Personal situation: What to do in the future – dissatisfaction with the present situation	Who am I? What do I know? Whom do I know? What is the change I want to make?
Mindfulness Monday and Body Balance Wednesday	Mindfulness Monday and Body Balance Wednesday are events offering a moment for enhancing customers' mental and physical wellbeing.	Available resources	Who am I? What do I know? What do I like?
New Helttilä	Heltti offers new customer experiences as a wellbeing service station.	Encountering a surprising event: current premises suffered from the nearby construction work	How to turn the problem into an opportunity? Who we are? Whom we know? What we know? What is the change we want to make?
Emergency service: HelttiLine extended evening and weekend service	HelttiLine offers easy and fast nurse consultation in medical care and wellbeing matters.	Encountering a surprising event: change: a partner company ended co-operation	How to turn the problem into an opportunity? Who we are? Whom we know? What we know?
Customer wellbeing officer (CWO)	CWO offers support for HR in leading work wellbeing as well as in planning and implementing interventions aimed at enhancing wellbeing at work.	Dissatisfaction: Need to manage larger customers better	Who am I? What do I like? What do I know?
Tribal Chief concept	Tribal Chief concept offers member benefits and activities, which aim at	Inner urge to innovate new services	Who am I? What do I like? What do I know?

	enhancing personal wellbeing.	Innovation as part of work role	
Wellbeing projects	Wellbeing projects offer companies information and tools to enhance employees' wellbeing.	Need for additional income	Who am I? What do I know?
Heltti 2.0	Heltti 2.0 offers a new wellbeing and health app and dashboard with improved customer experience.	New external funding available, out-dated digital services, aspiration for forerunner services	Formulation of new services objectives and making a plan

As the Table 15 shows, both the initial idea for service of Heltti was means-driven, but most of the NSD processes I studied during the four-year period started by applying effectuation logic: means-driven ideas were experimented and tested with rather little prior planning. During Period 3, new services were typically explained as deriving from customer needs when Heltti's employees and managers explained how the idea for a new service had emerged. The interviewees probably tried to legitimise their ideas both for themselves and for the interviewer by referring to customer needs, while considering the 'real story' to be rather unprofessional. When I asked people involved with Heltti's NSD processes to describe the process and events that led to the idea for a new service, their stories revealed that the ideas were instead based on their own understanding of customer needs, and the ideas derived from means (who they are, what they know, what they have experienced and what they like themselves). In addition, the observation data supported the means-driven approach.

In section 5.2.1 I explained how Heltti's idea for service 'proceeded outward from means and causes to new effects and unanticipated ends' (Dew et al., 2009, 288). In other words, Heltti's service emerged through effectual processes, while service elements, processes, service offering and service bundle continued evolving (Figure 11). Heltti's service was never considered complete; therefore, it never entered a full launch stage, which is described as the final stage of NSD (Johnson et al., 2000; Yu & Sangiorgi, 2018). On the contrary, the founders of Heltti consciously developed the service step-by-step, experimenting and creating a new, while considering that reality is ever-changing, uncertain and unknown (Van de Ven & Huber, 1990; Townsend et al., 2018, Teece & Leih, 2016). Consequently, Heltti's service also continued to evolve after the operations officially started.

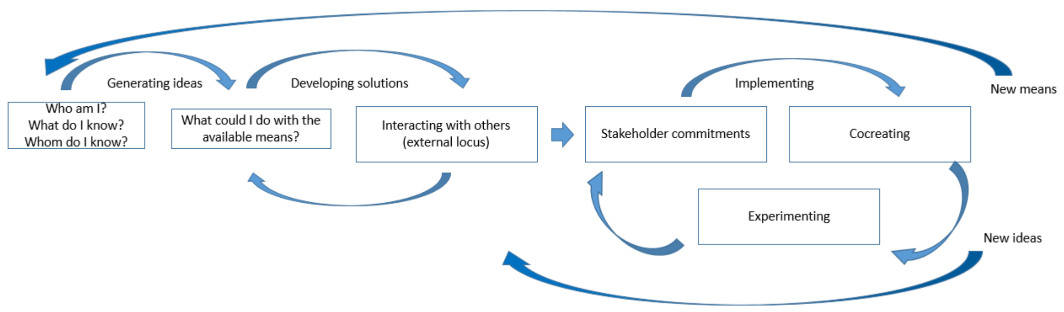

Figure 11 Heltti's evolving service

Mindfulness Monday and Bodybalance Wednesday events, which aimed at enhancing customers' mental and physical wellbeing, were mentioned as typical examples of Heltti's NSD process; the idea emerged ad hoc, was means-driven and implemented quickly (Figure 12). The idea was generated by a physiotherapist while reflecting upon who I am (professional role), what do I know (expertise, experience with customers and understanding of customer needs) and what do I like to do. Available empty premises served as a trigger to start the ideation process. The service was created without any interaction with customers or other external actors. The first events were considered experiments, and they were developed further based on customer feedback and service providers' own reflections.

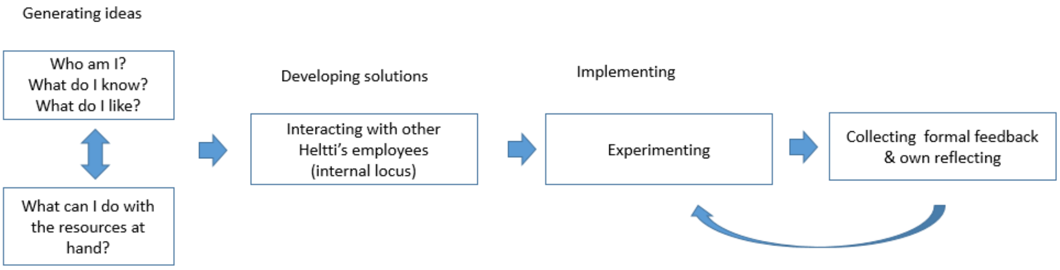

Figure 12 Heltti's NSD processes - Mindfulness Monday and Bodybalance Wednesday

The new solution for emergency services and the wellbeing service station were both created as an outcome of processes that were triggered by encountering a sudden problem. Heltti's emergency service during evenings and weekends was threatened when a service partner, who was also a competitor, ended their agreement with Heltti, and construction work was about to severely disturb Heltti's operation in the existing premises. When Heltti's managers and founders were informed about these problem situations, their discussion followed three phases: 1) Focusing on the problem and seeking obvious solutions, 2) Ideating new solutions to solve the problem and finally 3) Seeing the problem as an opportunity (Figure 13). The managers and founders of Heltti created solutions by implicitly asking who we are, what we know and whom we know. Both of these NSD processes had a rather strong internal locus, while involving Heltti's employees in the process, but customers were mainly merely informed about the new services. After the effectual start of the NSD process, towards the end, the process causation logic was applied. These two NSD processes included investments in premises, software and devices, which called for a proper plan, following the plan and finally launching the service. Investments were partly enabled by new external financing, which in turn also triggered causation logic. The outcomes of the new solutions for emergency services included better access to easy, fast nurse consultation in medical care and wellbeing matters, more control for Heltti over the customer's service process and improved employee experience. The new, larger and well-located wellbeing service station was presumed to enable an upgrade of Heltti's service to welcome customers that were more demanding, and to allow Heltti's rapid growth.

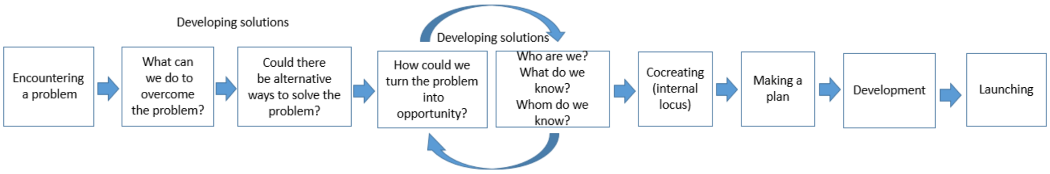

Figure 13 Heltti's NSD processes - emergency service

NSD processes of the customer wellbeing officer (CWO) and the tribal chief followed similar paths in the beginning. CWO service was created to give support for customers' HR people in leading wellbeing at work, as well as in planning and implementing interventions aimed at enhancing wellbeing at work, while the tribal chief service concept aimed at providing member benefits and activities to enhance personal wellbeing. Both of these ideas derived from means by asking who am I, what do I like and what do I know, and the process continued by asking what could I do with the available resources. Ideas that were generated by asking these questions were mainly developed into solutions in interaction with internal stakeholders.

The idea of a tribal chief service was discussed with customers to test what they liked about the idea, but cocreation elements were missing. On the contrary, CWO service was introduced to potential customers at the prototype level and cocreated further with them. However, when the idea of the CWO was discussed in an internal meeting, there were conflicting views among Heltti's managers and founders about the approach; there were those who wanted to make a plan and a clear roadmap before presenting the idea to customers, and those who preferred to develop the idea step-by-step and experiment together with the customer. Finally, the CWO concept was cocreated and tested together with several customers who were willing to buy the service as part of the fixed price service package. The CWO concept continued evolving, and it was later available as a separate service offering (Figure 14).

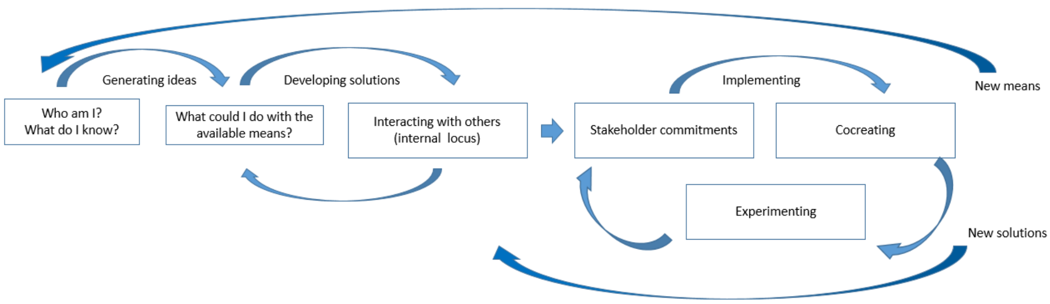

Figure 14 Heltti's NSD processes - Customer wellbeing officer

Ideas for new wellbeing services derived from means, while Laura, the other founder, reflected upon who she is, what she knows and who she knows (Figure 15). Wellbeing services as such were not new for Heltti, as enhancing wellbeing had been one of its core elements from the beginning. Wellbeing projects for non-customers (that is, those who were not customers of Heltti's OHC services) had been tested earlier, together with a partner company. Even though the pilot projects had not been very successful in the sense that the customer feedback was not positive and there were few sales after the pilot project, wellbeing services attracted the managers and founders of Heltti due to earning opportunities they offered. Even though ideas for these new wellbeing services derived from means, thereafter, the process followed causation logic: setting clear goals, analysing the market, developing the service based on perceived customer needs, creating marketing material and starting to sell without any precommitments, cocreation or experimenting.

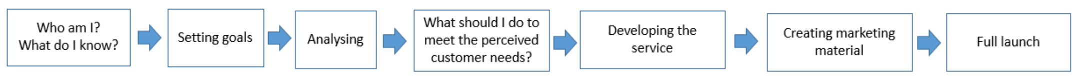

Figure 15 Heltti's NSD processes -Wellbeing services

Selling the wellbeing projects proved challenging, and no transactions occurred. After internal discussions, wellbeing services were included in normal service offerings, and some of the services were offered as an open campaign aimed at promoting Heltti's other services.

During the third year in operation, it became apparent that Heltti's digital services started to be out-dated. Creating new digital services required funding, which the founders decided to apply for from the Finnish funding agency for Technology and Innovation. In order to obtain this external funding, a written project plan was needed. The project was called Heltti 2.0, and it aimed at creating a new wellbeing and health app and dashboard with an improved customer experience. As was clear it from the beginning that Heltti's own resources were insufficient to accomplish Heltti 2.0, and therefore external funding was needed, this seemed to trigger causation logic. The Heltti 2.0 NSD process started with making a plan, which included a description of goals and services, an action plan, work hour calculations, a schedule and a budget. The Heltti 2.0

project was planned to take one whole year, which took place after my research period there ended.

5.4.1 From external locus to internal locus

Interacting with external actors was at the core when creating the initial service of Heltti. Through interaction, new ideas emerged, some ideas were rejected, precommitments were agreed and new resources became available. Similarly to Rusanen, Halinen and Jaakkola (2014), my study supports the findings that important resources in NSD processes were not only customers and intra-organisational actors, but also the actors in the wider network who were not directly connected to OHC. These stakeholders consisted of people the founders knew, new people who were introduced by the existing network and new people that the founders met through their active interaction with different actors. This growing network represented different industries, and they had varying roles in their organisations, which allowed different views to emerge. In service innovation and NSD literature, there are contradictory findings regarding the contribution of customer involvement. On one hand, customer involvement during NSD process has been found not to contribute to the radicalness of new services (Verma, Gustafsson, Kristensson, & Witell, 2012; Ordanini & Parasuraman, 2011), but to lead to innovative ideas when conducted in real-life settings (Witell, Kristensson, Gustafsson, & Löfgren, 2011). On the other hand, customer involvement has been found to contribute to creating ideas that are more novel and that present higher customer benefit than the ideas created by professionals (Poetz & Schreier, 2012). Furthermore, involving customers in complex processes during the design stage has been demonstrated to lead to radically new services (Melton & Hartline, 2015). These contradictory findings indicate that it is not only a matter of whether customers should be involved in innovation processes; how, when and which are also important questions to consider. Furthermore, another important question is how these cocreated ideas are processed further: are they considered a source of inspiration for new ideas, to reveal something about the customers' life (latent needs), or whether they are solutions derived directly from expressed customer needs. To this end, the approach of effectuation contributes to understanding value creation in NSD processes by emphasising experimentation, interaction with different stakeholders and customer precommitments (Kaartemo et al., 2018).

After Heltti was established, NSD processes of employees, managers and founders involved less interaction with external people than had been the case when the two founders created Heltti's service in the early days of the new venture. Hence, the locus in NSD processes shifted from external to internal, while the network (whom do I know) seemed to be less relevant than who I am and what do I know. Consequently, personal experiences, preferences, competences and knowledge were used as a source for new ideas. Using personal experiences and preferences as a source for new ideas was explained by customers' inability to see beyond what is. Many of Heltti's managers seemed to share the understanding that the customers should be able to identify their own needs and give suggestions for new services. If this does not happen, customers are not considered as contributing to designing new services. Another explanation for relying on personal knowledge and experience during the third operational year was that the environment was experienced as more stable and known, while there was demand for the service offering, which created a feeling of confidence. In Heltti, all the employees and managers, as well as both of the founders, were also in direct contact with customers, which might have contributed to the impression that the company knew its customers and their needs.

5.5 Summary

My study provides insights into the shifts, relationships and processes of CEB logics, thereby enhancing conceptual understanding of how they are applied within a new service development context. Numerous researchers have studied the interplay between causation and effectuation (Alsos et al., 2016; Evald & Senderovitz, 2013; Nummela et al., 2014) and found that the logics are used complementarily (Servantie & Rispal, 2018; Smolka et al., 2016). My process research reveals how the dominant CEB logics shifted, coexisted, created synergy but also conflicted over time.

My study shows that, in the case of Heltti, the dominant CEB logics fluctuated over time from effectuation dominance in Period 1 to a combination of effectuation and bricolage in Period 2 and a combination of effectuation and causation in Period 3. Effectual flexibility enabled the utilisation of the opportunities that the ever-changing reality offered, thus leading to changes in the strategic plans as needed (Sarasvathy, 2001). If I had studied causation, effectuation and bricolage by trying to identify certain behaviour in a specific moment of time without knowing what has happened before, what will happen after and why certain behaviour occurs, I would have ended with different conclusions regarding which of the CEB logics was applied. ‘This requires researchers to reorient how we approach the empirical study of entrepreneurial processes, from focusing on variables (across journeys) to focusing on events (within journeys)’ (McMullen & Dimov, 2013, 1505). To this end, process studies enable us to understand how and why things emerge, develop, grow or terminate over time (Langley et al., 2013).

Despite shifts in the dominant logic, the NSD processes studied in Heltti were means-driven. As the traditional NSD process begins with setting goals (Johnson et al., 2000), it leads to narrowing options because they are evaluated based on the set goals, which are derived from existing knowledge, whereas the founders of Heltti applied means-driven heuristics, thus allowing different options to emerge through transactional and co-creational relationships (Dew et al., 2018). In the current NSD models, available means are not considered part of processes that lead to new services, but they instead assume the NSD process starts with a conscious intent to create a new service. Process research enables us to recognise that a new service may start to emerge before the formal or conscious service development process begins, and it may continue evolving even after the service offering is introduced to customers. Researching cognitive processes individuals mobilise in search of and to create new opportunities has revealed the role of individuals' pre-existing knowledge and experience in explaining differences in products and services (Gruber, Macmillan, & Thompson, 2013). While the planned and formal NSD process may lead to faster processes with more innovations (Edvardsson, Meiren, Schäfer, & Witell, 2013), it may also contribute negatively to creativity and the radicalness of the innovation due its rigid, inflexible approach (Melton & Hartline, 2015).

Researching the NSD process on the individual, team and organisational level, as time passed, I found that applying the different logics may also conflict, thus leading not only to positive outcomes but also to frustration and tensions within the new venture. From an effectuation logic perspective, goals are not predetermined, and conflicting views are supposed to be experienced as positive. To these ends, members of the venture team are understood to be able to expand available means and positively contribute to the creation of new products or services (Read & Sarasvathy, 2005). In contrast, when applying a causation approach, a shared mental model with a clear plan is critical, and too many ideas are seen as likely to jeopardise the NSD process (Butler & Williams-Middleton, 2014). In Heltti, the discomfort encountered when the different logics were applied together led to an attempt to achieve cognitive similarity by attracting like-minded people to the company (McPherson, Smith-Lovin, & Cook, 2001; Murnieks et al., 2011). Actors applying the different logics also caused tension between team members, meaning that some people experienced stress and others left the company. Managerial background and characteristics have been used to explain the use of cognitive logic (Nummela et al., 2014); however, I found that the use of cognitive logics is a complex phenomenon, as people follow different logics based on their past experience, how they experience the present and how they see the future.

6. Conclusions and discussion

The aim of this thesis was to find out how different types of entrepreneurial cognitive logics, namely causation, effectuation and bricolage, influence the new service development process within a new venture in the health care industry. My process study informs both CEB and NSD theories by taking temporality into consideration and examining NSD processes as they unfold over time (Langley et al., 2013). By applying longitudinal research in combination with participant observation, I make a contribution to understanding even the micro-processes that underlie decision-making in NSD processes. Significantly, by bringing the notion of temporality in the context of NSD research, I show that the creation and development of a new service are considered and realised simultaneously. During the development phase, the study shows evidence that the initial idea for a new service changes; during the implementation phase, development continues in parallel with new ideas emerging (Korsgaard, 2011; Van de Ven & Poole, 2017). Thus, I propose that effectuation and bricolage logics enable the understanding of the complex, iterative nature of NSD processes. In this, I challenge the formal and linear NSD stage model, which can be associated with causation and which is typically proposed in the existing NSD research.

In the following sections (Sections 6.1, 6.2 and 6.3), I review the research questions and discuss the contributions for CEB logics and NSD models, as well as the methodological contribution. I then continue by presenting the practical contributions (Section 6.4). I conclude my thesis by presenting limitations of my study as well as opportunities for future research (Section 6.5).

6.1 Contribution to CEB logics

My study provides insights into the shifts, relationships and process characteristics of CEB logics, thereby enhancing the understanding of how CEB logics can be operationalised. A process ontology calls for exploring what has been and what will be, which then allows an understanding of what happens in a certain moment (Langley & Tsoukas, 2013). Therefore, I argue that, when studying causation, effectuation and bricolage, and only doing so by trying to identify certain behaviour perspectives in one specific moment and without knowing what has been before, during and after, one cannot make conclusions about which of the CEB logics is applied. For example, in Heltti, writing a business plan, which has been identified as an action underlying causation (Fisher, 2012), served instead as a tool to convince external stakeholders, as opposed to being a plan that guided future action. Thus, I suggest that seemingly causative single actions may be embedded within the effectual process.

Similarly, the ability to leverage contingencies, which is associated with effectuation, is not determined by the existence of a business plan. In fact, this is consistent with what Read et al. (2009, 574) have stated, that ‘having a business plan does not imply a lack of ability to leverage contingency’, and that ‘the important issue is the entrepreneur's willingness to change when confronted with new information, means or surprises’. In Heltti’s case, the business plan was written shortly before the operational activity started; it acted mainly to serve documentation purposes and legitimation purposes, and it was used to convince the external stakeholders about the creditability of the new venture. The future actions indicated in the plan actually changed before the operations started due to the ability to exploit contingencies and experiment with the service, which continuously evolved.

My study also contributes to bricolage and effectuation by showing how means can be transformed into resources and exploring how stories serve as vehicles for mediating means into resources. Furthermore, I found that the CEB logics interplay and shift in a complex manner over time. This is because perceptions of the environment change over time, situational triggers may cause reactions in the applied logic, and different actors apply different logics. In the following sections, I explain in more detail the contributions of this study for each of these elements, which affect how CEB logics interplay, shift and conflict.

6.1.1. CEB logics – interplay and shifts

The dominant CEB logics shifted over time from effectuation dominance to combination of effectuation and bricolage, to a combination of effectuation and causation during the study period. The shifts in the dominant logic reacted to changes in how the external environment was perceived and experienced, ranging from uncertain to scarce and finally stable. Thus, the shift towards causation logic over time is in line with McKelvie et al.'s (2019) suggestion that, as uncertainty is expected to drive effectuation, causation logic becomes more dominant while the new venture becomes more established, thus reducing uncertainty. However, my findings show that, despite becoming more confident as the company became more established, NSD processes were still means-driven and mainly applied effectuation logic. In Heltti, the founders' striving for growth and the conscious urge for change encouraged the employees to create new services that did not exist before. This continuous stepping into the unknown sustained their experiencing the future as unknown. In addition, the awareness that the new venture had not yet reached positive profit figures, along with the knowledge that competitors followed with similar services, supported the experience of the unknown future. Thus, the applied logic in a certain moment was affected by the past experiences, and also by how the future was seen.

The founders perceived uncertainty during Period 1 and thus applied effectuation logic, which is in contradiction with Jiang and Tornikoski (2019). They found that causation logic dominates when the entrepreneur starts creating a new venture, particularly when the idea is a technological solution. Thus, the entrepreneur may not perceive uncertainty before encountering, for example, the consequences of response choice (Jiang & Tornikoski, 2019). However, within Heltti, based on their earlier experience and knowledge in establishing a new venture, while aiming for radical innovation, the founders did perceive uncertainty, as they only had a vague idea of what Heltti's service would be; there was no service of a similar nature to compare it to. Thus, they were already aware of the potential of unanticipated consequences. While aiming at radical and transformational innovation, they were uncertain about a range of issues, such as whether customers and health authorities would accept their service. Other uncertainties related to what the service would become and whether they would be able to create a profitable business model. Therefore, the founders were willing to invest only time during Period 1, which included time spent interacting with different stakeholders within their network to iteratively scope out and apply cocreation to determine what Heltti's service might be.

Overall, the resource position (including capital, network exposure, knowledge and technological capability) may also be part of the explanation of why expert entrepreneurs have been found to apply effectuation in the beginning of a new venture, as Heltti's founders did. Pertinently, their resource position affected the logic applied (Reymen et al., 2015) during Period 1, when their own capital enabled the deployment of effectuation logic. However, during Period 2, in order to manage a period of scarcity, it made them strive for bricolage. Having established a legitimate model for their new business venture, to enable external funding opportunities, their entrepreneurial logic shows evidence of causation logic being dominant in Period 3. Expert entrepreneurs, like the founders of Heltti, already possess financial resources, and as such, there is no need to convince external funders; therefore, it is not necessary to apply causation logic. Likewise, expert entrepreneurs have gained knowledge about new venture processes and have access to a valuable professional network.

Despite the founders' attempts to avoid planning and analysis, a combination of dominant effectual and causal logic emerged in Heltti during Period 3. Jack, the founder and CEO, had two main drivers in new venture creation: growth and change. During Period 3, it became evident that Heltti would not be able to grow and change without a justifiable business case to warrant external funding. Thus, the causation behaviours served legitimation purposes for the new venture that were triggered by external funding negotiations. Under Jack's leadership, a clear strategy was formulated with both long-term and short-term goals. The causation logic also included monitoring systems and future scenario predictions, and it produced data that was used to convince funders to invest in Heltti. When business activity started and costs increased during Period 2, the company managed to survive with the founders' own additional capital investments, which meant that they still did not require business legitimisation and continued to adopt an effectuation logic. In cases where the search for external funding starts during the early periods, legitimation purposes might be part of the explanation for adopting causation logic.

Understanding how CEB logics shift over time and what triggers the shifts on CEB logics also contributes to understanding how companies grow. Consequently, my study answers to the criticism of SME growth models by shedding light to the events taking place before the company existed, studying the underlying cognitive processes and considering the non-linear progression (McMahon, 1998; Dobbs & Hamilton, 2007).

6.1.2 Situational triggers and unanticipated consequences

Situational triggers and unanticipated consequences, along with actor-dependent responses to internal and external influences, add to the complexity of how CEB logics interplay and shift over time. In Heltti, these included events such as a sudden problematic situation, poor financial performance, a failed service experiment, external funding availability, dissatisfaction from customers, business development failures and changes of key persons. My findings showed that responses to situational triggers and unanticipated consequences were actor-dependent and based on how the actor had experienced the past, present and future. This is in contrast to Jiang and Tornikoski (2019), who have argued that unanticipated consequences lead to perceiving uncertainty, which in turn triggers effectuation logic. My findings show a rather more complex reality. For example, a failed experiment or poor financial situation triggered causation logic among some actors, who might seek stability and confidence; the same event also triggered effectuation logic among others, who felt that it was an ideal learning experience to be able to experiment and move on. In addition, as some of the employees experienced the consequences of effectuation and bricolage as negative, it triggered a process of calling for causation in order to feel secure through planning and prediction (Van de Ven & Hudson, 1984). Thus, the negative consequences of applying a particular logic may trigger a reactive shift to apply another logic, as Jiang and Tornikoski (2019) have also stated. However Jack, the founder and CEO of Heltti, consciously tried not to respond reactively to the triggers that would foster a dominance of causation logic in order to nurture business flexibility and efficiency. Thus, he understood planning as restrictive to change; he perceived profound market analysis as ‘looking at the rear-view mirror’ and generous resources to provide organisational slack. Therefore, I argue that an experienced entrepreneur may try to resist the triggers which set the stage for a change in the cognitive logic by being conscious of the decision-making logic, its consequences and the triggers that call for a shift in the applied logic.

6.1.3 Conflicting logics

This thesis contributes to understanding CEB logics on individual, team and organisational levels and reveals that the different logics may also lead to conflict, thus leading not only to positive outcomes, but also to frustration and tensions within the new venture. Bringing negative outcomes into light also expands the understanding of coexisting CEB logics, while much of the existing literature has focused on the positive synergistic outcomes (Smolka et al., 2018, Murniek et al., 2011).

Furthermore, my findings showed that tensions between actors applying different CEB logics cannot be associated with any particular logic, despite Butler and William-Middleton’s (2014) arguments that effectuators tend to appreciate different views, while causation calls for clear plans and shared mental models. Interestingly, the findings of this thesis showed that, even though people applying effectuation logic were open to different views, these views were considered positive only when conflicting views were based on effectuation logic, while different cognitive logics often caused tensions between people. Hence, in my study, the effectuators also became frustrated with people who applied causation logic and were perceived as preventing change. Similarly, the actors with a causation approach encountered discomfort when effectuation and bricolage logics were dominant in Heltti. People applying causation logic tended to consider effectuators as causing chaos and changing already agreed-upon decisions, altering processes and creating new ideas. In addition, bricolage logic with scarce resources and good-enough solutions was surprising for employees from established organisations, where the needed resources are acquired in order to reach the planned effects. Thus, a shared mental model can be experienced as an important premise for making decisions (Lim, Busenitz, & Chidambaram 2015), regardless of the applied logic. To conclude, my findings showed that unanticipated consequences and situational triggers lead to shifts in the applied logic, but which of the CEB logics was triggered was actor-dependent. However, the shifts in dominant logic seemed not to be due to any one particular situational trigger, even though single triggers can be part of the explanation.

6.2 Contribution to NSD processes and theories

This thesis contributes to NSD processes and theories by conceptualising entrepreneurial logics in terms of their applicability to new service development. Thus, I argue that the entrepreneurship literature should be considered an interesting source of theoretical insights to advance the understanding of new service development processes.

6.2.1 Understanding NSD processes through CEB logics

This thesis enhances conceptual understanding of entrepreneurial logics in terms of their applicability to NSD, particularly in uncertain and scarce environments. In this, I challenge the formal, sequential and linear NSD stage model, which can be associated with causation logic and which is typically proposed in existing research. Additionally, the extant NSD literature assumes, at least implicitly, that organisations have access to the necessary resources, which they (re)combine and, finally, convert into service innovations. In the case of something significantly novel, this may not be true, which suggests that innovators need to go beyond the boundaries of their known world to obtain the resources that they need, and they need to adopt different entrepreneurial logics to do so. Effectuation and bricolage also provide answers to the question, ‘If small and young firms have fewer resources, how are they able to succeed with their NSD?’ which Coviello and Joseph (2012, 88) raised in the context of NPD.

By shedding light into how CEB logics interplay, shift and conflict, my study also enhances the understanding of evolving NSD processes as companies grow. It shows how Heltti’s service emerges through effectual and continuously on-going processes, where contingencies and serendipitous events can be considered an important source of creating something new. In contrast to NSD stage models, the creation and implementation of service happened simultaneously. During the study period, Heltti's founders never considered the service complete; therefore, Heltti's service never entered a full launch stage, which is described as the final stage of NSD in the traditional models. When applying causation logic, the NSD process follows a set of predetermined steps by which a service is eventually stabilised and thus becomes a service offering, which is launched in the final stage. Following a rather different approach, the founders of Heltti consciously developed the service iteratively, experimenting, creating new ideas from the newly arising means, and they perceived the environment as uncertain and the future as unknown. Consequently, Heltti's service continued to evolve even after the operations officially started. Thus, a service that today appears not innovative may develop to be so later, or it may serve as a basis for a forthcoming innovation.

CEB logics also shed light on the role of customers and other stakeholders in the NSD process. In Heltti, interaction with external stakeholders was continuous, and the nature of the interaction varied. Notably, co-creational processes also included people who were not considered potential customers or experts in the field. These interactions led to versatile and often unexpected outcomes in the form of new ideas, pre-commitments, new resources and means. Thus, it can be concluded that effectuation logic emphasises the external locus and dynamic interaction with external audiences throughout NSD processes, while the role of the customer and other stakeholders is predetermined and restricted in traditional NSD models.

6.2.2 Emerging ideas in NSD processes

Within the current NSD models, means are not considered part of the processes that lead to new services; instead, they assume that the NSD process start with a conscious intent to create a new service. My research has identified that the NSD processes studied were often means-driven, and that the service developers asked unconscious questions that represented effectuation logic. Using CEB logics as a lens to study NSD processes revealed that a new service may start to emerge even before the formal or conscious service development process begins, and it may continue evolving after the formal NSD process ends. This suggests that NSD processes in Heltti began 'with something more primitive than an idea' (McMullen and Dimov 2013, 1499). The NSD processes were often means-driven, while who I am, what I know and whom I know formed the primary set of means. The conscious NSD process in Heltti often started with finding answers to a means-driven design question: What could I do with the means I have? (Grégoire & Cherchem, 2019)

In other words, the traditional NSD stage models assume that there is blank before and after the planned process, as if change took place during the formal process and not before or after (Tsoukas and Chia, 2002). Applying CEB logics to research NSD processes also reveals the role of individual, pre-existing knowledge and experience in explaining differences in Heltti's services. There have been similar findings when researching individuals in search of and creation of new opportunities (Gruber, Macmillan, & Thompson, 2013; Woolley, 2017). However, pre-existing abilities (e.g., technological knowledge) have also been found to have negative effects by limiting the exploitation of knowledge offered to the company, which in turn may lead to limited choices (Gruber et al., 2013). Pertinently, earlier studies have shown that effectuation enhances innovation thus driving better company performance (Roach et al.). Consequently, understanding the role of CEB in NSD processes contributes to better understanding how innovative outcomes leading to better firm performance can be achieved.

6.3 Methodological contribution

A methodological contribution is articulated in this thesis from the starting point that process research enables the understanding of how events unfold in time, thus revealing shifts in dominant cognitive logics, as well as illuminating the complexity related to the application of CEB logics. I join Jiang and Tornikoski (2019) to urge entrepreneurship researchers to take temporality into consideration. Many of the insights provided in this dissertation could not be produced without combining observation data from everyday interactions with data gathered through interviews as well as off-line and on-line data. Relational ontology enabled to study not only actions but also the impact of the actions, as well as interactions of agents in the process of becoming instead of predetermined categories (Langley & Tsoukas, 2010); this contributed to the challenges in operationalising CEB logics.

Lately, there have been calls to distinguish entrepreneurial logics as a behaviour and as a heuristic (Alsos et al., 2019; Grégoire & Cherchem, 2019). In this thesis, I followed the approach of McKelvie et al. (2019) by viewing CEB as decision-making logics, which then lead to measurable behaviours. By studying the temporal flow, this thesis moved away from studying single actions and behaviours only into exploring what has been and what will be; thus, it tried to understand what decision-making logic is applied in a certain moment and what the dominant logic is across a series of decisions (Langley & Tsoukas, 2013). In Section 5.1, I showed how studying a series of decisions and the impact of actions may help to identify the underlying logic and how the understanding of the applied logic varies depending on whether we study only single decisions or a series of decisions, or only the early stages of the venture instead of studying the underlying logic over a longer time period during the new venture process (McKelvie et al., 2019).

In a similar vein, unfolding events and understanding the context in which the decisions were made enabled the delineation between means and resources (Section 5.1.2). Delineating how means can be transformed into resources (Dew et al., 2016) may help us understand the difference between effectuation logic and bricolage logic, as well as answer the critiques presented by Arend et al. (2016) on effectuation restricting entrepreneurs' options to available resources only. Decision-making in bricolage stems from resource scarcity; thus, processes follow the principal 'making do with resources at hand', which leads to 'handyman' or 'good enough' solutions. Effectuation, on the other hand, stems from uncertainty. When the environment is seen as non-linear, dynamic and unpredictable, processes are means-driven, allowing different resources and effects to emerge. Similarly, the logic underlying flexibility, experimentation and working around the rules and standards can be different depending on whether the decision-making stems from uncertainty or scarcity.

6.4 Practical contributions

This study has several practical contributions. Storey and Hughes (2013) have claimed that companies have not become any better at innovation despite the growing interest in innovation research. One explanation of this may be that linear NSD processes do not adequately capture the complexity and iterativeness of the innovation process in an uncertain environment. Therefore, understanding different CEB logics may help service developers enhance creativity and innovation, as both effectual and bricolage logics appear to have beneficial effects for the success of companies (Grégoire & Cherchem, 2019). Similar criticisms have been levelled at entrepreneurship theories which focused on the causation types of planned, linear thinking, while recent developments have focused much more on the uncertainty and unpredictability of entrepreneurial work (Jiang & Tornikoski, 2019). However, this concerns not only companies of a certain age or size because dynamic capabilities are essential in creating and implementing innovations (Teece, 2007). It has even been suggested that larger companies need to learn how to 'think small', as the established structures and processes may restrict innovation (Coviello & Joseph, 2012). When services are created by applying effectuation logic, the processes are rather different from the conventional, well-framed NSD process. Instead of following a linear process with market analysis and planning, the effectuation process is means-driven, and it involves customers and other stakeholders during the whole process rather than only at a certain pre-determined stage. Thus, service evolves through early engagement and continuous interaction with different stakeholders while exploiting contingencies that arise.

Being aware of the different CEB logics also enables an understanding of the different premises for decision-making. This in turn may help solve conflicts that are due to the complex interplay of different mental models. Being aware of the different logics may also help when recruiting people and findings partners. In addition, it may enable an understanding of own behaviour and the identification of triggers that may lead to a change in the logic applied. Hence, understanding the shifts in CEB logics helps understand what happens and why within the company. It would also be beneficial to consciously know what kind of logic is needed in different business functions to be able to benefit from all CEB approaches, while the awareness of the different logics and their use may help reconcile conflicts caused by different heuristics.

6.5 Limitations and future research

This thesis presents how CEB logics influence NSD processes by using the process research approach. Despite increasing interest in entrepreneurial logics, temporality issues are still under-studied (McKelvie et al., 2019). My study answered to this call by employing several data collection methods over a period of four years, thus allowing unique insights concerning service emergence. However, as with all research, this study has its limitations. In the following, I detail some of the limitations along with suggestion for further research.

First, while studying a single site is a strength of this thesis, at the same time, it is also a limitation. Even though several researchers have used single case studies to provide rich data of entrepreneurial cognitive logics (Akemu, Whiteman, & Kennedy, 2016; Servantie & Rispal, 2018; Sitoh, Pan, & Yu, 2014; Fletcher, Loane, & Andersson, 2011), still, the main limitation in single-case study is its potential for the transferability of the findings. By following Lincoln and Guba’s (1985) recommendation of providing a thick description, I narrated a detailed story of the case that I studied in order to offer readers the potential to assess for themselves the relevance and transferability of the findings. However, the main strength of this study is not in its generalisability but its ability to reveal temporal flows to understand how service emerges in a new venture in the health care context. A future study could apply quantitative techniques to explore the generalisability of the findings.

Second, despite the richness of the data, I did not have access to all events that were of relevance for the emerging service. It has been suggested that even small events might matter when studying how things emerge (Langley, 1999), but there are always limits to both access and the identification of relevant events, which might be less visible and more difficult to report (Langley & Truax, 1994). Especially in the health care setting, privacy and ethical issues play an important role in accessibility and sensibility, which limited both observational and archival data concerning customers and end-users in this study. Hence, I recommend that future research delves more deeply into understanding the role of customer and other stakeholders when applying CEB logics in the health care context.

Third, when studying effectual processes, challenges arise from the effectual nature of these processes: how, where and when processes start to emerge, how they unfold and what the versatile outcomes of these processes are. From the process research (Langley, 1999) point of view, the effects and innovativeness of the outcome may be actualised only after some time has passed; something that does not seem to be an innovation today may be the seed of something that becomes an innovation in the future. The outcomes of effectual processes may be new companies, new business concepts or new service offerings, or the idea might be discarded (Van de Ven & Huber, 1990; Van de Ven & Poole, 2017). Especially when researching processes in real-time, the effects are not yet known, processes continue and service continues evolving. After I had already finished the data collection and followed what happened in Heltti from a distance, I often found myself thinking that I should be there collecting data. However, as Dubois and Gadde have said (2002), studies focused on processes have to come to an end, whereas the processes in the real world continue.

The fourth limitation concerns the CEB concepts. Lately, there has been fundamental discussion about how causation, effectuation and bricolage should be defined conceptually: as an approach, behaviours and actions, a model of decision-making, a series of heuristics, a set of principles, a form of reasoning or a theoretical framework (Grégoire & Cherchem, 2019; McKelvie et al., 2019). The majority of studies consider decision-making logic to be central in the effectuation concept, while the logic underlying similar behaviours may differ (McKelvie et al., 2019). When analysing the data, I often needed a better understanding of the logic and how people make decisions from a psychological perspective. Therefore, I recommend cross-disciplinary CEB studies that combine scholars from the fields of both entrepreneurship and psychology.

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Appendices

Appendix 1 Participant Information Sheet

PARTICIPATION INFORMATION SHEET

Research Project -
Designing Services in New Venture Context

Researcher(s): Sirpa Lassila

Supervisor: Professor Alison Rieple, University of Westminster, London

Senior Lecturer Caroline Ennis, University of Westminster, London

You are being invited to be part of a research, which studies service design process of a company. The research is being undertaken as a part of Sirpa Lassila's PhD studies in

University of Westminster London. The research data are utilised in dissertation, journal articles and presentations. The data are gathered through interviews, discussions, observation and documents.

Please note:

- Your participation in this research is entirely voluntary.
- You have the right to withdraw at any time without giving a reason.
- You have the right to ask for data to which you have an association to be withdrawn as long as this is practical, and for personal information to be destroyed.
- You do not have to answer particular questions either on questionnaires or in interviews if you do not wish to do so.
- Your interview and responses will be made anonymous. However the use of identification of role or title will be mentioned. Individual identities will be kept confidential unless you provide explicit consent to do otherwise.
- No individuals should be identifiable from any collated data, written report of the research, or any publications/presentations arising from it.
- All computer data files will be encrypted and password protected. The researcher will keep files in a secure place and will comply with the requirements of the Data Protection Act.

- All hard copy documents, e.g. consent forms, completed questionnaires, etc. will be kept securely and in a locked cupboard, wherever possible on premises of Haaga-Helia University of Applied Sciences.
- If you wish you, can receive information on the results of the research. Please indicate on the consent form if you would like to receive this information.
- The researcher can be contacted during and after participation by email Sirpa.lassila(at)haaga-helia.fi or by telephone 050 310 1059
- If you have a complaint about this research project you can contact the supervising Professor A.Rieple@westminster.ac.uk

Appendix 2 Participant consent form

PARTICIPANT CONSENT FORM

Title of Study:
Designing Services in New Venture Context

Lead researcher: Sirpa Lassila

I have been given the Participation Information Sheet and/or had its contents explained to me.	Yes	❒	No	❒
I have had an opportunity to ask any questions about the intentions of the study and I am satisfied with the answers given.	Yes	❒	No	❒
I understand I have a right to withdraw from the research at any time and I do not have to provide a reason.	Yes	❒	No	❒
I understand that if I withdraw from the research any data included in the results will be removed if that is practicable (I understand that once anonymised data has been collated into other datasets it may not be possible to remove that data).	Yes	❒	No	❒
I would like to receive information relating to the results from this study.	Yes	❒	No	❒
I wish to receive a copy of this Consent form.	Yes	❒	No	❒
I confirm I am willing to be a participant in the above research study.	Yes	❒	No	❒
I note the data collected, (which will be fully anonymised) may be retained in an archive and I am happy for my data to be reused as part of future research activities.	Yes	❒	No	❒

Participant's Name: ______________________________

Signature: ______________________________ **Date:** ________________

This consent form will be stored separately from any data you provide so that your responses remain anonymous.

____

I confirm I have provided a copy of the Participant Information Sheet approved by the Research Ethics Committee to the participant and fully explained its contents. I have given the participant an opportunity to ask questions, which have been answered.

Researcher's Name: Sirpa Lassila

Signature: ______________________________ **Date:** _______________