



Co-creating an in-house service concept for boosting innovation and development

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**Co-creating an in-house service concept for
boosting innovation and development**

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Sisäisen palvelukonseptin yhteiskehittäminen innovoinnin ja kehittämisen edistämiseksi

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Organisaatiot tarvitsevat uusia valmiuksia selviytyäkseen nopeasti muuttuvassa toimintaympäristössä. Niiden on kyettävä sopeutumaan uusiin tilanteisiin sekä pystyttävä kehittämään ja innovoimaan palveluja, jotka vastaavat asiakkaiden tarpeisiin ja odotuksiin. Opinnäytetyön tavoitteena oli kehittää alustava sisäinen palvelukonsepti innovaatio- ja kehittämistoiminnan tehostamiseksi Tampereen yliopistollisessa sairaalassa.

Opinnäytetyössä tutkittiin organisaation palveluinnovaatiokyvykkyyksiä sekä strategisella ja operatiivisella tasolla että osaamisen näkökulmasta. Teoreettisessa viitekehyksessä tarkasteltiin palvelukeskeistä logiikkaa, dynaamisia kyvykkyyksiä, jobs-to-be-done -lähestymistapaa sekä palvelumuotoilua palvelun innovaatio- ja kehityskyvykkyyden näkökulmasta. Opinnäytetyön empiirisessä osassa selvitettiin mitä tukea konseptin asiakkaat eli henkilöstö (työntekijät, esimiehet, johtaja) kokee tarvitsevansa, jotta innovointi- ja kehittämistoimintaa voidaan edistää organisaatiossa. Palvelukonsepti luotiin yhteiskehittämällä asiakkaiden sekä innovaatio- ja kehitysasiantuntijoiden kanssa. Empiirisessä osassa sovellettiin palvelumuotoiluprosessia. Metodeina käytettiin kohderyhmäkeskusteluja ja yhteiskehittämisen työpajoja.

Alustava palvelukonsepti luotiin rakentamalla teoreettisen kehikseen ratkaisut niihin henkilöstön esittämiin tarpeisiin, jotka löydettiin opinnäytetyön empiirisessä osassa. Ehdotettu konsepti esitetään visualisoituna kokonaisuutena, jossa ratkaisut toimivat sisäisen konseptin rakennuspalikkoina. Lisäksi ehdotettiin kolmea suunnitteluohjainta muistuttamaan konseptin asiakasta soveltaa ihminen ensin -ajattelua, etsiä kokonaisvaltaisia ratkaisuja ja siirtää tietoa kehittämisestä avoimesti eteenpäin.

Konseptia tulisi edelleen kehittää yhdessä asiakkaiden ja muiden mahdollisten sidosryhmien kanssa. Jokainen rakennuspalikka on myös lähtökohta omalle kehitystyölle. Konseptin implementoinnin jälkeen olisi tarpeen tutkia, miten tämä konsepti on edistänyt innovaatio- ja kehittämistoimintaa organisaatiossa.

Asiasanat: Palveluinnovaatio, Palvelukehitys, Organisaation sisäinen, Kyvykkyys, Konsepti

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Co-creating an in-house service concept for boosting innovation and development

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Organizations need new capabilities to be able to survive in the rapidly changing environment. They need to be adaptable and to have capability to develop and innovate services that answer to the changing needs and expectations of customers. The objective was to develop a preliminary in-house service concept to boost innovation and development activities in Tampere University Hospital.

The purpose of this thesis was to study the service innovation capabilities at strategic and practical level and from the perspectives of competence and know-how. The theoretical framework explored service-dominant logic, dynamic capabilities, jobs-to-be-done and service design through the lens of service innovation and development capability.

The empirical part of the thesis concentrated on what customers i.e. personnel (employers, managers, directors) perceive as jobs-to-be-done to enhance innovation and development. The service concept was co-created with the customers and with the innovation and development experts by following the service design process and by using methods such as focus groups and co-creation workshops.

The concept was created by building up to the theoretical framework the solutions for the customer's jobs-to-be-done. The proposed concept is presented by the illustration, where solutions work as the building blocks of the preliminary in-house concept. Also, three design drivers were proposed to remind the customer of the concept to always apply human first oriented thinking, seek solutions and transfer knowledge transparently.

The concept should be further developed using co-creation with the customer and other possible stakeholders. Each building block is also a starting point of its own development process. Future research should follow up to have the facts about how this concept enhances innovation and development after implementation.

Keywords: Service innovation, Service development, In-house, Capability, Concept

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1 Introduction

1.1 Change is here - new capabilities needed in public healthcare organizations

Time for regulated and predictable business environment is over and an era of all-encompassing and merciless change is here (Baliga and Santalainen 2016, 20). Customer expectations are rising, less time is available to develop and market new services, and they become obsolete sooner. Hence the business environment of most organizations is becoming increasingly dynamic and competitive. (Yukl 2013, 94.) Due to globalization, public policy challenges, rapid technology changes and arise of digitization, resource crunch, stakeholder activism and evolution of social media, the business environment has become more volatile, uncertain, complex and ambiguous (Baliga & Santalainen. 2016, 18, 24-37; Rao 2015). The acronym VUCA, originating from the first letters of the previous adjectives, is often used to characterize this environment. Volatility refers to frequent and unpredictable change, uncertainty is about lack of knowledge of what will happen due to happenings in external environment, complexity is generated by interconnection across different elements of systems and ambiguity is about lack of knowledge regarding cause-effect relationships and the rules of the game. (Baliga & Santalainen 2016, 18, 20-23.) Emerge of VUCA environment is illustrated in the figure 1.

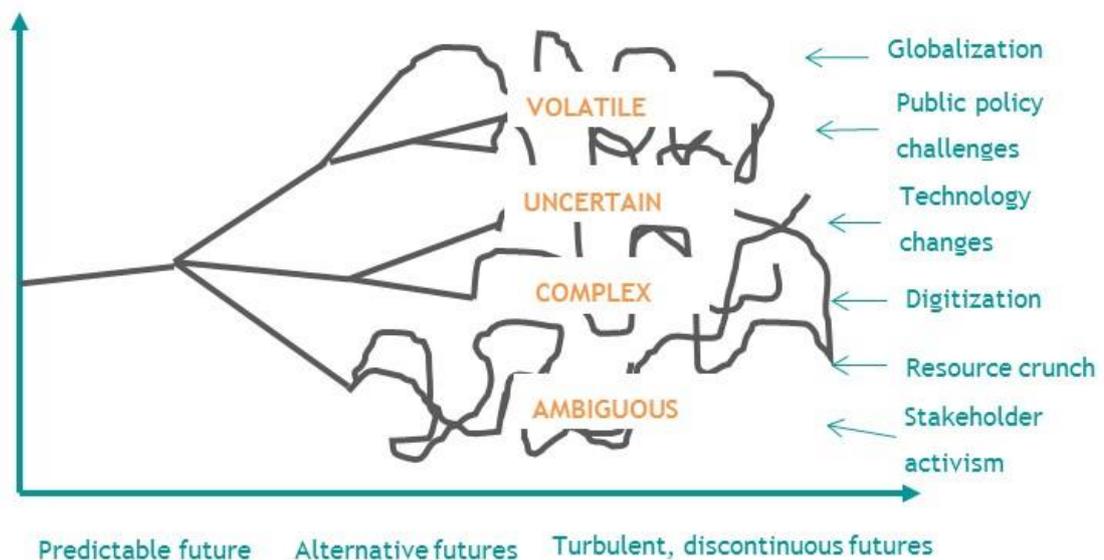


Figure 1: Emerge of VUCA environment (Modified from Baliga & Santalainen 2016, 19)

Health care is facing global challenges including affordability, quality and access (PwC 2015). Changes in the health care operating environment are driven by technological advances, but also by changing expectations of patients and societal changes (Lääkäriliitto 2017). Patients want healthcare experiences that are less complicated and invasive. The gap between patient

expectations and the current health system provides many opportunities for new entrants with fresh ideas and skills. (PwC 2015.)

In the future the health care sector is more digitalized, the information expands and comes from different sources. Patients are increasingly faced with electronic services. The patient self-care is more significant than before. Patients' knowledge of maintaining health and in treating diseases grows. (Lääkäriliitto 2017.) The role of the patient strengthens and the freedom to choose service provider increases. Artificial intelligence and data analytics tools and personal health account support in decision making (Lääkäriliitto 2017; Sitra & STM 2010; Tiik 2017.) The management of multiple data and its interpretation to the patient is characteristics to physician work, emphasizing interacting skills, multi-professionalism and teamwork (Lääkäriliitto 2017; Tiik 2017).

Public services are already facing the current VUCA environment that is affecting both at macro and micro levels (Baliga and Santalainen 2016, 20). The Finnish public sector is facing fundamental changes. The reform concerning regional administration as well as health and social services will establish 18 new counties, which will organise all public healthcare and social services in their area. The structure, the services and the funding of the health and social services will be renewed. The reform is estimated to enter into force on the first of January 2021. According to Finnish Government (Valtioneuvosto n.d.) the aim of the renewal is to “better manage the services, provide services with more equal basis than before and level out differences in health and well-being and to curb cost increases.” The basic services will be strengthened, and the information technology will be used more effectively. The clients will be offered more freedom to choose the service provider, integrated and well-functioning service packages, efficient transfer of client information and local services. (Valtioneuvosto n.d.)

To be able to succeed in this VUCA world Hamel (2007, 11) argues that organizations must become strategically adaptable. In a similar vein Baliga and Santalainen (2016, 54-55) emphasize that strategic thinking and operation must be an ongoing process due to the uncertainty of the future. Hence, organizations must be able to listen and understand the environment around them, use this understanding to change whatever is needed in the organizations and learn about their own and other's mistakes and successes. Organizations need to adapt, but they can also shape the business environment through innovations. (Teece 2007.) Tough competition as well as changing customer preferences and expectation (Rao 2015, 145; Yukl 2006, 308), require organizations to react the change by developing their offering (Rao 2015, 145). There is no room for mediocre products and services (Hamel 2007, 9-11). Public sector providers have the obligation to produce services, even if problems or needs are wicked and complex. This should create the need and willingness to improve and innovate in everyday practice. (Fuglsang & Sundbo 2016, 231.)

Innovation is increasingly dispersed within organization (Hasu, Saari and Mattelmäki 2011, 251). In a similar vein Fuglsang et al. (2016, 219) argue that service innovation often emerges from practical ideas supplied by employees or by customers through unsystematic process. They and OECD Science (2012) point out that innovation in service is rarely R&D based. This is deepened by the Finnish Innovation Fund Sitra and the Ministry of Social Affairs and Health in their report "Tulevaisuuden terveydenhuolto" (2010). In the future, innovations should be born where the actual work is done, and the employees' ability to innovate and openly develop their own work should be supported.

Innovation skills need to be dispersed throughout organizations (Brown 2009, 37). New structures and programmes for innovations at all organization levels need to be created (Hasu et al. 2011, 269). In addition, Fuglsang et al. (2016, 221) point out that the service organizations need internal capability to design and develop their services. Organizations need to increase the capability of involve employees in innovation processes, the capability of employees to understand customer needs and problems and observe their own working environment and use this knowledge to derive ideas for better solutions to customers (Fuglsang et al. 2016, 223). Burns, Cottam, Vanstone and Winhall (2002, 21) summarize the need in a definition of transformation design: "Because organizations now operate in an environment of constant change, the challenge is not how to design a response to a current issue, but how to design a means of continually responding, adapting and innovating. Transformation design seeks to leave behind not only the shape of a new solution, but the tools, skills and organizational capacity for ongoing change".

Leaders have central role in change. Leadership produces change by establishing direction and by aligning and inspiring people. (Kotter 1990, 6.) Goldstain, Johnston, Duffy and Rao (2002) state that design service requires several decisions, which are made in strategic, operational and encounter levels and which ought to be consistent and focused. Shared conceptual tools and mental models help leaders to increase understanding of present state and how to achieve organization's objectives (Yukl 2006, 310).

The figure 2 summarizes the model that helps organizations to survive under constant change. Because organizations are operating in changing business environment, the culture and the working methods need to be changed by continuously responding, developing, innovating and adapting. Innovation should be led by the leaders, done where the actual work is done and by co-creating with customers. This requires innovation and development skills, tools, methods and inspiration. Change efforts produce new services as well as new tools, skills and organizational capacity for ongoing change.

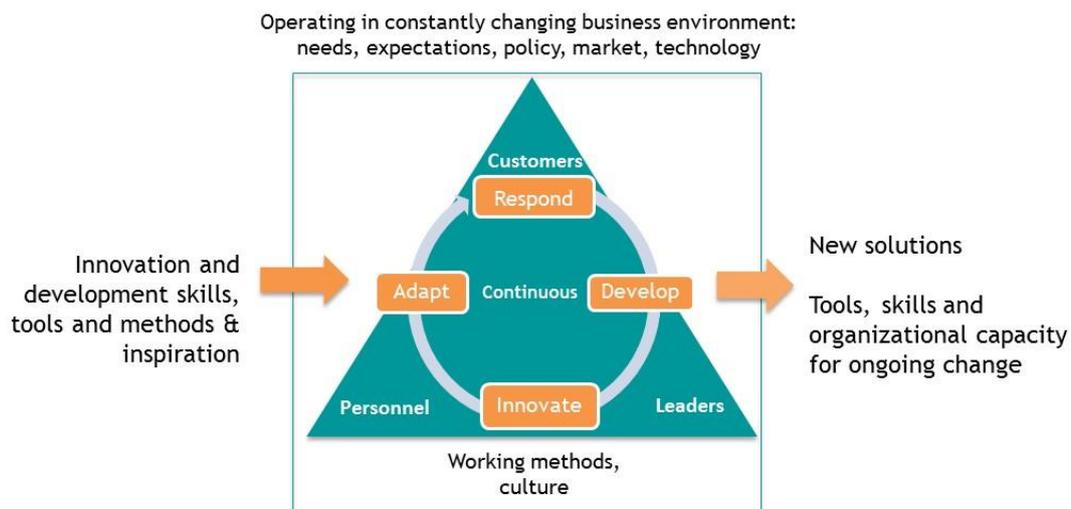


Figure 2: Model that helps organizations to survive under constant change

Organisations need innovative means and methods to be able to make their business viable (Rao 2015). However, there are only little insights about organizing organizational service innovation. Characteristics of services, intangible, heterogeneous, non-stockable and coproduced with customers, have major effect on innovation of new services or improving existing ones. Service innovation follows different logic than innovating products. The service innovation process leans on capabilities to sense the customer needs, ideate and turn them into viable service offerings. (Gallouj & Djellal, 2010, 5-9.) In a similar vein Hamel (2007, 9-11) points out that new business environment and new realities are in need for new organizational and managerial capabilities. Also, Baliga and Santalainen (2016, 54-55) suggest that one way to survive in this rapidly changing environment is to invest in superior resources and capabilities.

1.2 Research and development objectives

The purpose of this thesis is to explore organizational service innovation capabilities that enhance innovation and development in the organization. Service innovation capabilities are studied in strategic and practical level and from perspective of competence and know-how.

The objective of this thesis is to develop a preliminary in-house service concept to give support for Tampere University Hospital to enhance the innovation and development of the services in their own area of business. The concept is called boosting innovation and development. As a result of this thesis the structure of a preliminary in-house concept is developed. Customers of this service concept are personnel at all levels of the organization. The different levels are considered as directors, managers and developers, that may consist of all the employees. The concept is offered by an in-house support unit.

The main research questions and sub research questions of the thesis are:

1. What are the organizational capabilities needed to enhance innovation and development?
2. What is the present state of innovation and development in the case organization?
 - How do directors, managers and developers see their roles in innovation and development?
 - What prevents/advances innovation and development?
3. What kind of in-house support concept would enhance organization's innovation and development?

The focus is to explore the organizational dynamic service innovation capabilities needed to enhance innovation and development in the organization. Service-dominant-logic is observed as strategic viewpoint to innovation and development. Dynamic service innovation capabilities are studied to understand competencies, routines and processes needed in service innovation. Jobs-to-be-done and service design are seen as enablers of the service innovation and development and observed as practical methods to realise service innovation process.

The concept creation of this thesis is done through customer centric design process. Empirical part of the thesis is seeking broad understanding of the current state of innovation and development in the public special health care organization. The main goal is to gather insights about customer needs and find out what are the jobs-to-be-dones that need a service solution. Summary of jobs-to-be-dones define the concept brief and offers customer a centric data base to co-create the preliminary in-house concept in the development phase. Concept offers uniform means and methods and practical solutions for innovation and development done with the power of own organization in an ongoing manner. Also, suggestions of further research and development of the concept are presented.

1.3 Case organization: Tampere University Hospital

Pirkanmaa Hospital District provides specialized health care and disabled care services and maintains the conditions for health care research and training. Operations are based on the four following ethical principles: good care, respect for people, appreciating competence and social responsibility. The work at Pirkanmaa Hospital District is summarised in slogan, For Life. (Pirkanmaan sairaanhoitopiiri 2018.)

The Pirkanmaa Hospital District is owned by 23 municipalities. Treatment is provided by the Tampere University Hospital, which consist of five hospitals. In addition, the University Hospital provides services within its special responsibility area. All together it provides demanding specialized care services to over one million Finns, about 200.000 patients are treated

annually. The Hospital District has approximately 8.000 employees. (Pirkanmaan sairaanhoitopiiri 2018.) The organizational structure of the Hospital District is illustrated in the figure 3.

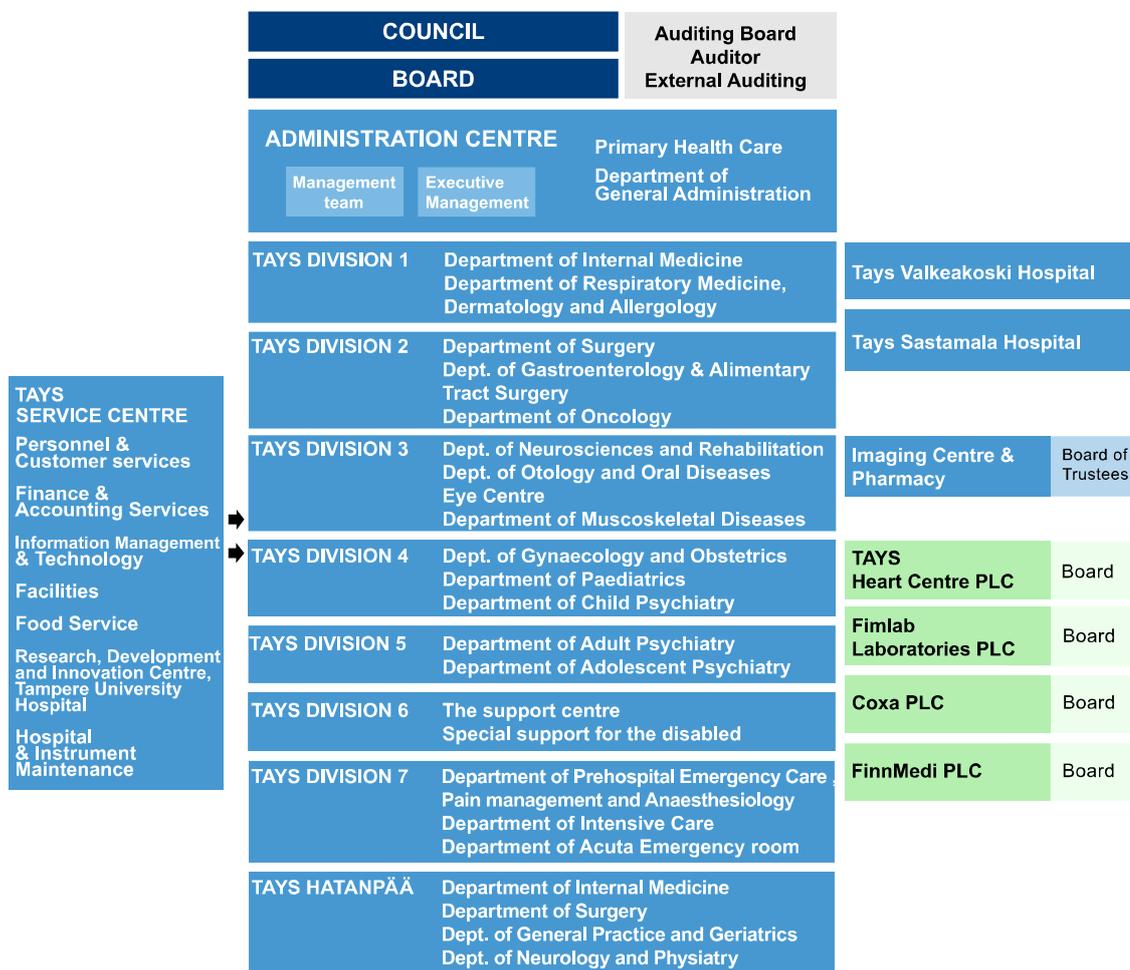


Figure 3: The organizational structure of Pirkanmaa Hospital District (Pirkanmaan sairaanhoitopiiri 2018)

Services include virtually all medical specialities from emergency care to rehabilitation (Pirkanmaan sairaanhoitopiiri 2018). The medical services are divided into seven divisions and Tampere University Hospital (TUH) Hatanpää Hospital, which are again divided into departments according to their speciality areas. In Finnish abbreviation of Tampere University Hospital is TAYS (Tampereen Yliopistollinen Sairaala) as used in figure 3.

TUH Heart Centre, the Hospital for Joint Replacement Coxa, Fimlab Laboratories and the Imaging Centre and Pharmacy also operate in the area of the TUH Central Hospital. Service Centre offers support services for operational units. Research, Development and Innovation Centre (RDI-centre) started its operations on the First of January 2018 as a part of Service Centre.

Pirkanmaa's special health care strategy outlines operations until 2025. The strategy emphasizes service that values each patient, safe treatment, as well as a good customer experience for patients and clients (Pirkanmaan sairaanhoitopiiri 2018.) The key alignments of the Pirkanmaa special health care strategy concerning service innovation and development is summarized in the table 1. Three categories are used: service promise, customer collaboration and insights and culture and capabilities. The categorization is done by the author of this thesis to clear the alignments of the strategy.

Service promise	Customer collaboration and insights	Culture and capabilities
<ul style="list-style-type: none"> • Promise of a good customer experience • Comprehensive care • Smooth treatment process • Uncompromising desire to succeed in service • Special health care services provided in a new way • Quality of services 	<ul style="list-style-type: none"> • Genuine and equal collaboration with the patient • Patients and family members involvement in the planning of services by using tailor-made methods, such as service design • Client councils, panels, feedback to improve services • Development of the participation of personnel and clients 	<ul style="list-style-type: none"> • Development of the service culture • Change leadership • Continuous improvement • Development of abilities will support each employee's appropriate actions and competence • Target group-based training on service processes

Table 1: The key alignments of the Pirkanmaa special health care strategy concerning service innovation and development

RDI-centre was established to bring together the development, research and innovation services and boost the efficiency of the resources available. The centre provides expertise and support services for research, development and innovation, and implement development projects in cooperation with other hospital staff. The author of the thesis worked as a service development manager in RDI-centre until the end of the year 2018. Expectations for the RDI-Centre given by the top management are (Sairaanhoitopiirin hallitus 2017)

- The activities are coordinated and well led
- Services for researchers and developers are well organized
- Innovation activities are stimulated and made visible
- Seamless cooperation with the university
- The entire organization's ability is improved. Pioneering. Results.

As it was presented in the chapter 1.1 the new county administration will be born in Finland from the First of January 2021. In Pirkanmaa, it means the entire organization of approximately 21.000 employees. The new county is responsible for managing social welfare and health care. Pirkanmaa county aims at delivering combined, smooth and functional services. (Pirkanmaa 2021 n.d.)

1.4 Structure of the report

The broad theme of the thesis is identified, and challenges faced by the organization are presented in the introduction. The first chapter opens the arguments for the study and the reasons why the topic has become so important for the case organization. The theoretical concepts, that are keys to answering the research questions, are discussed in the introduction. The chapter covers also what aspects of the topic are dealt with and what aspects are beyond the scope of the thesis.

The second chapter outlines the theoretical base for approaching the topic of this thesis. It seeks an answer to the first research question outlined in the chapter 1.2 The second chapter examines service-dominant logic (SDL), dynamic capabilities, jobs-to-be-done (JTBD) and service design shortly at general level. However, the focus is to understand each theory from the service innovation and development capability point of view. Aim of this chapter is to develop a theoretical framework for analysing the topic and providing justifications for it.

The third chapter outlines the general approach of the development work. It presents the development process and outlines what kind of methods and empirical data were utilized and why. It gives a description of how the empirical material was collected in practice and how it was analysed. It explains how the new knowledge contributes to answering the second and third research question.

The fourth chapter presents the results of the empirical material, synthesise the empirical material with theoretical framework and presents the solution for the development task. The fifth chapter summarizes the development work and assesses the process and results. It proposes concrete recommendations for the case company and evaluates how the results can be wider applied to targets outside the actual target of the thesis. Also, the possibilities for further development are considered. Structure of the thesis is summarized in the figure 4.

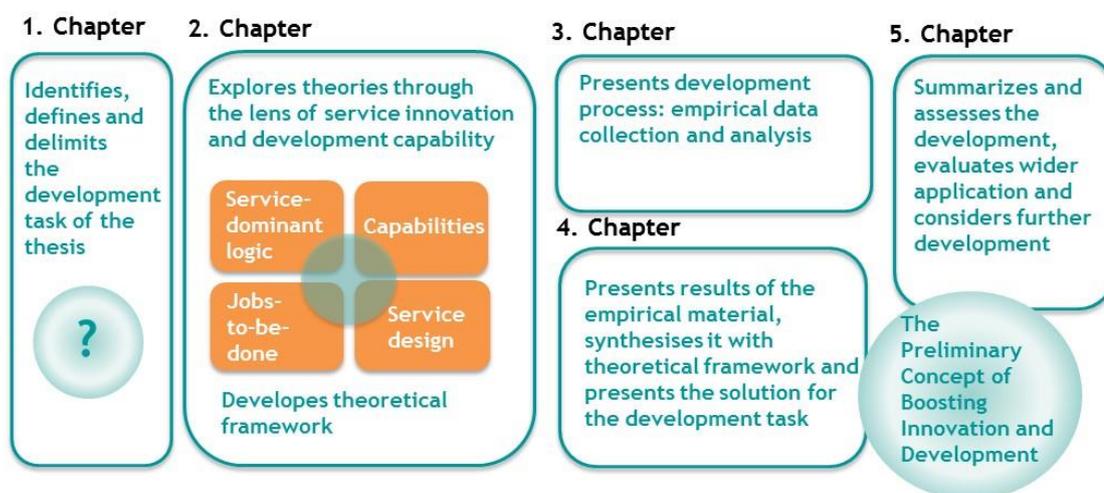


Figure 4: Structure of the thesis

Further development is needed to implement the concept. In the future the concept evolves as a result of organization's innovation and development activities as seen in the figure 5.

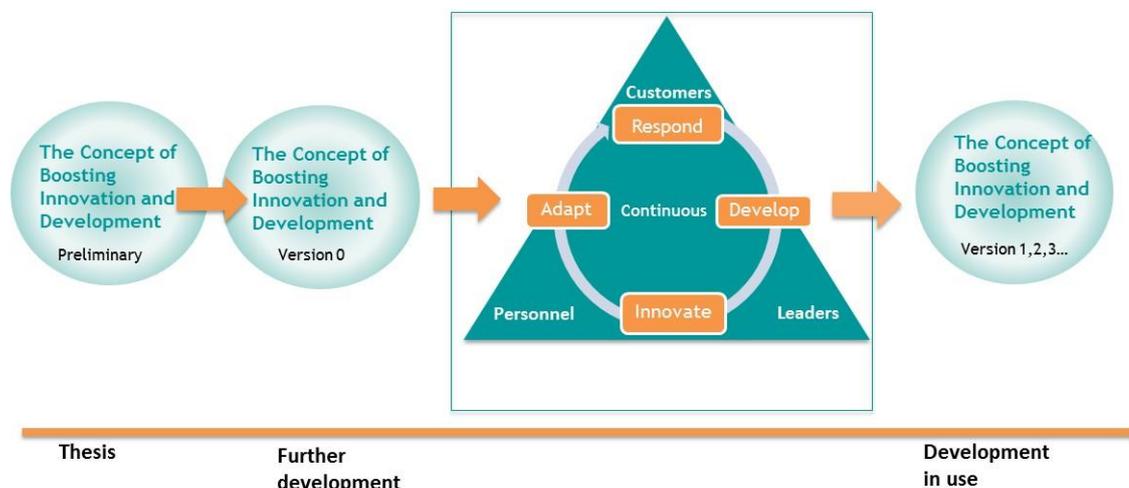


Figure 5: The evolving plan of the concept after the thesis has been completed

1.5 Key concepts and delimitations of thesis

Customer

Customer-service provider relationships exist also inside the organization. Internal service functions serve one another (Grönroos 2007, 355.) Customer of the in-house concept under development is the whole personnel of the organization: directors, managers and developers, that may consist of all the employees. In this thesis internal service function serve internal customer “who or which actually or potentially benefits from a service through receiving it or through participating more or less actively in its creation and development” (Sundbo and Toivonen 2011, 5). The concept aims at improving the service of internal functions and finally the service of the ultimate external customers, which in the case organization are patients and their peers. In this thesis terms external customers, user and patient are used as synonyms to patient and their peers.

Service

Service is provided as a solution to support customer (people or organizations) in their everyday, work related activities (Grönroos 2010). “It is the application of the specialized competences (skills and knowledge) through deeds, processes, and performance (Vargo and Lusch’s 2004, 2) take place in interactions between a customer and service provider (Grönroos 2007, 52). “Work related activities” is added to emphasize context where service is provided.

Service innovation

The service innovation in focus for this thesis includes all service innovation, development and improvement activity done in-house. “Innovation occurs when service offering is changed or expanded in some way” (Wilson, Zeithamn, Bitner and Gremler 2016, 167). “A service innovation is a new idea of how to organize a solution to a problem or a need of a customer (Den Hertog, van der Aa and de Jong 2010, 494). “It results from either an addition to the current mix of services or from changes made to the service delivery process” (Menor and Roth 2007, 826). It is a new service experience or service solution that consist of one or several of the following dimensions: new service concept, new customer interaction, new value system/business partners, new revenue model, new organizational or technological service delivery system.

Service concept

Service concept serves as a big picture of the service (Tuulaniemi’s 2011, 189-193), which “explains the central idea of the service and what is the core benefit provided to the customer, supported by variety of tangible and intangible elements that assist in the delivery of that benefit” Wilson et al.’s (2016, 171). Central is “what is to be done for the customer (= what needs and wishes are to be satisfied) and how this is to be achieved (= the service offer)” (Edvarsson et al. 1996, 149).

Capability

This thesis focuses on dynamic service innovation capabilities, that is defined by Den Hertog et al. (2010, 498): “Dynamic service innovation capabilities refer to specific capabilities, i.e. organizational competencies, routines and processes organizations already have or newly develop to manage the process of service innovation”. In practice this means combining existing and creating new resources and operational capabilities in order to realise temporary competitive advantage and an up to date service offer (Den Hertog et al. 2010).

Delimitations of the thesis

This thesis leaves out the individual level capabilities, which are described by Smallwood and Ulrich (2004) as functional competence and social ability. Also, organizational level technical competences are out of scope of this study.

This study does not focus on change readiness, which is defined as “beliefs, attitudes, and intentions regarding the extent to which changes are needed and the organization’s capacity to successfully undertake those changes” (Armenakis, Harris and Mossholder 1993). This limitation concerns both individual level and organizational level change readiness (Rafferty, Jimmieson and Armenakis 2013).

2 Organizational capabilities in service innovation and development

This chapter explores service-dominant logic (SDL), dynamic capabilities, jobs-to-be-done (JTBD) and service design in the perspective that is taken towards service innovation and development capabilities. Attention is paid to the first research question:

1. What are the organizational capabilities needed to enhance innovation and development?

The theories are examined shortly at general level, but the focus is to understand each theory from the service innovation and development capability point of view. Capabilities explain the organizational know-how, competence and processes, which are needed to enhance service innovation and development.

SDL offers broad view of what is meant by service by proposing that service is the basis of all exchange. It turns perspective from traditional innovation thinking, which is often based on product innovation, to service innovation. Dynamic capability view is especially useful for service organizations, since service innovation process “is more interwoven with capabilities embedded in the processes and routines throughout an organization” (Den Hertog et. al 2010, 491). Jobs-to-be-done is about innovating through deep understanding of what customer wants to achieve. Service design offers human focus process and tools for innovation.

Finally the theoretical framework for this thesis is outlined by interconnecting different theoretical viewpoints of service innovation and development capabilities. Also, how these theories are completing each other is discussed. The theoretical framework summarizes the guidelines for developing the support concept.

2.1 Service-dominant logic

Service-dominant logic (SDL) is a mind-set that offers alternative perspective to traditional goods-dominant logic (GDL), that examines central components of business and economics the production and exchange of goods (Lusch & Vargo 2014, 4-5). The foundational proposition of SDL is that organizations, markets, and society are fundamentally concerned with exchange of service “the applications of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself (self-service)” (Vargo et al. 2004, 2). SDL focuses on the competences and the processes of serving that creates foundation for service-oriented organization (Lusch & Nambisan 2015). In other words, companies offer solutions to customers not the products or services they make or sell. Solutions can be defined as “longitudinal, relational processes that comprise the joint identification and definition of value creation opportunities, the integration and customization of goods, service and knowledge elements, the deployment of these elements into the

customer's process, and the compensation of the solution provider on the basis of the customer's use-value". (Storbacka & Pennanen 2014, 5.)

The essence of SDL is captured in axioms (Vargo et al. 2016). Axioms serve as a general framework to understand service (Stickdorn, Hormess, Lawrence & Schneider 2018, 29). According to Vargo et al. (2016) service is a process and services (as well as goods) are units of outputs. These axioms with further explanations are introduced in the table 2.

Axiom (Vargo et al. 2016, 18)		Explanation (Lusch & Vargo 2014, 54; Lusch & Nambisan 2015; Vargo & Lusch 2016; Stickdorn et al. 2018, 28-29)
A1	Service is fundamental basis of exchange	Service is the basis for all exchange. It is the application of operant resources (knowledge and skills). Service is exchanged for service. All products (goods and/or services) are service.
A2	Value is co-created by multiple actors, always including the beneficiary	Customers are active resources. Service organization support customer's own value creation process. Value is always co-created through interactions of multiple actors either directly or through goods. Value arises through the use or interaction of resources in a particular context.
A3	All social and economic actors are resource integrators	Value is co-created in networks of networks. Service provider is not only actor that provides resources for service. Service is only made possible by all the actors providing resources for it.
A4	Value is always uniquely and phenomenologically determined by the beneficiary	Purpose of service is to create value in use. Value is feeling better off. Customer defines value. Value is experiential and contextual. Firm can only offer value propositions. Products (goods and/or services) per se have no value. Only the ones perceived by a beneficiary.
A5	Value co-creation is coordinated through actor-generated institutions and institutional arrangements	Co-creation of value occurs through the coordination of human-created institutions and institutional arrangements.

Table 2: Service-dominant logic axioms with further explanations (Lusch & Vargo 2014, 54; Lusch & Nambisan 2015; Vargo & Lusch 2016; Stickdorn et al. 2018, 28-29)

Axioms of the table 2 can be presented in a nutshell: SDL considers everything as a service. Value of service is co-created through coordination. Value arises through use or interaction of resources. It is context depended and defined by customer.

SDL sees service as a co-created process with mixture of competences, tangible or intangible, involved and thus it offers new perspective to service innovations (Ordanini & Parasuraman 2011). Lusch and Nambisan (2015, 161) define service innovation "rebundling of diverse resources that create novel resources that are beneficial (i.e. value experiencing) to some actors in a given context". This definition focuses on the value experienced by the customer, joints the customer as an active participant in the innovation process and emphasizes access

to the relevant bundle of resources at the service exchange context (Lusch & Nambisan 2015, 161). Ordanini and Parasuraman (2011) have integrated SDL with service innovation insights from literature. They have found three main sources of service innovation: collaborative competences, a dynamic capability of customer orientation and knowledge interfaces.

As it is summarized in the table 2 customer is always a co-creator of value and organization can only offer value propositions. Customer has an active role in service creation. This active role is possible also in service innovation. Ordanini and Parasuraman (2011) state that customer collaboration serves as a source of knowledge and new service ideas. This could be gained by consultation, by interviews or, for example, gathering feedback. Customer collaboration contributes to innovation volume but does not foster radical innovation (Ordanini & Parasuraman 2011).

A dynamic capability of customer orientation, directly and in interaction with innovative orientation, supports innovation radicalness. Capturing unmet service needs of customer and co-creating value with customer enhance service innovation. (Ordanini & Parasuraman 2011.)

Knowledge interface is defined as “a set of social and physical conditions facilitating the transference of knowledge within and among organizations” (Sherwood and Covin 2008, 164). Service-dominant logic considers service employees as a critical source of innovation knowledge. To be able to exploit employee knowledge, participative work environment, which values the ideas of employees and encourages ideating, is required. The study of Ordanini and Parasuraman (2011) reveals that contact-employee participation emerges as the most durable driver of service innovation, contributing to both innovation volume and radicalness. Knowledge integration mechanisms serve as the physical conditions facilitating the knowledge. They are mechanisms for integrating and sharing the information throughout the organization, i.e. processes and structures to capture, analyse and synthesise the knowledge. Knowledge integration mechanism contributes to innovation radicalness. (Ordanini & Parasuraman 2011.)

SDL offers strategic viewpoint to innovation. Next chapter explores dynamic service innovation capabilities, which moves the thinking toward more concrete dimensions in innovation and development, like competences and processes.

2.2 Dynamic service innovation capabilities

2.2.1 Characteristics of dynamic capabilities

Words “ability,” “competence,” and “capability” are often used interchangeably. Smallwood and Ulrich (2004) make distinctions between these words. Differences are seen in the table 3.

	Individual	Organizational
Technological	An individual's functional competence	An organization's core competences
Social	An individual's leadership ability	An organization's capabilities

Table 3: Differences between “ability,” “competence,” and “capability” (Smallwood and Ulrich 2004)

The individual-technical cell refers to person's functional competence and the individual-social cell to a person's leadership ability. The organizational-technical cell refers to a company's core technical competencies and the organizational-social cell to an organization's underlying DNA, culture, and personality. Individual's competencies and abilities emerge as organizational capabilities (Smallwood and Ulrich 2004). Smallwood and Ulrich (2004) identified 11 capabilities that successfully managed companies tend to have.

- Talent: attract, motivate, and retain competent and committed people
- Speed: able to make important changes rapidly (recognize opportunities and act quickly)
- Shared mind-set and coherent brand identity
- Accountability: obtain high performance from employees
- Collaboration: work across boundaries
- Learning: generate and generalize ideas with impact ideas through benchmarking, experimentation, competence acquisition and continuous improvement
- Leadership: embed leaders throughout the organization
- Customer connectivity: build enduring relationships of trust with targeted customers
- Strategic unity: articulate and share a strategic point of view on intellectual, behavioural, and procedural level
- Innovation: able do something new in both content and process, focus on the future rather than on past success
- Efficiency: manage costs

Organizational capabilities are classified into two categories: ordinary and dynamic (Teece 2007). Ordinary capabilities are functions necessary to accomplish tasks. Concept of dynamic capabilities aims to consider the question: how organizations achieve and sustain competitive

advantage in rapidly changing business environment (Teece, Pisano and Shuen 1997). Dynamic capabilities are defined by Teece et al. (1997, 516) “as the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments”. The extent to which an organization can execute this determines the level of its competitiveness and viability (Baliga & Santalainen 2016, 201). Dynamic capabilities are distinctive competences, like values, culture, and organizational experience, which are difficult-to-replicate or -imitate. Moreover, they must be built. This may take years – possibly decades – because they cannot be bought. (Teece and Pisano 1994; Teece et al. 1997.) However, the value for competitive advantage is not in the capabilities themselves, but in the resource configurations they create (Eisenhardt and Martin 2000). Organizations with strong dynamic capabilities are intensely entrepreneurial. They have capacity to shape ecosystems, develop new products and processes, and design and implement viable business models. The capabilities enable to strengthen the organization’s asset base in ongoing manner. (Teece, 2007.) Capabilities may be in the operational level, in R&D unit or at executive level (Teece et al. 1997). Dynamic capabilities have commonalities in key features even though in the detail level they differ (Eisenhardt & Martin 2000). The concepts of ordinary and dynamic capabilities, which are made up of resources and competencies are illustrated in the figure 6 (Baliga & Santalainen 2016, 200-201).

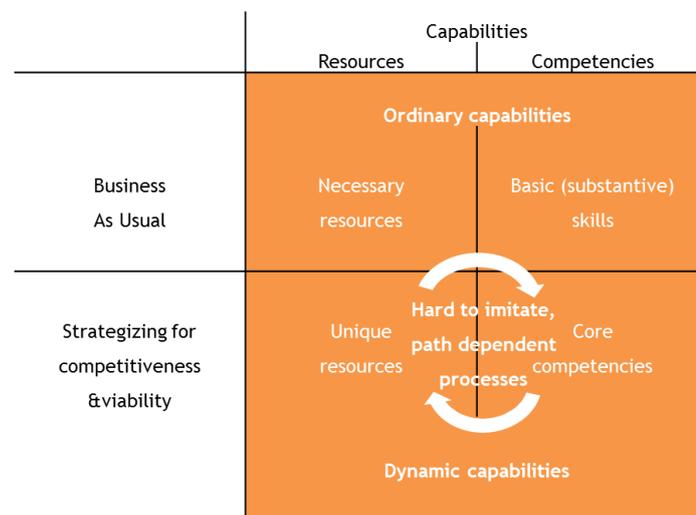


Figure 6: Ordinary and dynamic capabilities (Baliga and Santalainen 2016, 200)

The essence of dynamic capabilities is embedded in organizational structures and managerial processes (Teece et al. 1994, 1997). Hence, the dynamic capabilities approach places emphasis on the firm’s internal processes. Furthermore, Den Hertog et al. (2010) argue that a characteristic of service innovation process is that capabilities are built in to the organizational processes. Thus, the dynamic capability perspective is well suited for service industries. Processes are shaped by firm’s asset positions, which refer to firm’s current endowment of technology, intellectual property, customer base and relations with suppliers and paths which are

strategic alternatives available to the firm, and the attractiveness of the opportunities which lie ahead (Teece et al. 1994, 1997). However, relationship between external resources, such as collaboration with external knowledge and customer engagement, become vital in the success of innovation in the service industry (Kim, Song and Triche 2014).

The dynamic capability approach has been mainly used in product-related and technology-related development (Raman and Bharadwaj 2017). In a similar vein Eisenhardt and Martin (2000) raise product development process, with identifiable and specific routines, as an important dynamic capability. Kindström, Christian and Sandberg (2012), however, argue that dynamic capabilities provide a new perspective for organizations to approach service innovation and development. In addition, Baliga and Santalainen propose (2016, 200) that VUCA environment requires dynamic capabilities. Raman and Bharadwaj (2017) state that dynamic capabilities relate to innovation through accumulating, pioneering, coordinating and deploying processes and further by resolving rigidity in capabilities to manage knowledge, create value and linking strategic change and renewal to strategic fit. To be able to innovate continuously is a key to organizational success (Den Hertog et al. 2010). Hence, firms must develop dynamic capabilities that can enable service innovation (Kindström et al. 2012). Dynamic service innovation refer to “specific capabilities, i.e. organizational competencies, routines and processes organizations already have or newly develop to manage the process of service innovation” (Den Hertog et al. 2010, 498). Teece (2007) classified dynamic capabilities into “the sensing and shaping opportunities and threats, seizing opportunities and to maintain competitiveness through enhancing, combining, protecting and if needed reconfiguring organization’s intangible and tangible assets.”

2.2.2 Dynamic service innovation capabilities

Dynamic capability view is integrated with service innovation model by Den Hertog et al. (2010). This integration presents the dimensions where service innovation can take place in a business. New service experiences and service solutions are the goal of service innovation. The six dimensional -model is presented in the figure 7.

Possible dimensions where service innovation can take place are (numbers 1-6 in the figure 7) new service concept, new customer interaction, new business partner, new revenue model or new delivery system: personnel, organization, culture or technological (Den Hertog et al. 2010). To realize innovations, which change service offering, functional management domains (first ring around the core of the figure 7) need to organize new technological, human or organizational capabilities of the service organization.

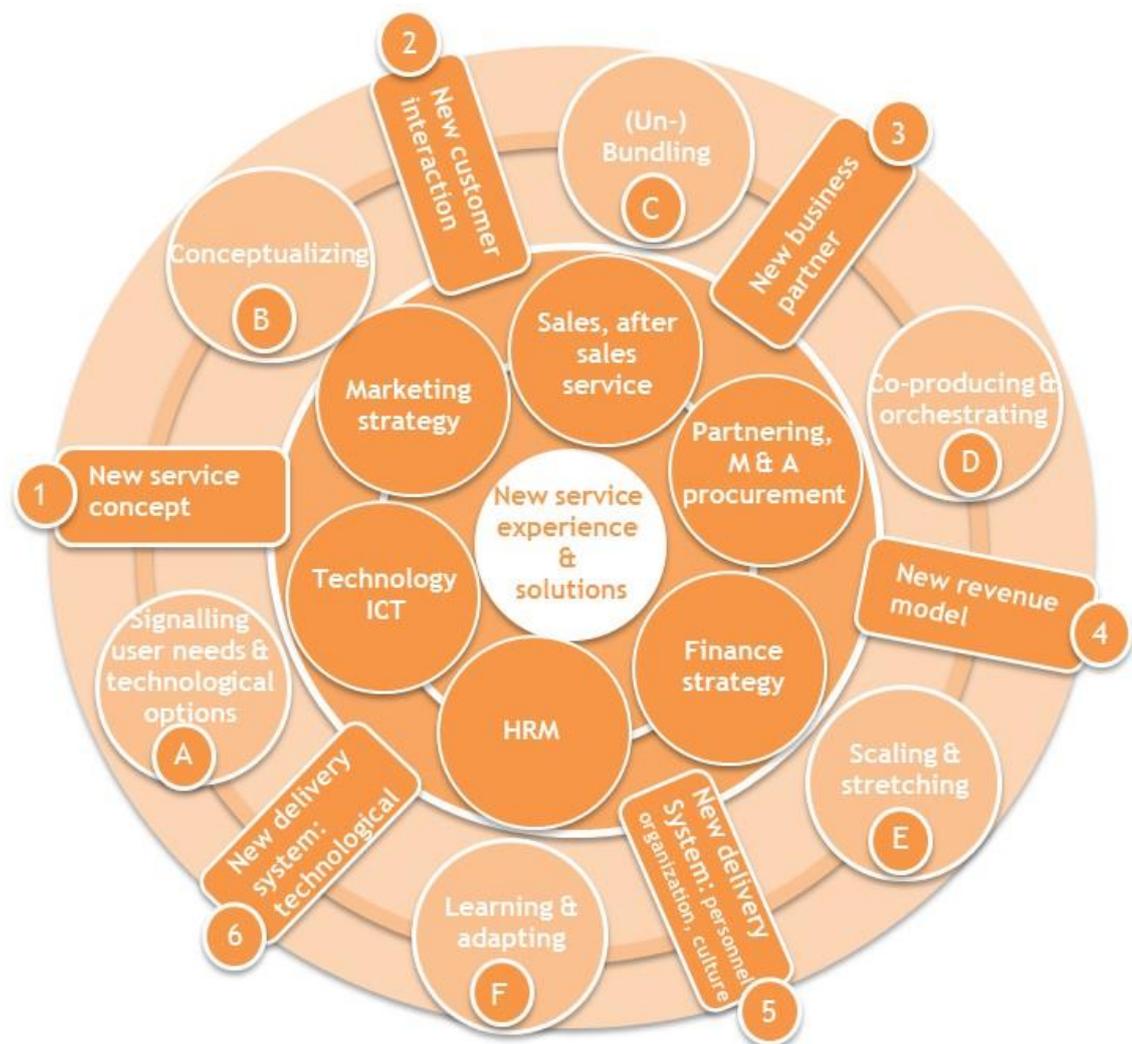


Figure 7: Six dimensional -model of service innovation and the dynamic capabilities for realising new service experiences and solutions (Den Hertog et al. 2010, 493)

Den Hertog et al. (2010, 498) define dynamic service innovation capabilities “as those hard to transfer, (re-) shape, (dis-)integrate and (re-) configure existing and new resources and operational capabilities”. The dynamic service innovation capabilities are the six circles (A-F) in the figure 7. Den Hertog et al. (2010) propose six dynamic service innovation capabilities to be signalling user needs and technological options, conceptualising, (un-)bundling capability, co-producing and orchestrating, scaling and stretching and learning and adapting. These capabilities are opened more in the table 5.

A set of dynamic capabilities are operationalized by Janssen, Castaldi and Alexiev (2015) by using conceptual framework of dynamic service innovation capabilities of Den Hertog et al. (2010). Measurability offers a tool to follow the development success of capabilities for service innovation. Janssen et al. (2015) excluded two capabilities presented in the conceptualization of Den Hertog et al. They defined learning and adapting as meta-capability and thus it

cannot be measured that helps improving other capabilities, and thus cannot be measured as a distinct capability. Also, capability of (un-)bundling cannot be disaggregated into micro-foundations and thus it cannot be measured and pointed out to be result of the strategic use of dynamic capabilities (Janssen et al. 2015). Measurable dynamic service innovation capabilities are seen in the figure 8.

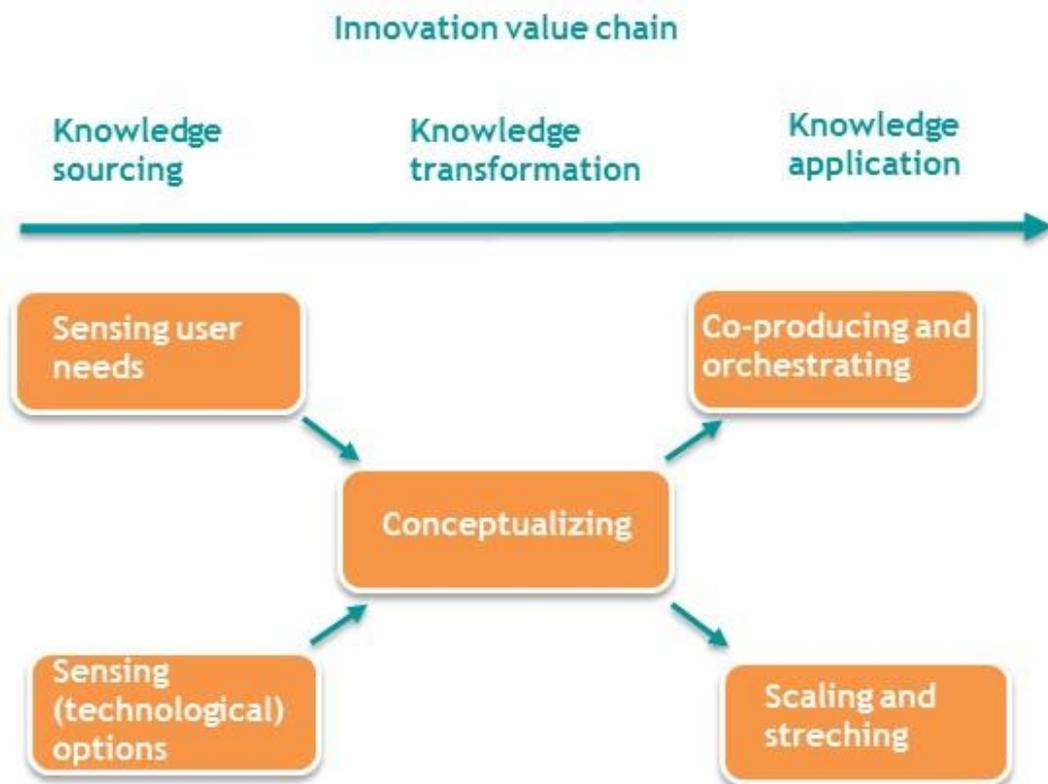


Figure 8: Operationalization of dynamic service innovation capabilities (Janssen and Den Hertog 2016, 109 based on Den Hertog et al. 2010 and Janssen et al. 2015)

In the figure 8 the capabilities grouped in three categories: knowledge sourcing, knowledge transformation and knowledge application by Janssen and Den Hertog (2016) based on innovation value chain -thinking by Hansen and Birkinshaw (2007). Hansen and Birkinshaw (2007) argue that the process of transforming ideas into commercial outputs needs to be seen as integrated flow.

The measurement scale by Janssen et al. (2016) seen in the table 4 helps in analysing what are the microfoundations needed to build the service innovation and development capabilities. It can also be used to measure the innovation and development enhancing activities.

Construct with underlying items	Capability
Sensing user needs and (technological) options <ul style="list-style-type: none"> • We systematically observe and evaluate the needs of our customer • We analyse the actual use of our services • Our organization is strong distinguishing different groups of users and customers • Staying up-to-date with promising new services and technologies is important for our organization • In order to identify possibilities for new services, we use different information sources • We follow which technologies our competitors use 	Sensing Sensing Sensing Sensing Sensing Sensing
Conceptualizing <ul style="list-style-type: none"> • We are innovative in coming up with ideas for new service concepts • Our organization experiments with new service concepts • We align new service offerings with our current business and processes 	Concept Concept Concept
Coproducing and orchestrating <ul style="list-style-type: none"> • Collaboration with other organizations helps us in improving or introducing new services • Our organization is strong in coordinating service innovation activities involving several parties 	Copro & Orch Copro & Orch
Scaling and stretching <ul style="list-style-type: none"> • In the development of new services, we take into account of our branding strategy • Our organization is actively engaged in promoting its new services • We introduce new services by following our market plan 	Scale & Strech Scale & Strech Scale & Strech

Table 4: The measurement scale of service innovation capabilities (Janssen et al. 2016)

The key microfoundations that enable product-centric firms to transfer more to service are identified by Kindström et al. (2012). The identified microfoundations can facilitate service innovation and thus product-centric firms can differentiate themselves by offering services and solution to market. Hence, microfoundations form organizational basis of dynamic capabilities. Teece (2007, 1319) has defined microfoundations as “distinct skills, processes, procedures, organizational structures, decision rules and disciplines”. Kindström et al. (2012) list microfoundations of service innovation according to Teece’s (2007) categorization. Sensing microfoundations are customer linked service sensing and internal service sensing. Seizing microfoundations are service interactions, managing the service delivery process and adapting new revenue mechanism. Reconfiguring microfoundations are orchestrating the service system, balancing product and service innovation related assets and creating service oriented mental model (Kindström et al. 2012). These microfoundations are clarified in the table 5.

The integration of the multiple dynamic capabilities, including innovation, for agile services which can be leveraged across different service sectors are studied by Raman and Bharadwaj (2017). Agile services are defined “as those services which are delivered proactively by responding to unanticipated service needs including the idiosyncratic needs of the customers” Raman and Bharadwaj (2017, 172). Agile services can be achieved via eight sense, seize and

respond capabilities: market and customer insight, external environment insight, internal environment insight, service modelling, service configuration, service integration, service delivery and service governance (Raman & Bharadwaj 2017). These capabilities are clarified more in the table 5.

The table 5 summarises three different perspectives to approach dynamic service innovation capabilities. To be able to spot the differences and the similarities, capabilities and micro-foundations are categorized according to Teece (2007) in sensing, seizing and reconfiguring.

In the category of sensing signalling customer needs and building up deep customer knowledge appear in all of the studies presented in the table 5. According to these studies all in the organization are involved to gather the knowledge about customer and share the knowledge gained to whole organization. Den Hertog et al. (2010) and Kindström et al. (2012) raise sensing the technological options as one of the capabilities that enhance service innovation and development. Raman and Bharadwaj (2017) describe this at more general level as external environment scanning. They also present internal environment insight as one capability to facilitate agile services. Kindström et al. (2012) talk about internal service sensing meaning founding opportunities to the integration of products and services. This capability also includes a structured service development process to address this factor.

Central capability, in the category seizing, means that all of the perspectives present is capability to model the service in co-creation with customers and run service experiments. Den Hertog et al. (2010) present service design as method to execute this. Kindström et al. (2012) and Raman and Bharadwaj (2017) bring up the service delivery as one capability, which includes launching and delivering the service.

In the category reconfiguring the perspectives differ the most. In the category of reconfiguring, one of the capabilities Den Hertog et al. (2010) brought up to manage service innovation is co-producing and orchestrating. By that they mean co-producing and co-designing new business concepts with trusted stakeholders and orchestrate these partnerships. Orchestrating service system is also brought up as one of the new service-innovation-oriented microfoundation. By orchestrating Kindström et al. (2012) mean managing and transforming the service system, especially managing external actors that are central to performance of the service. Raman and Bharadwaj (2017) talk about service integration and system integration capabilities meaning at least partly the same activities as Kindström et al. (2012). The rest of the capabilities have no clear similarities. Den Hertog et al. (2010) present capabilities to share, codify and implement innovative practises and learn from the way service innovation is managed. Kindström et al. (2012) present relevant microfoundations to be balancing product and service-innovation related assets and creating service oriented mental model.

Capabilities for managing service innovation (Den Hertog et al. 2010, 499-505)	New service-innovation-oriented microfoundations (Kindström et al. 2012, 1067-1068)	Capabilities to facilitate agile services (Raman and Bharadwaj 2017, 178-179)
Sensing		
<p>Signalling user needs: Empathically understand users and sense their (potential) needs well in advantage by interacting intensively with (potential) clients -> tools: dialogues with lead users, joint experimentation and prototyping, user panels, account management systems, client profiling, detailed analysis of how current services are used, trend analysis in client groups</p> <p>Signalling promising technological options: signal new technological options -> tools: scanning promising technologies, discussing new options with group of technology providers</p>	<p>Customer-linked service sensing: Building up deep customer knowledge, including feedback loops and creating organizational roles, systems, and processes that continuously capture and relay customer demands.</p> <p>Technology exploration: Scanning and exploring sources outside the service system, primarily related to more radical technological changes.</p> <p>Service system sensing: Building up an understanding of the entire service system</p> <p>Internal service sensing: Building up internal sensing: e.g. opportunities related to the integration of products and services Having a structured service development process to address this factor</p>	<p>Customer and market insight: Ability to share market intelligence with others in the organization, and be responsive to market intelligence and knowing the customer and knowing from the customers</p> <p>External environment insight: Ability to scan strategic information (trends, changes) about environment specific to the organization</p> <p>Internal environment insight: Ability to continuously update customer, partner, market and external environment knowledge to be able to reactivate the retained knowledge</p>
Seizing		
<p>Conceptualising: Transforming a rough idea for a new service into a viable service offering: capability within the firm to think out of the box, question current service practises and processes, and be prepared to test prototypes and run service experiments -> method service design (Un-)bundling capability</p>	<p>Service interactions: Interacting and co-developing with customers and partners to understand, visualize, and deliver value propositions. Involves processes, roles, and skills to interact and change together with customers</p> <p>Managing the service delivery process: Having the ability to restructure internal and external resources swiftly, for the delivery of new or improved services</p> <p>Adopting new revenue mechanisms: Rolling out new revenue mechanisms based on service value, such as availability and customer productivity. The ability to visualize the value of new, often intangible services and solutions for a wide array of actors in the service-delivery system.</p>	<p>Service modelling: Ability to develop steps performed to map, simulate and optimize service processes.</p> <p>Service delivery: Ability to launch/deliver the service in the market and commercializing the same with speed and surprise.</p> <p>Service governance: Ability to specify accountabilities, roles and responsibilities and principles related to service</p>
Reconfiguring		
<p>Co-producing and orchestrating Capability to co-produce and co-design with clients and other trusted partners and stakeholders newly configured business concepts and subsequently orchestrate these temporary partnership or alliances</p> <p>Scaling and stretching Capability to share, codify and implement innovative practises Capability to communicate and build a brand</p> <p>Learning and adapting Capability to deliberately learn from the way service innovation is managed currently and subsequently adapt the overall service innovation process</p>	<p>Orchestrating the service system: Managing and transforming the service system, especially managing external actors central to performance of the service. An ability to extend the resource base into new markets and services, and to incorporate complementary resources and co-specialization. Reconfiguring roles, resources, locus of control, and power in the service system.</p> <p>Balancing product and service-innovation related assets: Maintaining a balanced relationship between the service organization and the product organization</p> <p>Creating service-oriented mental model: Often referred to as a service logic; implies a learning dimension.</p>	<p>Service configuration: Ability to decouple the delivery of services from the time at which services configures into an application or a system.</p> <p>Service integration: Ability to interact with alliances for co-creation of value as well as the (re)formation of service systems in an agile manner.</p>

Table 5: Summary of the three different perspectives to approach dynamic service innovation capabilities (Den Hertog et al. 2010, 499-505; Kindström et al. 2012, 1067-1068; Raman and Bharadwaj 2017, 178-179)

From processes, competences and know-how needed in service innovation and development, next chapter discuss about the theory of jobs-to-be-done. It is seen as starting point to innovate and develop by understanding customer needs and through that understanding establish new solution for customers.

2.3 Jobs-to-be-done

The theory of jobs-to-be-done (JTBD) was developed partly as a complement to the theory of disruptive innovation (Christensen, Hall, Dillon and Duncan 2016). Christensen, Raynor and McDonald (2015, 46) recap the idea of disruptive innovation: “Disruption describes a process whereby a smaller company with fewer resources is able to successfully challenge established incumbent businesses.”

Jobs-to-be-done offers a theory to understand the causal driver behind the purchase, it describes how to create products and services that customer wants to buy. To put it in another way, organizations need to understand what customer hopes to accomplish and the progress that the customer is trying to make in a given circumstance. (Christensen et al. 2016.) The firm should have understanding of what are the jobs the customer need to get done and the obstacles they face to get their jobs done. This understanding leads to fertile terrain for new solutions (Wunker, Wattman and Farber 2016, 1) and services fulfilling the needs (Bettencourt, Lusch and Vargo 2014).

Innovators and developers need to do is to identify poorly performed “jobs” in customers’ lives – and then design services around those jobs. Innovation and developing a solution for customer, understanding customer circumstances are more important than customer characteristics, product attributes, new technologies or trends. Circumstances create framework for competitive playing field. The causal driver behind the purchase decision can be social and emotional reasoning, so the jobs are never simply about function. (Christensen et al. 2016.)

The two perspectives on value creation, SDL and JTBD, are integrated by Bettencourt et al. (2014). They call it Service Lens value creation (fig. 9). JTBD offers a practical way to implement strategic thinking of SDL, which focus on co-creating value with customer via service that all offerings provide (Bettencourt et al. 2014). In JTBD perspective the focus on innovation is a firm enabling customers to get their jobs done successfully, not on what is being produced.

The Service Lens reveals that fundamentally firms offer services that are based on jobs customer need to get done. Value is co-created with the customer in the process. The firms and individuals integrate resources to get the entire job done and the value is context specific (figure 9).

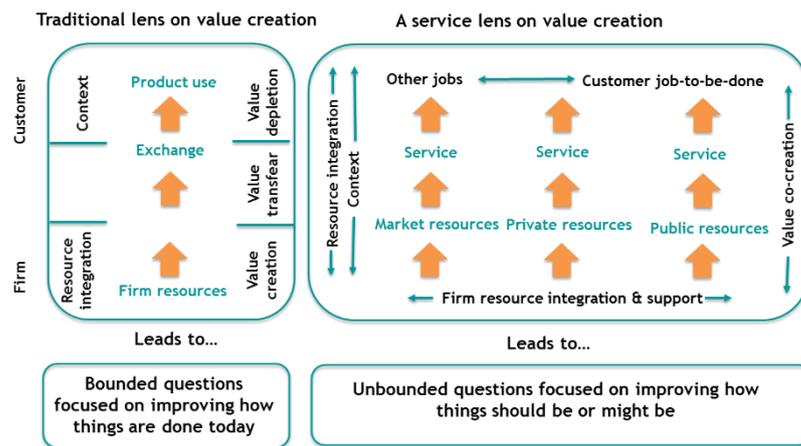


Figure 9: Traditional and Service Lenses on value creation (Bettencourt et al. 2014, 48)

The traditional lens views value as something that is created by firms. Looking at the world through service lenses offers lots of possibilities to innovate. Customer job offers stable base to guide service innovation. (Bettencourt et al. 2014.) Possibility to innovate is to help customers get their jobs done better and view customers as resource and resource integrators. To innovate, new capabilities and mind-sets are needed (table 6).

Possibilities to innovate (Bettencourt et al. 2014)	New capabilities and mind-sets (Bettencourt et al. 2014 ; Zacharia, Nix & Lusch 2011)
Create new markets by helping customers get their job done better via service	<ul style="list-style-type: none"> • Connect to the complete customer experience • Deep understanding of context • Understanding where and when customers struggle in doing their job • Continually learn and re-shape value proposition over time • Evaluate possibilities for what the future might look like, adapt quickly to what has been learned • Focus on customer job insights in development priorities and capability development • Focus on company know how in development priorities and capability development • Expand thinking about context to something that contributes to value creation that can be worked with and shaped • Embedding change in existing processes and systems
<p>Help customers to integrate resources, knowledge and skills with businesses or individuals who have jobs that will benefit from those resources (inputs, outputs, external environments, partners, stakeholders, customers and their resources)</p> <p>Utilize customers as resources in value creation and search ways of co-creating with them</p> <p>Create support systems that help customers to be more effective in their value co-creating role</p>	<ul style="list-style-type: none"> • Applying knowledge and skills resourcefully • Mechanism to combine and deploy external knowledge and skills • Mechanism to combine and deploy internal knowledge and skills • Integrating new resources continually to help get jobs done better • The roles and processes should be created or redefined to ensure that customer job insights are shared widely and processes to support the customer job weave seamlessly in and out of the organization • Coordinate market driven perspective for all the internal and external resources • Knowledge and skills of how the customers are applied resourcefully

Table 6: Possibilities to innovate through Service Lens and new capabilities needed (Bettencourt et al. 2014, Zacharia et al. 2011)

It is important to innovate service that fits the context and to understand value criteria, resource use, co-creation activities, and value barriers at each step of the job. This is necessary for service redesign done by reducing waste (usually time, effort, or expense) in the process, eliminating points of co-creation failure and improving co-creation results (Bettencourt et al. 2014).

As jobs-to-be-done offers a good terrain to find a new solution that will help the customer to get their jobs done, service design offers a practical process and tools to innovate and develop human centric services in collaboration. Design thinking and service design are explored in the next chapter.

2.4 Design thinking -based service design

2.4.1 Characteristics of design thinking

Design thinking introduces design culture and its methods into various fields such as business innovation (Tschimmel 2012). Design thinking can be integrated in all aspects of business (Brown 2009, 3). However, design is always context-specific. As the context changes, the design expertise is applied with new tools (Tuulaniemi 2011, 63). When design thinking is applied in the field of services, the term service design is used. (Lockwood 2009, xv). Stefan Moritz's has published the one of the most popular definitions for service design "Service design helps to innovate (create new) or improve (existing) services to make them more useful, usable, desirable for clients and efficient as well as effective for organization. It is a new, holistic, multidisciplinary, integrative field" (Stickdorn et al. 2018, 19). The most popular definition of service design is crowd sourced by Megan Erin Miller: "Service design helps organizations see their services from customer perspective. It is an approach to designing services that balances the needs of customer, with the needs of business, aiming to create seamless and quality service experiences. Service design is rooted in design thinking, and brings creative, human-centred process to service improvement and designing new services. Through collaborative methods that engage both customers and service delivery teams, service design helps organizations gain true, end-to-end understanding of their services, enabling holistic and meaningful improvements" (Stickdorn et al. 2018, 20).

Design thinking is a mind-set and cognitive process. It is also an effective set of tools for any innovation process, connecting the creative design approach to traditional business thinking, based on planning and rational problem solving. (Tschimmel 2012.) Individuals and teams can use design thinking approach to generate breakthrough ideas which can be implemented. Design thinking puts the innovation tools in the hands of ordinary, diverse people e.g. employees, and relies on peoples' ability to be intuitive, to recognize patterns and to construct ideas that have emotional meaning as well as functionality. (Brown 2009, 3-4.)

The foundation of design thinking is acceptance of competing constraints and ability to create harmonious balance between constraints. These constraints are feasibility referring to functionally possible within foreseeable future; viability referring to likelihood to become part of sustainable business model and desirability referring to making sense to people and for people. (Brown 2009, 18.) The designer needs to be analytical and emphatic, rational and emotional, methodical and intuitive, all in the same time. In other words, the designer needs to be oriented by plans, and be spontaneous at the same time. (Tschimmel 2012.) The project brief also serves as a constraint, which gives the framework from which to begin, measures progress and sets the objectives to be realized (Brown 2009, 22). Kolko (2015) points out that it is as important to decide what the service should offer as what it should not.

Design thinking per se is after clear and simple user experience (Kolko 2015). An experience must be designed and fine-tuned as any other product (Brown 2009, 110). The focus on the great experiences infuses every customer facing function. Design thinking is a method for simplifying and humanizing people's interaction with the modern technology and other complex systems like business environment. The key principles of the design thinking are empathy with user, a discipline of prototyping and tolerance for failure. (Kolko 2015.)

The human centric approach is the fundamental characteristics of design thinking (Tschimmel 2012). The focus need to be shifted from the systems, processes and mechanism of delivery to human experience (Bailey 2012). Services should be experienced through customer's eyes (Stickdorn & Schneider 2011, 37). Insights are found by entering people's environment, learning from their expectations, emotions, experiences and behaviours. Bridges of insight are built through empathy. (Brown 2009, 50.) Empathy and understanding of people can be used to design experiences that create opportunities for active engagement and participation (Brown 2009, 115). Human-centric approach is also about designing with users collaboratively by using co-creative methods with all the stakeholders included (Tschimmel 2012; Stickdorn & Schneider 2011, 39).

Design thinking is a capacity for integrative thinking. Complexity is seen as the most reliable source of creative opportunities. (Brown 2009, 85-86.) Characteristics for design thinking is to create models for the examination of complex problems (Kolko 2015).

Failure is not something design thinking is after. But the iterative nature of the method gives the permission to fail (Kolko 2015). This needs culture that encourages people to take risks and explore all the ideas and possibilities they can come up to (Brown 2009,32). The mechanism to gather ideas throughout an organization and act upon suggestions should be arranged. The promising experiments should have support from the organization to proceed and the best ideas should be shared for the whole organization (Brown 2009, 72).

2.4.2 Embedding design in large scale

Steady flow of innovation needs culture of innovation (Brown 2009, 166). Jenkins (2009, 25) has identified nine cultural mind-sets in organizations that are against and for design. These mind-sets are summarized in the table 7.

Mind-sets against embedding design	Mind-sets for design capability installing
Control and hierarchy	Empowerment and authorization
Performance and short-term success	Learning from failure and looking for long term outcomes
Efficiency and cost-cutting	Effectiveness and value creation
Productivity and busyness	Reflection and focused action
Competition and empire -building	Culture of collaboration and shared purpose
Compliance and assurance	Judgment and trust
Risk avoidance	Possibility and experimentation
Blame-shifting and arse-covering	Truth-telling and honest critique
Rigorous process as salvation	Heuristic and agility

Table 7: Cultural mind-sets against and for design (Jenkins 2009, 25)

As it is seen in the table 7 the installation of design capability needs brave attitude, trust and collaboration. In contrary stiff an organization with suspicious minds needs mind-set changes to embed design in the organization.

To innovate in a large scale, innovation needs to be coded into DNA of the company (Brown 2009, 171). Bailey (2012) raises design readiness as one of the key factors to embed design thinking in to organization. Design readiness is about recognizing the need for design as a part of a set of business tools to improve delivery of services. Top management needs to have a vision for design approach. The management also needs to give support and resources, e.g. in-house designers or external input to support the in-house personnel. (Bailey 2012.) Design budget should not be a constraint by budgeting cycles, but it needs to stretch with pace of innovation (Brown 2008).

Design thinking should be integrated into management style, so that it encourages managers to use design among personnel. This could be done by guidelines and information about design. Common vocabulary about design is also needed. Both in-house design team and rest of the organization need to develop their skills and knowledge about design thinking tools and methods. (Bailey 2012.) In the beginning the in-house design team transfers the design knowledge to the rest of the organization by teaching the theory of design and using learning by doing -method. Eventually the design capability gap between these two groups will diminish, and design culture will be embedded in to organization. When personnel are confident about using design tools, they will start to re-design the tools responding to the need of each

situation. All the design processes should be communicated for raising awareness of the method. (Bailey 2012.)

All the innovation should be stored to a portfolio of innovations (Brown 2009, 172). Brown (2008) suggests a procedure to manage the portfolio of short-term incremental ideas, which are run and funded by business units and long-term revolutionary ones, initiated from the top. For the in-house service design team, this requires balancing between ability to deliver value to the business at strategic level and developing services at operative level (Bailey 2012).

2.4.3 Service design process and tools

The first step in designing services should be started by designing the process itself (Stickdorn & Schneider 2011, 126). Every design process is highly dependent on the context. The way how to proceed with design varies project by project. As the design process starts, the exploratory nature of it reveals, what is the next direction that seems to be most right to take (Brown 2009, 16). The outline structure of a design process can be articulated and roughly planned beforehand (Stickdorn & Schneider 2011, 124; Brown 2009, 64-70). Even though there is not the best way to proceed in the innovation process, there are several stages that help to plan the project tasks (Brown 2009, 63). These stages give rough understanding about what to expect during the process and what timeframe is needed to accomplish the project (Tschimmel 2012). Brown (2009, 16) defines design thinking process as three phases. Inspiration defines the problem or opportunity that motivates the search for solution. Ideation is the process of generating, developing and testing ideas. The final phase is the implementation of the solution. Four different service design processes are introduced more detailed.

The Double Diamond Design Process

The Double Diamond Design Process illustrates the similarities that all the designers go through when designing products or services. The Double Diamond consists of four distinct phases: discover, define, develop and deliver as it is seen in the figure 10. (Design Council 2005, 6.)

This diamond figure has a meaning that is essential in design- divergent and convergent thinking. In divergent phases (discover, develop), where the diamond is opening, methods create choices. These can be for example insights, visions and experiences. Choices make the process more creative. In convergent phases (define, deliver), where the diamond is closing, methods helps to choose. By choosing the most compelling alternative amongst competing choices, leads to better outcomes. (Brown 2009, 66-68.)

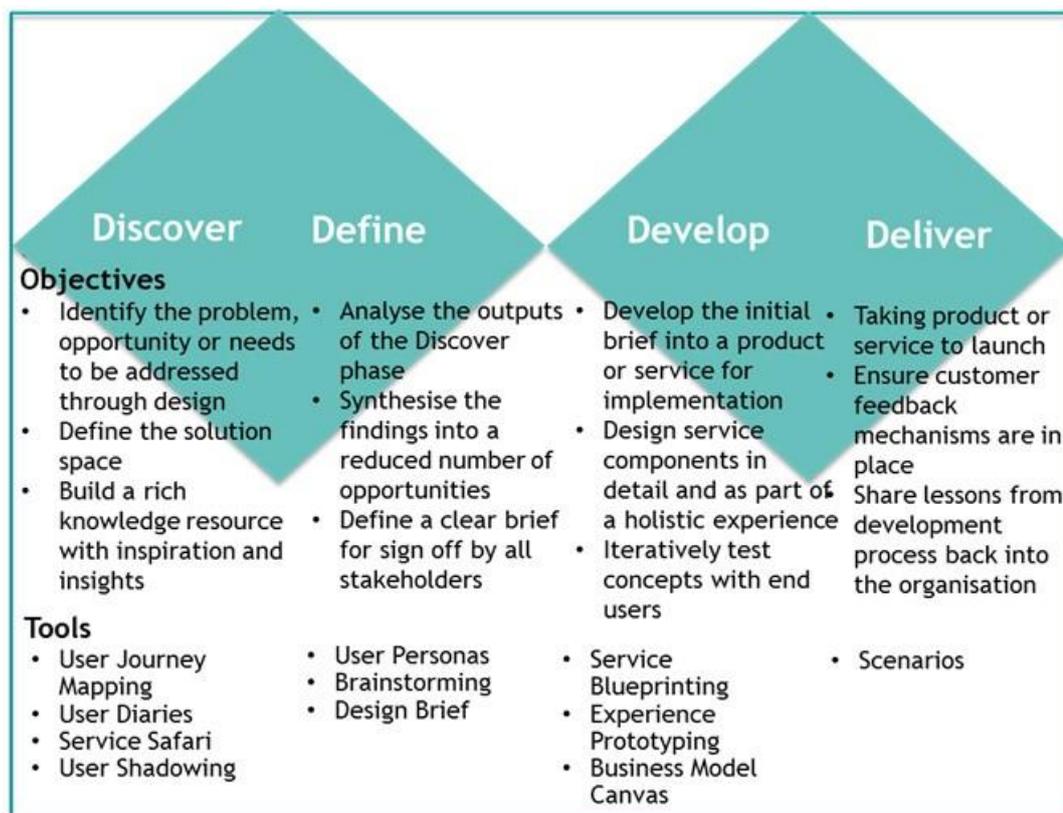


Figure 10: The Double Diamond Design Process (Design Council 2005, 7-9)

In the Discover phase the problem is identified, insights are gathered and the initial ideas are developed. This phase brings knowledge and inspiration to the design process. The Define phase is about analysing, synthesising and framing the creative brief to the design challenge. The Develop phase is about developing, testing with users and refining the concepts. This is an iterative process until the concepts are ready for implementation. In the Deliver phase concepts are implemented. Gathering feedback from all the stakeholders is important. Examples of the tools are seen in the figure 10. (Design Council 2005, 7-9.)

Service Innovation Process Grounded on Foresight and Service Design

A framework for service innovation process that is grounded on foresight and service design have been conceptualized by Ojasalo, Koskelo and Nousiainen (2015). They are arguing that in the rapidly changing world the aspect of dynamic capabilities can offer a powerful framework for service innovation. Sensing is a capability to recognize future opportunities and threats in the business environment. According to Ojasalo et al. (2015) this brings future thinking methodologies to be a part of service innovation process. Seizing is a dynamic capability to operationalize sensed opportunities. The service innovation process grounded on foresight and service design is seen in the figure 11. The nature of methods and illustrative tools for in each stage are also presented in the figure.

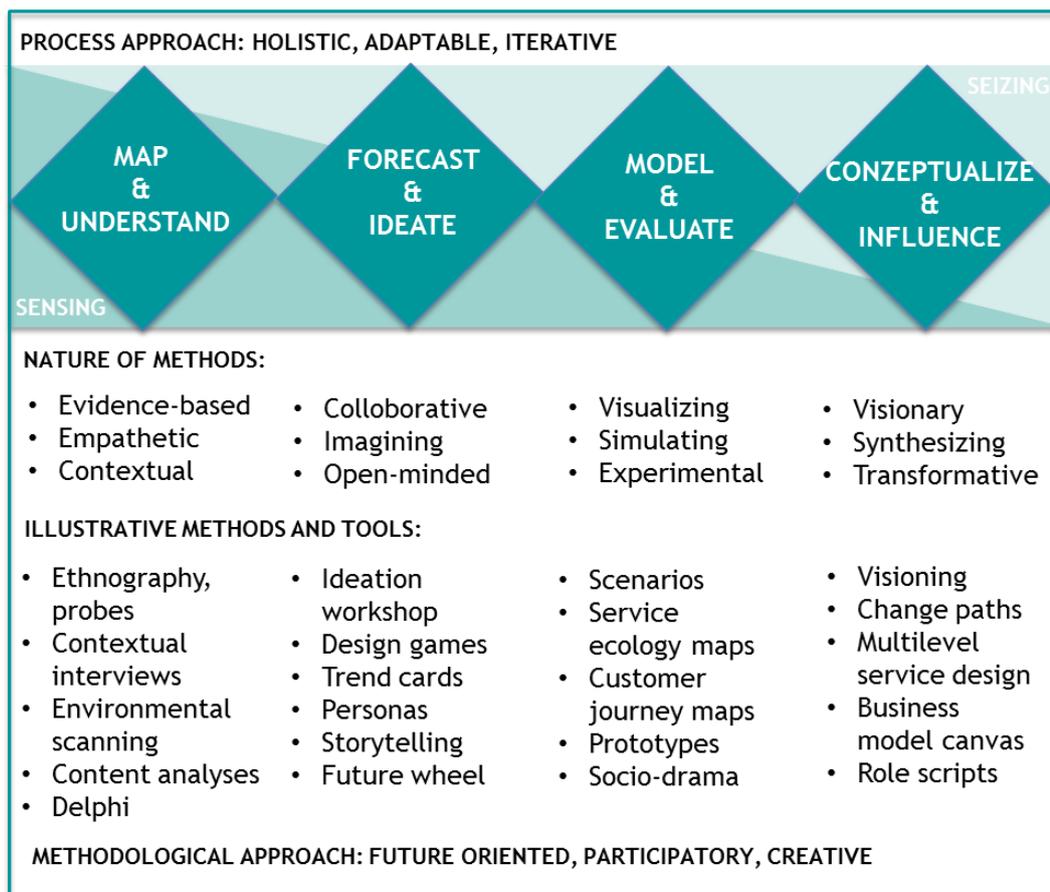


Figure 11: The service innovation process grounded on foresight and service design (Ojasalo et al. 2015, 202)

The first phase of this service innovation model is about mapping future changes of business environment and understanding customer’s needs. This phase is built on strong sensing capability. The second phase is about forecasting alternative futures and ideation of new ways of organizing services. Collaborative way of doing is essential. The third phase is turning the process more to seizing than sensing. This phase is about modelling new service solutions by using visualizations, narratives, prototypes and testing. The fourth phase conceptualizes the new service. Business analyses are integrated in creative thinking. (Ojasalo et al. 2015.)

Service Design Thinking Model

A service design process called Service Design Thinking Model, is introduced by Stickdorn and Schneider (2011, 128-135) in a book “This is Service Design Doing”. They divided the process in four stages: (1) Exploration, (2) Creation, (3) Reflection and (4) Implementation. The tools of this service design process are shown in the figure 12.

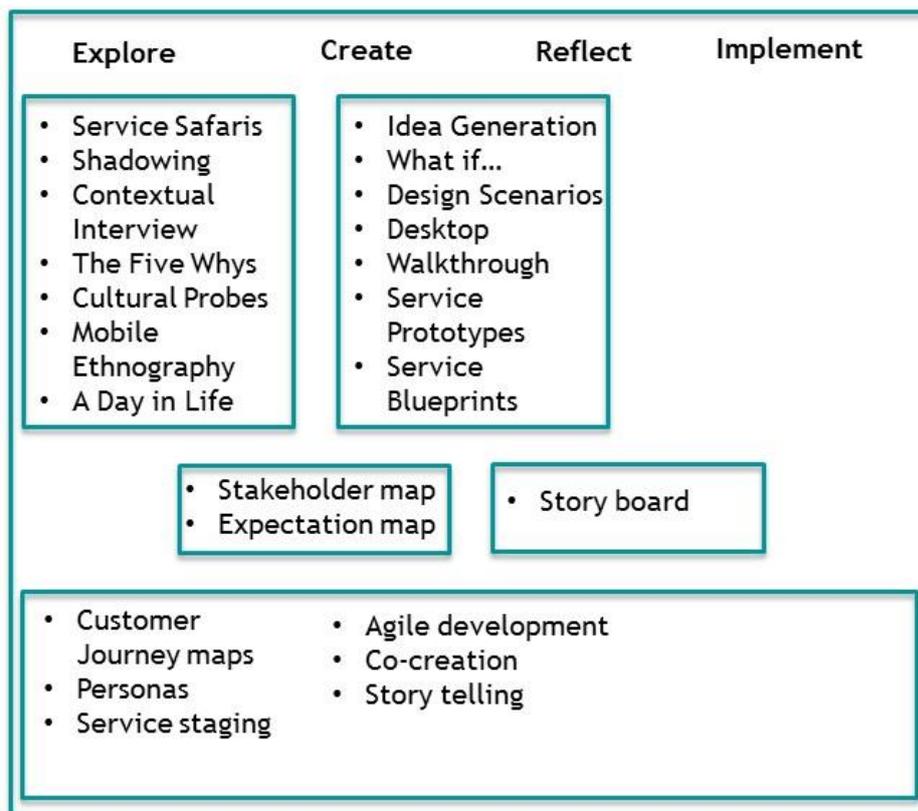


Figure 12: Tools of different phases in Service Design Thinking Model based on Stickdorn & Schneider 2011, 150-213)

The Exploration stage is about discovering. When starting the design project, it is important to understand the culture and the goals of the company providing the service. The questions are: how much do they understand about service design, what are their expectations from the designer, what is the identified problem that company wants to be solved. Since the problem is often articulated only from company's point of view, service designer's role is to argue the problem from the customer's point of view. The second task is to identify the real problem behind the task based on true motivations behind the customer behaviour. The third task is to visualise the findings to give a structure to previously abstract service. (Stickdorn & Schneider 2011, 128-129.)

The Creation stage is about designing the concept by generating and developing solutions based on the Exploratory stage. In this stage testing and retesting of the ideas and concepts is essential. This stage is about exploring as many mistakes as possible to avoid failures found after the concepts are launched. This is highly interdisciplinary stage and it is crucial to involve all the stakeholders in the process. (Stickdorn & Schneider 2011, 130-131.)

The Reflection stage is a continuum of the Creation stage. This stage is about testing the ideas and concepts with prototypes. The challenge in this stage is to generate the vision of

service concepts in the minds of customers and prototype it in reality or close to reality circumstances. This scenery need to be kept simple and rough to give space for creativity. (Stickdorn & Schneider 2011, 132-133.)

The Implementation stage emphasizes the change management. Clear communication of the concept is essential. At this stage employees are important actors, because their motivation and engagement are crucial for service implementation. The engagement of employees from the very beginning of the service design process helps them to understand the change and thus the implementation is easier (Stickdorn & Schneider 2011, 134-135).

Research-based design process

The Research-based Design Process has been developed by Leinonen (2010, 150) and introduced in his dissertation “Designing Learning Tools, Methodological Insights”. The process is depicted in the figure 13. Leinonen (2010, 150) argues that in research-based design, the design is the main outcome and the anthropological research helps to draw routes to that outcome. Leinonen (2010, 150) compares the process to a hermeneutic circle where all research and design operations increase the researcher’s and designer’s understanding of each other and the context.

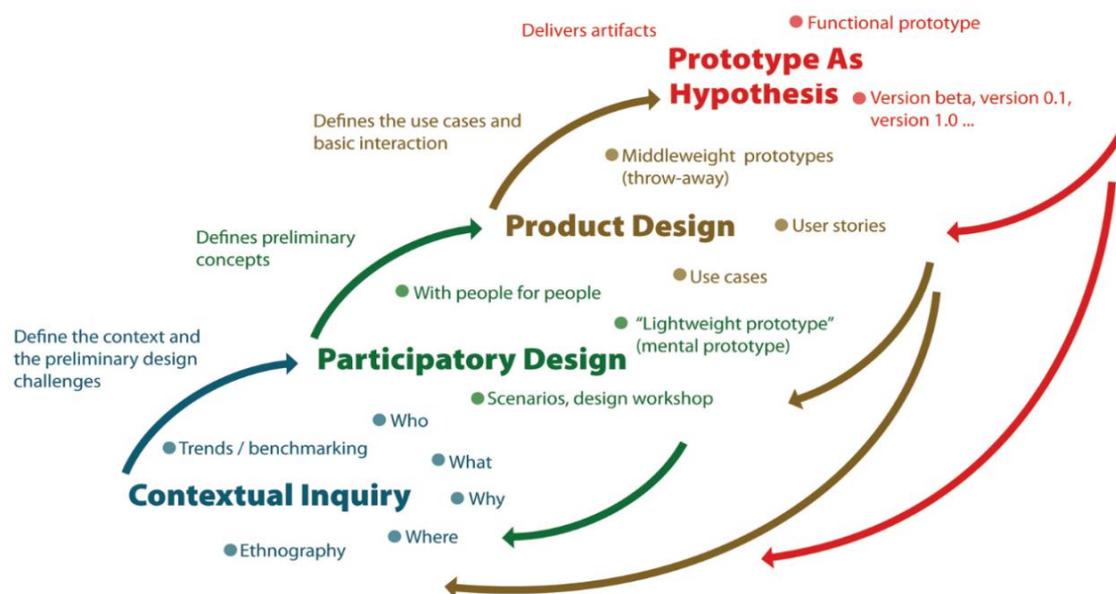


Figure 13: Research-based Design Process (Leinonen 2010, 150)

The process of research-based design is divided into four iterative phases. These phases take place partly in parallel. The first phase is Contextual Inquiry, which defines the context and the preliminary design challenges. The second phase is Participatory Design, which defines

preliminary concepts. The third phase is Product (service) Design, which defines the use cases and basic interaction. The fourth phase is Prototype as Hypothesis, which delivers artefacts. (Leinonen 2010, 150.)

Comparison the service design process models

Several different service design process models exist. A common feature of the models discussed in this thesis is that they visualise the service innovation and development process in a rough manner. The iterative nature of design is extremely well visualised in Research-Based Design Process by Leinonen (2010). The arrows emphasize the permission to always take step or steps back in the process if needed. Other service design process visualisations are not that obvious about iterative nature of the process. The Service Design Thinking Model by Stickdorn and Schneider (2011, 122-123) does not even present visualisation about the process, but the four phases with descriptive names. Design thinking appreciates creation of models to examine complex problems, prototypes and tolerance for failure. Even though iterative nature is not visualised in all of the models, the tools represented as a part of the models, are raising these features strongly up.

Ojasalo et al. (2015) emphasize that the service design and innovation process is rarely linear. It is rather a system of overlapping spaces. A project may proceed back and forward several times between different stages. Non-linearity is well pointed out in all the processes introduced in this report. These service design process models do not present the process as touch points, which are taken one after another. Models are rather simple and present the phases as rough stages. The service design process grounded on foresight and service design by Ojasalo et al. (2015) is emphasizing this feature with the word “adaptable” in their visualisation.

Design process appreciates divergent and convergent thinking and they are following up each other throughout the design process. Divergent and convergent thinking is well visualised in the Double Diamond Design Process by the Design Council (2005). Design Council’s model was the first one to introduce the feature with the diamond figure. Many process models have then followed Design Council’s example and used the diamond figure to emphasize divergent and convergent thinking in design. One of the followers is the Service Innovation Process on Foresight and Service design by Ojasalo et al. (2015).

Stickdorn and Schneider (2011, 34) are pointing out the principles of service design thinking. Taking the holistic view to design is one of them. The entire service environment should be considered. Three out of four service design processes introduced in this report are taking the holistic view to the design process by starting from the research and understanding and ending to influencing or implementing. The Research-based Design Process by Leinonen (2010) is ending the process model to prototyping phase and ignoring the implementation. The Service

Innovation Process on Foresight and Service Design by Ojasalo et al. (2015) is bringing in the future thinking in the design process and that way serves even a more holistic approach to design. By using future thinking, the design could be more innovation of new services than development of existing services. The service Design Thinking Model by Stickdorn and Schneider (2011, 128) is taking account the development and innovation capability, culture and expectations of the organization, where service designing is about to be started.

The tools for each phase are presented in the Double Diamond Design Process by Design Council (2005) and the Service Innovation Process on Foresight and Service Design by Ojasalo et al. (2015). The service Design Thinking Model by Stickdorn and Schneider (2011, 148) does not categorize tools as strictly as the other two models mentioned above. Stickdorn and Schneider (2011, 148) are pointing out that most of the tools can be used in different phases of the design process. The Research-based Design Process by Leinonen (2010) does not present the tools at all. This model is raising questions and more of opening words to lead the designer towards appropriate methods and tools.

Stickdorn and Schneider (2011, 34) point out the two other principles of service design thinking – co-creation and customer centricity. All the stakeholders should be included in the design process and services should be experienced through customer's eyes. It is important not to leave the designing as a mission of small group but involve stakeholders in each phase of the design process. The characteristics of the service design process overall can be summarized: iterative, non-linear, divergent-convergent, holistic and future oriented.

Tools for design thinking

The tools that are presented in the models are very customer centric and co-creative in heart. By using these tools the customer or the user is in the middle of design. The tools used in design thinking are usually simple and intuitive templates, which help participants to generate ideas and categorize inputs, as well as visualize paths, processes or concepts (Tschimmel 2012).

Interviews can be used to identify the need of design or redesign (Portical 2013, 11). Customer journeys explore the problem space (Kolko 2015). Service blueprint is a tool where customer path is plotted against the organizational processes which is further divided into on-stage, backstage and support processes (Bitner et al. 2008, 72). A stakeholder analysis is a basic framing tool to analyse anyone, who can significantly impact a decision, or who may be impacted by it (Grey et al. 2010, 124). Personas are fictional profiles (Stickdorn et al. 2011, 178), which help to make users personal and human (Tschimmel 2012, 13) and bring a typical customer to life (IDEO 2003). An affinity diagram brings customer issues and insights together into hierarchical diagram (Holtzblat et al. 2005, 159-160).

In service design making of new service concepts plays an important role (Lockwood 2009, xv). Storyboards are used both to communicate and to improve concepts (Kumar 2013, 269). Design thinking offers a set of tools for business analyses also. (Neumeier 2009, 17). A Business Model Canvas is a tool for describing, analysing, and designing business models (Stickdorn et al. 2011, 212). It is a shared language that enables to systematically challenge assumptions about business model and innovate successfully (Osterwalder et al. 2010, 15). The tools can be applied not just by designers but innovation managers, employees, citizens and anyone who is interested to innovate and to develop individually and in teams (Tschimmel 2012).

This chapter discussed what design thinking is all about -by soul and by body. It discussed what is needed, if design thinking is embedded in the organization in large scale. What kind of mind-set and what kind of activities are needed to enhance the implementation. Service design process and tools create the body for the design thinking. Four different service design processes were presented and compared to find out the characteristics needed in creating the process. A set of tools were presented to give the idea of the wide range of toolset service design offers to enable service innovation capabilities. The next chapter summarizes the theoretical framework of this thesis.

2.5 Theoretical framework for service innovation capabilities and their enablers

This chapter summarizes the knowledge and understanding gained by exploring the theories of service-dominant logic (SDL), dynamic service innovation capabilities (DSIC), jobs-to-be-done (JTBD) and service design with focus on innovation and development capabilities. The key points of the theories are summarized in the figure 14.

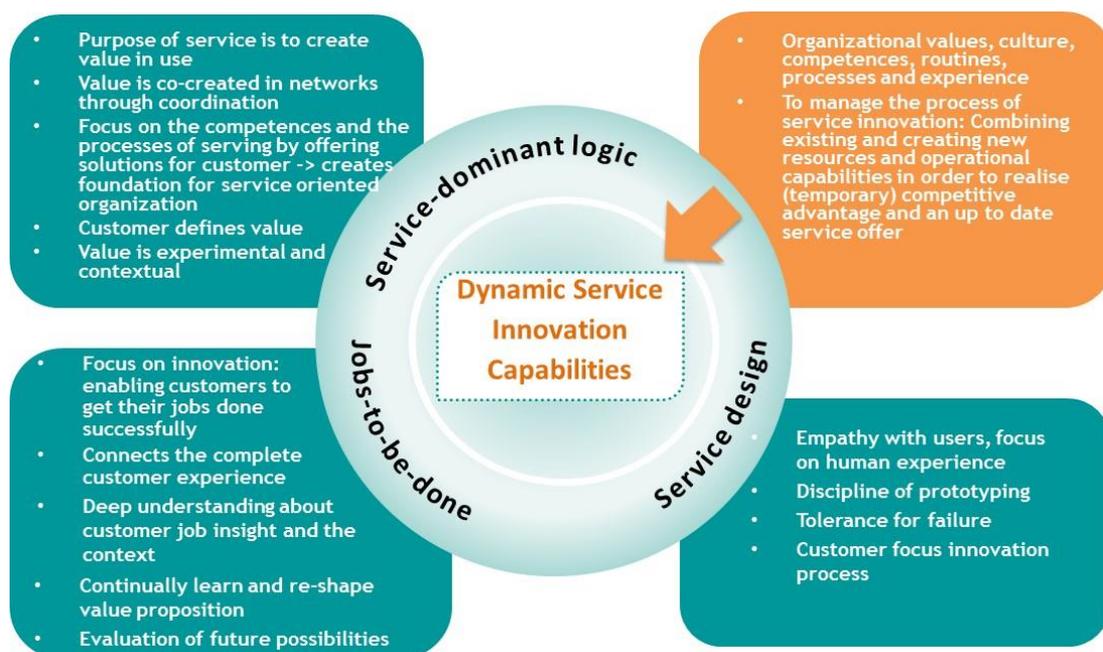


Figure 14: The key points of the theories

The summary of the theories, focusing on dynamic service innovation capabilities, is explained through a visualized theoretical framework that is illustrated in the figure 15. Innovation itself can be described as an organizational capability. It is a capability to focus on future and to do something new both in the content and the process. Dynamic capabilities are distinctive competences, like values, culture, and organizational experience. With strong dynamic capabilities organizations can address to continuously changing business environments. Dynamic capabilities are embedded in the processes, values and experiences of the organization and can be described as the personality of the organization. For these reasons capabilities are illustrated in the centre of the visualized framework of this thesis. DSIC form an innovation value chain or rough innovation process in the middle of the circle. These capabilities are based on the possible dimensions where service innovation can take place. They are distinct capabilities that can be disaggregated to microfoundations and thus can be measured.

SDL is situated at the top of the circle to illustrate its strategic perspective. SDL creates a foundationally service-oriented organization, since it offers service solutions for customers. Based on how SDL defines service, co-created process and application of competences involved, it brings a new perspective to service innovation. Thus, the capabilities SDL brings to the framework are collaborative competences, a dynamic capability of customer orientation, and knowledge interfaces.

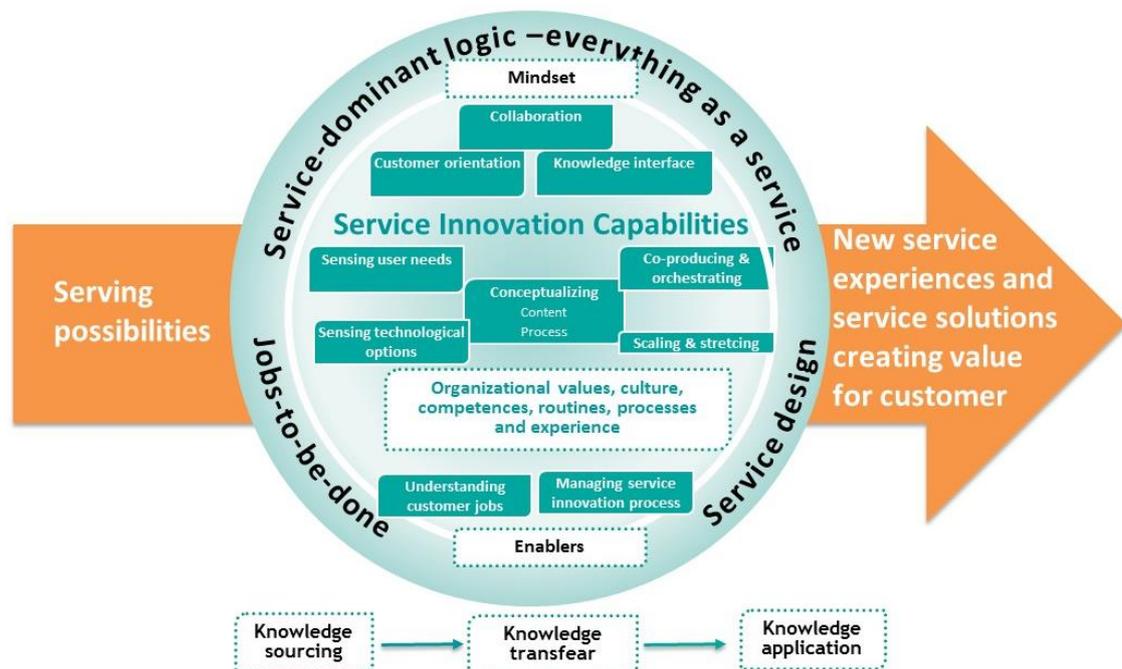


Figure 15: The framework of service Innovation capabilities and their enablers

Service design, as well as JTBD, is situated to the lower part of the circle to represent operational nature of these theories. They are enablers, practical tools and methods of dynamic

service innovation. Service design serves the practical process for service innovation to bring alive the capabilities in the middle of circle. The characteristics of service design process can be summarized as iterative, non-linear, divergent-convergent, holistic, future oriented.

Collaboration interconnects the SDL and service design together. Service design is done through collaborative methods engaging both customers and employees with the aim to ideate and develop new concepts. Especially important collaboration capability is contact employee participation to service innovation. This contributes to both innovation radicalness and innovation volume. Moreover, service design puts tools of innovation in the hands of employees and releases their creativeness. DSIC talk about “co-designing with stakeholders” as a part of co-producing and orchestrating capability thematic and thus it interconnects with both SDL and service design.

Service design is based on a deep customer understanding and a holistic view of the needs of customer. Services are designed by entering to the world of customer, by understanding their emotions and expectations. In a similar vein the theory of JTBD emphasizes the deep understanding of what a customer wants to achieve, what are the underlying jobs a customer needs to get done. These theories, with method and tools, offer a practical way to implement SDL that focuses on the competences and the processes of serving. Also, the DSIC proposes capability of sensing user needs by interacting intensively with customers.

One of the capabilities DSIC presents is technological options. Theory of JTBD emphasizes evaluation of future possibilities, but at the same time stresses the importance of enabling customers to get their job done successfully. This connects option sensing to customer serving possibilities that is connected to SDL. The importance of these connections is again the focus on customer needs and thus putting resources of sensing for the right purpose.

According to DSIC conceptualizing is knowledge transformation in a value chain of innovation. Both DSIC and service design emphasizes the capability of transforming a rough idea for a new viable service offering. Service design offers tools for describing a brief and tools for concept co-creation. In other words, service design offers tools for knowledge transformation.

Knowledge interfaces of SDL come to alive in capability of scale and stretch that is described as a knowledge application phase in DSIC innovation value chain. Example of this is sharing and communicating about innovative practices and outcomes in a form of portfolios. To embed service design into an organization widely and thus to increase innovativeness, this is a necessity. Knowledge integration mechanism presented by SDL as a part of the knowledge interface, captures, analyses and synthesises the knowledge. Service design tools offer also mechanisms for this kind of processes.

3 Development process and methods

3.1 Research oriented approach

This thesis is based on research-oriented approach, which is a systematic, analytical and critical way of implementing the project. Research oriented approach integrates existing theoretical knowledge with the practical solution under development. New knowledge is gained from the field of practice where the solution of the development project is about to be applied (Ojasalo, Moilanen and Ritalahti 2014, 17-21). Service design presents one of the research-oriented approaches (Ojasalo et al. 2014, 71) and it was chosen to be the approach of the development project.

Service design is well suited to development of customer focus service concept (Ojasalo et al. 2014, 73), which is the aim of this thesis. In addition service design has been used in the case organization as the main service development approach for almost ten years. It is well adapted at all the levels of the organization and lots of experiences of using the approach have been cumulated in the organization. The high level of acceptance and familiarity of the approach is a convincing base for the development. Modern service-oriented business logic, the service dominant logic, emphasizes that all business is service business and it is designed to support the value creation of customers (Ojasalo et al. 2014, 72). The service dominant logic orientation is increasing in the case organization. A good example is development of top management leadership by using service design methods. Service design is a concise approach that brings in-depth customer understanding to an organization and thus helps to bring the service dominant logic to everyday life of an organization (Ojasalo et al. 2014, 72-73).

3.2 Double Diamond Design process as development process

The Double Diamond Design Process is used as the design process framework for this thesis. The basis of the process is explained in the chapter 2.4.3. It was chosen to the framework of the design process, because the most important characteristics of the design process concerning this thesis is divergent-convergent -thinking. The Double Diamond Process presents this characteristics in a clear manner. First in the Discover Phase the knowledge of the customer needs are gathered, and then the design brief defined. In the Develop Phase the preliminary concept is co-created with the customer and with the development experts. The figure 16 shows the process of the thesis in green and the post-project phase in orange.

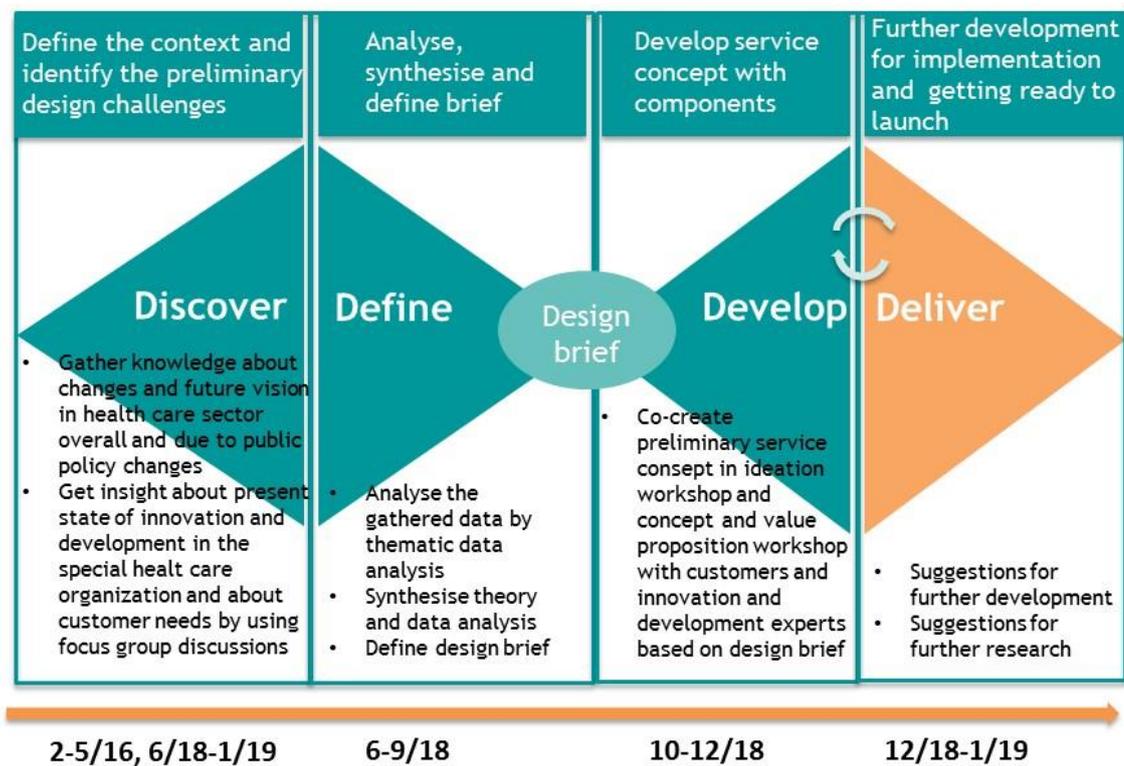


Figure 16: The design process framework of this thesis

3.3 Discovering with focus groups

In this thesis the insight gathering aims to increase understanding of the present state of innovation and development in the organization and to find out the jobs-to-be done to support this activity. Stickdorn et al. (2018, 103) argue that when the focus of research is on existing services, ethnographic approaches for example interviews are used. In this development project the insights gathering was carried out with the focus groups that aimed at getting the participants to discuss about innovation and development in their own organization. Instead of choosing individual interview as the insights gathering method, focus group was chosen because it presents a more natural environment: participants are influencing and influenced by others – just as they are in real life (Krueger & Casey 2009, 7). This aspect is extremely important since development and innovation, which lead to changes in service, need alignment, effort and collaboration from people of all the levels of organization. Focus group also offers wide range of views that people have how they interact and discuss the issue (Liamputtong 2011, 5). For the researcher it provides opportunities to follow up the comments and to cross-check with the participants in a more interactive manner than individual interview can offer (Liamputtong 2011, 6).

Participants of the focus groups

Focus groups are composed of participants who bring valuable contributions to the research question (Liamputtong 2011, 4). The participants are similar with each other in a way that is important for the purpose of the study (Krueger & Casey 2009, 63-66). As an example the participants can have common concerns, perspectives or experiences (Liamputtong 2011, 3). For this development project there were nine focus groups and one pilot interview conducted. The focus groups were formulated as described in the table 8.

Organization	Title	Group composition
Group Executive Team	Medical Director Chief Nursing Director Administrative Medical Director	Homogeneous group of directors
Developer Team	Quality coordinator Quality coordinator	Homogeneous group of developers
Division 1	Chief of unit (doctor) Ward manager (nurse) Nurse	Heterogeneous group representing different roles of development, similarity: same unit
Division 3	Director of division (doctor) Clinical nurse specialist	Heterogeneous group representing different roles of development similarity: same unit
Division 4	Specialist (doctor), process owner Clinical nurse specialist	Heterogeneous group representing different roles of development similarity: same unit
Division 5	Director of division (doctor) Nursing director	Heterogeneous group representing different roles of development similarity: same unit
Division 7	Director of division (doctor)	Pilot interview
Division 7	Head of department (doctor) Ward manager (nurse) Nurse	Heterogeneous group representing different roles of development similarity: same unit
Service Center	Director of Service center Head of department Service manager	Heterogeneous group representing different roles of development similarity: same unit
Imaging centre and Pharmacy	Managing director (doctor) Director of nursing	Heterogeneous group representing different roles of development similarity: same unit

Table 8: The composition of the focus groups

There were two homogenous groups, the other one for directors and the other one for the developers. The participants in these two have in common a similar role in development work. The emphasis of the focus groups was on heterogeneous (7) groups. The roles of directors, managers and developers were chosen because they represent all the levels of the

organization and they all have different roles in development and innovation. What combines them is working in the same division, unit or company and has experience in developing services together. In the case organization the development and innovation culture and activities differ between the divisions. For this reason it was important to gather understanding from different divisions. At the time of the focus group execution, there were seven business units from which five were represented in the focus groups. One focus group was representing the Service Centre that is a support function for operative business divisions. The focus group of the Imaging Centre and Pharmacy was for the voice of corporations and public utility owned by the Tampere University Hospital (see the figure 3 in chapter 1).

In seven of the focus groups the following roles were sought for the discussions: director, manager and developer person. A developer person can be someone for whom development is a part of the job or has a personal interest in developing. The Intention was to use focus group method with three participants in each group. Since there were participants that were prevented to attend to agreed appointment, three of the focus groups shrunk into two participants groups.

One group consisted of three members of the Group Executive Team, three groups featured all the roles, two groups consisted of one director and one manager, two groups consisted of two developers, and one group consisted of one director and one developer. The pilot interview was conducted with one director after which the discussion guidelines were slightly changed. Totally 23 people participated in the focus groups. Most of the participants were doctors and nurses, but there were also some engineers, nutrition experts and economists among participants.

The group sizes of these focus groups can be considered small to “ideal”. This is based on the argument that if the number is less than six and participants have low level of involvement with the issue, the active discussion may be difficult to generate and maintain. Also, the richness of the information can suffer, since there are fewer people to interact (Liamputtong 2011, 42). The focus groups for this insight gathering were intentionally small. First, to provide room for all the participants to speak and discuss about the issue in detail in a time scale that was given in advance for the participants being very busy in their working days. Secondly, there were no fear that the chosen people would not have enough involvement, experience and opinions to share about the issue in hand. Thirdly, to involve more than three people in one focus group would have strained the operative work too much.

The recruitment plan was made by the author of this thesis with support of one Group Executive Team Member. The individuals that were chosen to participate in the focus groups were known to be experienced in innovation and development at some level in the case organization. The participants were asked to participate in the development of the innovation and

development activities of the case organization by email. All the participants that were asked reacted positively to the invitation.

Discussion guide

The focus group sessions were based on the discussion guide that is attached as Appendix 1. The discussion guide was sent to the participants in advance. The background questions were not given as a part of the discussion guide, as the purpose of the background questions were to gain as spontaneous group of answers as possible about how participants from different levels of the organization see their own role in the innovation and development of the organization. The background questions were intended to act as warm-up questions in the sessions. It was also about participants' top of the mind feeling of the organization's state and reputation in innovation and development. Other themes of the discussion were looking for insights about the present state of the innovation and development, what prevents or advances these activities and what kind of ideas or even dreams the participants have to enhance it. Through these questions the gap between customer needs and present state of innovation capabilities were sought. These themes gave answers and perspectives to the research question 2.

Execution of the focus groups

The required skills of the moderator of focus groups are facilitation skills and flexibility, and ability to stand back from discussion so that group dynamics can emerge (Silverman 2011, 162). The participants talk in detail and the length about their personal experiences in a relatively open-ended and unguided manner. Usually the moderator only slightly guides the direction of the discussion. (Thomas and Hodges 2010, 21). The author of this thesis acted as the moderator of the focus group discussions. With the experience of dozens of facilitations, the focus groups and interviews at the hospital, required skills exists. The focus groups were conducted between the 22th of February and the 16th of May 2016 in the premises of the special health care organization. Each discussion session lasted approximately 1.5 hours.

Some of the participants were prepared for the group discussions by having made notes to the discussion guide and some of them had just read the discussion guide quickly. A few of the participants was not sure in the beginning of the session what is the subject under discussion. All the discussions were recorded. In the beginning of the discussion the moderator asked for permission from the participants to use the discussion data for scientific research. All the participants gave their signed permission. To highlight the ethics of the study, the moderator emphasized that from the reported results no individuals can be recognized.

At the beginning of the session the background questions led the discussion towards the roles in development and innovation. During the focus group sessions the participants discussed the activities and culture of development in their organization and described what kinds of

barriers and enablers they have recognized within their organization. The participants also described methods and tools used in their development work and analysed the current state of development in their organization. At the end of the discussion the participants considered the forms and structures of support that would enhance the development work most significantly.

3.4 Defining by thematic analysis

The Define Phase is about analysing, synthesizing and framing the design challenge. (Design Council 2005, 7-9). Thomas and Hodges (2010, 23) define data analysis as a process of drawing meaning from or making sense of the information or evidence collected for the project. Silverman (2011, 208) argues, that one of the most commonly used techniques to analyse the data gathered by using focus groups, is thematic analysis. Thematic analysis is a method “for analysing and interpreting patterns of meaning (“themes”) within qualitative data” (Clarke and Braun 2017, 297). It offers a systematic way for generating codes, which are the smallest units of the study and building blocks of themes that are larger patterns of meaning – a shared core idea. The themes help to organize and report the analytic key observations of the researcher. (Clarke & Braun 2017.) The thematic analysis starts from reading through each transcript and trying to make sense of data. The second step is about making sense of what is being said by the participants as a group. To deconstruct the data initial and axial coding needs to be done by coding the data and finding links between the data to find the themes. (Liamputtong 2011, 173.)

The thematic analysis is chosen for this study, because what are especially wanted to discover from the data are the themes that emerge from the discussion of the participants from different level of the organization. These themes give idea of the present state of the innovation and development of the organization, and what themes customers raise as the ones that are needed to enhance the service innovation and development.

After the focus group sessions, all the material was transcribed by the researcher. It helped to become familiar with the data again and pay attention to the flow of the discussion. Also, it was interesting to concentrate on the nuances of the discussions, which was hard when at the same time moderating the discussion and making notes in the actual discussions. The transcription was based on the notes made by the researcher during the discussions. The first letter of the participant’s name, who talked, was marked in the notes. That helped to identify who was talking when listening the recording. Also, the fact that the participants were known by the author helped to recognize each participant’s voice. Recognizing the individual was extremely important when the participants were talking about their roles in innovation and development. That way it was possible to connect the professional role and how participants see they role in innovation. In the transcription there were no pauses, moments of laughter etc. marked. These were left out because they were not considered important in this

study. More important was to pay attention to the content of the discussion. Questions of the facilitator and all the verbal discussion were transcribed almost word by word.

In the analysis of the focus group discussion data, attention was paid to the following re-search question:

2. What is the present state of innovation and development in the case organization?
 - How do directors, managers and developers see their roles in innovation and development?
 - What prevents/advances innovation and development?

The central aspects that was wanted from the data, was the present state of innovation and what would be needed to enhance innovation and development. With these aspects in mind the initial codes rose from the key words of the discussion guide. These initial codes were developer, supervisor i.e. manager, director, culture, organizing, strategy, process, tools and support system.

After transcription the analysis started by reading through all the transcribed data and making some notes about possible other codes. The codes that arose by reading the data were co-creation, leading and resources. These were added to the list of codes. Based on these notes the “free” codes was created in atlas.ti, which is a soft wear for qualitative data analysis. The codes were tested by categorizing the content of one focus group material. The transcribed data of each focus group was processed by cutting meaningful sentences and categorizing them under different codes. After testing the names of the codes were slightly changed. The development persona was also added to the list of codes.

After coding the data, the connections between different codes were found. These actions created the new data of similar issues, which was again classified in the chart of similarity and the themes were found. In thematizing, it was important to keep in mind the research question 2. The codes were then categorized into themes of needs, systematicity and roles. The theme of systematicity is a part of description of present state of innovation and development in the organization. Even though, the code of “culture for development” mainly concerned the discussion of the present state of the organization, it was left as its own theme since the discussion was wide and sometimes also concerned about general observations about development culture. The codes that crossed all the themes were co-creation and leading, and they were left as their own themes also. Development persona was not mentioned too often, and it could not be categorized into any themes, since it presented the personality and competence of development persona in general. The codes and the themes of the data are seen in the figure 17. These themes created the basis of the analysis. Some of the coding mistakes were found during the analysis. There were also many quotations that were valid in

two or more categories. The content of the focus group discussions and the results of the analysis are discussed in the chapter 4.

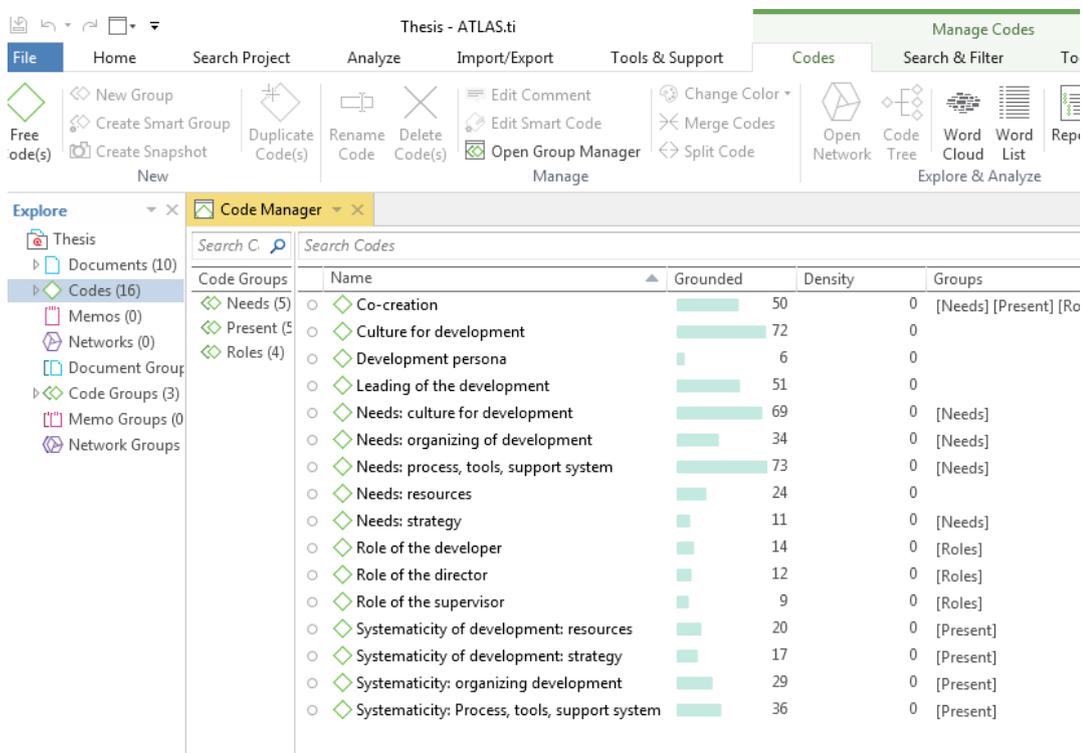


Figure 17: Codes for categorising the data (Screen shot from atlas.ti software)

To move to the Develop Phase, the syntheses of the customer focus groups data were made. Directors, managers and developers have different roles in development and innovation. The description of the main roles was gathered. The key insights of the focus groups were identified by summarizing the main findings by utilizing customer Jobs to be Done (JTBD) perspective. In a JTBD perspective the innovation focus of the company is enabling customers to get their jobs done successfully, in this case boosting innovation and development in they own area of business. JTBD can be formulated for an entire service, which was done in this case. The cultural aspects that arose from the discussion were gathered in its own table.

3.5 Developing in co-creation workshops

Co-creation workshops were held for ideating and developing the preliminary concept based on the key insights found in the Discover Phase and summarized in the Define Phase. The development of the service concept is done with the aid of the experienced people in the field, both staff and customers (Edvardsson & Olsson 1996, 160). In this case customer of the concept that is under development is staff, the directors, managers and developers. To widen the perspective innovation and development experts from different fields were also involved in the co-creation of the preliminary in-house concept. The aim of these workshops was to

find out what are the main problems worth solving for each customer group, ideate the solution for jobs-to-be-dones and define the value proposition of the concept. The co-creation workshops were seeking an answer to research question 3.

3. What kind of in-house support concept would enhance organization's innovation and development?

The Develop Phase comprehended two approaches for the question in hand. The first approach was to find out the problems worth solving for each customer group and to develop ideas for the jobs-to-be-dones. The second approach was to define the actual preliminary in-house concept by using all the material and the understanding gained during the research and development. Second approached included also the concept value proposition.

Lean Service Creation (LSC) (Sarvas, Nevanlinna and Pesonen 2017) tools were selected, because they offer separate, deep templates for the need described above. LSC is a set of tools, which combines lean thinking, agile development and service design disciplines underneath the same umbrella. Three LSC canvases out of eighteen were selected: Customer Grouping, Ideation, and Concept and Value Proposition.

Ideation workshops

Customers were divided into three groups for the co-creation workshops: directors, managers and developers. The multidisciplinary and co-creative nature of service innovation and development would prefer mixing these categories in co-creation workshops as it was done with focus groups. This generally favourable arrangement turned out to be almost impossible to organize due to the tight schedules of the participants and because of the fact, that hospital's operative services need to be taken care of 24/7. On the other hand, innovation and development roles of each customer category vary, which support the decision to have a specific workshop for each customer group. The existing regular meetings offered suitable time, place and orientation for workshops and no extra meetings were organized to arrange these workshops.

All three workshops were held on October 2018. The first group was directors, who were having a Service Team meeting concerning the organization of health care services in new regional structure. There were six participants joining the first workshop. The 25 participants of the second workshop were manager level people, who were a having training session about customer focus and service design. The participants of the second group have been working as managers for several years or they have just started in manager position. The third workshop was held for developers, which belong to the Quality Support Group. There were five people about to attend, but only three were able to participate. These are people whose work includes development for some extent and they have strong interest towards improving

services. The background of the participants of each workshop is seen in the table 9. Each ideation workshop took about 1,5 hours.

Directors	Managers	Developers
Director of primary health care	Ward manager 13	Development coordinator 2
Director of social services	Deputy chief physician 4	Development manager
Director of nursing	Service supervisor 6	
Director of medical services	Auditing manager	
Director of disabled people services	Maintenance manager	
Director of coordination of regional services		

Table 9: Participants of the three workshops

The ideation workshop consisted of two parts: finding the problems worth solving for each customer group and ideation to solve the customer jobs-to-be-dones. The first part of the ideation workshops started by the author of this thesis presented briefly the findings concerning how directors, managers and developers see their own role in innovation and development. This presentation was based on the insights found in the Discover Phase. Then canvas of Customer Grouping (fig. 18) was presented. The description of customer group was filled beforehand by the researcher. This description was based on the role definition given by the focus group participants on the Discover Phase.

First the participants were given a task to ideate on their own for five minutes on what are the problems worth solving when thinking about their own role in innovation and development. Participants were asked to write one idea to a separate post-it. The second task given was to discuss 15 minutes about the ideas in a group, select as a group the ideas that are the most relevant to solve and after that present them to the whole group. This rehearsal gave deeper understanding of the needs of director, manager and developer in their own role in innovation and development and raised the most relevant problems.

CUSTOMER GROUPING Choose who you aim to serve

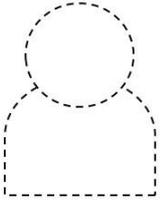
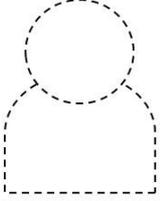
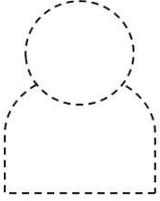
Common in all customer groups:			
Group name:			
	Description:	Problem (assumed) worth solving: 	<input type="checkbox"/> Main group? Why/why not?
Group name:			
	Description:	Problem (assumed) worth solving: 	<input type="checkbox"/> Main group? Why/why not?
Group name:			
	Description:	Problem (assumed) worth solving: 	<input type="checkbox"/> Main group? Why/why not?

Figure 18: LSC-canvas of Customer Grouping (Sarvas et al. 2017)

The second part of the ideation workshop started by the author of this thesis presented briefly the findings concerning what issues the participants of the focus groups brought up that are advancing or preventing innovation and development in the organization. These insights were put beforehand on the Ideation -canvas (fig. 19) in the middle of the circle representing customer's problem worth solving.

IDEATION

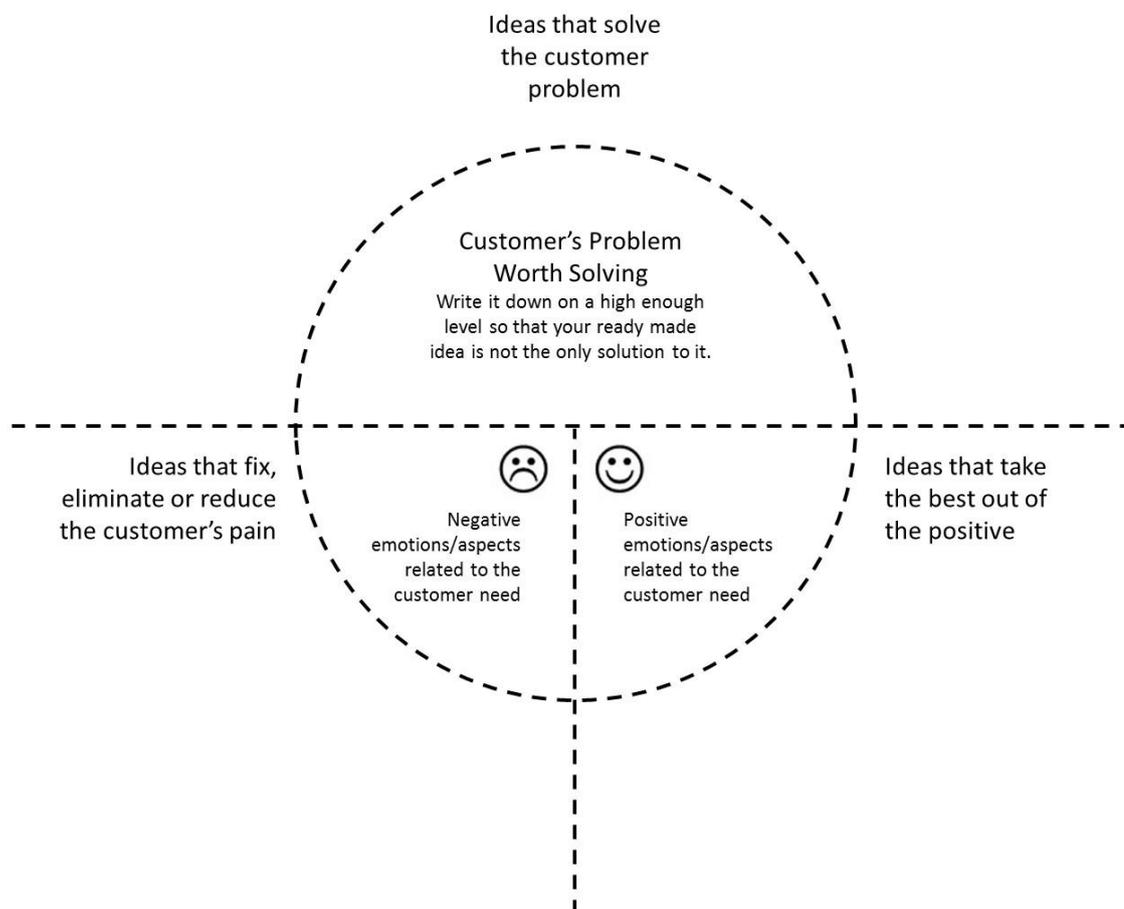


Figure 19: LSC-canvas of Ideation (Sarvas et al. 2017)

The task the participants were given was to ideate the solutions to these problems. They were also asked to take account the specific customer group problems they had ideated in the first part of the Ideation workshop. They could give ideas that solve the customer problem, reduce customer's pain or take the best out of positive. The participants were asked to ideate one idea per post-it. After five minutes of individual ideation, the participants were allowed to present their idea to the whole group. If someone in the group had the same or similar idea, they were asked to attach their idea close to first idea. This was continued until all the ideas were brought on the canvas. In the workshop of managers with 25 participants, the same ideation was done in groups of five participants. Each group represented their ideas to the whole group. This rehearsal facilitated the co-creation of customer to find solutions to problems they have themselves raised up in the earlier phases of the development process.

Concept and value proposition workshop

The purpose of second approach was to define the actual preliminary in-house concept and the value proposition. The researcher gathered all the material and the understanding gained during the research and development and illustrated the first draft of the preliminary in-house concept. The further development of the concept was done in a separate workshop, which gathered three innovation and development experts to define the preliminary in-house concept. The background of the participants of the workshop is seen in the table 10. These experts were chosen because of their high overall expertise in innovation and development overall, specified knowledge and skills in concept creation and experience in change leadership. To get different viewpoints and perspectives, experts were selected from different business sectors. Their different background brought diverse perspectives to the development. This workshop was held in the end of December 2018 and it took about four hours in total.

Title	Business sector	Experience
Senior vice president	Civil engineering	Product development, change leadership, leader of service organization, service business knowhow
Development Manager	Health care	Risk management, Lean development, patient safety
Service Design Lead	Technology industry	Service design expert, product design expert

Table 10: The participants of concept and value proposition workshop

At the start of the workshop the author of the thesis presented the research and development done so far. First, the need for the concept was explained by presenting the VUCA world, the changes ongoing in the social and healthcare sector at that moment in Finland and telling about the established RDI-centre and its role in the case organization. Also, in the beginning of the workshop the customer of the concept was specified for the participants. Secondly, the summary of the theoretical background was presented. Summaries of the dynamic service innovation capabilities and their microfoundations, mind-set for embedding design capability in the organization and possibilities to innovate through JTBD served as valuable information to create the concept. Thirdly, the summary of the roles of directors, managers and developers and the actual brief in a form of jobs-to-be-done were presented.

The most important summary used in the workshop was the illustration of the preliminary in-house concept seen in the figure 20. The illustration synthesizes the theoretical framework and the empirical research in one figure. The figure was explained for the participants in detail. The summaries, the brief and the figure were all presented both as PowerPoint slides and given as prints for the participants. Through the printed material the participants were able to familiarize with material in their own pace and return to specific issues and entities when they felt important during the workshop.

The figure 20 was the main probe for the discussion and the ideation in the workshop. It was visible on the screen throughout the workshop.

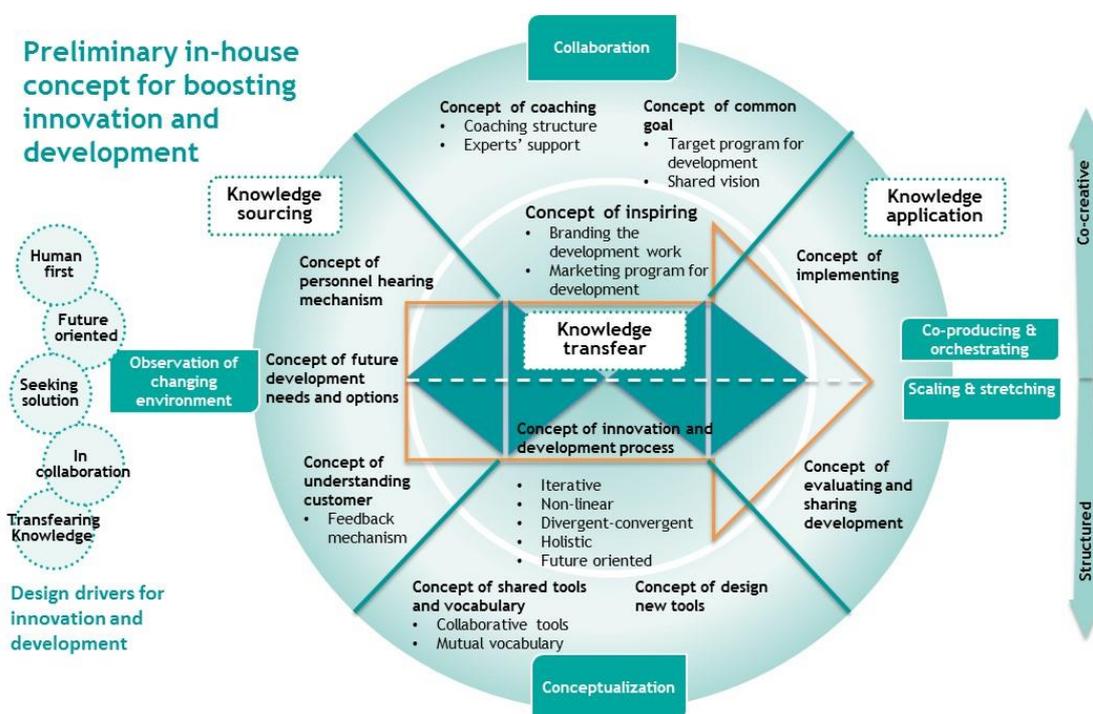


Figure 20: The first draft of the preliminary in-house concept as a probe in further development

The concept and value proposition canvas (fig. 21) was used to ideate the concept further and understand the value to the business and define the value proposition for the customer.

CONCEPT AND VALUE PROPOSITION

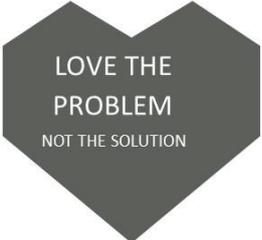
Concept name?		
How does it work?		
Value to the end-user?	What differentiates it from other solutions to the same problem?	Value to our business?
		
Written value proposition:		
Headline:	Main points:	
Description	<ul style="list-style-type: none"> • • • 	

Figure 21: LSC-canvas of Concept and Value Proposition (Sarvas et al. 2017)

The participants were asked to ideate first on their own, through the probe shown on the screen and the material presented and given, how does the concept work. Then each participant presented the findings to the whole group. This generated a vivid discussion and led to other ideas and findings. The second task was to think, what kind of value this concept brings to the end-user, what differentiates it from other solutions to the same problem and what is the value of it to the business. As the participants discussed some part findings from the first task gave an answer also to the second task. Nevertheless, the value to the end-user -part inspired the participants to discuss about the value from different points of view and this generated new insights. All the participants agreed that there was no solution available that could be compared to this concept and the discussion of that part ended shortly.

The next chapter opens the results gained from the empirical part of the study. It also compares and synthesizes the results with the theoretical aspects presented in chapter 2.

4 Results

4.1 The roles of directors, managers and developers in innovation and development

At the start of each focus group discussion the participants were invited freely describe their roles in the development and innovation activities within their organization. The purpose was to understand how these people working at different hierarchy levels interpret their own role in innovation and development work and how they understand their role in practice. The participants are unanimous that the development belongs to everyone regardless of their job or position in the organization.

Directors

Directors see themselves as the creators of a big picture. They are responsible for making development possible and their role is strategic. The role should not be in the depths of the scenes as it is today. Working with small scale issues causes the big picture to disappear. The directors act as visionaries and their role is to ensure that goals for development exist. They ensure that any development work supports this set of strategic goals. This needs prioritizing of development work. The aim is to find right solutions to the future together with the staff. One role is to create networks and through them bring people together to work for the development and innovation activities. Directors consider that their task is to change the operating culture into a more sustainable and customer focus type of development.

Managers

Managers see the development activities and all the resourcing and organizing work related to it as their main task. Their job is to make sure that things go forward. In order to succeed in this the task, the managers generally underscore the importance of having knowledge about the development work. They want to understand what kinds of steps, methods and tools can be included in the development process and what kind of support and incentives are needed to get people fully involved in joint development. Managers indicated that it is important to get employees to think how to do things better and then motivate them. The most important is how managers themselves react when new ideas for developing the service or work are presented by the employees. Managers also need to find out the development needs themselves. Managers want to foster positive attitudes toward all the development activities within their organization.

Developers

Developers are individuals who listen to their environment with a sensitive ear and are constantly looking for development targets. They want to be ahead of the time and catch on to development before it is absolutely needed. They take on the development work with

practical workers and situations on a daily basis. They strive to apply any development ideas and activities in practical work and support both the management and the employees in the ongoing development efforts. This needs both organizing and engaging wide-range cooperation with various stakeholders. Developer's role is to be able to understand and move both horizontally and vertically in the organization. The work is based on networking, developing yourself and having constantly evolving work attitude. It needs courage to present your findings and ideas and kind of step to another's work space. Developers argue that their work is quite often invisible and unnoticed. The table 11 summarizes the tasks the participants identify as their own roles concerning development and innovation.

Director	Manager	Developer
<ul style="list-style-type: none"> • Forms the big picture • Ensures that a common goal is found • Strategy-oriented • Visionary • Future-oriented • Emphasizes customer focus • Responsible for development • Pursues continuous development • Network creator 	<ul style="list-style-type: none"> • Challenges and motivates people to think, develop and innovate • Create a positive attitude towards creativity and development • Identify development needs • Understand the development methods and tools • Enables development (resources and organizing work) • Ensures progress in development 	<ul style="list-style-type: none"> • Listens to customers with a sensitive ear • Searches targets for development • Have an expert role in daily development • Develops in networks and with practical workers • Does a lot of background work • Supports the management • Shares the development knowhow • Participates in implementation

Table 11: Summary of the roles of directors, managers and developers in service innovation and development

Directors are worried about big issues: the goal, the culture and the vision. Managers organize and involve all the employees. Developers are constantly aware for new development possibilities and by networking they concretize the development. The figure 22 summarizes the roles of directors, managers and developers with descriptive names. It also introduces leaders as "supporters all the way". Participants talk widely about how the support of the leaders is crucial in development and change. If it is lacking, the development ends or is done with a little flame. By leaders the participants usually mean their immediate supervisor. But in some discussions, it refers to executive level persons overall. For that reason, the leader overlaps the roles of director and manager in the figure 22. According to the participants, leaders must stay behind their words and deeds and help to implement development and change in the daily work. The leaders should address the development ideas transparently and

creatively and be interested in constantly tracking constantly the development and getting feedback for the future.

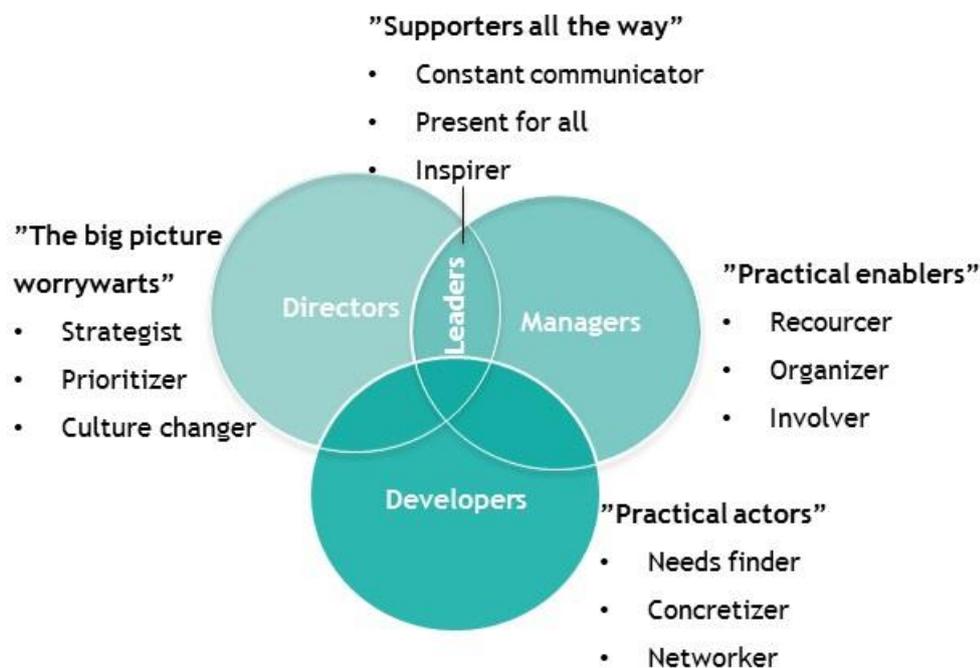


Figure 22: Summary of the roles of directors, managers, developers and leaders in service innovation and development

Participants point out issues that they feel important for the roles of leader and ways of acting as a leader in change. Leader makes people to understand what change is about by constantly informing about change, even if there is nothing to inform about. Leader makes the change visible and concrete. Leader facilitates people to communicate about the change. One participant summarizes the importance of communicating in development and innovation work as follows:

"When people are communicating, miracles can happen"

Leader gives public recognition about innovation and development, even by giving reward for people that has done development successfully.

The participants are of the opinion that leader leads through resistance by e.g. appreciating negative people by giving them responsibility and thus getting them to be a valuable part of the change. Leader spends time with the employees by being present and active, by listening and being genuinely interested about developing and by supporting the development work.

One participant described the leader's role as follows:

“Leader is a trumpeter, who inspires the people to participate in the marching band”.

Leaders show example by all the time creating and developing something new without being afraid of failing. Leader creates a feeling of joint project, gets people excited and makes people to believe in the change. Leader understands that anyone can give ideas and encourages employees to grow and flourish. How participants see the role of leader is summarized in the table 12.

Leader leads development and change everyday		
Communicate	Is present	Inspire
<ul style="list-style-type: none"> • Makes people understand what change is about • Informs constantly about change • Makes change visible and concrete • Makes people communicate • Gives public recognition 	<ul style="list-style-type: none"> • Leads through resistance • Listens • Supports 	<ul style="list-style-type: none"> • Shows example • Gets people excited • Encourages employees to grow and flourish • Appreciates all • Create feeling of joint project

Table 12: Summary of the role of leader in service innovation and development

4.2 The present state of the innovation and development

The participants were asked to reflect of their experiences with any of the issues that currently hinder development and innovation in their own organization. The findings from the focus group discussions are explained and summarized in the end of the chapters. The synthesis chapter with theoretical findings is presented in the last chapter.

4.2.1 Culture and practices not supporting collaborative development

Static world

In general, the culture and the practices are considered obsolete, rigid, and bureaucratic and the practices operating like heavy machinery. According to the participants development culture is created to a static world like to whole organization. One of the participants described the practice as follows:

“Development is in thick silos, information about development is not shared, ideas and innovations are not implemented, they are tackled by something or someone and eventually they fade away.”

Participants have the experience that this attitude does not create an encouraging atmosphere for development. It is found to be common, that in the early stages of the development the preliminary frameworks and development goals need to be defined. Also, the outcome of the development process is supposed to be known already in the ideation phase. It is argued that shame and fear of not to be able to show the results at an early stage put on brakes on people to express their ideas. Participants point out that from the perspective of organization renewal, it would be important to reflect whether the organization development was led and guided by new ideas and development or only by manuals and bureaucracy. In the discussion directors argued that time available for management is more about writing reports of the past, and thus looking at the rear mirror. This does not encourage to look forward and there is no time for that either.

Small group participating

The participants argue that the development of services is often based on top-down development needs as well as on specific projects and project groups. Sometimes there is a feeling that development projects are somewhere really high and the ordinary work down low, and there is no connection between these two levels. The planned objectives and the operational development plans of a small group often generate great resistance to change, making the implementation of such plans difficult or even impossible.

During the discussion, it was often expressed that completing the development is not enough. The participants feel that the results of the development processes are never implemented fully in their everyday work. Development projects are generally linked to certain agreed-upon development activities with both the start and end dates. As the only method, project-type development activities do not encourage continuous development where all the employees would feel that they were responsible not only for the everyday work but also for developing it further and positively. The development of everyday work is too often based on individual enthusiastic people. This is one reason why the results of the development can sometimes be so limited.

Each fine-tuning own activities and multidisciplinary not common

According to the participants, the first steps currently involve integration of the understanding of patient needs and harnessing of the tacit knowledge of the users with service development. In the discussion the participants reflect that the development of customer-oriented healthcare services is challenging, and many factors have contributed to it. Over the years complex systems and processes often characterized by professional thinking have been established. Solutions are sought within a comfort zone that mainly produces services based on the existing organisation and its practices. Strict boundaries between specific sectors and professions have led to a development cooperation where everyone is trying to fine-tune their own

activities without paying attention to the overall service process and its impact on other processes. From the patient's point of view, the integration of services is only marginal. This is a circumstance that reduces access to the service and increases production costs.

According to the participants multidisciplinary is not common in the health care sector, as people tend to consider development and cooperation within their own professional field more natural and productive. Extensive participation of the customers and the staff in development and innovation is rare. A rational working method based only on substance is typical in the health care sector. Understanding experiences and using them in the development is not common. One participant gave an example:

“If there is a competitive environment between several units, development effort will not succeed. The competitive situation causes tensions and fears of losing a client, causing employees to isolate themselves into their own unit. This separation reinforces the difference between the working communities and don't support the implementation of joint projects within the organization.”

Participants suggest that in order to avoid this isolation process, unnecessary fear of losing clients should be first dismantled and common perception that everyone is on the same side should be strengthened.

The characteristics of a culture that hinder innovation and development according to participants are summarized in the table 13.

Characteristics of culture that hinder innovation and development according to participants	
Static world	Rigid, static, bureaucratic, obsolete
	Results and goals known in the beginning
	History focus
	Fear of failing
Small group participating	Top-down lead, far from operating level
	Small group participating, implementation failing
	Project type
Each fine-tuning own activities and multidisciplinary not common	Competitiveness between different units
	Organisation focus, professional focus

Table 13: The characteristics of a culture that hinder innovation and development according to the participants

The special health care organization is more focused on the past than future. The organization is rigid, and no surprises or unexpected results are wanted to pop-up in the everyday

routines. The development is privilege of small groups and it is done more inside out then vice versa.

4.2.2 No resources, no structure

Low resources for development

According to the participants developing needs creativity and flow. Development requires time, and thus ability to arrange time and money is needed. Development work does not produce anything in a day and therefore the resource allocation is a problem. Many of the participants feel that everyday tasks kill ideation and more time to focus on ideation and communicating about development is needed. However, no time is reserved for it even though some mental support for development is given.

“Development and involvement are beautiful words. No real opportunity and resources are given though.”

It is often thought that development work is done alongside the normal work assignments. In addition, it is worth of noting that when the culture of development is just about to start, the ability to develop alongside the work is low. The starting point is that no resources are available even for small scale development.

There was discussion about how equally the development resources are shared. The participants raised up the importance of transparency in resource sharing. Someone had a feeling that resources are shared with “buddies” and no results or reports are required. Someone was wondering about their own ability to sell their development ideas. They have the feeling that because of poor selling skills they are always left without resources for development. As a development proposal for the money sharing, there was discussion about pitching. Each applicant would present the ideas and the resource sharing jury could ask for clarification what the project is truly about. Some of the participants criticize the organization level where the resource sharing decisions are made. They felt that instead of the top management making the decisions, decisions should be done by those who are working much closer to the patient interface.

The participants criticized resource sharing also for frequency reasons. Resources are shared once a year which does not take into account changes in the environment and possible new ideas to develop work or service during the year. Due to such bureaucracy, development work takes place over long time periods, and as a result the focus of development is too often lost.

Missing structure for development

It was difficult for the participants to describe the big picture of development in the organization. Some of the participants said that it is a part of the organization strategy, but they could not tell the content of it.

The lack of co-ordination of the development work was strongly underscored in the discussions. Development is perceived as fragmented, loose, and random. There is no development structure. Getting things done is not harmonized. According to the participants there is much overlap in development work, because the information about the development works other units or departments were doing, is not shared systematically.

“The challenge in the current situation is that the development is done in a different manner by divisions and units. The instructions for development are in pits and pieces.”

Development activities are not organization-led. Development is seen strongly as person depended, which usually starts and is done by enthusiastic persons not by systematic organization-led process. It was said in the discussions that development and innovation system should be rethought. There is a demand for systematic way for doing development, architecture of development projects. A common development model, game rules and follows up on what development has led to are needed. One participant suggested a development pipeline of some kind. A new way of thinking about development and innovation in the organization needs strong intension, clear development lines, resources, open communication, new systematized process, tools and role sharing.

“When thinking about developing a management system for development and innovation: it requires tools, systems, roles, and vision.”

Some of the participants felt that there are not enough professional development personnel available in the organization. However, one respondent argue, that if there are development personnel available, it is quite easy for managers to transfer the whole responsibility of the development to this person. Professional developers feel that they are scattered around the organization. They are working with big challenges and complexities. Active, collegial support is needed more. Professional developers meet regularly in a forum, which can bring things to the attention. The participants pointed out, that the forum should meet more often and more targeted. It is official, but there is no decision-making power. There is a little or no knowledge about the competence of the organization. Directors and managers feel that they are not able to use all the know-how, because they do not know what is available in the organization.

The way development work is done varies a lot between different units. The participants see that development is implemented only on a case-by-case basis as separate projects using randomly selected methods and tools. There is no unified system for managing and utilizing tools for development and innovation activities. The chosen tools have not been decided on the base of their suitability and appropriateness for the purpose, but are often selected for their general recognition or on the base of previous data. People involved in the development starts from the beginning and lots of time is used just to understand what and how to do. The summary of practical issues that hinder innovation and development is gathered in the table 14.

Practical issues that hinder innovation and development according to participants	
Resources	Not enough time reserved
	Not equally shared
	No agile -in need sharing of resources
Structure	Big picture missing
	No co-ordination
	No development structure
	No sharing the development work
	Randomly selected tools and methods

Table 14: The summary of practical issues that hinder innovation and development

The development in special health care is suffering from lack of resources. If there are resources available, it is felt that it is not equally shared. The structure of development is totally lost. Development is done randomly and what is done, is not shared.

4.2.3 Synthesis of present state

The table 15 summarizes the characteristics of culture and mind-set that hinder innovation and development in the case organization according to the participants of the focus groups. These results are compared with the findings by Jenkins (2009, 25) of mind-sets against embedding design (light grey in table 15). The similarities are marked with x.

The comparison of the empirical findings with the findings by Jenkins (2009, 25) reveals cultural and mind-set characteristics in the case organization that are against embedding design. The comparison is relevant. As presented in chapter 2.5, design thinking in a form of service design, enables service innovation capabilities to grow and have impact on.

Characteristics of culture that hinder innovation and development according to participants	Mind-sets against embedding design (Jenkins 2009, 25)	x= some similarities xxx= lots of similarities
Rigid, static, bureaucratic, obsolete	Control and hierarchy	xxx
Results and goals known in the beginning	Performance and short-term success	x
Organisation focus, professional focus	Efficiency and cost-cutting	x
History focus	Productivity and busyness	
Competitiveness between different units	Competition and empire - building	xxx
Top-down lead, far from operating level	Compliance and assurance	
Fear of failing	Risk avoidance	xx
Small group participating, implementation failing	Blame-shifting and arse-covering	
Project type	Rigorous process as salvation	

Table 15: Comparing the results of empirical study with theoretical findings by Jenkins (2009, 25)

The most serious mind-set matches are found in the areas of “control-hierarchy and bureaucracy-rigidity”. Also, competition between different units matches perfectly to the findings by Jenkins. Similarities are found in the areas of “fear of failing-risk avoidance”. Some similarities are found in the mind-set of “results known in the beginning-performance and short-term success”. Weak match is also found in the pair of “organization, professional focus and efficiency and cost-cutting”.

According to the participants, the development in the special health care is suffering from lack of resources. Bailey (2012) emphasizes that the top management need to have resources and support for design approach. Participants yearn for resources and budgeting that are available when needed. This is what Brown (2008) also points out: Design budget should not be a constraint by budgeting cycles, but it needs to stretch with pace of innovation.

4.3 Customer needs

The participants were asked to discuss about a dream culture, that would best support innovation and development in the organization. They were also asked to bring up issues, that are advancing or would advance innovation and development in the organization. In the next chapters the findings from the focus group discussions are explained and summarized in the end of the chapter. The findings, jobs-to-be-dones, that need a practical solution or action, are summarized in mind map -type of illustrations. The characteristics about the culture that would best enhance innovation and development according to participants are gathered in the table. In the last chapter the synthesis with theoretical findings is presented.

4.3.1 Encouraging all to patient focus development

Open and encouraging culture and practices

According to the participants to enable common development the organization should be transparent, and transparency should be present also in its development activities. The most often word the participants used to describe the dream development culture is openness.

“Open atmosphere, where everyone would have the opportunity to bring ideas, even a little wild one, on the table.”

Participants yearn for an open climate where development and innovation take place by discussing openly and bringing things together in a coordinated and open manner. According to the participants, a communal atmosphere with no fear of developing and improving things or failing at doing so is a fruitful platform for positive development. In the opinion of the participants, this attitude is necessary for a successful development. The organization should have a positive attitude towards development and encourage a renewal culture. According to the participants a mere structure supporting development is not enough. Good internal relationships, trust within the community, and the ability to mutual interaction both horizontally and vertically are prerequisites for co-development.

The participants argue that in an organization, it has to be understood and accepted that change is a normal state in an organization. Tolerance and readiness for change are needed throughout the organization. The aim of any development work should be how to do things better. One must dare to step outside the comfort zone and produce creative ideas without any constraints. The participants find it important that there is courage to accept even absurd thinking and to look and find differing solutions. Critical feedback shall be accepted and one must be able to give and receive it as development proceeds. In a learning organization everyone is involved in the joint work toward the change.

Development together - from ground floor as whole entity

According to the participants, development has to stem from the ground floor work. Online - personnel should be heard. Development belongs to everyone. One participant suggested following practice:

“More people should be involved in developing activities. There should be an alignment on how to involve staff in development work. Sometimes you can go beyond boundaries. This is especially important for nursing staff, as doctors are used to working beyond borders and they are already moving around the organization.”

There are a lot of experts and a high level of know-how seen in the organization. The participants consider this as an important resource. The participants argue that the culture should encourage everyone to think, ideate and explore. There needs to be ability to a constant observation of the changing environment, a committed and motivated staff and development capability that can be brought to the practical level. Organization needs clear targets for development, but also freedom to ponder independently on how to reach the planned goals. Planned resourcing for development, time for innovation, is needed. Innovation demands creativity and flow.

The participants argue that everyone shall be seen around the same table, regardless of what role each person has in the organization. It is important to increase the commitment of employees to see themselves as a part of organizational processes and its roles. Development should be related to large entities, and it should be done in cooperation, so everyone can participate. People with different backgrounds should be involved in development. Commonly used and shared development methods are needed. Management and staff should speak the same language during the development work.

Need for patient orientation

There is a need for patient-oriented special health care. This subject was raised many times during the discussions. One participant stated this as follows:

“We will go into a world, where we must inevitably have patient orientation. Our structures roar, and the client does not bend. In our environment we need to have a dream for future: patient orientation would be at the top of all doing. When all starts from the patient, everything else will follow. “

There seems to be many different aspects of what should be done for more a patient focus. The organization’s culture should support patient orientation. Every employee should be clear about what their basic mission is in the organization. The relationship between the patient and the professional should be understood by all employees. Employees cannot look at their own doing only through their own profession, but must also view them through the eyes of the patient. Understanding the patient needs and their experiences demands more time, resources and a clear workable system.

Jobs-to-be-dones, to encourage all personnel to a patient focus development, that need practical solution or action, are summarized in mind map -type of illustration in the figure 23.

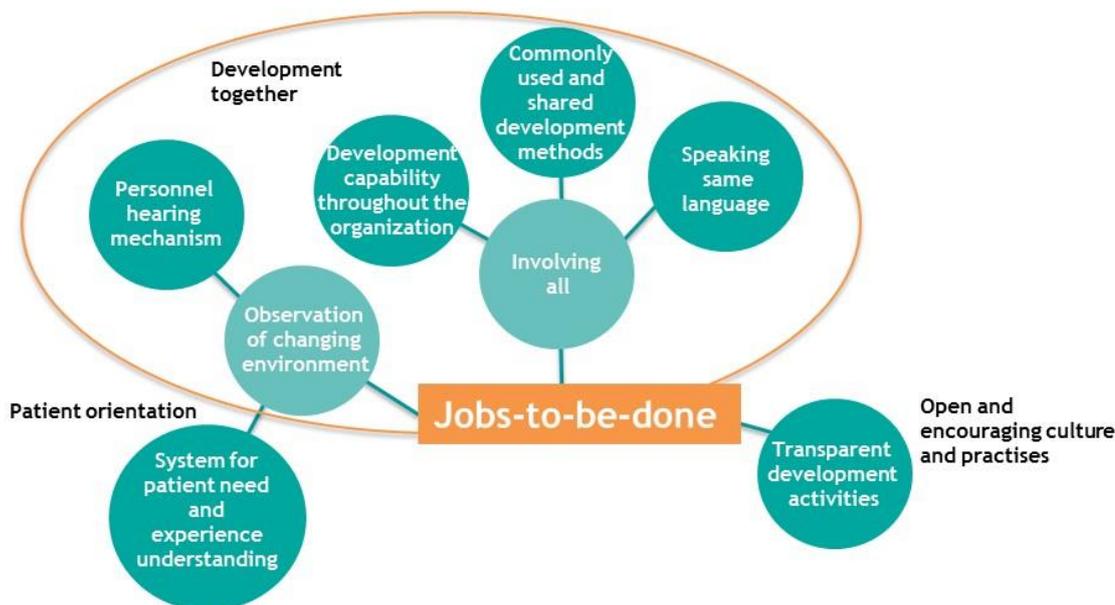


Figure 23: Jobs-to-be-done to encourage all personnel to a patient focus development

According to the participants the practical solutions needed to encourage all personnel to a patient focus development according to participants are observation of changing environment by systematic patient understanding and personnel hearing mechanism, by increasing development capability, by speaking the same language and using same and sharing development methods and through transparent development activities. The characteristics of the culture that would encourage all to a patient focus development are gathered in the table 16.

Characteristics of development culture and practices that would encourage all to patient focus development	
Open and encouraging culture and practices	Failing accepted, learning organisation
	Listening, discussion, ability to interact horizontally and vertically
	Good internal relationships, trust within the community
	No constrains, absurd thinking aloud, encourage a renewal, think, ideate and explore
	Transparent, open, critical feedback
	Change as a normal state
Development together	Development from ground floor
	Everyone involved, develop belongs to everyone, increasing commitment of employees, multidisciplinary development, everyone seen around same table
Patient orientation	Culture that supports patient orientation

Table 16: The characteristics of the culture that would encourage all to a patient focus development

According to the participants a special health care organization should be more open, transparent, trustful and encouraging to renewal. The development should be done together multi-disciplinary and involving all. A culture of patient orientation should be created.

4.3.2 Resources, structures and communication to enable development

Resources

All participants pointed out that resources for development are needed. This was the issue that was raised most often during the discussions.

“The resources for the development must be ok, if not possible, development cannot be done. Operational work eats all the available time.”

The participants agreed that the organization must be financially prepared with a suitable budget for development. One participant suggested that time for development should be build inside each employee working hours. Also, practical opportunities for development are needed, such as facilities, computers etc. One of the participants suggested a deep level co-working with companies, which are willing to invest in co-operation projects, to get more money for development.

Providing a special time for development can produce great savings by shortening the time spent on actual work. The general lack of resources challenges the current modes of operation and reduces the resources allocated to development. When development is an integral part of the management, implementation of it could be ensured also when the overall resources are limited.

Structures

In the discussion a development unit was raised up as a new way of coordinating the development from one place more professionally. It is described to be a higher-level development unit with the latest knowledge of where the world was going to. There is no scattered information but systematically sought information, which is then used and distributed to the organization. Development unit creates unified structure to all development work in the organization, shared knowledge and information about what is going on and what is needed in the area of development.

There need to be experts in the organization who can support the development. The participants pointed out that nurses and doctors know how to treat patients, but they have not received training in development work. Professional developers help them to develop by sparing and giving structure to the project. Developers are an important part of the development

structure. They have deep understanding and experience about development: resources, scheduling, methods and tools.

There is a need to know all the competences available in the organization to assist with the development. One of the participants pointed out that there should be such alignment that when there is need for some expertise, the in-house people should be used first. If there is not such an expertise available, expertise could be sought outside. Some worries were presented about using outside expertise. It is felt, that they are expensive, cause lot of work for the in-house developers and take the know-how outside of the organization.

Tools and methods have not been described at all in a systematic way. There is no toolbox for tools and methods to be introduced and accessed within the organization. Like the whole development, also tools and methods are seen to be person depended. If a person decides to leave the organization, also the knowhow disappears. In addition, the participants see that in their organization there should be ability and competence to develop tools that would be applicable in different situations and cases. Along with development tools, there is a lack of various measurement tools to be used in development work. There is a need to get guidance and support how and in what situations different methods and tools are suitable to use. Development tools should be used professionally, otherwise the importance of development work weakens. One participant raised as an example different kind of surveys, which are not professionally planned at that moment.

It was indicated in the discussions that development process and all the tasks involved in developing should be defined and described. A service development model is needed. The goal should be a unified way of doing development in the organization and learning about doing. It should be taken account that there are different aspects in development at different levels of the organization. Thus there is need for both strategy and operative level development tools and support. In the discussions several tool needs and ideas, which would support the development, were expressed:

- Development path: concrete steps how to proceed with tools along path
- Project management tool: scheduling, time management, body of the project, practices to handle financial side of development project, described roles of the project group, steering group etc.
- Project measurement tools
- Benchmarking tool: Identifying and learning good practices
- System for creation and handling ideas
- Customer feedback received by all the staff
- Tools for testing ideas (not necessarily just facility)
- Pop-up development days: experts helping with development task in hand

- Unified vocabulary
- Observation of the environment
- Know-how in change leadership

The most important is to make all the supporting tools and methods as simple and easy to use and find as possible. One participant suggested to use digitalization in the development of the concept.

Communication

There should be a vision of what will be done in the long run, strategically in the future. According to the participants a clear target program and a framework for development is needed. The common goal should be clear to everyone. This goal could be divided into themes and road maps to make the common goal more concrete. Also prioritizing is needed. It should be also common knowledge what kind of small projects will be done in the near future. In addition, there should be readiness to respond swiftly to the future development needs, so-called free zone. All the development work done should be informed and communicated largely in the organization.

Jobs-to-be-dones; resources, coordination, structure and communicating about development, that are in need for practical solution or action, are summarized in mind map -type of illustration in the figure 24.

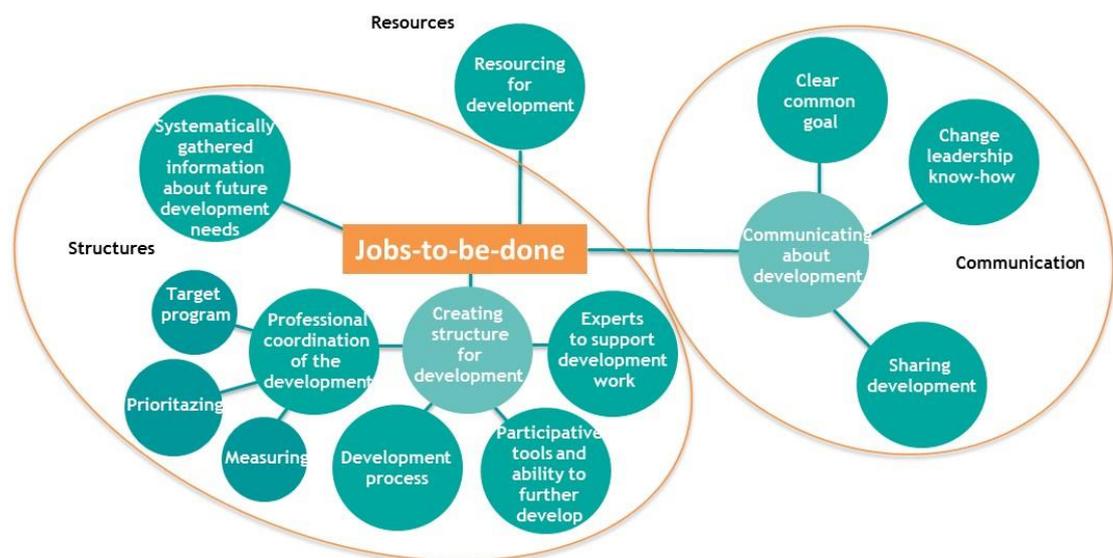


Figure 24: Jobs-to-be-done, resources, coordination, structure and communication for development needed

According to the participants the practical solutions that enable development are creating a structure for development by professional coordination of the development and by

systematically gathering information about future development. According to the participants the resourcing for development and communication about development is needed.

4.3.3 Synthesis of customer needs

The table 17 summarizes culture and practices expressed by the participants that would advance innovation and development in the organization. These results are compared with findings by Jenkins (2009, 25) of mind-sets for design capability installing (light grey in table 15). The similarities are marked with x.

Characteristics of development culture and practices that would advance innovation and development expressed by participants	Mind-sets for design capability installing (Jenkins 2009, 25)	x= some similarities xxx= lots of similarities
Development from ground floor	Empowerment and authorization	xx
Failing accepted, learning organisation	Learning from failure and looking for long term outcomes	xxx
Customer focus	Effectiveness and value creation	xx
Listening, discussion, ability to interact horizontally and vertically	Reflection and focused action	xx
Everyone involved, develop belongs to everyone, increasing commitment of employees, multidisciplinary development, everyone seen around same table	Culture of collaboration and shared purpose	xxx
Good internal relationships, trust within the community	Judgement and trust	xx
No constrains, absurd thinking aloud, encourage a renewal, think, ideate and explore	Possibility and experimentation	xxx
Transparent, open, critical feedback	Truth-telling and honest critique	xxx
Change as a normal state	Heuristic and agility	x

Table 17: Comparing the results of empirical study with theoretical findings

The comparison of the empirical findings with those by Jenkins (2009, 25) reveals cultural and mind-set characteristics in the organization that are for design capability installing. "Learning from failure" and "failing accepted" and also "explore" and "experiment" seem to be very important factors in the culture to support innovation and development, since they are mentioned in both studies. According to Kolko (2015) these factors represent also the key principles of the design thinking: a discipline of prototyping and tolerance for failure. Word pairs that are also similar with each other "good internal relationships-trust" and "discussion -reflection" support as well the key disciplines.

Also “everyone involved”, “collaboration” and “shared purpose” are important factors, as well as “empowerment” and “development from ground floor”. As Brown (2009, 3-4) formulates it, design thinking puts the innovation tools in the hands of ordinary, diverse people etc. employees, and relies on peoples’ ability to be intuitive, to recognize patterns and to construct ideas that have emotional meaning as well as functionality. A fundamental characteristic of design thinking is its human-centric approach (Tschimmel 2012). In the comparison word pair of “customer focus-value creation” represents this part of design thinking.

According to the participants the practical solutions needed to enhance innovation and development are observation of changing environment by systematic patient understanding, by personnel hearing mechanism and by systematically gather future development needs. This is also brought up by Den Hertog et al. (2010), Kindström et al. (2012) and Raman and Bharadwaj (2017) in the sensing category of service innovation capabilities and microfoundations (table 5). Bettencourt et al. (2014) and Zacharia et al. (2011) stress the capabilities of understanding where and when customer struggles in doing their job and evaluating what the future might look like.

It was indicated in the discussion that development process and all the tasks involved in developing should be defined and described. Stickdorn & Schneider (2011, 126) argue that the first step in designing services should be started by designing the process itself. Brown (2009, 63) points out that even though there is no best way to proceed innovation process based on design thinking, there are several stages that help to plan the project tasks.

Involving all is one of the issues the participants raised as enhancing innovation and development. Also, when discussing roles, the participants were unanimous that development belongs to all. The study of Ordanini and Parasuraman (2011) on sources of innovation reveals that contact employee participation emerges as the most durable driver of service innovation. The participants discussed that development capability should be increased to advance innovation and development in the organization. This is also what Bailey (2012) suggests: organization needs to develop knowledge and skills about design thinking tools and methods. Bailey (2012) continues that when personnel are confident about using design tools, they will start to re-design the tools responding to the need of each situation. This is what the participants also raised up in the discussion: the importance of ability to further develop the tools on their own.

The participants talked about the fact that directors, managers and staff should speak the same language. Bailey (2012) is talking about the importance of common vocabulary. Importance of support given by development experts was discussed in the focus groups. Bailey (2012) suggests that the in-house design team transfers the design knowledge to rest of the organization by teaching the theory of design and with learning by doing -method.

The participants are after a clear common goal, transparent development activities and sharing development. Change leadership know-how is one of the skills, participants feel enhancing innovation and development. Bailey (2012) argues that all design processes should be communicated. Ordanini and Parasuraman (2011) talk about integration mechanism that contribute to innovation radicalness. It is a mechanism for integrating and sharing information throughout the organization.

4.4 Jobs-to-be-done to enhance innovation and development

The arrow in the figure 25 is visualizing an innovation and development path, which differs from the customer and service provider’s point of view. The interaction surface images the encounter where customer and service provider meet and actual service interaction occurs. The result of this process is new service solution for patients and peers.

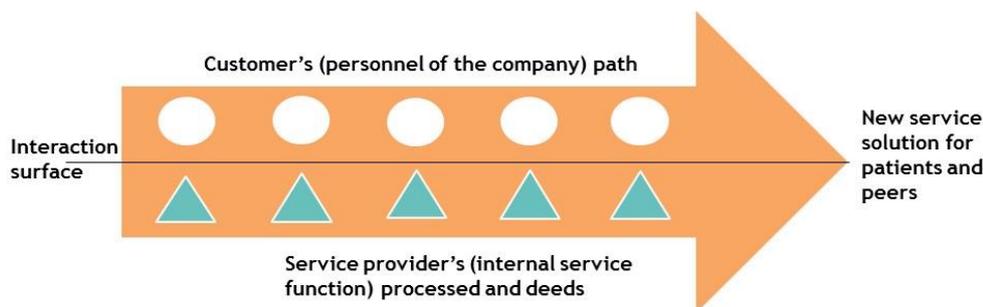


Figure 25: Innovation and development path

The jobs-to-be-dones presented in previous chapter, are summarized in the arrow shaped illustration of innovation and development path (fig.26).

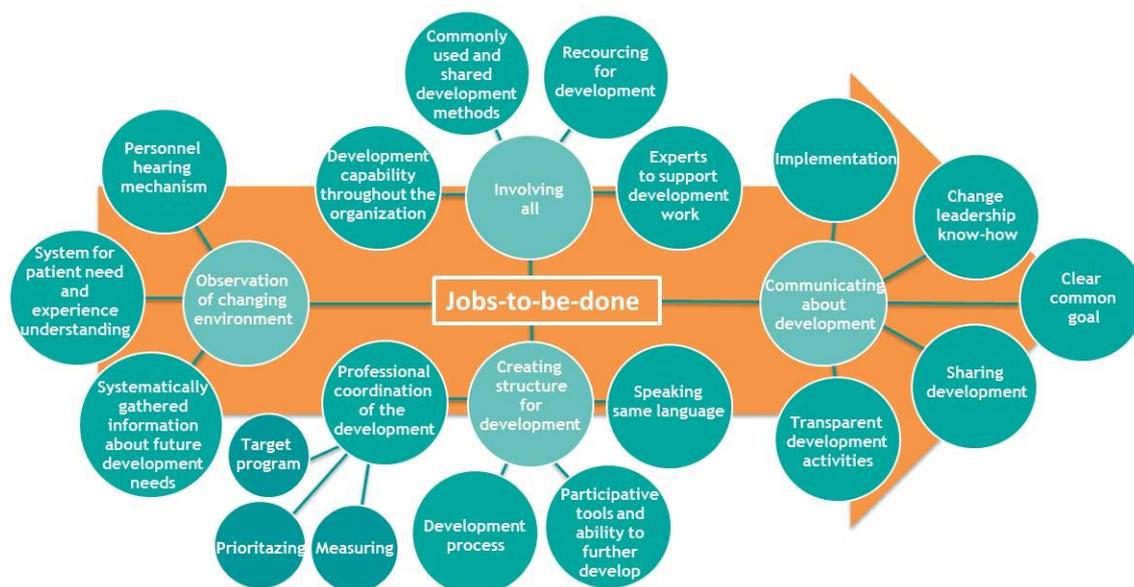


Figure 26: Jobs-to-be-dones in the innovation and development path

Jobs-to-be done starts from the observation of changing environment, continues with the structure for development to the provider's and on the customer's side involving all and ends with communicating about development. In addition to jobs-to-be-dones presented in chapter 4.3, implementation is added from the findings of chapter 4.2. Whether the jobs-to-be-done is marked on the customer's or provider's side is depending on where the workload of the solution is supposed to be stressed on at least in the beginning of solution creation.

4.5 Ideation for solution

4.5.1 Problems worth solving in each customer group

In the first part of the ideation workshop three customer groups worked on what are the problems worth solving in their own group. In the figure 27 there is one photo of each workshop showing the participants working with the first task. Next the findings from the workshops are opened.



Figure 27: Photos from the first part of the ideation workshops

Directors see that a problem worth solving in their role is systematic development with clear planning and follow-up. Both directors and managers are after justification of the development objectives, measuring the effectivity of the development done and reporting about development work. Developers complain about lack of common goals and lack of development strategy. Managers summarize this as a need for uniform base for development.

Developers are in need for structures to find development targets, agile tools that are easy to find and use, and visual outputs. Stronger development network is also a problem worth solving according to developers. Managers and directors are in need for a described development process.

For directors it is important to communicate widely about development and support for this is needed. Both directors and managers consider challenging to get all the stakeholders understand the change needed, motivate people and commit to development work towards a common goal. Implementing new working models is considered hard by managers. Sharing the knowledge about development done to whole organization is important for developers. All groups agreed that development work should be visible for all.

Resources for development are considered to be a problem worth solving according to directors. In a similar vein lack of time and resources are also problems worth solving for managers. Problems worth solving according to different customer groups are summarized in the table 18. Similar findings are highlighted in light grey colour.

Director	Problems worth solving Manager	Developer
Development visible for all	Development visible for all	Development visible for all
Justification of development objectives	Justification of development objectives	Structures to find development targets
Measuring effectivity of development done	Measuring effectivity of development done	Development strategy
Motivating people and get people to commit towards common goal	Motivating people and get people to commit towards common goal	Common goal
Resources	Resources	Development network
Systematic development: planning and follow up	Uniform base for development	Agile, easy to find tools
Reporting about development		
Communication about development	Implementation	Sharing the development work

Table 18: Problems worth solving according to directors, managers and developers

All groups want development to be visible for all. Directors need help with communicating about development, managers with implementation and developers with sharing the development work. All groups are also after systematic development, however, describing it differently: directors by planning and follow up, managers with uniform base for development and

developers with more concrete description, agile easy to find tools. For directors and managers problems worth solving are similar for most parts. It is about resources, motivating people to develop and getting people to commit towards common goal. At the same time developers (employees) are yearning for development network and common goal. Same contradiction is with structures and development strategy. Developers are after structures to find development targets, but directors and managers find problem to be justification of development objectives. Developers see a missing development strategy as a problem worth solving. Directors and managers want to measure impressiveness of the development done. Directors also want reporting about development done.

4.5.2 Ideas for jobs-to-be-done

The second part of the workshops concentrated on developing the ideas based on the jobs-to-be-done that works as a brief to whole concept. In the figure 28 there is a photo of each workshop showing the participants working with the second task. Next the ideas from the workshops are opened.



Figure 28: Photos from the second part of the ideation workshops

To answer one of the problems worth solving, the systematicity of the development, the participants ideated a structure for development. The structure consists of planning the development at project level, with follow up also during project. This makes possible to turn the direction of the development process, if needed. The structure is also about resource planning on yearly basis and at the level of everyday work.

The goal of the development should be common and clear for everyone. This is a starting point for development and finding solutions. To get everyone involved, the idea about the development work and the goal it is heading to, should be sold to people. The future ahead should feel more appealing than the present state. The participants expressed an idea to use the means of marketing and branding. In addition, as part of the solution, a common forum idea was expressed. The status of the development and possible solutions are shared in the forum. Also, the development success stories are shared and communicated widely, as one of the participant expressed it: "Let's make noise about it". To get employees and other stakeholders involved actively, different kind of ideation channels should be available on daily basis. Also, personal development assignment is one idea the participants brought up for involving and aligning employees. For patient involvement, an idea of patient forum was raised.

The idea that could help to the job of change leadership is increasing understanding of development at the executive level. The basic knowledge of innovation and development, the methods and tools and the role of top management would increase the understanding about development work, and thus narrow the gap of understanding between top management and ground floor workers.

Jobs-to-be-done	Ideas
Structures for development	<ul style="list-style-type: none"> • Planning in project level with follow up also during the project • Resource planning on yearly and daily basis
Clear goal	<ul style="list-style-type: none"> • Selling campaign of the goal by means of marketing • Common forum: status and solutions shared • Sharing the success stories
Involving all	<ul style="list-style-type: none"> • Ideation channels • Personal development assignments • Patient forums
Change leadership	<ul style="list-style-type: none"> • Increase understanding of development in the executive level • Clear roles

Table 19: Ideas for jobs-to-be-done

The ideas from the workshop are summarized in table 19. The ideas the participants presented were mostly jobs-to-be-dones that are raised as a leadership role by Kotter (1990, 6). According to Kotter leadership produces change by establishing direction. The participants presented ideas like marketing campaign, common forum and sharing success stories to clear

up the goal for all. The ideas for change leadership were increasing understanding about development at the executive level and clear roles in development. Kotter (1990, 6) also emphasizes leadership role to align people. The participants had ideas of an ideation channel and personal development assignments to involve all.

4.5.3 The first draft of the preliminary in-house concept

By using all the material gathered, the first draft of the preliminary in-house concept is created. The material consisted on:

- The table of service-dominant logic (Vargo et al. 2016, 18) with further explanations (Lusch & Vargo 2014, 54; Lusch & Nambisan 2015; Vargo & Lusch 2016; Stickdorn et al. 2018, 28-29)
- Innovation value chain (Janssen and Den Hertog 2016, based on Den Hertog et al. 2010, Janssen et al. 2015)
- The measurement scale by Janssen et al. (2015)
- Table of service innovation capabilities and microfoundations (Den Hertog et al. 2010; Kindström et al. 2012; Raman and Bharadwaj 2017)
- Table of jobs-to-be-done (Bettencourt et al. 2014; Zacharia et al. 2011)
- The framework of Service Innovation Capabilities and their enablers
- Synthesis of the present state
- Synthesis of the customer needs
- Jobs-to-be-done
- Table of problems worth solving
- Table of ideas for jobs-to-be-dones

The drafting was started by putting the theoretical framework to the background of the illustration. The innovation value chain sets the rhythm to the figure and gives phases to the concept. The innovation value chain (Janssen & Den Hertog 2016, based on Den Hertog et al. 2010, Janssen et al. 2015) is about knowledge transferring from one phase to another. Ordanini and Parasuraman (2011) talked about knowledge transformation mechanisms for integrating and sharing information throughout the organization. The participants discussed also about gathering and sharing knowledge. This initiated the consideration of the first design driver of innovation and development. The knowledge and information shouldn't come to a halt at any stage of an innovation and development. It should be transferred further in the process, in the organization, from human to human.

The second design driver, seeking solutions, was found by considering the fact of the main goal innovation and development work is after. According to SDL, it is about solutions. Lusch and Nambisan (2015) argue that SDL focuses on the competences and the processes of serving. Storbacka and Pennanen (2014, 5) summarize it that firms offer solutions to customers.

Theory of JTBD is about understanding of what are the underlying jobs customers need to get done and the obstacles they face to get their jobs done. According to Wunker, Wattman and Farber (2016, 1) this leads to a fertile terrain for new solutions. The participants were urging for more time, resources and a clear workable system understanding patient needs, which is a necessity to be able to offer solution for patients' jobs-to-be-done.

The participants also expressed the need for systematically gather future development needs. They complained that at the moment management time is more about writing reports of the past, looking at the rear mirror. The participants find that this does not encourage looking forward. This is also brought up by Den Hertog et al. (2010), Kindström et al. (2012) and Raman and Bharadwaj (2017) in the sensing category of service innovation capabilities and microfoundations (table 5). Bettencourt et al. (2014) and Zacharia et al. (2011) stress the capabilities of understanding what the future might look like. This created the third design driver, future oriented.

The fourth and the fifth design drivers, human first and in collaboration, were found by viewing the synthesis of the present state and the synthesis of customer needs. The participants see that the culture of the organization is professional and organization focused. According to the participants the dream culture would be customer oriented. The participants also want to involve all to innovation and development. Also, when discussing roles, the participants were unanimous that development belongs to all. Theories support this kind of thinking strongly. The main sources of service innovation presented by Ordanini and Parasuraman (2011) are collaborative capabilities and dynamic capability of customer orientation. The study by Ordanini and Parasuraman (2011) study on sources of innovation reveals that contact employee participation emerges as the most durable driver of service innovation. Tschimmel (2012) states that fundamental characteristics of design thinking is its human-centric approach. Furthermore Bailey (2012) argues that the focus needs to be shifted from the systems, processes and mechanism of delivery to human experience.

It was indicated in the discussions that the development process and all the tasks involved in developing should be defined and described. Stickdorn & Schneider (2011, 126) argue that the first step in designing services should be started by designing the process itself. The process was given a double diamond shape in the illustration. The reason it was selected, was the clear and well known shape of it. The characteristics of service design process overall, that are summarized in chapter 2.5, are added to the illustration.

At this point, the dynamic service innovation capabilities (in the middle) and innovation value chain were left in to the illustration (fig. 29). The capabilities that were derived from SDL were left out since they were dealt as design drivers. The design drivers and the double diamond design process, with its characteristics were added.

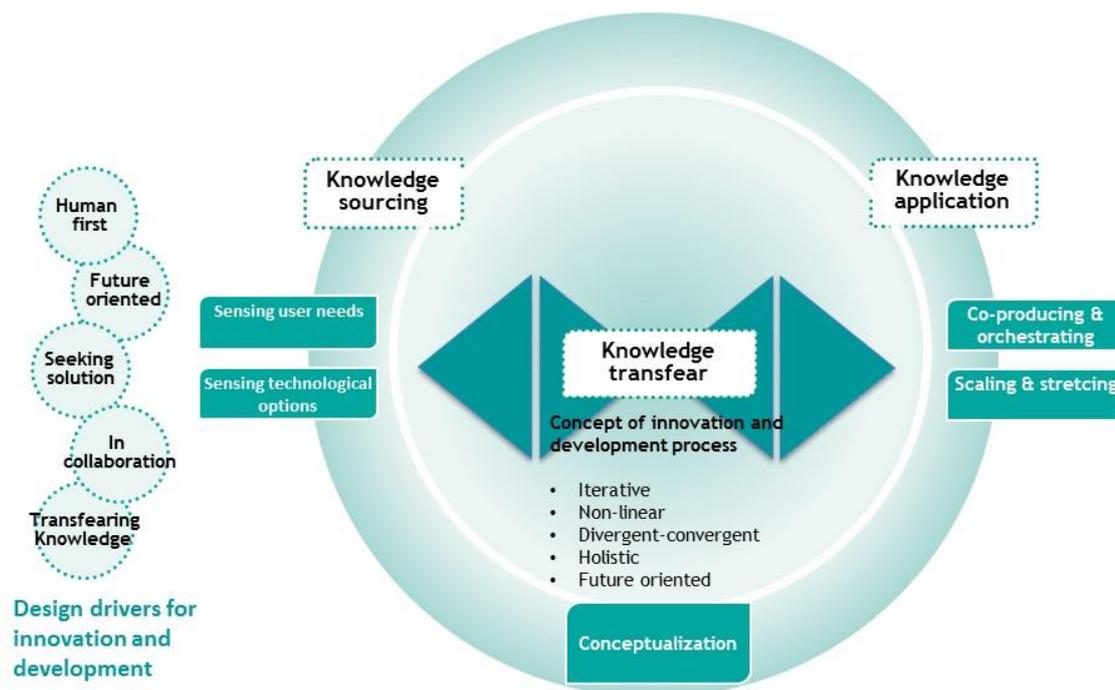


Figure 29: The first draft of the illustration

The illustration creation was continued by examining synthesis of the present state, the synthesis of the customer needs and the arrow of jobs-to-be-done presented in chapter 4.4. The arrow figure gave understanding of what is the role sharing in the big picture between the service provider and the customer. It also summarized the needs expressed by the participants. These needs and the synthesis were compared to the capabilities and the microfoundations gathered in the table 5 of service innovation capabilities and microfoundations (Den Hertog et al. 2010; Kindström et al. 2012; Raman and Bharadwaj 2017).

The first step was to examine what happens in the beginning of innovation and development process or value chain. The double diamond starts with discovering. The innovation value chain starts with knowledge sourcing. The service innovation capabilities are about sensing the changing environment by emphatically understanding user and sense their needs, building up deep user knowledge and processes that relay on their demands. The service innovation capabilities are also about scanning the business environment and technological options. The participants expressed the need for observation of changing world by systematically gathering information about future development needs, by systematically understanding patient needs and experiences and by having a personnel hearing mechanism. This gave content to one quarter of the concept. This capability is given a more general name of observation of changing environment.

The next step was to examine the middle part of the process where the knowledge transfer occurs. As one of the service innovation capabilities this is called conceptualizing,

transferring rough idea into a viable service offering. The participants are yearning after structure for development. Part of this is the development process, which offers tools for defining and developing a service concept. Also, shared tools, which could be further developed, were expressed as one of the jobs-to-be-dones. To be able to innovate in a large scale in the organization, development capability should be spread throughout the organization. This is done by coaching and with support of experts. Also, common vocabulary is needed. Since developing common vocabulary is a more technical effort, it is moved to the service provider side of the illustration as a part of the development structure.

To be able to define and develop, the common goal and target should be clear. The participant pointed out this strongly both in the focus group discussion and the co-creation workshops. Directors and managers seem to have some difficulties to get common goal clearly expressed, since developers are after clear goals and strategies for development. Both directors and managers brought up as a problem worth solving the motivating people and getting people to commit towards a common goal. In the ideation for jobs-to-be-done, the marketing program about development and branding the development were raised as solutions.

The last step was to examine the final part of the process. In the Double Diamond process this is called the Delivery phase. In the innovation value chain, this is called knowledge application. As service innovation capabilities, there are two capabilities in the end of the process: capability of co-producing and orchestrating and capability of scaling and stretching. Co-producing and orchestrating is formed from capabilities to co-produce and co-design with stakeholders newly configured business concepts. Scaling and stretching is formed from capabilities to share, codify and implement innovative practises. The participant reported bad experiences about implementing new practises and solutions. Change leadership know-how was mentioned as one of the skills needed in the organization. Sharing development and transparent development activities were also mentioned as jobs-to-be-dones. The arrow figure and the concept were added to the illustration. The circle was divided into four sectors to clear up what concepts are connected in each phase of the process. The capability of collaboration was returned to be the headline of one sector. The second draft of the illustration is seen in the figure 30.

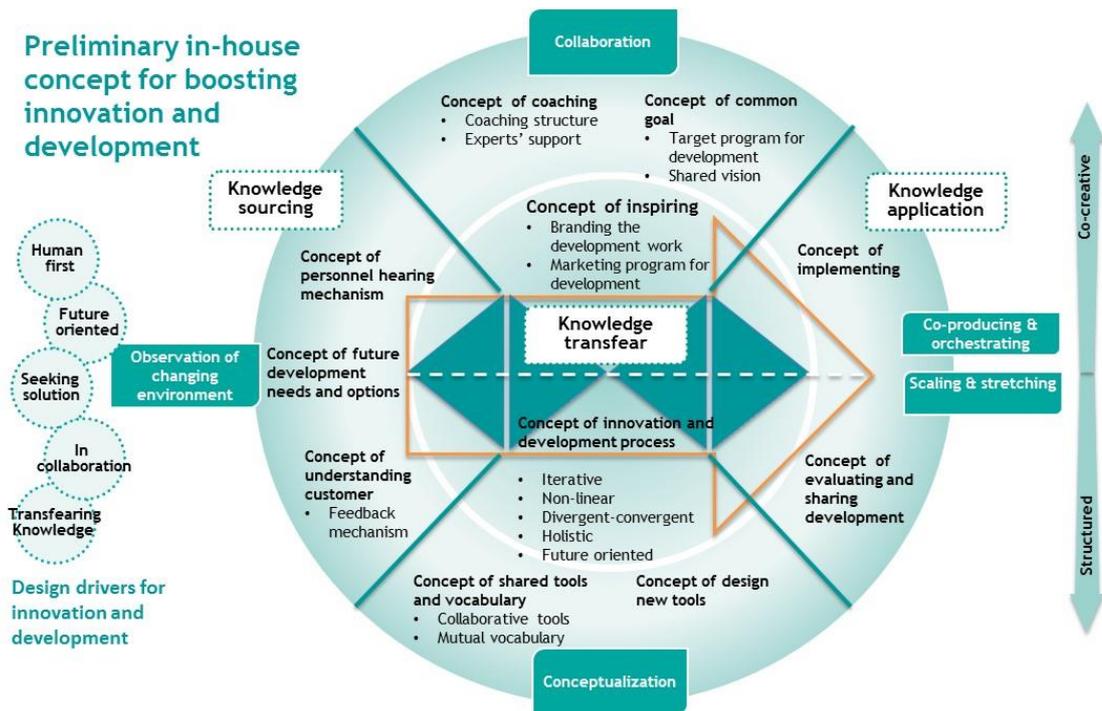


Figure 30: The second draft of the illustration

The second draft of the illustration served as first draft of the preliminary in-house concept, which was evaluated and further developed in the next workshop.

4.5.4 Developing the preliminary in-house concept and defining the value proposition

The fourth workshop was about further developing and defining the value proposition of the preliminary in-house concept that was drafted in the previous phases. In the figure 31 there are photos from the last workshop showing the participants working with the tasks. Next, results gained from the fourth workshop are opened.



Figure 31: Photos from the concept and value proposition workshop

The results from the workshop are presented in the canvas structure, that was used in the workshop to gather ideas and definitions (table 20). As it was also expressed by the participants of the workshop, the categorization of the ideas and findings is not that clear, since some of the findings could be placed to any boxes in the canvas. The author of thesis arranged the findings after the workshop. The participants of the workshop did not know any other solutions to the same problem, so the differentiation factors could not be evaluated.

Concept name: Preliminary in-house concept for boosting innovation and development		
How does it work?		
<u>Concretizes the big picture</u>		
<ul style="list-style-type: none"> • Makes invisible visible • Opens overview of the I & D process • Creates common mental model for I & D process • Summarizes essentials in I & D process • Combination of theories -> big picture • Defines the structure for I & D and means of co-creation • Creates guidelines to follow 		
<u>Innovation as organization's capability</u>		
<ul style="list-style-type: none"> • Secures the success (innovation not by luck) • Not depended on certain "superhero" individuals, safety net • Possibility to link external consults via building blocks so that it gives added value to the organization and fits to the overall map • Connects leadership, management, development perspectives into one • Creates common language 		
<u>Culture</u>		
<ul style="list-style-type: none"> • Structure to create I & D culture • Possibility to bring entrepreneurship attitude to organization 		
<u>Suitable for different business environment</u>		
Value to the end-user? <ul style="list-style-type: none"> • Provides the big picture for innovation and development for directors, managers and developers • Helps the organization to create, manage and lead the I & D process • Innovation and development is possible as the part of the daily work • Understanding own role in I & D • Development attitude in everyday work • Ready or half-ready tools, methods, processes • Transparency of development activities 	What differentiates it from the from other solutions to the same problem? Is there any other solution?	Value to our business? <ul style="list-style-type: none"> • Makes I & D process tangible -> possible to lead & develop further • Is a tool for enhancing I & D activities • Helps in navigating in I and D process • Helps in creating targets to enhance innovation and development process • Sense making for planning I & D activities • Possibility to metric I & D process development-> incentives, long-term not short-term • Can be used as an evaluation and reviewing tool in I & D process • Provides the basic elements to JTBD

Table 20: The value proposition of the preliminary in-house concept for boosting innovation and development

Essential in the findings concerning how the concept works was that it concretizes the big picture of service innovation and development, opens the overview of it. This is also seen as value to the end-user by the participants. As all the actions are currently invisible, this concept makes actions visible, something to grab on. Tangibility brings also value to business, since it makes possible to lead and develop the innovation and development activities and the process further. It provides the basic elements of JTBD. The targets can be easily set and it helps to create metrics for the actions.

The concept works also in a way that it gives the structure for innovation and development activities and the means of co-creation. The concept connects the perspectives of directors, managers and developers into one, uses common language and offers a structure to create innovation and development culture. In the viewpoint of the customer (=end-user in the canvas), the value is gained by increasing the understanding of process roles, tools and methods. Innovation is possible as a part of daily work.

The concept is built to view the innovation and development through the eyes of the organization capability. Innovation and development are not depended on luck, but follow a systematic innovation value chain. The experiences and knowledge gained from the actions made for innovating and developing are gathered for the capacity of the organization. Thus innovation and development are not depended on individuals. Also, the usage of external consults and the results gained from their work can be fitted to the overall map, thus avoiding the vanishing results and sporadic manner of using the consults.

The author of the thesis defined the headline, the description and the main point of the value proposition based on the ideas and definitions given by the participants of the workshop. The written value proposition is presented in the table 21.

Written value proposition?	
<p>Headline</p> <p>Through in-built service innovation and development capability to better service solution for customer</p> <p>Prescription</p> <p>Opens the big picture of innovation and development process with tangible and intangible activities. Through activities organization can create better solution for customer and enhance innovation and development in organization by increased in-built capability of innovation and development.</p>	<p>Main points</p> <ul style="list-style-type: none"> • Opens overview of the innovation and development activities • For setting up innovation and development process into organization • Creates in-built capability -hard to copy • Life-line of the future - calms VUCA storm • Better services for external customer by knowledge sourcing, knowledge transfer and knowledge application • Creating value for the shareholder (organizational value)

Table 21: The written value proposition of the preliminary in-house concept

The headline and the prescription of the written value proposition emphasize the ultimate goal to innovate and develop service: a better service solution to the customer. The main points of the solution are the following: overview of innovation and development activities, setting up these activities and know-how to create in-built, hard to copy capabilities, is life-line for future by answering user needs and by creating value for company.

In the discussion the participants suggested that the activities which are named as concepts in the figure 32 are considered as building blocks of concept. According to the participants, that would show more clearly on figure what are the activities needed to enhance innovation and development. For the same reason, the innovation value chain is moved to the bottom part of the figure.

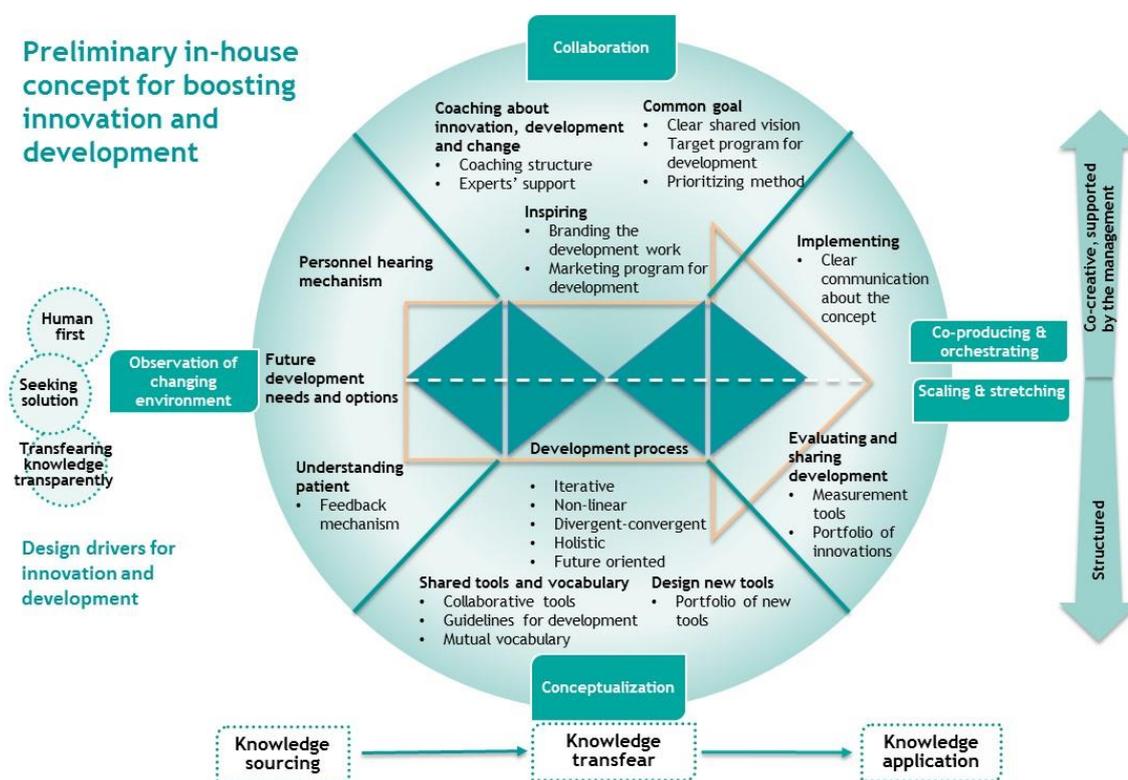


Figure 32: The preliminary in-house concept of boosting innovation and development

As a result of the workshop there are few content changes also done in the illustration of the concept. Since collaboration is already placed on the top of the figure, it is removed as a design driver. Future orientation is mentioned both in the building blocks of Development process and Future development needs and options, and thus it is removed as a design driver. Change is a driver of development and for that reason it is added as one of the coaching subjects. The word “transparent” is added to “transferring knowledge” design driver to emphasize transparent development activities, which were in the list of jobs-to-be-dones. The measurement and reports were mentioned as problems worth solving by the participants, thus evaluating of development is added. The more content is added on the building blocks of

Implementing, Evaluating and sharing development and Design new tools based on theoretical findings. Since the customer side is both co-creative and needs support by the management, “supported by the management” is added to the arrow on the right side of the illustration. The final version of the preliminary in-house concept and value proposition is shown in the figure 32.

The researcher gathered the mind-set changes needed for design capability installing in a template that summarizes what mind-sets need to be reduced, created, eliminated or emphasized. The figure 33 is the summary of the tables 15 and 17. The mind-sets that gained two crosses are in the boxes of “reduce” and “emphasize” and the mind-sets that gained three crosses are in the boxes of “eliminate” and “create”.

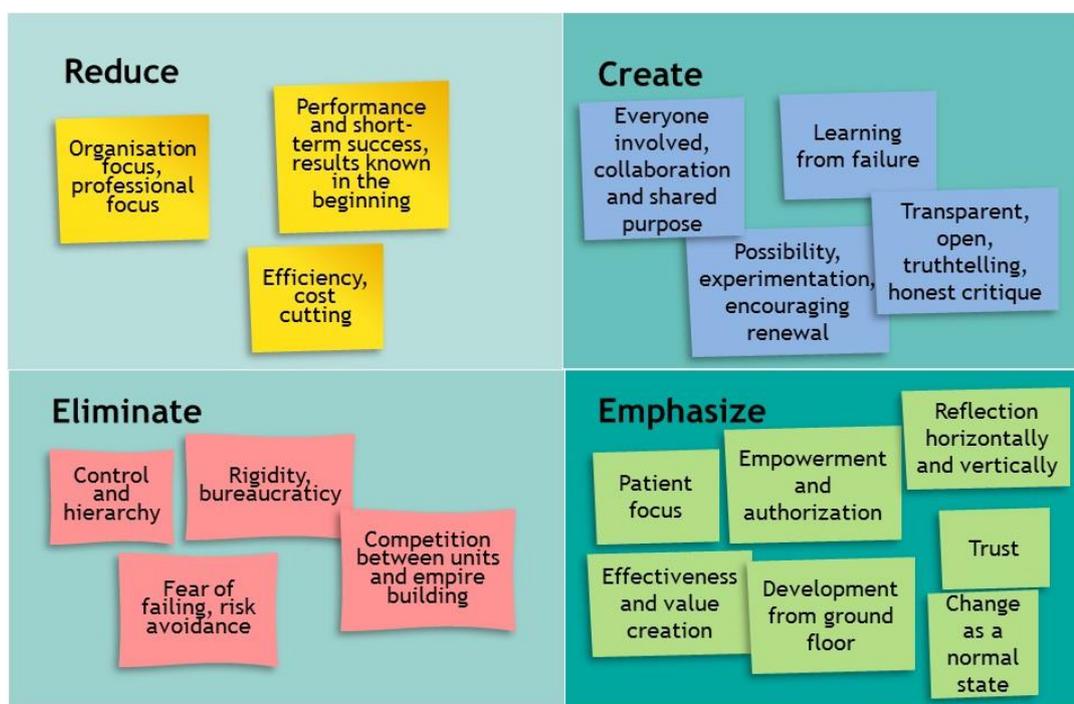


Figure 33: The mind-set changes needed for design capability installing

An organization should reduce organizational and professional focus and emphasize customer focus empowerment and trust, eliminate stiffness, create collaboration and encourage renewal.

5 Conclusions and discussion

This final chapter summarizes the development work and assesses the process and the results. It proposes concrete recommendations for the case organization and evaluates how the results can be applied wider, outside the actual target of the thesis. Also, the possibilities for further development are also considered.

5.1 Summary

The purpose of this thesis was to explore organizational service innovation capabilities that enhance innovation and development in the case organization. The service innovation capabilities were studied at strategic and practical level and from the perspectives of competence and know-how.

The objective was to develop a preliminary in-house concept to give support for the in-house customer to boost innovation and development activities in Tampere University Hospital. The customers of this service concept are personnel from all the levels of the organization: directors, managers and developers. All the employees of the organization are considered as developers.

The service concept, named as boosting innovation and development, was co-created with the customers and with the innovation and development experts by following the Double Diamond process. The central starting point of the development was to understand the needs and experiences of the customer, i.e. the jobs-to-be-dones. The theoretical framework explored service-dominant logic, dynamic capabilities, jobs-to-be-done (JTBD) and service design through the lens of service innovation and development capability. The concept was created by building up to the theoretical framework the solutions for the customer's jobs-to-be-done. These solutions work as the building blocks of the preliminary in-house concept.

In order to reach the objectives of this thesis, the following research questions and sub research questions were asked:

1. What are the organizational capabilities needed to enhance innovation and development?
2. What is the present state of innovation and development in the case organization?
 - How do directors, managers and developers see their roles in innovation and development?
 - What prevents/advances innovation and development?
3. What kind of in-house support concept would enhance organization's innovation and development?

To answer the first research question "What are the organizational capabilities needed to enhance innovation and development?" four different theoretical approaches to service innovation and development were explored. Service-dominant-logic was observed from the strategic viewpoint to the service innovation and development. Dynamic service innovation capabilities were studied to understand competencies, routines and processes needed in the service innovation and development. Jobs-to-be-done and service design were explored as enablers of the service innovation and development and observed as a practical process and methods

to realise the service innovation and development process as a part of everyone's work in the organization. The main focus was to understand what organizational capabilities these theories present as capabilities to enhance innovation and development in the case organization.

By summary of the theories, focusing on dynamic service innovation capabilities, this thesis is able to present the capabilities needed to enhance the service innovation and development. In the big picture of organizational capabilities, the innovation itself can be described as an organizational capability as mentioned by Smallwood and Ulrich (2004). It is a capability to focus on the future and to do something new both in content and process.

In this thesis service-dominant logic was observed as a strategic approach to the service innovation and development. Stated by Lusch & Vargo (2014, 4-5) service-dominant logic is a mind-set, in which everything is viewed as a service, firms offer solutions to customers and business is based on the exchange of service. The value of service is co-created through coordination. The value arises through use or interaction of resources. It depends on the context and is defined by the customer. Ordanini and Parasuraman (2011) have integrated service-dominant logic and innovation insight and found three main sources of service innovation: collaborative competences, a dynamic capability of customer orientation, and knowledge interfaces.

By understanding the differences of individual and organizational competences, social and technological abilities, ordinary and dynamic capabilities the exploring of the capabilities concentrated on the dynamic capabilities of service innovation and development. The dynamic capabilities are embedded in the processes, values and experiences of the organization and can be described as the personality of the organization. Den Hertog et al. (2010) present six service innovation capabilities. By using this conceptual framework Janssen et al. (2015) operationalized a set of dynamic capabilities and presented five dynamic service innovation capabilities that could be measured. These measurable capabilities, sensing user needs, sensing technological options, conceptualization, co-producing and orchestrating, and scaling and stretching, were chosen to the framework. Measurability offers a tool to follow the development of capabilities for service innovation. Hansen and Birkinshaw (2007) argue that process of transforming ideas into commercial outputs needs to be seen as an integrated flow. For this reason, the capabilities are categorized in three categories: knowledge sourcing, knowledge transformation and knowledge, which creates the innovation value chain.

To be able to concretize the capabilities presented above, theories of jobs-to-be-done and service design were explored. As Wunker et al. (2016, 1) argue, the understanding of what are the jobs customer needs to get done and the obstacles they face to get their jobs done, leads to a fertile terrain for new solutions. Jobs-to-be-done also emphasizes the evaluation of future possibilities. As a result of exploring the theory of jobs-to-be-done, it can be stated

that jobs-to-be-done offers a mind-set and a tool to sense customer needs and technological options and with process and tools. These sensed needs can be configured into service solutions for customers.

The innovation process works as a knowledge transferring process and integrates all phases of the innovation value chain. Service design offers above all a human centric service innovation process with co-creative tools. By offering human centric co-creation tools and mind-set, service design concretizes two of the capabilities presented by service-dominant logic, i.e. customer orientation and collaboration and one by the dynamic capabilities, co-producing and orchestrating. The characteristics of service innovation process were explored through four service design processes. As a summary, it can be expressed that the service innovation process should be iterative, nonlinear, divergent-convergent, holistic and future oriented.

The knowledge integration mechanism is presented by service-dominant logic as one of the capabilities needed in service innovation and development. Service design provides tools for capture, analysis and synthesis of the knowledge. Service design offers also sensing tools, tools for conceptualization, tools for knowledge integration and tools for implementation. Thus as a one result of this thesis the service design process and its proper management concretizes well the service innovation and design capabilities.

To answer the first research question “What are the organizational capabilities needed to enhance innovation and development?” this study found three strategic level capabilities i.e. customer focus, collaboration and knowledge interface, five innovation value chain capabilities i.e. sensing customer needs, sensing technological options, conceptualizing, co-producing and orchestrating, and scaling and stretching. To concretise these capabilities this study suggest the mind-set and tools of customer jobs-to-be-done and service innovation process based on design thinking.

To be able to answer the second and the third research questions the development process was defined. The theoretical framework introduced to the field of design thinking by explaining characteristics of the method. The four service design processes were also introduced and compared. One of the processes was the Double Diamond process by UK Design Council. The Double Diamond process was chosen to be followed as a development process because most important characteristic of the design process concerning this thesis is divergent-convergent thinking. After the comparison of the processes, this characteristic in question was presented in the Double Diamond process most clearly. The four phases suited well for this study, since they were all needed in the process of this thesis. The fourth phase, the development phase, is included in this thesis just to give suggestions for further development and research.

In the Discover phase the gathered knowledge about changes and future visions in healthcare increased the understanding about the context. It crystallized the concept in need to be the

in-house support concept to enhance innovation and development in the organization. The preliminary design challenges were gathered in 10 focus group discussion. Altogether 23 participants discussed about the roles in innovation and development, the dream culture that would support the activity and the issues preventing or advancing innovation and development in the organization.

In the Define phase the data gathered in the Discover phase was analysed by using thematic analyses. The define brief was established in the form of jobs-to-be-dones that were set along the innovation process. The innovation process was illustrated in the shape of an arrow divided in two sides, customer side and service provider side. Jobs-to-be-dones that employ more the service provider were situated on their side and jobs-to-be-dones that employ more the customer on that side. In the end of the Define phase the knowledge gained from the focus groups were synthesized with the theoretical framework.

Through the gathered data from the focus groups the researcher was able to answer the second research question “What is the present state of innovation and development in the case organization?” and the sub questions “How do directors, managers and developers see their roles in innovation and development?” and “What prevents/advances innovation and development?” Directors see themselves as “big picture worrywarts”, managers as “practical enablers” and “developers” as practical actors. Leaders in general are seen as “supporters all the way”. The culture of the organization does not support the innovation and development. The activities are done in a sporadic manner and in silos. A few steps towards customer focus development have being taken. There exist needs for the structure of innovation and development and wide communication concerning the goals and development done. The organization should enable the involvement of the whole personnel in the development.

In the Develop phase the preliminary in-house concept was co-created with customers and development experts. The method used was co-creation workshops. Three co-creation workshops were held for three different customer groups. The aim of these workshops was to find out the problems worth solving according to different customers groups: directors, managers and developers, and secondly the ideas of the participants for solution to customer’s jobs-to-be-dones. These ideation workshops gave information about how the different customer groups stress the different jobs-to-be-dones and what actions or solutions would help to solve the problems found in the previous phase of the process. Using the results of these workshops and the synthesis made in the Define phase, the author of this thesis was able to design the first draft of the preliminary in-house concept. Also, the mind-set change needed for a more favourable innovation and development environment was summarized by author of this thesis.

The first draft of the concept worked as a probe in the last workshop, where three innovation and development experts from different business sectors were invited. The aim of the

workshop was to discuss and further develop the concept and define the value proposition of the concept. The discussion with the experts gave valuable ideas about how the concept actually works what is the value for the customer and for the business. The experts gave also ideas how to present the concept.

After the workshops the author of the thesis was able to answer the third research question “What kind of in-house support concept would enhance organization’s innovation and development? “. The answer is given by the illustration of the proposed concept, which is based on theoretical framework and the innovation value chain and includes all the building blocks of the concept created through development process. The building blocks of the concept are:

- personnel hearing mechanism
- future development needs and options
- customer understanding
- development process
- shared tools and vocabulary
- designing new tools
- coaching about innovation and development and about change
- common goal
- inspiring
- implementing
- evaluating and sharing development

Also, three design drivers were proposed to remind the customer of the concept to always apply human first oriented thinking, seek solutions and transfer knowledge transparently.

This proposal for the concept is a starting point for the development work of the whole concept. The concept should be further developed with co-creation of customer and other possible stakeholders. Each building block is also a starting point of its own development process. After the implementation the concept as a whole and the building blocks are developed while used. The more they are used, the more they are developed. The development should be an ongoing process as was mentioned also by the customers of the concept.

5.2 Reflection of the process

The co-creation of the concept started within the focus group discussions where customers from different levels discussed about the present state of innovation and development in the case organization. The topics were: what are the roles of different groups and what prevents or what advances innovation and development.

The recruitment plan was made by the author of this thesis with the support of one Group Executive Team Member. All the participants that were asked reacted positively to the invitation. This can be perceived that the participants from the different levels of organization appreciated this kind of development activity. Some of the participants even thanked the researcher for being chosen as a participant. One participant emphasized the previous successful co-creation with the researcher to be the reason for participating. This positive attitude in the beginning of the co-creation part created a good atmosphere for the focus groups and was encouraging the starting point for the development process.

Before starting the focus groups, the discussion guide was pilot-tested with one participant to ensure that the questions were understandable. The researcher sent the invitation including the discussion guide with the note “you may get to know the content beforehand, if you wish”. By this optional chance either to familiarize oneself to the content of discussion or to come without spending any time beforehand on the issue, the researcher wanted to make the participation as easy as possible to involve participants to the discussion. It turned out that some of the participants were prepared for the discussions by making notes to discussion guide; some of them had just read the discussion guide quickly. A few of the participants were not sure in the beginning of the session what the subject under discussion is about. To start from the same level, a better note would have been more appealing, like “Please, read the discussion guide beforehand”. A short description of the content of the focus group should have been already in the invitation.

In the beginning of the discussion the researcher asked for permission from the participants to use the focus group data for a scientific research also. The participants signed the official paper for giving the permission. Because the researcher worked in the same organization as the participants, this was extremely important. This procedure gave the author of this thesis the mind-set of a researcher, not the mind-set of a development manager. It also gave each participant the right information about the purpose of the discussion.

To emphasize the ethics of the study, the researcher highlighted that from the reported results no individuals can be recognized. Retrospectively, what may have been appropriate to do, is the researcher to appeal the participants not to repeat what is said outside the group.

The participants of the empirical part of the study used the words “develop”, “innovate” and “improve” to designate the same activity. The terminology could have been clarified in the discussion guide, and the understanding of the words “innovate” and “develop” could have been asked from the participants at the beginning of each session.

It was extremely important for the author of this thesis, when acting as a moderator to clarify the role of moderator before the execution of the focus groups. The moderator guides slightly the direction of the discussion (Thomas and Hodges 2010, 21) and stands back from the

discussion so that group dynamics can emerge (Silverman 2011, 162). This was particularly crucial because moderator and the participants worked in a same organization; they know each other beforehand and have also worked together in development and innovation activities. The risk was to involve oneself to discussion and thus reduce the reliability of the results. Because this risk was identified beforehand, it was eliminated as much as possible.

The participants were straight with their opinions and told about their own experiences openly. The discussions were vivid, and all the participants participated to discussion evenly. As a moderator, it was easy to guide the discussion. There was no domination noticed in any of the groups. As a moderator it was easy to create rapport with the groups, since all the participants in each group knew each other and were known by the moderator beforehand. Atmosphere in the session was warm-hearted and trustful. The participants pointed out that the subject was difficult, but very important. Since each of the sessions lasted 1.5 hours, it would have been a good idea to use some probes to lighten the session a bit, e.g. through tasks.

When the recorder was shut, the participants still wanted to share their thoughts. They also thanked for the very interesting session. A few of the participants felt that session somehow cleared their thoughts; the one said that it felt like a debriefing the other suggested there should be discussions like this more often.

As the insight gathering viewpoint, the researcher found out that the last focus groups did not produce any big new themes to the discussion. As a conclusion it can be said that enough focus group discussion was arranged. Even though some of the invited were unable to participate in the focus group session, all the levels of the organization were well represented. There were a few managers less in the focus groups than there were directors and developers. On the other hand, in the workshops managers were over represented compared to directors and developers. Since so many developers cancelled their participation in the workshop, it could have been justified to organize another workshop session for developers. It can be said that the voice of developers was weaker and thus it may have some impact to the results.

The themes were established through coding, finding connections and similarities between the codes. Ryan and Bernard (2003) suggest that a good test for knowing when you have found a theme is ask a question: What is this expression an example of? This rehearsal was done by the researcher when identifying themes. It helped to see both the themes and the expressions in objective manner. How the themes were established and judged by the researcher is explicitly described in the chapter 3.3. This allows the reader of this thesis to assess the methodological choices done by the researcher and argue with the conclusions (Ryan and Bernard 2003).

During the development project the co-creation with customers to develop the concept was wide and two different approaches to involve customer were used. In the focus group discussion the deep understanding was gained through 15 hours of multidisciplinary discussion about innovation and development issues. In co-creation workshops altogether 57 members of the personnel from the organization were participated. In addition, three participants representing innovation and development expertise were participating to the development work. This was a chance to see the concept from outside the organization and more from helicopter perspective.

The development was done in the phases supporting each other. Each development phase gave an input to the next phase. The development process followed the Double Diamond service design process. The synthesis with the theoretical framework gave a convincing knowledge base to create the preliminary service concept, which works as a starting point for further development.

5.3 Recommendations for case the organization and transferability of the results

Based on the knowledge gathered and the synthesis done in the thesis the researcher is able to give recommendations for the case organization. The presented concept needs further development, since it is a preliminary in-house concept and not yet evaluated in the real-life context. Thus, the suggestion for further development is an evaluation workshop with customers. The evaluation gives understanding how this concept answers to jobs-to-be-done of the customer, and would it enhance innovation and development in the opinion of the customer. The proposed evaluation gives also a deeper content to the whole concept and to each building block and direction for further development. Benchmarking with other similar services could also give new ideas to the concept development. Experiences from other organizations, pro and cons, are valuable information for further creation.

Each building block needs own development process to be started. There might be pieces of the building blocks already existing in the organization, which needs to be identified. The building block of *Co-producing and orchestrating* needs extra attention, since service design and jobs-to-be-done do not give all the tools and competence to concretize this capability. Also, a continuous feedback system for customers using the concept, should be developed. In the focus group discussion, it was suggested to digitalize the concept and the support service offered to the in-house customers. While developing the concept and its building blocks, this is certainly an issue that should be taken account. There are boundless possibilities to use technology and digitalization as a part of the concept to boost innovation and development.

The recommendations are given as steps creating the road map, how to proceed.

1. The common goal

- The preliminary in-house concept is presented as a common goal for innovation and development activities by the leaders of the organization. Pay attention to the different focuses of different roles when presenting the concept.
- The personnel are familiarized to the preliminary in-house concept by using different channels
- Communicate the personnel how the concept has evolved and why the results and the configurations are as presented in the chapter 4.5.4

2. The alignment and inspiration

- The importance of everyone involved is marketed
- The roles of personnel are presented
- The vision of the future ahead is presented more appealing than the present state by marketing and branding campaigns for the new concept

3. Initiating activities for further development

- Initiate a project for further co-creation of the whole concept
- Initiate projects to co-create the building blocks of the concept

It is important for the case organization to continuously observe the changing environment, communicate and measure development activities. In addition, mind-set and cultural aspects, which are for and against innovation and development activities, are discussed as a part of this thesis. The results are based on the present state and compared to theoretical findings. These results give guidelines on what mind-set and cultural characteristics should be reduced, created, eliminated and emphasized, to be able to enhance innovation and development in the organization. The concept deployment will partly change the culture, but other activities are also needed.

The developed preliminary in-house concept answers the expectations given from the top management to the new established RDI centre. The building block of *Common goal* is answering to the expectations that activities are coordinated and well led. Innovation activities are stimulated, has a solution in building blocks of *Personal hearing mechanism* and *Inspiring*. The top management expects the development work to be visible, which is dealt in the building block *Evaluating and sharing development*. The whole concept aims to give support to the goal given by top management; the entire organization's ability to develop is improved.

The concept gives support to the execution of the case organization's strategy concerning the key alignments of service innovation and development. The organization wants to base the development activities to the insights about the needs of patients and the failures patients have experienced when using the service. They want involve patients and peers in the

designing of services in collaboration with employees and produce a good customer experience. They are also after new ways to provide special health care services. These alignments call for building blocks of *Understanding patient's need* and *Future development needs and options*. The collaborative method of service innovation is involving both patients and employees. The development of service culture, capability of change management and continuous development are also key alignments of the strategy. The cultural and mind-set recommendations are given by this thesis, but it needs to be understood that other activities are needed as well. As a result of this thesis, it can be said that created concept answers the needs concerning the execution of the organization's strategy.

The new regional counties will possibly start on the first of January 2021. The counties will organise all public healthcare and social services in their area. The planned means to execute the renewal are strengthening the basic services, using the information technology more effectively and increasing freedom of choice for clients, offering integrated, well-functioning service packages, efficient transferring of client information and offering services locally. Even though these objectives are quite abstract, the need for enhancing innovation and development is obvious. The cultural characteristics, the business environment and the legislation are similar in public basic healthcare services to those in public special health care. But until regional counties will start, the basic services are organized by each municipality. Municipalities differ in size, in the area of focus and ability to arrange this kind of innovation and development entity.

In addition to healthcare services, other services will also be transferred to the responsibility of new Pirkanmaa County. These include social services, employment services, rescue services and so-called growth services that include e.g. regional competitiveness. In Pirkanmaa this means an organization of approximately 21.000 employees. After experimenting the concept in healthcare, the results can be used in other services provided by Pirkanmaa County. This could be one way to bring together different organizations with different backgrounds to work towards a common goal.

In the discussion of development experts, it was evaluated that the concept could be very useful also in their organizations, even though two of the experts are from the different business sector and they are not representing a public organization.

The concept itself is transferable, but the suggestions of the mind-set and cultural changes are highly dependent on the current situation in the organization. Also, the big picture can work as a starting point of concept creation in each organization, but with insight gathered from the organization, it can be evolved.

5.4 Further research

This thesis contributes to some extent in research dynamic service innovation capabilities: what they are and how they are created. Opportunities for further research exist. For example, it would be worth exploring what kind of research exists in using DSIC in different contexts.

The capability of *Co-producing and orchestrating* would need further research to be able to find tools and methods to concretize this capability. Service design and jobs-to-be-done do not give all the tools and competence for it.

To have the facts about how this concept enhances innovation and development after implementation would need a research about convincing measurement scale. This thesis presents one measurement scale by Janssen et al. (2016) and it works as a good starting point for further research. With well researched measurement scale, it would be beneficial to explore if the concept has had effect on innovation and development activities in the organization.

The concept deployment will partly change the culture more favourable for innovation and development, but other activities are also needed. What these other activities are, needs further research.

As a future research project, it would be interesting to repeat the focus group discussion in another public-sector organization that will be part of the new regional Pirkanmaa County. The study would give understanding, if the concept of boosting innovation and development could be taken as a concept for the whole new organization.

Another future research project would be to repeat the study in another University Hospital or Hospital District and compare the results with the results of this thesis. This study would give interesting insights about the cultural differences in innovation and development and whether the needs of a customer vary or are similar in organization offering same services. To find a totally new perspective is to execute the research in a private business sector organization.

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Appendix 1: Discussion guide

Background

- How would you describe your own role in development and innovation?
- What three words would you use to describe development and innovation at PSHP?
- How is the reputation of PSHP as a developer/reformer in your opinion?
- In your opinion, whom does development concern?

Organizational culture

- Describe a dream organizational culture for development and innovation
- What about the present PSHP organizational culture prevents/advances development/innovation?

Development strategy

- Is there clear strategy, visions, and goals for development?
- How would you describe the organization of development at PSHP?

Development process, tools, and supporting structures

- Have the development/innovation process/methods/tools been described?
- What kind of supporting structure would help in development work?
How could practical development work be advanced?
What procedures would you propose?

Development management and directorial means

- How can interactive participatory development be supported through management?
What are the means a director has to advance the issue?
- How should management/directing be altered?
What competence is lacking?

Interactive participatory development (development stemming from the employee and work community, customer and staff participation)

How to make development a part of everyone's job?

- What are the obstacles / advancing factors?
- What are the characteristics of a developer personality?
- What kind of problems exist in advancing ideas in the organization?
How could organizational conditions be developed in order to start interactive participatory development or make it work better than at present?