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# DOG PHYSIOTHERAPY SERVICE CONCEPT DEVELOPMENT

– Case study

MASTER'S THESIS | ABSTRACT

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# DOG PHYSIOTHERAPY SERVICE CONCEPT DEVELOPMENT

- Case study

The present Master's thesis focuses on how service design methods and tools can be used to develop the dog physiotherapy service concept when the business is run by an entrepreneur in a one person company setting. The aim of the thesis was to co-design and develop the service concept with customers and to make further service concept development proposal for the client company.

The research questions in this study were: How can the current dog physiotherapy service concept be developed to meet and exceed customer expectations? What support would the dog owners benefit from in between dog physiotherapy appointments?

The thesis discusses the theory of design thinking, service design in business development and service concept development. The research methods included benchmarking, an online questionnaire, interviews, mystery shopping, a co-design workshop and a service prototype test. Six different service design tools were studied and tested. The tools were a stakeholder map, a business model canvas, a persona, a customer journey map, an empathy map, and a service blueprint.

As a result of this study, a service concept proposal was created for the client for further development of the dog physiotherapy service offering. The study shows that it is possible to implement and use service design methods and tools for a business run by one when developing the service concepts even when financial investment possibilities and manpower are limited.

KEYWORDS:

design thinking, service design, co-design, entrepreneurship, service concept development

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# 1 INTRODUCTION

This thesis is a case study where a service design project is conducted in a one person company. All steps are done in real life occasions. This case is about a newly established dog physiotherapy business where the entrepreneur is interested in developing service concept to differentiate her service offering from competitors in the same business area. Using the theory and methodology of service design and information about the pet market in Finland, this thesis focuses on how a small company can engage customers into service concept development.

Service design is a contemporary approach to developing services. Interest towards service design is increasing in the society. Service design helps companies to identify their potential in business, to innovate new services and to develop already existing services further. Service design is not a new innovation. It is a way to synthesize existing things in a new way. Co-design is a human centric approach where stakeholders are involved in the design process. The aim of the co-design process is to discover new ideas and to create new solutions. (Tuulaniemi 2016, 13, 18, 61, 116; Koivisto et al. 2019, 33—34, 37, 40, 61.)

Owning a pet is an increasing trend in society. Individuals are investing significant amount of time and money on their pets. Pets are family members and often the pet is regarded as a replacement for a child in the family. (Tilastokeskus 2016.) A possible recession does not have a negative impact on consumer habits when considering pets. (Yle 2020.)

Service concept describes the service a company is offering for consumers. It defines the service in a detailed way. By concepting the service it is possible to define a common view of the offered service. Service concept defines to whom the service is created, what benefit it offers for the consumer, how service should be used and what resources are needed to create a service. (Goldstein et al. 2002.)

Business books define how a business should be run in theory. Theory forms a picture of well structured processes and high quality planning. Real life is many times very different. In cases where an entrepreneur is running a company alone, resources and financial possibilities may be limited. Intuition is often directing how business is being established and developed.

Self-employed entrepreneur is the most common form of being an entrepreneur in Finland. This is a clear trend in society. In 2018 Finland had 182 000 self-employed entrepreneurs. Self-employed entrepreneurs are seeking growth through networking with other entrepreneurs, by launching new products or services or by hiring an external employee. Most common factors that are inhibiting the growth are the high cost of hiring an employee, inability to increase own working hours and the fact that customers are relating entrepreneur's business to the entrepreneur as a person. (Yrittäjäkysely 2019. Suomen Yrittäjät.)

The researcher has own interest in investigating how service design methods and tools can be used when developing small entrepreneur driven service and business concept. Theoretical books about business development and service design are in general written to large and complex organizations. Small companies do not have multiple stakeholders who can take part in the development process. Small companies may have limited financial and manpower investment possibilities for development projects. It will be interesting to investigate how a small business may benefit from service design.



## 2 RESEARCH PLAN AND THE PROCESS

### 2.1 Problem area and aim of the study

This thesis is an empirical development project where the scope is to study how a newly established dog physiotherapy service concept can be developed by using service design methods and tools. The goal is to produce new ideas together with the customers in order to develop the service. The aim of this study is to research how the dog physiotherapy service concept could be developed. There will be focus on investigating what kind of services the customer would benefit from in between dog physiotherapy appointments. The commissioner of this study is interested in developing her business offering to meet and exceed customer expectations. Her ambition is to differentiate her service offering from the competitors. (Personal communication with the commissioner 18.1.2020.)

The commissioner has identified a need to provide understandable instructions for dog owners on how to support a dog's rehabilitation in between physiotherapy appointments. It is very important for the dog owner to continue rehabilitation activities in between physiotherapy appointments to secure the best possible outcome of the dog's rehabilitation. There is a gap in how the dog owner could receive proactive feedback about the rehabilitation progress in between dog physiotherapy appointments. This is where the commissioner would like to investigate what type of support customers need and how the support should be given. The aim is to offer practical development ideas that could potentially be commercialized. The challenge with this work is the limited possibility to make financial investments to develop possible tools to support service concept development. (Personal communication with the commissioner 18.1.2020.)

### 2.2 Framework

The framework (Figure 1.) of this study focuses on a dog physiotherapy service concept, the interaction between core stakeholders, competitors in the dog physiotherapy business field and design thinking. Aim of the study is to develop a service concept and to research what kind of support a dog owner would benefit from in between the dog physiotherapy appointments. Service concept development is done by engaging

customers into the development process using selected service design methods and tools.

Dog physiotherapy company was established in 2019. Commissioner has been participating in new entrepreneur training before launching her dog physiotherapy business. Financial calculations for the business have been completed. (Personal communication with the commissioner 18.1.2020.)

Core stakeholders are customers who have a dog with the need for rehabilitation and a dog physiotherapy entrepreneur offering the dog physiotherapy service. The purpose is to engage customers in a co-design workshop using service design methods and tools in an aim to develop the commissioner's dog physiotherapy service concept. A service prototype will be developed, tested by customers and evaluated after the service prototype test.

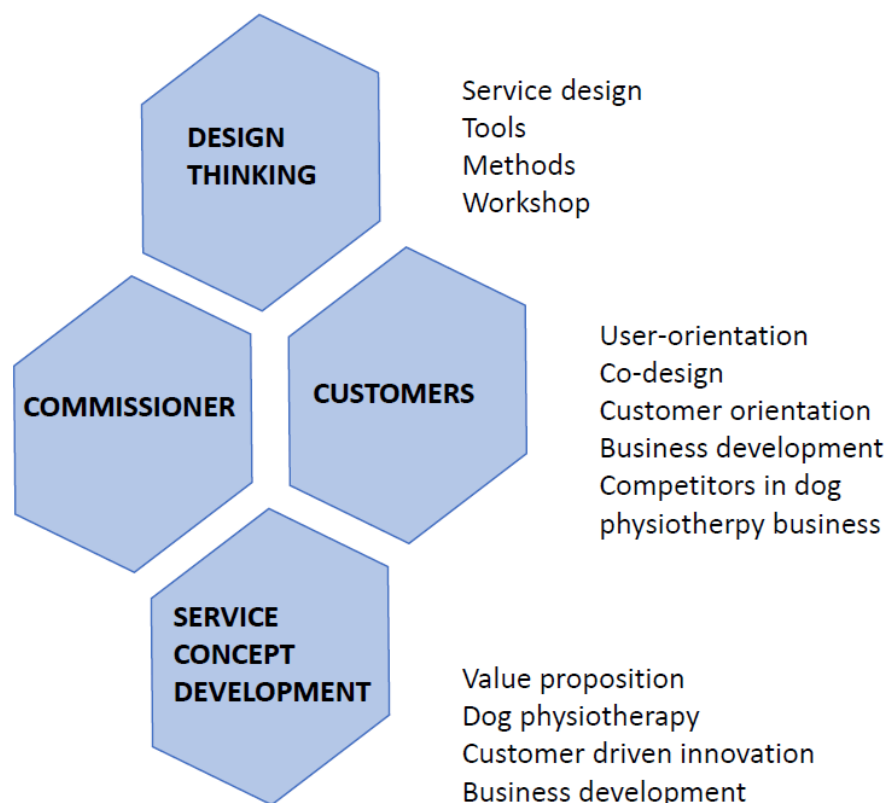


Figure 1. Framework of the study.

### 2.3 Research questions and process

The research questions of this thesis are:

1. How the current dog physiotherapy service concept can be developed to meet and exceed customer expectations?
2. What support would dog owners benefit from in between dog physiotherapy appointments?

These research questions will be studied in a case study. All steps are done in real life occasions. This study will be done modifying a service design process defined by Juha Tuulaniemi in his book *Palvelumuotoilu* (2016). The service design process follows creative problem solving principles. Process means logically progressing and repeating a chain of events. The nature of service development is to create something new and unique. Service design process consists of five parts.

First stage of the process is to define what problem needs to be solved. It is important to get a good brief where the commissioner defines the goal for the process. The commissioner need to provide the researcher with good background information about the company and the business field she is operating in. In the second research stage, development areas are defined in detail and this helps to scope the strategic goals of the service. In this stage, customers are engaged in the process to gain deeper insights of customer expectations, needs and goals. Third stage, ideation considers alternative solutions first with wide perspective and at later stage the scope is narrowed down. In the fourth stage the developed prototype will be tested with the customers. The service prototype will be developed further after the test. It is possible to fine tune the service based on feedback. Designed service is never ready and it requires constant development. In the final part of the process, the success of the development process is evaluated. (Tuulaniemi 2016, 126, 28, 132, 136, 142, 182, 232.)

The service concept development will be done through a customer centric design process. The process chart is presented in the Figure 2.

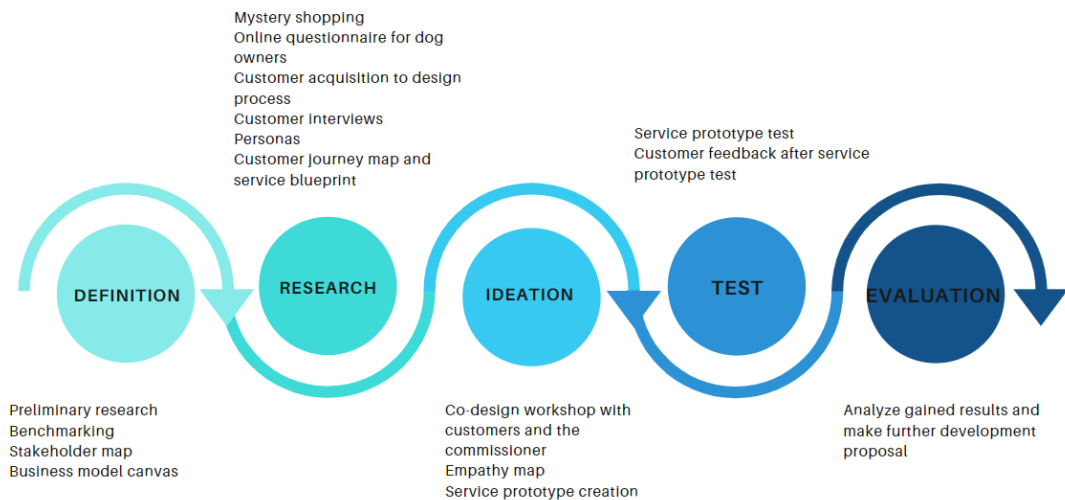


Figure 2. Service design process chart.

In this thesis definition includes preliminary research and meeting with the commissioner to discuss of the aim and goals of the research process. The commissioner introduces the researcher to company and the dog physiotherapy business field. The researcher will complete benchmarking of dog physiotherapy business in Finland Proper area. A stakeholder map will be created to understand all stakeholders involved in the commiccioner’s business. A business model canvas will be defined together with the commissioner for the commissioner’s company.

In the research stage mystery shopping will be done to investigate how the customer experiences the current service offering. An online questionnaire will be done to gain an understanding of what services dog owners are purchasing and how much consumers are spending on dog related services. The questionnaire aims to gain a deeper understanding of the dog physiotherapy service. How consumers choose the dog physiotherapy service provider and what factors influence consumer satisfaction with the dog physiotherapy service. It will be important to understand what makes consumers disappointed with the dog physiotherapy service. Customers participating in the service design process will be aquired through a Facebook advertisement on the commissioners company Facebook pages. Customers will be interviewed before the co-design workshop takes place. Personas will be created together with the commissioner. This will help the researcher understand customers as the researcher does not have any previous experience of the dog physiotherapy business field. A customer journey map

will be created for the dog physiotherapy business. The customer journey map will be further developed into a service blueprint.

The ideation stage focuses on a co-design workshop on how the service concept can be developed and to investigate what support dog owners would need in between dog physiotherapy appointments. Focus will be on analysing the findings and the outcome of the co-design workshop. An empathy map will be composed. These will be presented and discussed with the commissioner. A service prototype will be ideated and created with the commissioner.

In the test stage the service prototype will be tested with the customers participating in the service design process. The participants will have two dog physiotherapy appointments. After the service prototype test, the customers will be interviewed to get feedback and gain an understanding on how customers experienced the dog physiotherapy service. The results of the whole process will be analyzed in the evaluation stage. A proposal will be given to the commissioner on how to develop the service concept further.

## 3 CASE INTRODUCTION

### 3.1 Commissioner

The commissioner for this work is a dog physiotherapy entrepreneur. She established her company in July 2019. The commissioner runs her business independently in the same premises as another trained animal physiotherapist. The company is located in Turku and provides manual dog physiotherapy services and rehabilitation of dogs in a water mat. Customers come either with a veterinary doctor's referral or independently when in need of a dog physiotherapy. Customers pay normally expenses themselves. Some insurance companies cover dog physiotherapy with a veterinary doctor's referral. The business has established better than expected. The entrepreneur is a trained physiotherapist, who completed animal physiotherapy studies in the beginning of 2020. (Personal communication with the commissioner 22.2.2020.)

The commissioner wants to offer evidence-based dog physiotherapy for her customers. Her ambition is to differentiate her service offering from the competitors. The goal is to develop the service offering where customer could be supported with the dog rehabilitation in between appointments. A dog physiotherapy appointment lasts from 30 to 90 minutes. During the appointment the dog physiotherapist inspects and explores the dog manually. It is important to have an open dialogue with the dog owner and to ask the right questions in an attempt to build a complete picture of the current status. After the initial assessment the physiotherapist decides what type of therapy the dog would benefit from. The entrepreneur also offers water mat therapy to help the dog develop muscles and rehabilitate in a controlled environment after surgery or an injury. A physiotherapy meeting normally takes place on weekly basis at the beginning of rehabilitation and at a later stage perhaps every three to four weeks. (Personal communication with the commissioner 22.2.2020.)

The commissioner has identified a need to provide comprehensible instructions for dog owners on how to support a dog's rehabilitation in between the physiotherapy appointments. It is very important for the dog owner to continue rehabilitation activities in between physiotherapy appointments to secure the best possible outcome of the rehabilitation. There is a need for dog owners to receive and give feedback on the rehabilitation progress in between dog physiotherapy appointments. This is where the

commissioner would like to investigate what type of support customers need and how it should be organized. (Personal communication with the commissioner 22.2.2020.)

The entrepreneur does not have her own website. Her services are marketed through Turun Koirafysio's website. (Figure 3.) Turun Koirafysio is run by an experienced animal physiotherapist with whom the commissioner shares company premises. The commissioner has ambitions to launch her company's own web pages in the near future. She has found it very important to map the different alternatives and consider thoroughly the context of the web pages before launching them. (Personal communication with the commissioner 22.2.2020.)

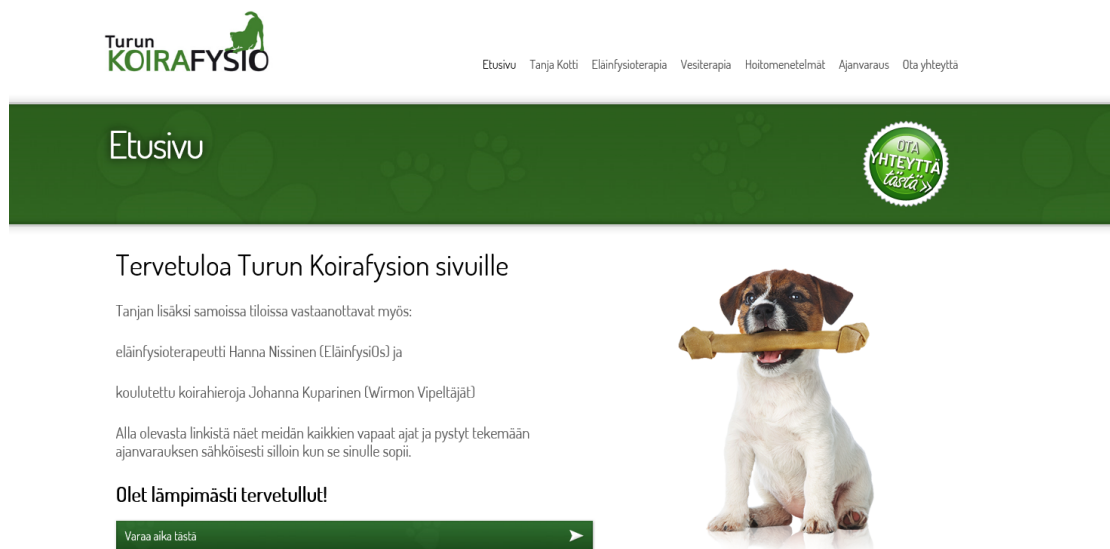


Figure 3. Turun Koirafysio's home page.

### 3.2 Animal physiotherapist profession

Animal physiotherapy is not a protected profession by Finnish law. This means that anyone can call themselves an animal physiotherapist. Finnish veterinary doctor's association published a statement on their Facebook pages on 18<sup>th</sup> of July 2019 a demand that when rehabilitating an animal, this must be conducted by a trained animal physiotherapist. The veterinary doctor association demanded government control to secure the quality of the education of animal physiotherpaists. (Suomen Eläinlääkäriliitto – Finlands Veterinärförbund Facebook pages.) Finnish Physiotherapist association have made a joint statement with Finnish Animal Physiotherapist association on 18<sup>th</sup> of June 2019 where they demad to have a legally controlled right to use the title physiotherapist.

All human physiotherapy service providers with different speciality physiotherapy training need to be registered professionals. Authorities control the practice of the human physiotherapy profession. Consumers can check if animal physiotherapists are trained and registered human physiotherapist from the Julkiterhikki website. The website is maintained by VALVIRA. However a consumer can not be certain that an animal physiotherapist is educated in animal physiotherapy speciality unless service provider can present education certificate. (Suomen Fysioterapeutit.)

Satakunta University of Applied Sciences is the only educational institution offering formal animal physiotherapy education in Finland. An individual applying to study animal physiotherapy needs to have a bachelor's degree in physiotherapy (210 ECTS) and experience of working with animals before the animal physiotherapy education. The training is part time study and conducted by animal physiotherapists and veterinary doctors in Pori and in Helsinki area. The duration of the course is one and half years or 30 ECTS. Every student pays a fee for the training. Training consists of three modules: being a specialist in animal physiotherapy, small pet physiotherapy and horse physiotherapy. If animal physiotherapist would like to study for a masters degree the closest educational institution is located in the United Kingdom. (Satakunta University of Applied Sciences home page 2019.)

Finnish association of Animal Physiotherapist was founded in 1997. The association has currently over 130 members. According to the association's estimation, about 100 animal physiotherapist are practising the profession. Most animal physiotherapist work as independent entrepreneurs and only few are employed by veterinary hospitals or clinics. Most of animal physiotherapist are working with animals part time. An animal physiotherapist is not allowed to make a diagnosis and needs to have a veterinary doctor's referral when treating animals with a medical condition. Animal physiotherapy is aiming to maintain the physical performance of the animal. The ambition is to improve the quality of life for the animal. A key part of the process is collaboration and dialogue with the animal owner. Animal physiotherapist use professional manual exploration methods to examine the animal and makes goals for the physiotherapy. After this, suitable animal physiotherapy methods are selected. (Suomen Eläinfysioterapeutit.)



### 3.3 Pet business in Finland

According to Tilastokeskus research in 2016 (Figure 4.), 31% of the population owned a pet in Finland. Dogs are the most common pets and approximately 509 000 households have a dog. According to Kennelliitto there were 700 000 dogs in Finland and 510 000 were registered to the association. Average consumer spent 1000 euros in 2016 on their pet and growth was strongest with veterinary doctors and other pet service business. Pet equipment and service was 925 million euro business in Finland during 2016. This includes consumer investments to buy a pet, pet food, equipments and medicines for the pet, dog tax, veterinary doctor services and other services for the pet. (Kennelliitto 2018; Tilastokeskus 2016.)

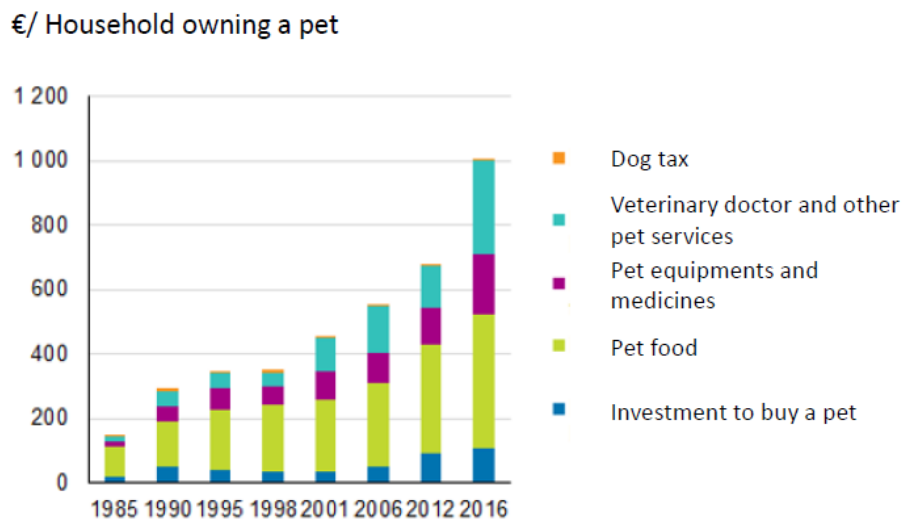


Figure 4. Average domestic spending to pets during 1985-2016 (Tilastokeskus 2016).

Consumers are investing on dogs like on any other hobby. People do not necessarily have more money but it is a conscious decision to invest on a dog. Dogs are treated like any other family members. Globally there has been a trend to invest on dogs for a long time. Finnish consumers are following this trend. There are dog hotels where a dog can have his own room with a view. Dogs have the possibility to have a massage and play in ball pool. Some consumers want to take their dog to day care while the owner goes to work. This offers dogs an opportunity to be active during the day and a possibility to play with other dogs. (Toikka 2017.)

During 1990's recession, 2008 economical collapse and Covid-19 pandemic there has been greater interest for consumers to buy a dog. It has been reported that consumers might need to wait for a dog for two years. (Yle 2020.) According to Tilastokeskus research in 2016 (Figure 5.) 56% of two parent households with children owned a pet and 35% of the pets were dogs. The second largest pet owner group was single parent households, 53% owned a pet and 37% of pets were dogs. The third largest pet owner group was couples without children, 42% had a pet and 26% of the pets were dogs. (Tilastokeskus 2016.)

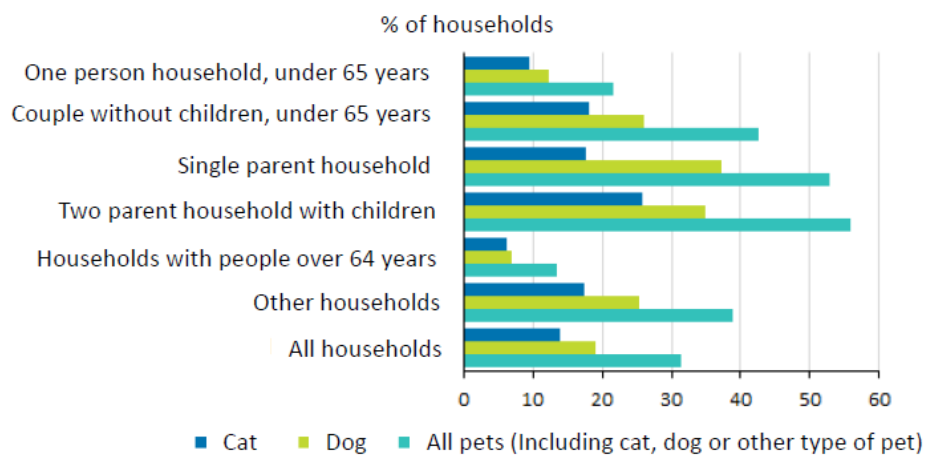


Figure 5. Amount of different pets by household type (Tilastokeskus 2016).

## 4 THEORETICAL BACKGROUND

### 4.1 Design thinking

Design thinking is a way of thinking and working. It is a human centric method and human needs are in the center of every innovation. The innovation process needs to be repeated if new innovation is not meeting the customer requirements. Design thinking is aiming to accomplish a deep understanding of the people for whom services are designed for. (Tuulaniemi 2016, 66—67; Brenner & Uebernickel 2016, 8; Dam & Siang 2018; Koivisto et al. 2019, 31.)

Design thinking was introduced by David M. Kelley and Tim Brown from IDEO design agency and professor Roger Martin from University of Toronto ten years ago. Design thinking is responding to a common challenge all companies are dealing with. How to innovate and create meaningful value for the customers. Design thinking can be used with problem solving in relation to machines, experiences, services, processes or more broadly developing the business concept. Design thinking as a concept is many times understood as service design. Service design is using design thinking as a method, focusing on developing services and non tangible experiences. (Koivisto et al. 2019, 35—36.)

Design thinking is characterized by principles essential for method's success. The most important principle is human centrality. Design thinking places human needs in the center of all innovations. If a new solution is not meeting the human needs, the innovation process needs to be repeated. The aim of design thinking is to develop solutions that enable the individual to have a better and smoother everyday life, and in this way provide more experiences. (Koivisto et al. 2019, 37; Brenner & Uebernickel 2016, 8.) Empathy is a relevant part of design thinking and people centred design. The ability to see the world through other people's eyes is regarded as empathy. Empathetic research is not interested in facts but in motivations, goals, experiences and thoughts people have. (Dam & Siang 2018; Koivisto et al. 2019, 37.)

The second principle is to solve the right problem. Development work that is based on design thinking wants to investigate if the problem comes from the customer and only

then starts to investigate a solution to the problem. Therefore a lot of time is being invested in identifying and defining the problem. This stage is called the fuzzy-front-end of the innovation. The commissioner needs to have the courage to trust the process and believe process creates suitable solutions fitting the best for the customer need. (Koivisto et al. 2019, 37—38.)

Design thinking challenges existing or common way of acting with an innovative alternative. This requires explorative approach to look for solutions. By identifying latent needs and developing prototypes it is possible to use design thinking to create incremental development steps in an aim towards revolutionary innovation. In this way companies can create added value for their customers, find competitive advantage or disrupt the market. Innovation that is based on design thinking moves on iteratively. Each iteration involves investigation of customer needs, ideation of solutions, development of prototypes and testing the prototype and evaluation of outcomes. Iterative development is regarded as a learning experience. It is possible to return back to earlier stages. Iteration is being repeated until a well functioning solution is desirable for the target group, it is technically possible to execute and solution is financially feasible. (Koivisto et al. 2019, 38—39.)

According to Tim Brown, Western population has been educated to convergent thinking. It is an analytical thinking where solutions are being eliminated to discover the right answer. Convergent thinking is not optimal if new non-existing solutions are being desired. Therefore design thinking is using divergent thinking. It is based on intuition, imagination and free synthesis of things. This creates new solutions and alternatives. Design thinking uses both convergent and divergent thinking for innovation process. The divergent stage creates alternatives. In the convergent stage these alternatives are being tested and evaluated to discover the best solution. (Figure 6.) (Koivisto et al. 2019, 39—40; Brenner & Uebernickel 2016, 8.)

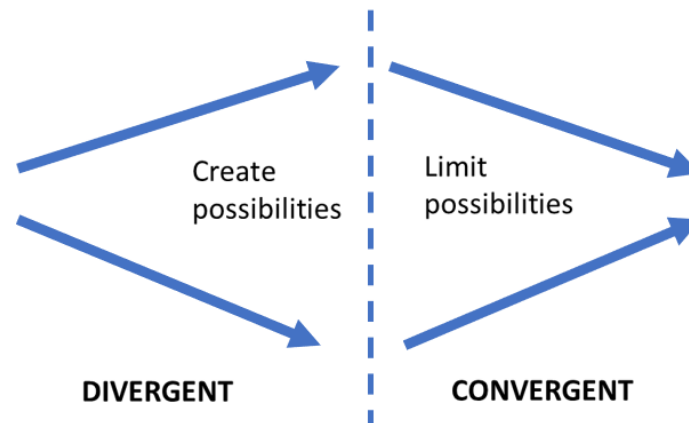


Figure 6. Divergent and convergent thinking as presented in *Palvelumuotoilun bisneskirja* (Koivisto et al. 2019).

Another important principle for design thinking is building prototypes and testing them. Prototypes are created as simple and cost efficient as possible. These drafted versions are presented to customers to enable them to provide honest feedback. Focus is on getting relevant feedback to be able to develop the prototype further. When prototype testing is repeated the quality and level of details in the prototype is improving. The designer must avoid falling in love with their own prototypes, as the customers might not find the presented prototypes attractive. One key principle is to develop solutions together with users, customers, employees and with other possible stakeholders who might be influenced by the solution. Co-designing means literally designing solutions together with the customers. Customers are seen as equal partners in the development team. This approach tries to avoid the traps organizational or specialist focused development creates. (Koivisto et al. 2019, 40—41.)

It is necessary to be able to combine commercial aspirations, technological possibilities and customer needs to be successful with the development. Therefore design thinking is favoring multidisciplinary teams where specialists can be designers, engineers or commercially educated. This is an ideal solution for more complex development projects. Business designers are commercially educated professionals who bring commercial aspects to design projects when working with designers. (Koivisto et al. 2019, 41.)

Design thinking is often referred to as out of the box thinking. The core of design thinking includes challenging assumptions and asking significant questions. It enables to test assumptions, to prove them to be valid or not. Design thinking offers to test ideated prototypes and discover new ways of developing the product, service or design. (Dam & Siang 2018.)

Motivation theories attempt to understand the symbiotic relationship of the individual and their environment. There is increased individual autonomy and self-determination that play a more central role when defining individuals' philosophic, economic and social viewpoints. Service design thinkers have a better opportunity to understand human behaviour with visualizing motivation in connection with using service design tools, methods and processes. This could potentially help service design thinkers to develop more innovative, democratic and empowering solutions to complex behavioural, social and economical problems. (Stickdorn & Schneider 2011, 300—302.)

Design thinking is often referred to process for innovation. (Figure 7.) Innovation means always a change and this requires a company culture open for a change. First step of the process is to understand the current situation of the organization and acquire a feeling for the current nature of the organization. Next step is observation. The aim is to uncover soft factors of the organization. It helps design thinker to develop empathy with the relevant stakeholders. Synthesis is a very important strategic step. It brings together information, statements, observations and assumptions of the former steps. Gained data needs to be processed and there is a need to create an overview of the most important dimensions of the organization. This overview is the most important part of the design thinking process. It is creating a decision-making basis. Ideate step is the easiest part of the design thinking process. The team already knows where solutions can be found. Almost all ideas will take in the right direction and the challenge is to select the best ideas. The organization can see the value of the change if they are able to identify the effects in the real results. The prototype is extremely important for the organization. Early implementation of ideas encourages people to test the ideas and to learn from mistakes. Mistakes made early in process can be seen as a progress. Prototyping is closely connected to the testing step. The test step requires refining and perfecting the ideas. Future users need to be taken into consideration. (Brenner & Uebernickel 2016, 183—188.)

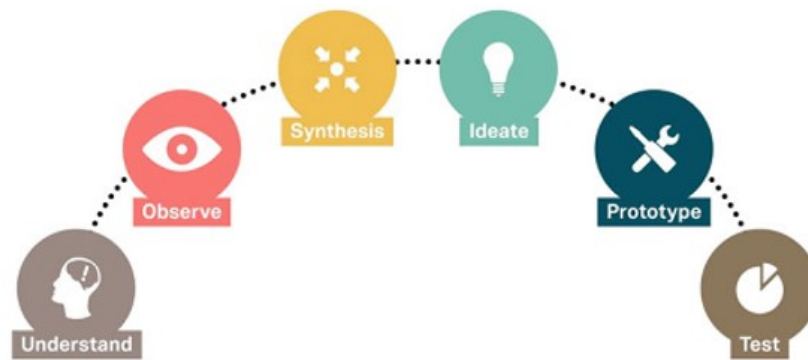


Figure 7. Steps of the design thinking process (Lornes).

Characteristics of design thinking culture are rarely mentioned in the literature. These are holistic thinking, openness, empathic thinking, intuitive thinking and optimistic thinking. The design thinking approach provides an opportunity for a holistic assessment of the problem and the solution. The wealth of knowledge comes from understanding people and their environment in the context of their behaviour, needs and motivation. Openness is the most important feature in distinguishing design thinking from other methods. The steps of the process should be understood as an orientation rather than as a strict sequence. Design thinkers must feel comfortable with uncertainty. Empathy is the ability to step in somebody else's shoes. Design thinker should be able to understand situations and their causes and effects. Empathy enables to accept team members with different backgrounds. Growing complexity of tasks and relationships requires new ways of thinking. Intuitive thinking offers dimension of synthesis of understanding what has been experienced and learned. This offers increased insight of the topic. Design thinking is always aiming for an optimistic solution and to improve life quality of the people concerned. (Brenner & Uebernickel 2016, 189—190.)

#### 4.2 Service design in business development

Service is a process of actions that are aiming to solve an issue a customer has. Service can be experienced but no one can own the service. Interaction of human beings is in the center of service. Service is not wearing out after it has been used. (Tuulaniemi 2016, 59.)

Service design is aiming to develop service, customer and employee experience in a human centric way. Central goal for service design is user centric service development.

Service must fulfill customer needs. Developed services should be desirable, beneficial, logical and easy to use. The service provider should benefit from service development by gaining competitive advantage, improved profitability and effectiveness of the service. Service design is aiming to increase usability of the service, customer experience and appealing to values and emotions of the consumer. Service design offers an opportunity to develop existing services or to innovate new services to fit customer needs. Understanding the customer journey is the key when developing the service. (Koivisto et al. 2019, 34—35; Stickdorn et al. 2018, 19—20.)

Service design can be used for a company's business development purposes in multiple ways. Service design can be used at different levels of the company. Companies often start service design implementation in the customer surface level. The company will gain greater effectiveness and benefit of service design if it is used at all levels. Strategic level sets the vision for the company's future. Service design helps to identify new commercial possibilities to create services that support strategic goals for the company. Information that is gained through the service design process helps the company to make strategic choices. These choices enable companies to achieve a competitive advantage in the business field they are operating in. Systemic level is focuses on developing services and customer experience on a high level. Tools and standards are created with the help of service design. This enables to lead and develop services in a customer centric way. The goal is to develop frames that enable consistent customer experience and improve service development in different service channels. At the customer surface level it is possible to develop services or details of the services. Focus can be on interaction of the service provider and the customer. (Tuulaniemi 2016, 95—97; Koivisto et al. 2019, 54—56.)

Service design can be beneficial with business development both in short and long term. Organic growth comes for the markets that are not existing yet. Ryan Jacoby and Diego Rodriguez have identified three typical innovation types for design process: incremental, evolutionary and revolutionary. (Figure 8.) (Jacoby & Rodriguez 2007.)



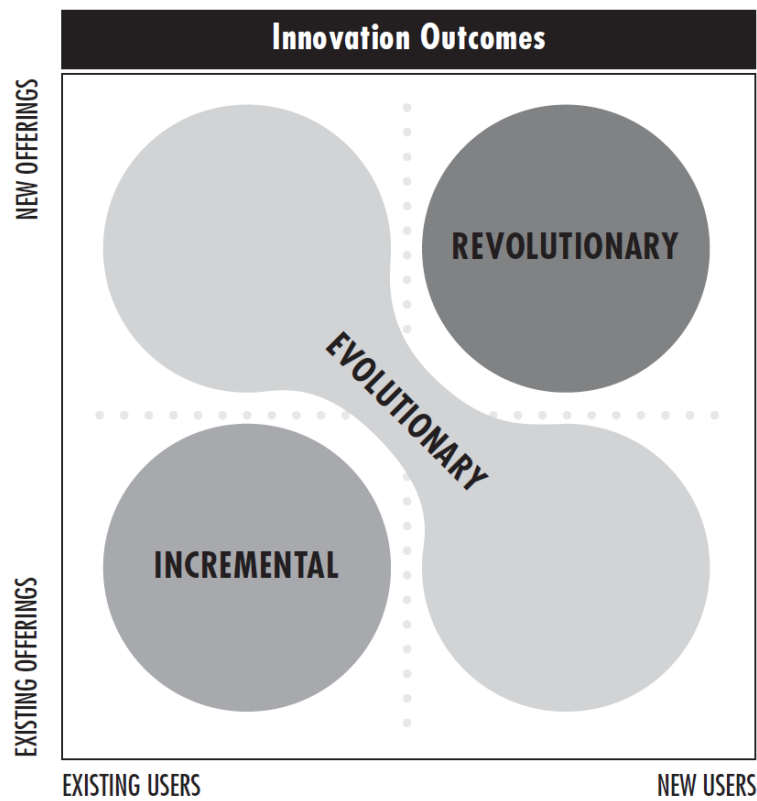


Figure 8. Innovation outcomes according to Ryan Jacoby and Diego Rodriguez (2007).

Incremental innovation is creating short term improvement for existing service for a current customer. It is aiming to improve current solution to keep the service competitive in the market. Evolutionary innovation is a more challenging development process. It is aiming to develop new service offering for existing customers or trying to acquire new customers with existing service offerings. Company's ambition is to look for growth from new customer groups or to develop service offering for existing customer groups. Revolutionary innovation is a long term development process aiming to completely new solution or offering for new customer segments. Revolutionary innovations can be called as disruptive innovation. This can transform the business field or even the society. (Jacoby & Rodriguez 2007; Koivisto et al. 2019, 62—63.)

Defining the desired innovation type is important when planning the service design project. Innovation type defines the time, resources and methods during the design process. This information is required for the design team to set the tone and expectations to the right level. (Koivisto et al. 2019, 63—64.)

Palvelumuotoilun bisneskirja (Koivisto et al. 2019) defines five typical service design development areas businesses can benefit from. The first area is developing service

processes and interaction between a customer and the service provider. Interaction between customer and the service provider defines how service is being used and how the customer is interacting with the service provider. Old processes can be deleted or new processes can be created. These will adjust existing service routines in an attempt to make customer experience smooth and logical. The service provider should find these developments creating more effectiveness and as an improved employee experience. The second area is using service design to develop service offering. Existing services can be developed or new service offerings can be created. The aim of the development is to solve a problem a customer has or create value for the customer and customer is willing to pay for the service. Customer value in services can be functional, emotional or value based. Service design is aiming to combine the right balance of customer values to service offerings. (Koivisto et al. 2019, 57—59.)

The third area of development is service communication, sales and marketing. The core of the development is user friendliness when developing brand, sales channels, marketing methods and material, pricing logics and sales processes. This is aiming to make customer aware of the service and to enable the customer to understand the context and the benefit of the service. The customer must experience a smooth purchasing process. The customer needs to have a feeling of getting value out of the service. (Koivisto et al. 2019, 59—60.)

The fourth area is the development of internal operations in the company. Service design may help a company to improve customer experience by developing the company's service culture or internal operation models that have direct impact on the customer. Service design may focus on employee attitudes or capabilities to provide customer centric service. Focus might be on reducing administrative tasks or making service process more effective without risking customer experience. Service design can be an integral part of employee experience creation. The fifth area is a company's business development in a customer centric way. It is possible to define business models, competitive advantages, customer strategies and value propositions with the help of service design. (Koivisto et al. 2019, 60—61.)

Entrepreneurship is key process in business innovation. This refers to innovative action which creates value in the outcome that is uncertain. Entrepreneurs are often rule breakers and destructive. Thus it is possible to revolutionize established markets and create new value. Entrepreneurs are prepared to take risks and sometimes they fail.

Entrepreneurs have the possibility to create true value for the customer, often together with the customers. (Brenner & Uebernickel 2016, 115—117.)

Classic goal-oriented management is basing decision on clear data and planning. In this way the future can be seen more predictable. Entrepreneurship relies on what is pragmatically feasible. It is not possible to identify personality traits or what external factors drive entrepreneurial success. The question is more how successfully they think, decide and act in uncertain situations. Saras Sarasvathy (2001) from University of Virginia discovered in her study some experienced entrepreneurs approached uncertain situations with “effectuation”. This means the future is not predictable but it is something human action can control. Classical management and entrepreneurial acting are not excluding each other. They should be implemented in combination depending on the degree of uncertainty. (Figure 9.) (Brenner & Uebernickel 2016, 119—120;128.)

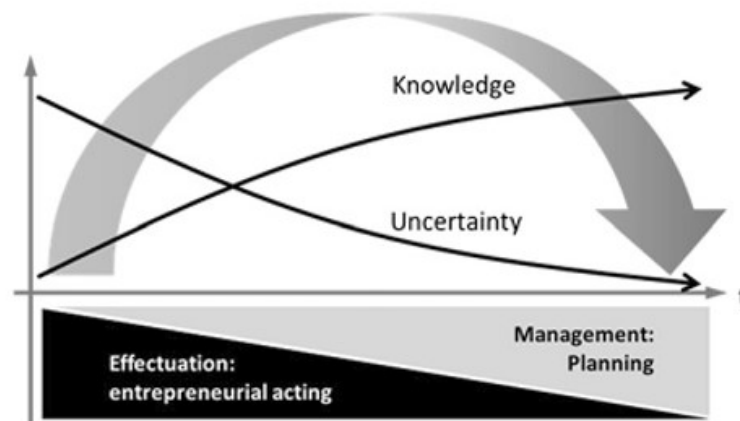


Figure 9. Life cycle of an entrepreneurial driven project according to Faschingbauer (2013).

#### 4.3 Service concept development

The key idea of the service is defined in the concept. The service concept explains the complete story of the total service rather than defining small ideas. The service concept consists of designed service’s customer journey map where points of contact, touchpoints has been defined. All these moments the customer has a certain experience that has an impact on the overall perception of the concept. A proper analysis of all customer touchpoints provide insights which concept carriers need to be improved. This enables people to get a unified understanding of what the service is all about, how the service is being produced, how the service is meeting the customer expectations, and

what the service requires from the service provider. A proper analysis of all customer touchpoints provide insights which concept carriers need to be improved. (Tuulaniemi 2016, 191; Crucq-Toffolo & Knittel 2016, 131.)

In the past organisations were at the center of the focus when creating value for their services. Focus has now shifted to the consumer. Consumers do not want to have ready made packages. Consumers want to have meaning for their life. Emotional need is becoming increasingly important. There has been a shift from material economy to experience economy. Organisation's focus has shifted from transaction to relation. Earning consumers trust requires openness. Organisations need to listen to consumer and communicate in a consistent way. Consumers are not seen as buyers but as persons with whom relationships needs to be built, maintained and deepened. Perception of the consumer determines the social experience of the concept. The organisation need to ensure that they have something in common with the consumer. The consumer will start to talk about your organization to other consumers only after a relationship has been established. (Crucq-Toffolo & Knittel 2016, 24—27.)

After identifying opportunities for customer-driven innovations the next step is to develop concepts that repond to these opportunities. It is important to understand the market context experienced by a customer when creating customer-driven innovation. It is important to identify customer needs and unmet needs. These unmet needs are a basis for the opportunities to develop the service concept. Service concept development can be complex or simple process by defining a way to meet unmet needs. In these cases it makes sense to engage customers in the development process. (Reason et al. 2016, 81—83.)

Service concept development can be described in a four step ladder. (Figure 10.) First step is designing the concept. This is a plan of the offered service where all relevant information around the service is being defined. This includes knowing your customer segment and their behaviorus. The company is able to design and identify the best ideas. The second step is the manifest of the concept. Concepts do not have value before it is communicated to the customers. The concept can be visible for the customer through marketing communication, in a various format of service offerings and in the way the service provider is acting. The customer must see, feel and experience the service offering. This second step creates the desired level of expectation for the service. This is where building the service brand starts with advertising. Promised service level must fit the true capability to serve the customer. Third step is implementing the service

concept. This is a level where service brand and service experience is getting to a deeper level in the customer surface. It is more common to include event marketing into service concept. Fourth ladder is the capability to serve. This is the most important area when measuring the success of the service. Capability to meet the customer and provide the service with the right attitude is crucial. A satisfied customer will come again and buy the service. It is important for the concept to have environment supporting it. (Tuulaniemi 2016, 192—195.)

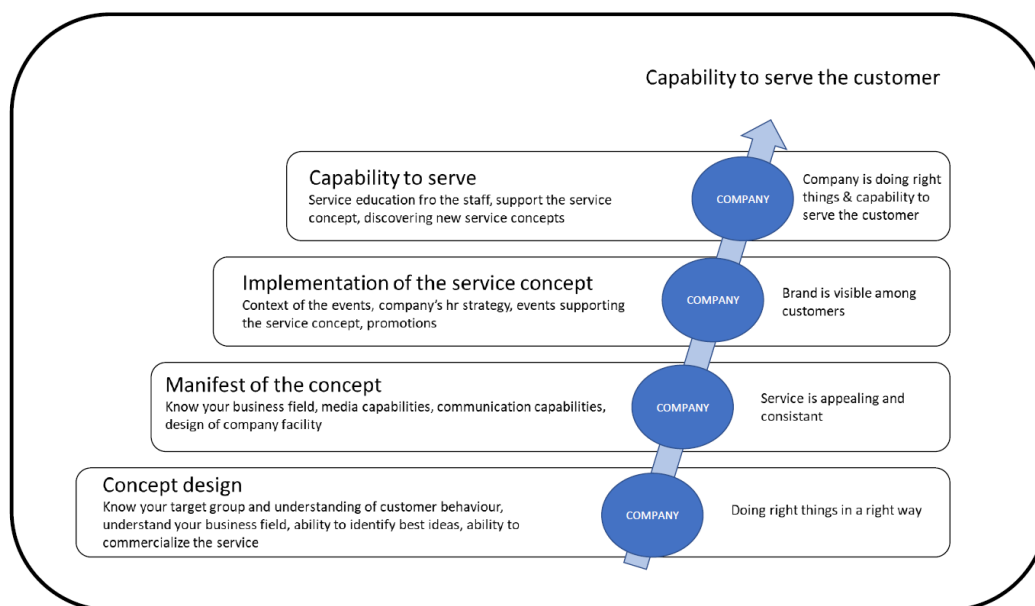


Figure 10. Concept ladder modified from book Palvelumuotoilu. (Tuulaniemi 2016)

Living concept consists of implementation and concept testing. It is important to test choices from the company's vision perspective. Concept thinking assumes the company wants to offer the consumer a meaningful experience. The most important part of concept testing is the dialogue with the users as they generate feedback about the service. (Crucq-Toffolo & Knittel 2016, 129—130, 140.)

A strong concept creates meaning and communicates this clearly to the customer. This ensures a meaningful experience for the customer. A concept must be consistently implemented in the existing and new services. The vision is consistently emphasized and repeated in the communication. A strong concept attracts customers' attention and sticks in the customer's mind. A concept has to affect customers and have an emotional impact on them. Customers need to want to spend time with the service and to get overwhelmed with the experience. This must create a need to share the experience with other people. A strong concept should encourage people to have conversations about it. Constant

interaction could give a concept increased meaning. A created concept needs to fit the organization and it needs to be authentic. A concept needs to be easy to explain and to understand. Language is both communication and emotion. A good message is convincing and fascinates customers. People have a tendency to visualize language and interpret the language in different ways. This might trigger customers' imagination. When customer sees or experiences a good concept, she or he is able to recognize it immediately. A good concept should endure time and should be adjustable in an ever changing environment. (Crucq-Toffolo & Knittel 2016, 62—65.)

A concept can be tested in early stages. A pre-prototype of a concept can be a business model, a scenario or a storyboard. Very little financial investment is done to the design of the pre-prototype. The pre-prototype is more abstract in form compared to the prototype. The most important part of the concept test is the interaction with customers. This dialogue generates meaningful feedback. Concept testing is a cyclical process. Service designer process the feedback and test the developed prototype again. This is repeated until no new insights are given. It is important that there are indicators to monitor the success of the concept. These indicators should be determined at an early stage. Value of the concept can be either more abstract in meaning or in economic terms. Ultimately an individual is determining in what way a concept is processed. This process determines the effect of the concept. (Crucq-Toffolo & Knittel 2016, 117, 140—141, 149.)

## 5 SERVICE DESIGN PROCESS AND GAINED RESULTS

### 5.1 Defination of the current status

In this chapter a definition of the current status will be presented. The aim is to define the goal for the research and to gain an understanding of the company providing the dog physiotherapy service. Preliminary research focuses on defining commissioner's goals for this study. Dog physiotherapy benchmarking in Finland Proper will be presented. Stakeholder map will be created and presented. A business model canvas for the commissioner's company is created.

#### 5.1.1 Preliminary research

A practical business problem is often the starting point for a business research. For scholarly research purposes a researcher needs to produce new knowledge and connect the topic to existing scientific theory. An important part of the process is to go through different sources of material. The ability to define a scientifically relevant research question is the key to successful research. It is typical to redefine the research question during the research process. However, research questions should link to the point of view the researcher has chosen and to the empirical data collected. (Eriksson & Kovalainen 2016, 39—41.)

The brief describes what the goals for the project are. It defines the service and what benefits the service is giving for consumers and for the organization producing the service. Preliminary research provides the researcher with a broad understanding of the organization providing the service. It covers company values, vision and strategy. A broad picture of the business field and competitive environment is essential. The reasercher forms a picture of the company based on the received information. (Tuulaniemi 2016, 132, 136.)

Preliminary research for this service design project started in November 2019. The commissioner was met face to face on her company premises. The aim for the discussion was to investigate the goal for the research project. The commissioner has been running a newly established business for less than six months. Financial restrictions meant buying external services was not an option. The commissioner is

passionate about developing her service offering to exceed customer expectation. The commissioner was interested in developing her service offering to investigate what kind of support dog owners would benefit from in between dog physiotherapy appointments. She was interested to differentiate her business offering from the competitors. The commissioner had experience of student projects in the past. Before establishing her company a digital marketing plan was composed for the commissioner as student work.

The commissioner's company want to offer customers evidence based dog physiotherapy and rehabilitation in a safe environment. In practise this mean all customer dogs are being explored and background details are taken into consideration when appropriate treatment is being selected and given. Both the dog and the owner of the dog need to be engaged in the dialogue with the dog physiotherapist. It is important to pay attention to all stakeholders.

### 5.1.2 Benchmarking

Benchmarking helps to build a total picture of a market and competitive situation. It is essential to understand the business area and the market situation to enable to make business successful. The researcher can use this method to learn from competitors or to develop the business. Benchmarking is observing, evaluating and comparing other companies' practices in an aim to learn new things. The internet is a good way to gain an understanding fast. Benchmarking can be beneficial if good practices developed in other companies can be used. It is beneficial to avoid the mistakes other companies have made. Knowing the business field enables entrepreneurs to identify the area of business without competition or enable to make strategic choices that differentiate company's business from the competition. It is possible to take good ideas and use them with ones own planning. (Tuulaniemi 2016, 138—139, 187.)

Benchmarking (Figure 11.) for this study was done using Suomen Eläinfysioterapeutit ry home pages. All registered animal physiotherapist in Finland Proper were on the scope. According to Suomen Eläinfysioterapeutit website there are eight animal physiotherapist in Finland Proper. Four out of nine animal physiotherapist had own website for their business. Four animal physiotherapist had information about the service offering through another company's website. One animal physiotherapist did not have any information abot the service offering. Therefore it was left out of the scope.



The basic structure of the four web pages were almost identical. There were pictures of dogs and an introduction to dog physiotherapy on their web pages. All four companies who had their own web pages explained animal physiotherapist education including stating they have completed both human and animal physiotherapy education. All animal physiotherapist stated they are offering services for dogs in the Suomen Eläinfysioterapeutit web pages. One animal physiotherapist did not have any information about services for dogs in the company's home page.

All four animal physiotherapist who had a web page for their own company had traditional looking web pages. Information in the web pages were limited. There were short texts available on a general level. Contact information and available services were listed. It appeared that none of the entrepreneurs were frequently updating the information on the web pages. None of the dog physiotherapist had a blog or newsletter available through their web pages. There was a picture from the winter season during the summer period.

According to benchmarking there are two water matt service providers in Turku. Other additional services were on the scope and only the laser therapy service for dogs was available in Turku. This service was provided by a veterinary doctor center. One service provider did not share information about the service fees on the web pages. All other companies were transparent with their fees for services. The service fee level in Finland Proper was mapped. Dog physiotherapy fee varied from 57 euros to 70 euros. Water matt service cost was from 35 euros to 37 euros.

SERVICE PROVIDER	Turku	Dog physio	Water matt	Partnering with veterinary doctor	Homepages	Fee for 60 min physio	Fee for 30 min water matt	Additional services	Type of service
Turun Koirafysio	X	X	-	-	X	70€	-	-	-
PetVet Orto	X	X	X	X	-	65€	37€	X	Laser
Salon Eläinfysio	-	X	X	X	X	60€	37€	X	Accupuncture, laser
Omaeläinklinikka	X	X	X	X	-	-	-	X	Laser
DH-Fysio	-	X	-	-	X	65€	-	X	Accupuncture
EläinfysioOs	X	X	X	-	-	63€	35€	-	-
Hevoslääkärikeskus Hippomedi	-	(X)	-	X	-	-	-	-	-
<u>Fysiomuuvi</u>	-	X	-	-	X	57€	35€	X	Training

Figure 11. Benchmarking of animal physiotherapy services in Finland Proper.

Benchmarking helped the researcher to acquire information about the dog physiotherapy business field and dog physiotherapy competitive situation in Finland Proper region. Benchmarking helped form a picture what kind of dog physiotherapy services are available and the price level for the services.

### 5.1.3 Stakeholder map

The stakeholder map illustrates visually all relevant stakeholders involved in the service. It defines who are the most important people and organizations involved in an experience. Stakeholders can be internal, connected or external. Once the stakeholder map is complete it can also define how stakeholders are connected with each other. The stakeholder map offers a design team the possibility to add or to eliminate specific stakeholders. It is a way to secure a successful design project. A stakeholder map can be in a variable format. It can be casual or more formal. A stakeholder map can be developed during the design process and the map can define participants and their roles and relationships. (Stickdorn et al. 2018, 58—59; Stickdorn & Schneider 2011, 151; Hanington & Martin 2012, 166.)

Drawing a stakeholder map (Figure 12.) to EläinfysiOs started with discussion with the commissioner. It helped to define all key stakeholders involved in the dog physiotherapy

service. The internal stakeholder is the commissioner, animal physiotherapy entrepreneur. She is the only employee for the company. Connected stakeholders are animal physiotherapy customers who are in the need of physiotherapy services for their dogs. Customers are in the center of this service design process. The animal physiotherapy entrepreneur colleague who has been running her own company for years is a connected stakeholder. This colleague has been providing significant help when the commissioner has been establishing her business. She shares the company premises with the commissioner. External stakeholders are veterinary doctors and their clinics, dog masseurs, different dog associations, dog physiotherapy equipment suppliers and external specialists who are invited to different customer events to hold lectures of the area of their expertise. EläinfysiOs has been focusing on internal and connected stakeholders. The customers have found the service mainly through animal physiotherapist colleagues and customer recommendations. There has been a limited amount of activity with external stakeholders since establishing the dog physiotherapy business in July 2019. This is because all available time has been invested in establishing the dog physiotherapy and water matt rehabilitation services. (Personal communication with the commissioner 23.2.2020.)

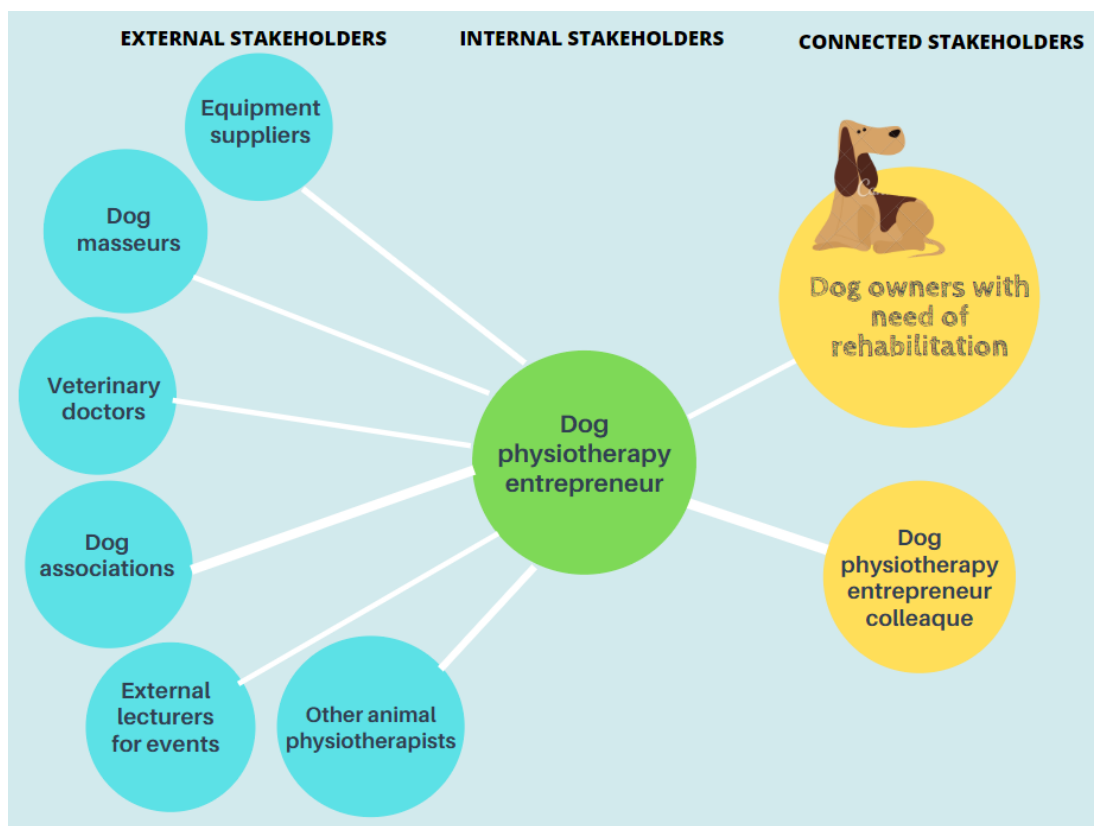


Figure 12. Stakeholder map for EläinfysiOs.

#### 5.1.4 Business model canvas

Business model canvas is a strategic management tool to quickly and easily define and communicate a business idea or concept. The concept must be defined in a simple and understandable way and the addressed context must be relevant. Business model canvas is a starting point for any discussion or development work. It is a one-page document that works through the fundamental elements of a business or product, structuring a plan coherently. The business model canvas is a template to sketch out the business model. This can be used to understand the influence of various options a customer or employee experiences, including business impact. It consists of nine areas: customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partnership and cost structure. (Stickdorn et al. 2018, 76; Stickdorn & Schneider 2011, 212; Oswalder & Pigneur 2010, 15.)

Value proposition defines the offering of a service provider. Customer segments define core target groups. Customer segments relate to personas. Channels define how customer wants to interact throughout the customer lifecycle. It also explains which methods work the best and are cost efficient. The customer relationship describes what relationship the service provider establishes and maintains with each customer group. Customer relationship relates to system maps, journey maps and prototypes. Key partners describe the direct ecosystem in which the service provider is operating and makes the business model to work. These could be the relationship with business partners, suppliers or manufacturers. Key activities summarize the activities that your business is engaged in. Activities include marketing, operations, problem solving and administration. Key resources are important assets needed to make a business model work. Cost structure defines fixed and variable cost factors. Revenue streams describe how service provider generates income. (Stickdorn et al. 2018, 76—79; Oswalder & Pigneur 2010, 15—17.)

Business model canvas was familiar to the commissioner as she had been involved in student work in the past. A first version of business model canvas was created when the commissioner was establishing her business in the spring 2019. It was identified that the canvas needed to be updated and the commissioner took the time to review the information and to consider about strategic priorities. The business model canvas was updated in early March 2020 by the researcher based on the information given by the

commissioner. It was a good exercise for the commissioner and the researcher was able to get to know the commissioner's business in a detailed way.

The core of the EläinfysiOs business is value proposition to provide evidence based dog physiotherapy and rehabilitations for dogs. Main customer segments for the service are agility dogs, companion dogs and dogs who are in need of rehabilitation. The company is offering dog physiotherapy, water matt therapy and lectures including training courses. Key resources for the commissioner are educated animal physiotherapist service provider, water training matt, physiotherapy appointment room, different balance equipments needed for dog physiotherapy and external lecturers. Key partners for the commissioner are animal physiotherapist entrepreneur partner, veterinary centers and different dog associations. Main channels to interact with the customers are physical appointment rooms for dog physiotherapy and commissioner's Facebook pages. Customers make reservations for dog physiotherapy appointments mainly through the online reservation system. Appointments are available during the evenings and weekends. Information about events are shared through company's Facebook page. The company does not have its own web pages. The commissioner is using another dog physiotherapy company's home pages where online reservation system can be found. The commissioner acknowledges the company's own homepages need to be established to share information about the service offering available.

55% of commissioner company's revenue stream comes from dog physiotherapy appointments. Water matt therapy is the second largest business area and 40% of the revenue forms from this. Lectures and training courses are a minor part with 5% of the revenue stream. Fixed cost structure consist mainly of dog appointment facility rent and labour cost of the commissioner. Maintenance costs are water and electricity of the rented facility. Variable costs consists of marketing and advertising expenses. Business model canvas for EläinfysiOs is presented in Figure 13.

## Business Model Canvas

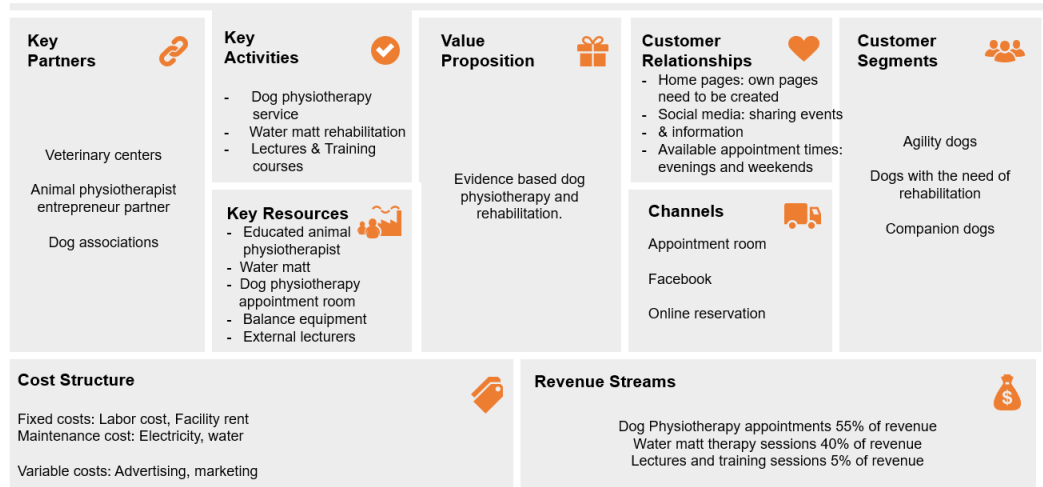


Figure 13. Business model canvas for EläinfysiOs.

### 5.2 Research

This chapter is defining the research phase. The purpose is to increase understanding of the service users needs, goals and expectations for the service. Mystery shopping is defining current service concept. An online questionnaire for dog owners will be done. Customers will be acquired to this service design process through Facebook advertisement. Customers participating in the service design process will be interviewed to gain a deeper understanding of their background and what influences on how they select the dog physiotherapy service provider. Personas will be created. A customer journey map and service blueprint is presented.

#### 5.2.1 Mystery shopping

Mystery shopping is done by individuals who experience the service as an acting customer. Mystery shoppers report back about their experiences in a detailed way and as objectively as possible. Mystery shopping reviews how staff perform during interaction with a customer. Mystery shopping is not regarded as a market research technique. It is a tool to assess the quality of the service. (MSPA Guidelines 2011, 5.) Mystery shopping can be used to experience existing service or a service prototype. Customer experience is compared to planned customer experience or to service concept in both cases. Based

on this evaluation it is possible to determine if the service concept is functional. (Arantola & Simonen 2009, 23.)

Mystery shopping was conducted in the commissioner's company in February 2020. The aim was to test how the current service concept is working. The person who conducted the mystery shopping was found from the researcher's network. The mystery shopper did not know the service provider and had not been using the commissioner's services before. However she had experience of dog physiotherapy from different service providers in the past. Value proposition of the service was described to the mystery shopper.

The mystery shopper was asked to pay attention to all customer experiences, how the customer was listened to, how the service provider was engaging with the dog and the dog owner. The mystery shopper was asked to pay special attention to what kind of instructions the dog physiotherapy service provider was giving regarding continuing dog rehabilitation at home. The mystery shopper was asked to give a written summary right after the service experience.

The mystery shopper took her dog to dog physiotherapy 25.2.2020 in attempt to get instructions on how to strengthen her dog's muscle strength. Dog and the owner train agility as a hobby. According to the mystery shopper it was easy to reserve a dog physiotherapy appointment from the online reservation system. The description of the service was clear and the fee of the service was visible. The company's facility is located in an industrial area and free of charge parking space can be found close to the company premises. The company premises looked simple. The over all impression of the decoration is out dated. Everything was clean and there was a possibility to sit down in the waiting area. (Personal communication with the mystery shopper 26.2.2020.)

The dog physiotherapist invited and welcomed the mystery shopper and her dog to the treatment room on time. The mystery shopper described her dog was full of energy and very enthusiastic sniffing around. Service provider was interested in receiving background information. While the owner explained the current situation the dog physiotherapist greeted the dog and apparently with the help of a game made some observations about the dog. The dog physiotherapist confirmed these observations to the mystery shopper. The dog physiotherapist examined the dog with her hands after receiving background information. The service provider explained what she was doing all the time. The dog was at ease and the examination went smoothly. The dog physiotherapist demonstrated with dog exercises what the dog would benefit from. The

dog physiotherapist asked the dog owner to try the dog exercises under her guidance. This provided an opportunity for the dog owner to ask questions. (Personal communication with the mystery shopper 26.2.2020.)

The mystery shopper felt she received attentive service. The service provider was present and focused on her and the dog. The dog physiotherapist asked questions and listened to the replies and asked for more detailed information. The mystery shopper felt the dog physiotherapist to be a good listener. The service provider had a good connection with the dog owner and the dog but as this was the first time meeting the service provider, the mystery shopper felt it would be more natural if they were came the service provider again. The dog owner felt she received good demonstration of home exercises. The mystery shopper also received customized and documented home exercise instructions by e-mail. She felt the dog physiotherapist was able to explain what the home exercises were aimed for and increased the dog owner's motivation to carry out home exercises. Over all the service experience was good. (Personal communication with the mystery shopper 26.2.2020.)

### 5.2.2 Online questionnaire for dog owners

General methods of collecting data have been adapted to digital material. It might be an advantage if the participant can take part in the survey in the environment that they are familiar with and might make them feel more relaxed. This way responding is easier when they feel comfortable. A digital platform offers flexibility with timing of answering to the survey and reduces the overall costs of conducting the survey. It should be considered how well participants can use digital technologies. (Eriksson & Kovalainen 2016, 109—110.)

Gaining more insights about customer's needs is the most crucial moment of service design. Services are designed to fulfill customer's needs and desires and therefore it is crucial to identify end user's real needs and motives. Customer surveys as a part of the service design process mean appropriate ways to gain insights of customer's needs. Well analyzed insights and structured information about customer behavior and reasons that create value for them makes it possible to develop services that customers are willing to pay for. (Tuulaniemi 2016, 142—143.)

An online survey for dog owners was conducted and it was open for two weeks time. A link to the survey was published on the commissioner's Facebook, LinkedIn and



Instagram sites. This was as commissioner has an extensive network among people who own dogs. The survey was anonymous. The purpose of the online survey was to gain an understanding of dog owner motivations when buying services for their dog. The ambition was to understand what influences a dog owner's decisions when selecting service providers for their dogs. The survey included both multiple choice and open ended questions. Open questions enabled respondents to share in their own words how they think about the topic. Online questionnaire and survey results can be found in appendix 1.

Coding is a way of organizing qualitative data to identify different themes. Recurring words or phrases of responses are assigned labels that represent major themes. Coding helps to find common themes, ideas and concepts. This helps to analyze customer feedback. (Medelyan 2019.) Manual coding was used to analyze the qualitative data gained through open ended questions.

A total of 32 respondents answered the online survey. 53% of the respondents of this survey were identified themselves as a family of one or two adults without children. 47% of the respondents were living in families with one or two adults and children. 75% of the respondents had owned a dog over five years. Therefore it can be said that most of the individuals participating in the survey were experienced dog owners. Participants were asked what is the main reason for owning a dog. The largest group of the respondents (12) had agility, togo or other type of dog related hobby. Second most common reason to own the dog was an active lifestyle of the owner (11). Six respondents stated the main reason for owning the dog is to have a dog as a companionship. Three respondents had a dog as an exhibition dog. (Figure 14.)

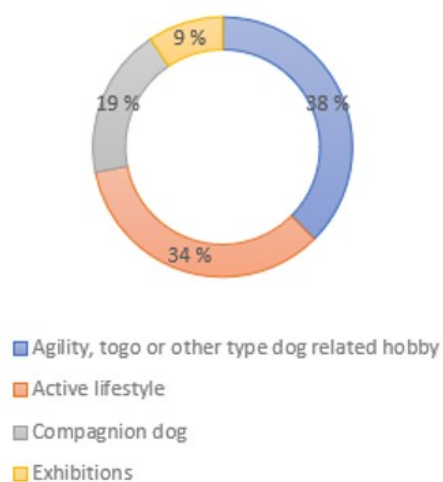


Figure 14. Main reason to own a dog.

Dog owners were asked how much they have spent on dog services during the past year. 84% of the dog owners had used between zero to eight hundred euros. 16% of the dog owners had spent over 800 euros on dog services. Participants were asked what services they have purchased for their dog during past twelve months. Summary of responses can be found from Figure 15.

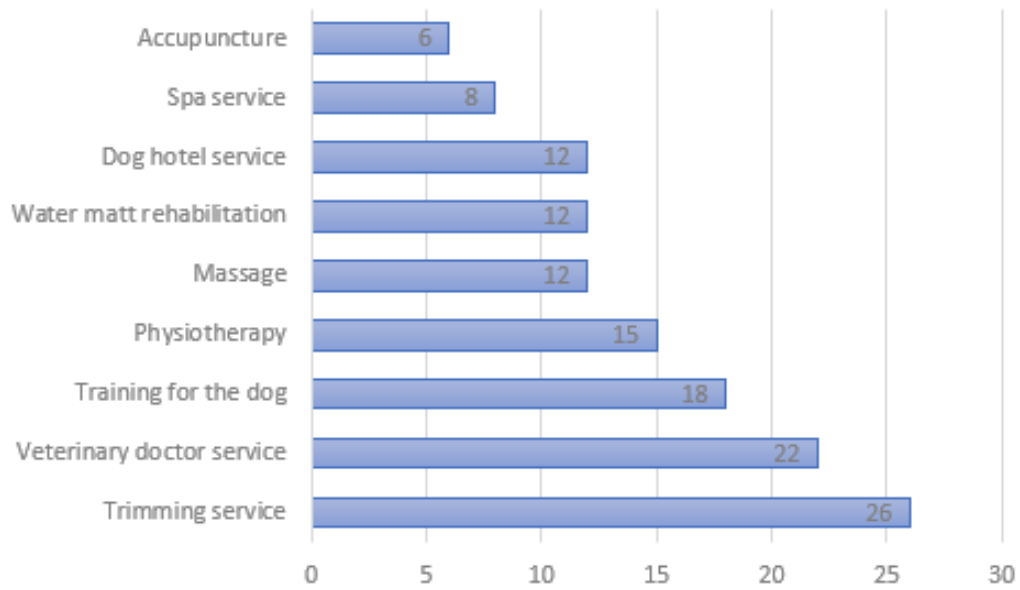


Figure 15. Services survey participants have purchased for their dog during past twelve months.

The next stage of the survey was focused on dog physiotherapy. If customer had not purchased dog physiotherapy service in the past twelve months time the survey stopped here. Fifteen respondents had purchased dog physiotherapy service during the past year. Participants were asked how they select the dog physiotherapy service provider. 45% of the respondents were looking for information on the internet. Second most common way to select the service provider was respondents own network referrals. Other factors that had an impact on the selection process of the service provider was recommendation from a veterinary doctor and simply testing the service provider without any previous information. (Figure 16.)

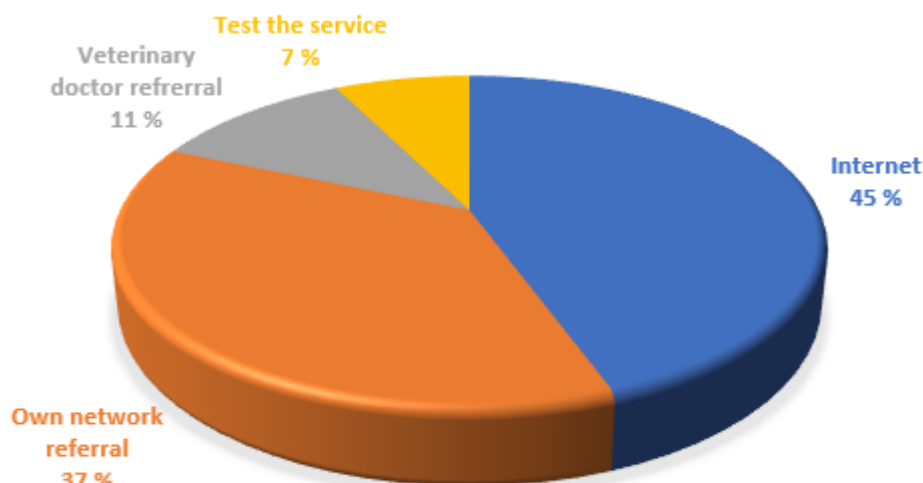


Figure 16. How survey respondents select dog physiotherapy service provider.

Respondents were asked to provide reasons for being satisfied with dog physiotherapy services. The main factor for satisfaction (10) was dog getting help with their rehabilitation process. Seven respondents appreciated the consideration of their individual needs in the treatment. Five respondents valued the dog physiotherapist treating the customer as an individual. Three respondents valued the dog physiotherapist recognizing his professional limits of expertise. Another valuable trait was when the dog physiotherapist identified something unusual and suggested the customer to make an appointment with a veterinary doctor.

Survey respondents were asked for reasons why they might have been disappointed with the dog physiotherapy service. (Figure 17.) Six individuals addressed the fact that they did not get any instructions regarding future rehabilitation of the dog. It felt like the dog owner was left alone. Five customers felt the chemistry between the dog physiotherapist and the customer did not work well together. Five stated that expectations for the quality of the service did not meet the service they received from the dog physiotherapist. Four respondents felt the dog physiotherapist was not focused on their case when giving the treatment. Four stated that the dog physiotherapy treatment did not convince the customer and the dog owner did not see any visible development in the dog's condition. Three individuals stated their dog did not like the dog physiotherapy service.

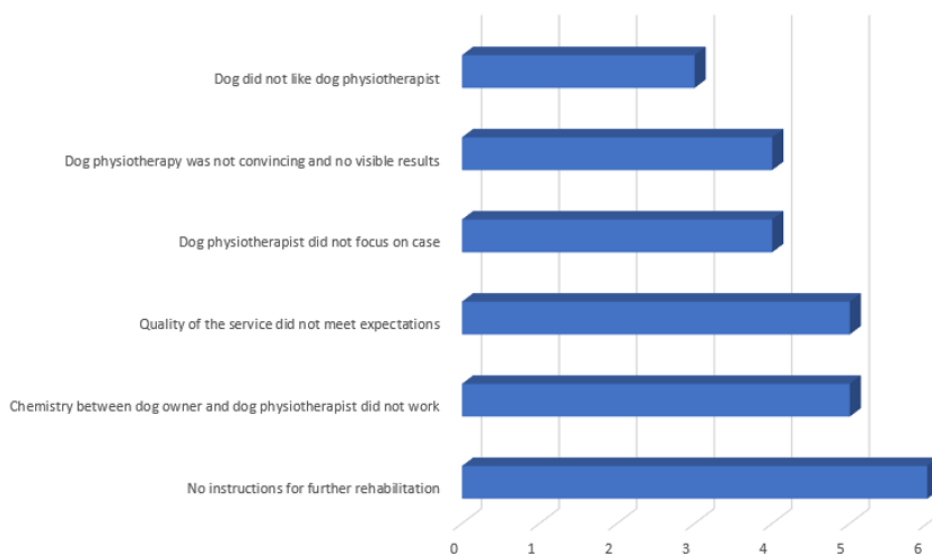


Figure 17. Reasons to be disappointed with dog physiotherapy service.

Finally, the survey respondents were asked what factors are important for them when deciding to use the same service provider again. Ten respondents regarded highest the professional competence of the dog physiotherapist and the ability to convince the customer of the validity of the offered service. Equally important was regarded the service provider's ability to treat and react with the dog in a good manner. Eight of the respondents wanted to see visible outcomes in the dogs wellbeing after a course of the dog physiotherapy. Home exercise instructions were regarded highly by seven respondents. Finally, five people regarded highly the well functioning chemistry between the dog physiotherapist and the dog owner. (Figure 18.)

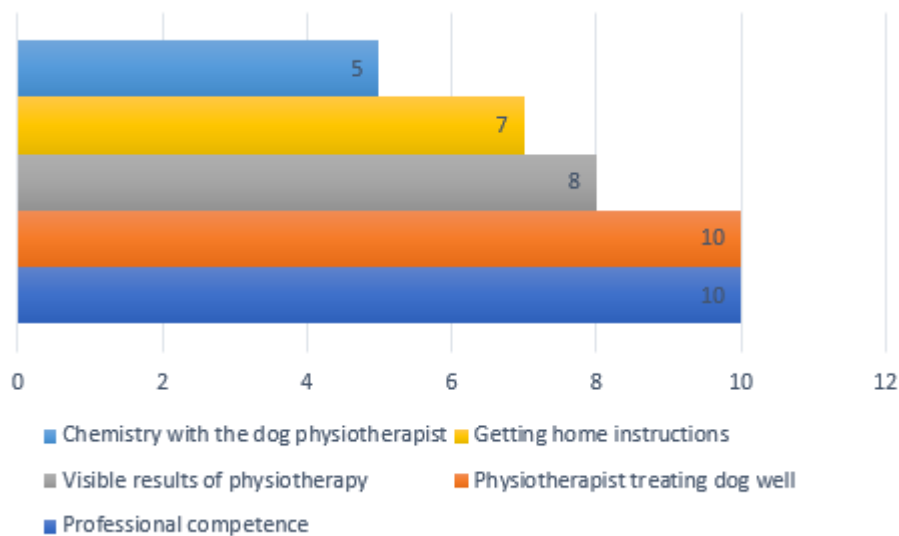


Figure 18. What is important when deciding to use the same service provider.

### 5.2.3 Customer acquisition to design project

It was decided to use co-design as the service design method to involve customers into the design project. The commissioner published on the company's Facebook page an advertisement for customers to participate in the service development process. It was decided to take a maximum of four participants and the whole process included service prototype testing. Due to the commissioner's limited resources it would not have been possible to include more participants.

The advertisement (Figure 19.) was published on second of March 2020. In the advertisement the commissioner was seeking for dog owners to join a service concept development project in collaboration with the commissioner and a Turku University of Applied Sciences student. Participants joining the development process would be interviewed before the dog physiotherapy service concept co-design workshop. During the co-design workshop insights, expectations and possible gaps in the dog physiotherapy service would be addressed and discussed. Based on the outcome of the co-design workshop a service prototype would be created. Participants were asked to commit to participate in the service prototype test by attending two dog physiotherapy appointments. After the whole process participants would be interviewed to gain valuable feedback. The fee to participate in this co-development process was one hundred euros and participants were asked to commit to the whole development process. Three days after publishing the advertisement, four participants were registered. There was great

interest towards the development process and customers wanted to sign up for a waiting list. No one cancelled their participation in this development project.

**PALVELUKONSEPTIN KEHITYS-PROJEKTI**

- 1 ELÄINFYSIOS YHTEISTYÖSSÄ**  
Turun amk:n palvelumuotoilun opintojen palvelukonseptin kehitys-projektin kanssa
- 2 TULE KEHITTÄMÄÄN**  
Alku- ja loppuhaastattelu n. 30min, kehitysworkshop 20.3. klo 18-19.30 sekä 2 \*60min eläinfysioterapia
- 3 KOIRALLES**  
Kaksi eläinfysioterapiakäyntiä (a' 60min) 31.3.-15.5 välisenä aikana ja etäkonsultaatio käyntien välissä
- 4 PALVELU**  
2 \* 60min eläinfysioterapian ja 15min etäkonsultaation hinta yht. 100€ (sis. alv), kun sitoudut koko projektiin

Figure 19. EläinfysiOs advertisement published on Facebook to attract participants to the service design process (Facebook 2020).

#### 5.2.4 Interviews

The researcher can gain an understanding of a customer's life through an interview. It is valuable to interview and gain insights also from the service provider. Interviews provide an opportunity to get insights about previous service experiences. The interviewer needs to be as neutral and natural as possible when interviewing the customer. A normal and relaxing atmosphere enables a person to be at ease and dialogue to be easygoing. (Tuulaniemi 2016, 147—148.)

The interviewer prepares themselves for the interview in advance. The research approach and research questions should guide the interviews. Guided and semi-structured interviews make it possible to vary wording and order of questions when

conducting the interview. An advantage of this type of interviews is to gain systematic material and the conversation can be kept informal. (Eriksson & Kovalainen 2016, 91—94.)

Gathering feedback after the test is important for future analysis and reflection purposes. This way it is possible to learn and develop the service further. It is possible to gather feedback in multiple way, such as observing an event, interviewing the participant or gathering evidence based on participants actions. The interviewer should focus on asking questions starting what, why and how. It would be good to classify reviewed feedback in four groups Positive feedback about what the participant liked or taught functioned well. Criticism of the issue that should be improved. Questions that arise during the test. And finally new ideas or taughts about the trial. (Hassi et al. 2015, 125—126.)

All four participants were interviewed over the phone before the co-design workshop to gain deeper information about their background, history as a dog owner and need for dog physiotherapy services. Interview questions and summary of answers can be found in appendix 2. Interviews took place 11<sup>th</sup> of March and 18<sup>th</sup> of March 2020. Each interview took from fifteen minutes to half an hour depending how much the participant wanted to continue the discussion. During the interview participants were asked about what they regard highly when selecting a dog physiotherapy service provider and what are the pain points in the dog physiotherapy service process. Participants were given a free word in the interview. Persona and customer journey were developed based on discussions with the commissioner and the customers.

All participants were experienced dog owners and having owned dogs for over 15 years. The main reason to own a dog (Figure 20.) was to have a companion and having agility as a hobby. All four participants stated this. Three of the four participants have a dog for their exercise purposes. Two participants stated having a dog for breeding purposes. One participant goes to dog exhibitions with the dog.



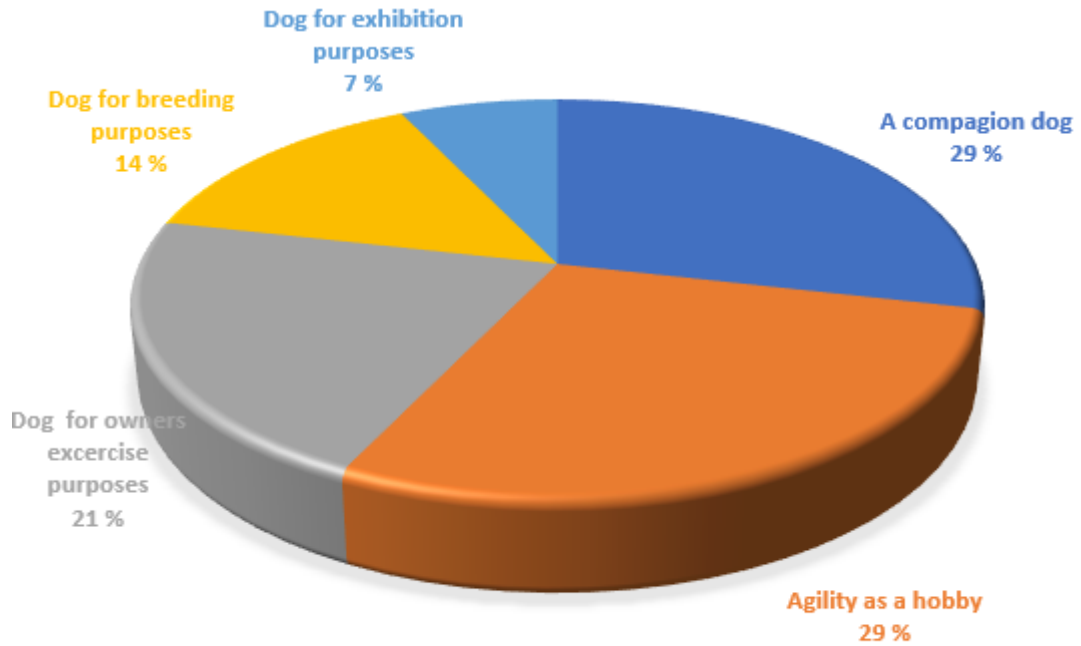


Figure 20. Reasons to own a dog.

Based on the interview there were three equal reasons (Figure 21.) for dog owners to seek dog physiotherapy. The first reason was an injury or physical issue that prevented the dog's normal ability to move. Secondly, participants made a physiotherapy appointment as a preventive measure to maintain normal mobility and wellbeing for the dog. The third reason was to receive professional guidance to exercising their dog.

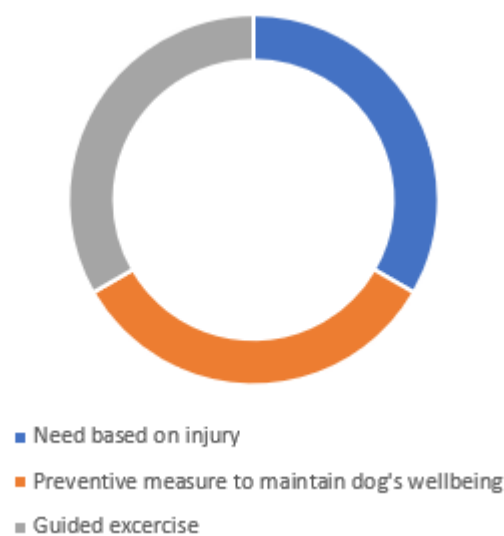


Figure 21. Reasons why dog owners seek dog physiotherapy services.

Main criteria for selecting a dog physiotherapy service provider was professional competence and knowledge. Equally important selection criteria were recommendations from friends or from social media. All participants were highlighting these issues. Three participants provided input about the importance of receiving written instructions to continue exercises at home. Two participants stressed the importance of personality of the dog physiotherapist and the chemistry between the dog owner and dog physiotherapist. It was important how the service provider treated the dog during the dog physiotherapy appointment. There was one input about efficacy of the given physiotherapy treatment. The customer wanted to see visible development in the dog's ability to move. One participant stressed that she selects the dog physiotherapy service provider based on the dog's injury type and the dog physiotherapist's field of expertise. Summary of replies are presented in Figure 22.

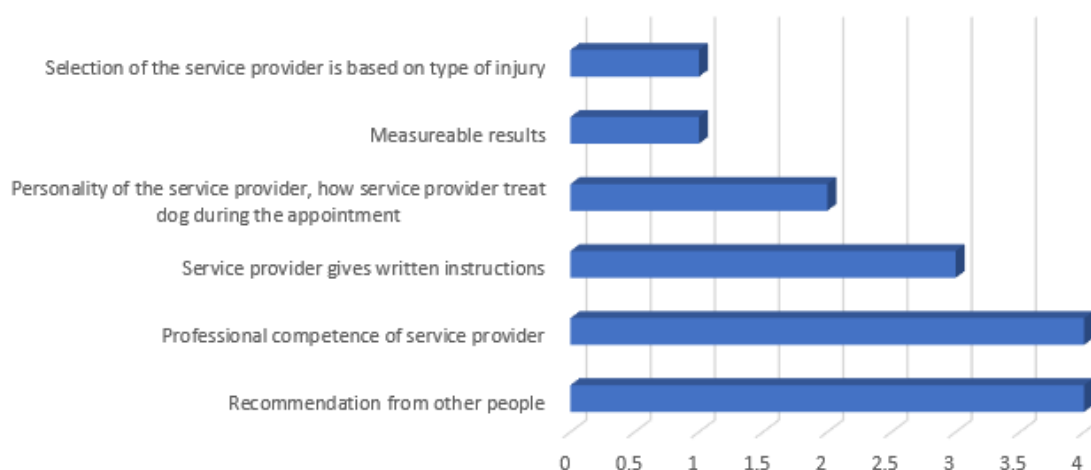


Figure 22. Selection criteria for dog physiotherapy service provider.

Some participants had a hard time finding bottle necks from the dog physiotherapy service in the beginning of the discussion. All participants hoped for instructions on how to prepare the dog for a physiotherapy appointment, especially if they did not have previous experience of dog physiotherapy. Three participants hoped for support and follow up in between dog physiotherapy appointments. There was need for instructions on where to park the car when arriving on site. One participant hoped for better collaboration between the dog physiotherapist and a veterinary doctor during the dog's rehabilitation process.

Information and insights gained with this interview was used when creating personas and the customer journey map. The needs and expectations of the dog physiotherapy

service were taken into consideration when creating the service prototype at later stage in the design process.

### 5.2.5 Personas

A persona is representing a specific group of customers based on their shared interests. It is a fictional profile based on real research. Persona helps the design team to be aligned and helps to build empathy for a customer group. Personas can be used to share insights and research findings and in this way get all involved in the same page about the situation. (Stickdorn et al. 2018, 41; Stickdorn & Schneider 2011, 178.)

It is important to understand the customer's life in a user centered design process. Customer segments describe demographic features of the population rather than common behaviours of the customer. A persona is a summary of gained insights of customer behavior, values and motives behind actions. A persona typically includes pictures and a story describing the life situation including goals and behaviour added by demographic information. A persona helps to understand customer behavior and directs the design process. (Tuulaniemi 2016, 154—156; Martin & Hannington 2012, 132.)

Personas were created based on the information gained through interviewing the customers participating in the service design process, the online questionnaire for dog owners and the discussions about customer segments with the commissioner. Information was classified by themes of family status, hobby interests, feelings, challenges and motivations. Through the research two typical customer personas were created and these represent typical dog physiotherapy customer groups. Personas were very helpful as the researcher did not know the customer segments in the dog physiotherapy business field. (Figure 23 and Figure 24.)

The main goal of using personas was to create an understanding of and empathy with the customers and to get an understanding of their needs and behaviours. Personas were used when drawing a customer journey. They were helpful when thinking about the users would need at certain point of time and what behaviours and goals the customers would have in different steps. Personas were created to be used all the way of service concept development process.

### Persona Liisa

Liisa is a dog owner who has a husband and children. Liisa's work is very demanding and a hobby with the dog offers a way to re-energize herself. The family has an active lifestyle. Agility and togo are important hobbies for Liisa and her dog. She is ambitious with the goals for her hobbies

### Persona Anneli

Anneli is an elderly professional who is married but does not have children. The pet dog has a child like place in the family and gets a lot of attention and love. The owner invests time and efforts in dog's wellbeing. She has an active lifestyle and the pet dog takes part in forest hikes and casual agility hobby

When the dog is in need of rehabilitation both Anneli and Liisa look for quality and competence in the dog physiotherapy service provider. They both are willing and able to invest money to secure the physical wellbeing of their dog. It is a challenge to find a suitable dog physiotherapist to rehabilitate their pet dog. Both Liisa and Anneli search for information on the internet and consult their network get recommendations when selecting the service provider.



Figure 23. Persona Liisa for dog physiotherapy service.



Figure 24. Persona Anneli for dog physiotherapy service.

### 5.2.6 Customer journey map and service blueprint

One essential part of service design is the customer journey. It is a tool to visualize the customer's experience. A customer journey is a linear journey of the customer's actions and experiences during the service. The points where a customer is interacting with the service is called touchpoints. These touchpoints define user insights. After defining the touchpoints, they can be connected defining the overall customer experience. Customer journey maps can be personalized by adding photographs and making it an even more user-focused experience. A customer journey map gives high-level overview of all details influencing the user experience. (Stickdorn & Schneider 2011, 158—159.)

A customer journey map (Figure 25.) was created after a discussion with the commissioner and the composition of personas in February 2020. The customer journey map for the dog physiotherapy service is simple and straightforward. It was discovered the customer journey for both personas are the same and therefore a combined customer journey map was created. The customer journey map increased the researcher's understanding of the dog physiotherapy service. The created customer journey map was validated during customer interviews in March 2020. The customer journey map was used as a foundation when the service blueprint was created.

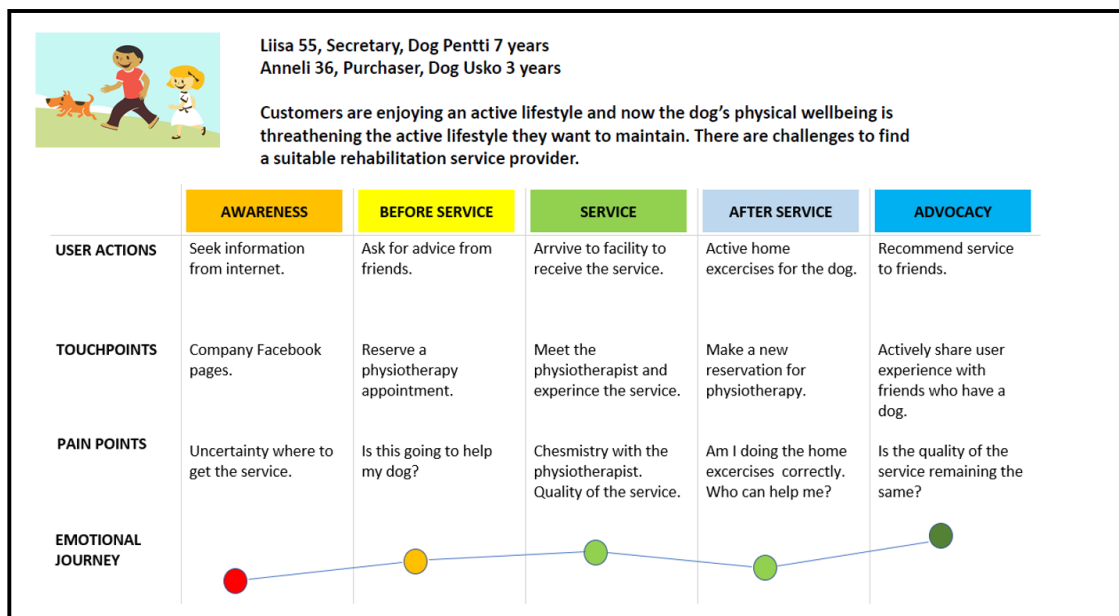


Figure 25. Customer journey map for dog physiotherapy service.

A service blueprint is an extension of the customer journey map. They connect the customer experience with frontstage and backstage employee processes as well as support processes. Frontstage processes have direct contact with customers. Backstage processes are defining processes invisible to the customer. Physical evidence is objects customers are in contact with. Customer actions define what the customer does at each step of the customer journey. A line of interaction separates customer actions and frontstage interactions. Frontstage actions employee actions are visible for the customer. The line of visibility separates frontstage and backstage actions. Backstage actions are activities done by frontline employees that are not visible to customers. Support processes are activities done by the rest of the organization or by external stakeholders. Further lines can define project specific content. (Stickdorn et al. 2018, 54—56.) A service blueprint can be used to analyze existing service. It is possible to sketch a future service. A service blueprint addresses what a specific user segment is experiencing. (Kimbell 2014, 178.)

A service blueprint for the dog physiotherapy service (Figure 26.) was created after a discussion with the commissioner and interviewing the customers participating in the co-design process. It contains a customer journey and onstage and backstage actions of the commissioner. The service blueprint defined the service process before the service, during the service, in-between dog physiotherapy appointments and after the service use. The service blueprint was used in the co-design workshop with the commissioner and customers participating in the co-design process.

Before the service, customers in need of dog physiotherapy searched information on the internet or they asked for recommendation from friends. The dog physiotherapist's best advocates are satisfied customers who give recommendations of the service to people who are in need of dog physiotherapy. The dog physiotherapy entrepreneur composes and shares information about her own company through the company Facebook page. She uses the partner company's web page for the online reservation system as her company does not have its own homepage. Dog physiotherapy customers make reservation through online reservation system and this can be found from partner company homepages.

Customers arrive at the company premises and wait for the appointment in the waiting area. The dog physiotherapist greets and invites the customer and the dog to the physiotherapy treatment room. The dog owner gives insights about the dog's condition and the dog physiotherapist asks questions for further details. The dog physiotherapist



explains to the dog owner what she is doing and gives physiotherapy treatment for the dog. The dog physiotherapist documents the events and gives home exercise instructions to the dog owner. The dog physiotherapist composes individual home exercises as she does not have an extensive home exercise library.

In between dog physiotherapy appointments, the dog owner exercises the dog independently. The dog physiotherapist has the opportunity consult her colleagues in case she needs a second opinion for the treatment. She may read different scientific articles about treatment alternatives.

After the service, the dog owner sees improvements in the dog's physical wellbeing and is acting as referee for the dog physiotherapy service. Customer follows the dog physiotherapy company's Facebook page. Entrepreneur opens new appointments in the online reservation system and both old and new customer will use the dog physiotherapy service.

Dog Physiotherapy Service Blueprint before design process

	BEFORE THE SERVICE			DURING THE SERVICE								IN BETWEEN THE APPOINTMENTS		AFTER THE SERVICE		
Physical evidences	DOG IS INJURED/HAD A SURGERY	MAINTAIN DOG'S WELLBEING	ONLINE SERVICE	ARRIVE TO FACILITY	PHYSIOTHERAPY BUILDING	PHYSIOTHERAPY ROOM					DOG IS EXERCISING WITH THE OWNER		DOG'S WELLBEING IS IMPROVING			
User action	RECOMMENDATION	LOOK FOR INFORMATION ON THE INTERNET	BOOK AN APPOINTMENT	PARK THE CAR	ENTER THE TREATMENT ROOM	GREET	GIVE INSIGHTS	ASK FOR QUESTIONS	OBSERVE	ASK FOR QUESTIONS	RESERVE A NEW APPOINTMENT	CONDUCT HOME EXERCISES		RECOMMEND THE SERVICE	FOLLOW COMPANY'S FACEBOOK	
Line of interaction	Employee actions onstage	PREVIOUS CUSTOMERS CAN RECOMMEND	COMPANY'S FACEBOOK & HOME PAGES		COMFORTABLE WAITING AREA		GREET THE CUSTOMER AND THE DOG	GATHER BACKGROUND INFO	EXPLAIN WHAT YOU DO	GIVE PHYSIOTHERAPY TREATMENT	GIVE HOME EXERCISE INSTRUCTIONS					
Line of visibility	Employee actions backstage		PROVIDE CONTEXT TO FACEBOOK	SHARE AVAILABLE APPOINTMENT TIMES						DOCUMENT EVENTS			CONSULT COLLEAGUE	READ SCIENTIFIC ARTICLES	OPEN NEW APPOINTMENT TIMES	CONTEXT TO FACEBOOK
Support functions	TAKE PICTURES	BUY DIGITAL SERVICES										CLEAN THE FACILITY				
Problems / challenges	NEW COMPANY, NO LONG HISTORY	NO OWN HOME PAGES								NO RECORD LIBRARY FOR HOME EXERCISES						

Figure 26. Service blueprint for dog physiotherapy service.

### 5.3 Ideation

This chapter focuses on ideation. A co-design workshop is arranged with customers and the commissioner to gain insights about the dog physiotherapy service and the needs customers have in relation to dog physiotherapy. An empathy map summarizes the learnings and findings from the customer engagements. The aim of the service prototype is to define alternative solutions that are in alignment with the company's goals and customer needs. A service prototype ideation and creation is defined.

#### 5.3.1 Co-design workshop

Co-design is aiming at creating a new product or service. A problem solving environment increases understanding to whom and why something new is being created. A solution environment will give answers to what is under development. It is important to identify uncertainties and areas of development. The co-design process includes the following stages: goal, need, developed ideas, trials and outcome. It is an iterative process where you gain a deeper understanding throughout the process (Hassi et al. 2015, 35—39.)

Co-creation as a service design method integrates the customer into the exploration and creation process. At same time, design thinking integrates into the company's organization and hopefully encourages to continue the process independently. Co-creation integrates customers into the service delivery process. Customers can be seen as active partners who are co-creating value. (Miettinen & Koivisto 2009, 38.)

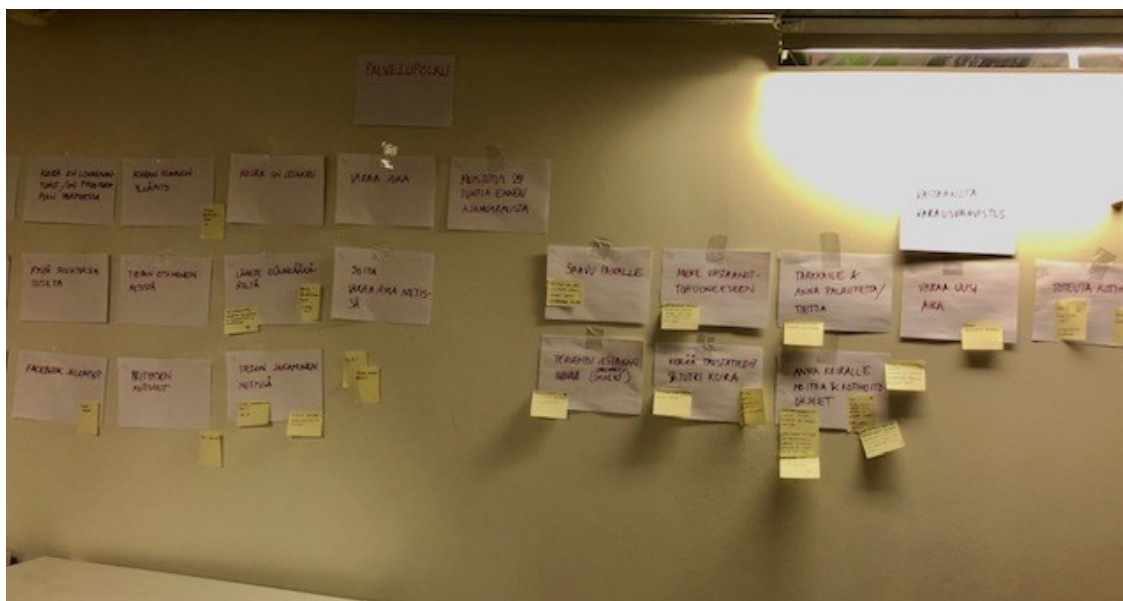
When conducting a workshop key success factors are how the team is being built. It is key to involve everyone in the team. The facilitator should be clear about the goal and communicate it well. The facilitator should plan the details of the workshop well before conducting the workshop. It is crucial to create a climate that is safe for participants. The host should be neutral and open for all types of opinions. (Stickdorn et al. 2018, 396—401.)

Brainstorming is used to generate alternative solutions quickly. It is particularly useful to discover well established ways of thinking and to develop new ways of looking at things.

Brainstorming helps groups to solve and overcome problems that are otherwise difficult to solve. (Davies 2005, 17.)

A co-design workshop was arranged on 20th of March 2020 in the commissioner's company premises in Turku. Prior to the workshop all participants were offered an alternative to join the session over a digital platform due to Covid-19 restrictions implemented in the Finland. Three participants, the commissioner and the researcher came to commissioner's company permises. One participant joined the co-design workshop using Skype connection. All participants physically present were offered refreshments in the beginning. Discussion started to flow naturally. The workshop started with informal personal introductions to each other. Participants shared their history as dog owners and why they were attracted to take part in this development project. This served as a nice warm up for the workshop.

The researcher was facilitating the co-design workshop and introduced participants to the scope of the session. The commissioner participated in the introduction and was asked to leave before the workshop started. At the beginning of the workshop, the earlier composed customer journey map was reviewed and participants were asked to provide input on the possible gaps and development areas they identified. Participants brainstormed providing input by placing post-it notes into the customer journey map wich was placed on the wall. Discussion with the participants started to flow naturally while they were brainstorming. The person participating over Skype provided input actively and the comments were placed on the customer journey map by the facilitator. The first part of the workshop lasted 30 minutes. All participants were engaged and provided active input.



Picture 1. Customer journey map from the co-design workshop.

After the first session participants were offered a chance to visit the restroom and have refreshments. The commissioner was invited to join the brainstorming session. It was agreed before the co-design workshop started, that the commissioner will have a neutral approach. Her role is to ask for clarifying questions if she finds it difficult to understand what the participants mean with their comments or statements. The next stage for the co-design session was to focus on discussing the pain points before, during and after the dog physiotherapy sessions and possible solutions for them. This took in total 45 minutes, where 15 minutes was reserved for each part. The discussion was documented by the facilitator.

#### Pain points before the dog physiotherapy appointment

The researcher introduced the scope for the second session. Participants were asked to discuss what pain points they might experience before the dog physiotherapy appointment and what solutions participants could come up with. Discussion started naturally and the participant who joined the session on Skype provided input. Based on this co-design workshop, pain points before receiving the dog physiotherapy service can be classified into three groups. Customers were hoping for increased collaboration between veterinary doctors and dog physiotherapists in an aim to exchange referral information and to make the dog physiotherapy appointment smoother. There is no official communication channel where this communication could take place. Customers

were hoping for a common platform where it is possible to share information. Customer's highlighted the importance for the dog physiotherapist to familiarize herself with possible veterinary doctor's referral before the dog physiotherapy appointment. Second theme was the dog physiotherapist composing blog stories where customers could get information about the dog rehabilitation topics in their interest. This would give an opportunity for dog physiotherapist to share her field of expertise with the customers. Third theme was dog physiotherapy service provider's presence in the digital world. It is important to be visible in the digital world to enable customers to find the service provider. Customers were hoping for Google advertising and Instagram feeds from the dog physiotherapy entrepreneur.

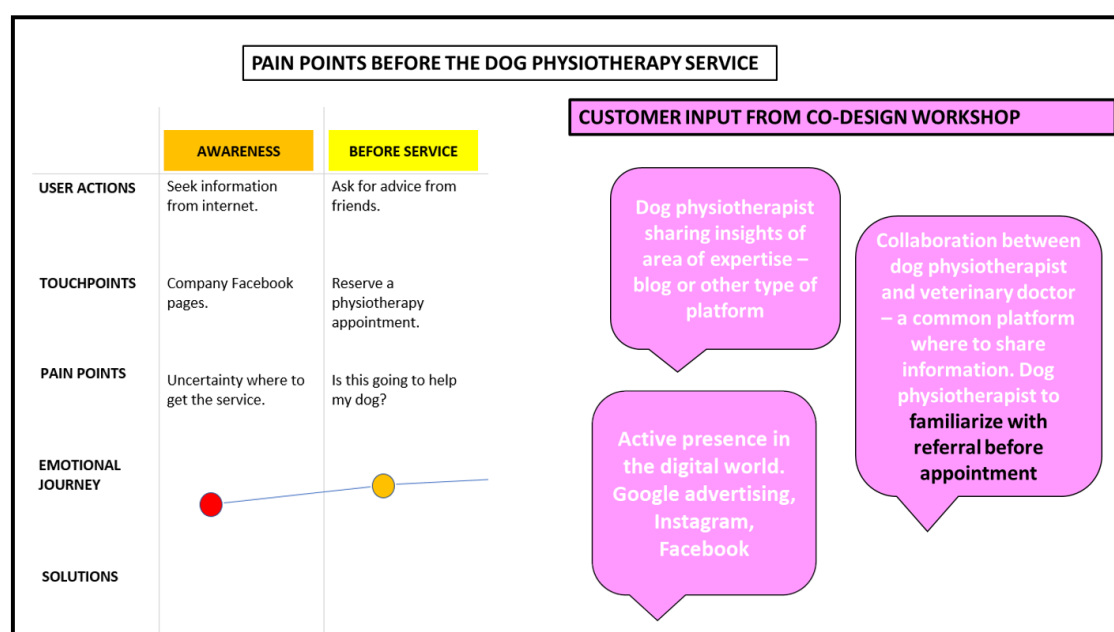


Figure 27. Pain points before dog physiotherapy service.

#### Pain points during dog physiotherapy appointment

The next step of the co-design workshop was to brainstorm about pain points and solutions for the issues during the dog physiotherapy appointment. This part of the session was very intense and the participant joining over Skype kept engaged. Participants addressed the importance of making arrangements in a way where unfamiliar dogs would not meet each other in the dog physiotherapy facility. It was stated that the waiting area would need a coat rack and it would be nice if a scale for weigh in the dog was available. The coat rack was regarded as very important. Dog owners considered it valuable if the dog physiotherapist could take the lead of the appointment

situation, as the dog owner might feel insecure about the situation for various reasons. Customers would like to be informed about what takes place during the dog physiotherapy appointment. It is important to understand what the dog physiotherapist is doing. The physiotherapist should focus on the customer's case and not to be preoccupied. Customers would value honest feedback about the dog's condition. The customers taught it was very important to receive an introduction to the dog's home excercises. It would be valuable to receive detailed and precise instructions, including the number of repeats of each excercise movement, from guided by the dog physiotherapist. It would be helpful if there was a sheet for documenting the excercises was conducted.

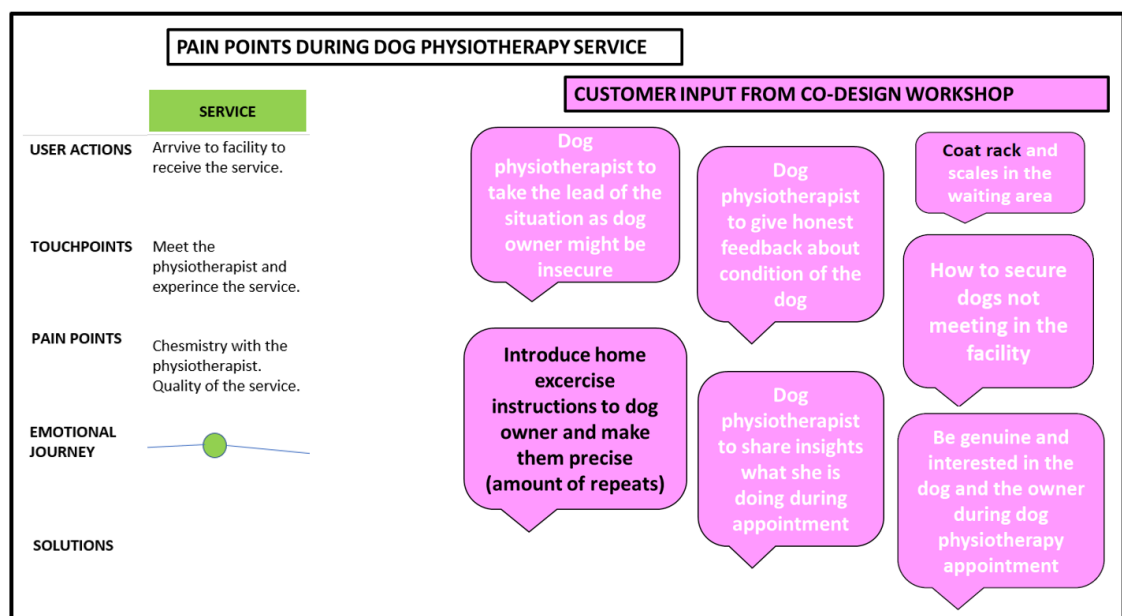


Figure 28. Pain points during dog physiotherapy appointment.

### Pain points in between dog physiotherapy appointments

In the third part of the co-design workshop focus was on what support dog owners would benefit from in between the dog physiotherapy appointments. Participants were asked to think individually for a while and they made notes on their own papers. The participant who joined over Skype in co-design workshop was engaged the discussion. There was an active discussion and a lot of input was given. Participants hoped the dog physiotherapist could recommend the frequency of appointments. Customers asked for a instruction video how to conduct the home excercises. It would be more convenient to get a picture or a visual aid on how to carry out the home excercises. There was a hope

to get feedback about the progress from dog physiotherapist over the phone or with the help of a WhatsApp call. This would be a perfect opportunity to check if dog owner is carrying out the exercises correctly. After the consultation dog physiotherapist could provide input on how to perform the home exercises in a more optimal way.

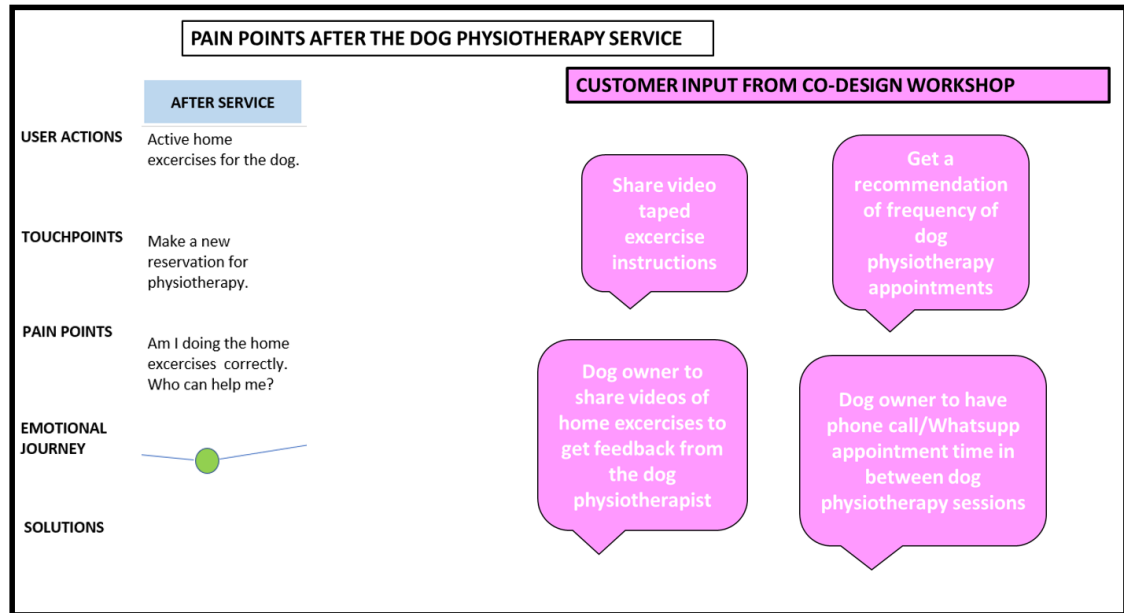


Figure 29. Pain points in between dog physiotherapy appointment.

The facilitator concluded and summarized the session. The co-design workshop ended on time. The participants wanted to stay overtime and continue the discussion. The researcher continued to make notes. The participants were given three days after the session to provide input in case new things coming to mind. They were asked to submit comments, using the researcher's e-mail address. No input was provided by the participants after the session. A summary of the co-design workshop can be found in appendix 3.

### 5.3.2 Empathy map for dog physiotherapy service

An empathy map is a tool to help designer to empathize and synthesize observations gained during research phase. This helps to summarize learnings and findings from engagements with customers. An empathy map consists of four parts and they indicate four personality traits users demonstrated during the research. These four parts indicate what the user said, did, thought and felt. The researcher can go through the material and



the observations gained during the research work. An empathy map should be filled in by synthesising the user's needs. (Dam & Siang 2020.)

The researcher gained material and interaction experience with the research participants through the initial interview and the co-design workshop. All gained experiences and documentation was analyzed and an empathy map for dog physiotherapy service was created. Summary of the results is presented in Figure 30.

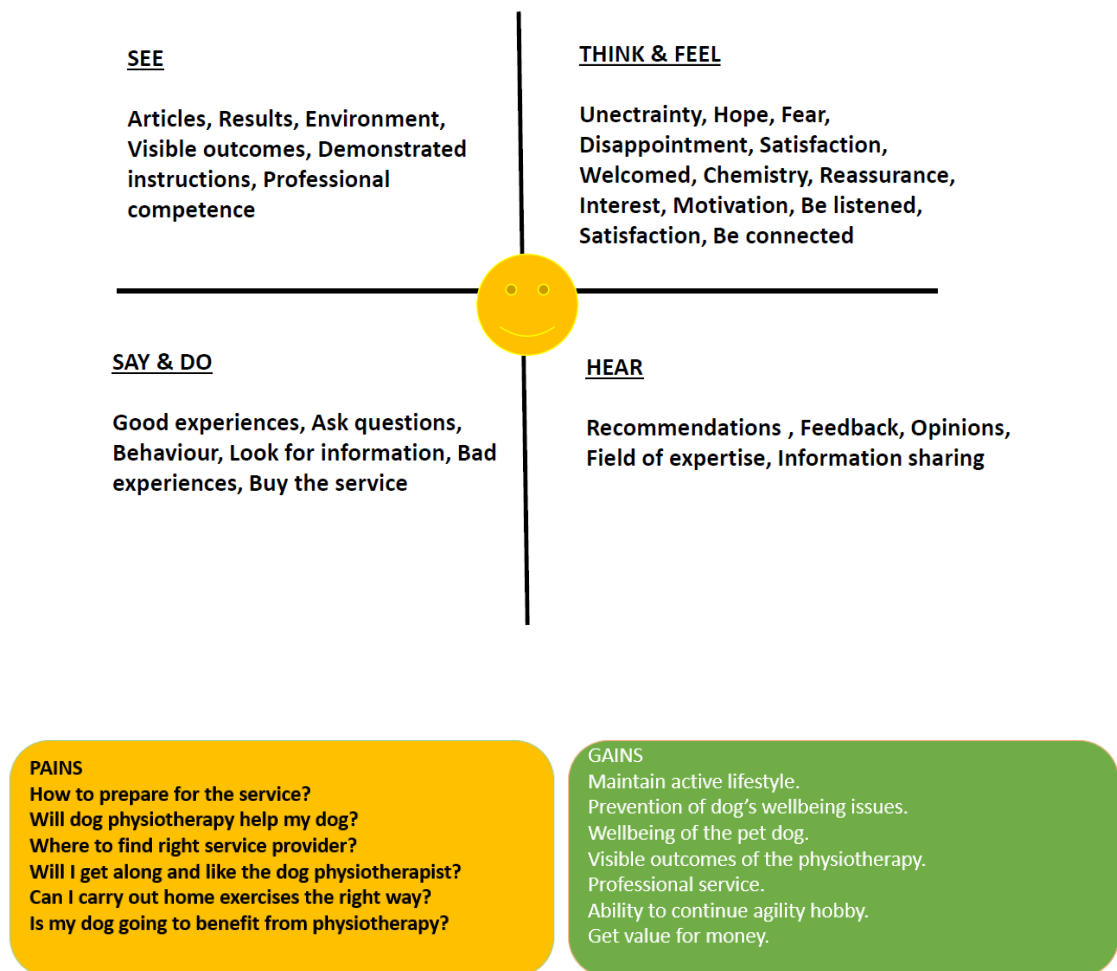


Figure 30. The Empathy Map for the dog physiotherapy service.

### 5.3.3 Service prototype creation

A service prototype is a fast developed solution and it is tested to gain an understanding if the concept is working in a way it was planned. This is a fast and cost efficient way to

develop and test the solution with the customers. (Tuulaniemi 2019, 196.) A service prototype is aiming to make a developed idea concrete. Individuals who will participate in the prototype test must gain an experience of what service is under development. (Hassi et al. 2015, 49.)

A service prototype can focus on holistic customer experience. Or it is possible to focus only on a specific step of the customer journey. Service prototype creates first form of the service experience. It addresses how things should be done differently in the future. (Stickdorn et al. 2018, 65, 67.)

A summary of the co-design workshop results were presented and discussed with the commissioner the week after the workshop took place. The summary is presented in the appendix 3. The commissioner regarded the input from the customers valuable. Some ideas are easy to adjust while some of the customer input are more demanding to fulfill in the short run. This is due to the limited possibilities for the commissioner to make financial investments in the development. Another general challenge is the lack of a common data sharing platform between veterinary doctors and animal physiotherapists. This would make sense but it would be a complicated process due to different kind of requirements between veterinary doctors practices and animal physiotherapy practices from a legal perspective. Veterinary doctor's practices are legally regulated and no similar requirements are demanded of animal physiotherapy practices. The commissioner has a feature in her reservation system where a customer can share their own text or veterinary doctor's referral. This is something she will start to advertise for her customers. If a customer shares pre-information, it is necessary to read the records thoroughly. The commissioner has not received pre-appointment data since establishing her business. The customers have brought the documentation with them to the dog physiotherapy appointment. (Personal communication with the commissioner 25.3.2020.)

The commissioner acknowledges that her company needs to establish its own homepages. It would be logical to start to share a blog text or texts about her area of expertise through the company's website. The commissioner frequently publishes on the company's Facebook and Instagram account. These publications are more about advertising courses or sharing information about available appointment times. Customer feedback confirms this is important and she should continue this practice. (Personal communication with the commissioner 25.3.2020.)

The customer feedback regarding the coat rack and the scales was discussed. A coat rack (Picture 2.) is something commissioner will arrange immediately. A scale is not relevant to the commissioner's company service offering and therefore she will not invest in scales. The commissioner feels customer feedback confirms the values she regards important. The customers wanted to receive honest feedback about the dog's condition. The commissioner states that a dog physiotherapist is not allowed to make a diagnosis. She has, and will continue to make referrals to a veterinary doctor in case she observes something abnormal with the dog. It is a good practice to share insight of what the dog physiotherapist is doing with the dog and why. All customers are different and it is important to adjust ones own behaviour accordingly. The commissioner acknowledges dog owners want to have guidance on how to conduct home excercises. She will start to offer customers more precise instructions of how frequently and how many repeats should be done. Customers were also wishing input of how frequently dog physiotherapy appointments should take place. The commissioner understands it would be ideal if dogs would never meet other dogs in the facility. This is technically impossible in the current company premises. As this is important for customers, she will encourage customers to pre-notify if this is something the individual dog needs. Then it would be possible to make arragements to fulfill this need. (Personal communication with the commissioner 25.3.2020.)



Picture 2. Dog physiotherapy waiting area with illustrated coat rack and scales.

The commissioner understands why dog owners would like to get picture or video instructions of the home excercises. It would be more visual and would make it easier to complete the home excercises. The idea is good but this would not suit most cases. Dogs are different and the challenges with the dog's condition are not all alike. It would

make sense to map the most common problem areas and develop videorecording exercise bank or visual guides for those purposes. Customers addressed the possibility to share videos with the dog physiotherapist while having dog physiotherapy sessions. Customers would potentially have a phone call or WhatsApp call with the dog physiotherapist to get more precise guidance in between dog physiotherapy appointments. (Personal communication with the commissioner 25.3.2020.)

Findings were discussed for an hour and a half. The customer journey map was helpful in the ideation discussion.

The following service prototype proposals were agreed on to be tested:

- Current reservation system has a feature where customers can add pre-meeting information. The commissioner will start to ask customers to provide background information or veterinary doctor's referral before the dog physiotherapy appointment takes place. Customer have a possibility to add own insights.
- Commissioner will create visual home exercise instructions with recommended intervals and more precise amount of repeats for the service prototype test purposes.
- Customers will be offered an opportunity to have in between physiotherapy consultation from the dog physiotherapist. Customer has possibility to film dog's home exercise and send the recording to dog physiotherapist. Customer may have a fifteen-minute consultation call to receive updated home exercise instructions. Another option is to have a fifteen-minute Whatsapp call where the dog owner can show a challenging home exercise situation. The dog physiotherapist can give customer updated instructions for home exercises.
- Dog physiotherapist will be attentive to the customer and the dog. She will explain what she is doing and why. Dog physiotherapist will demonstrate the home exercises to the customer and send written instructions to the customer's e-mail address.

#### 5.4 Test and evaluation

This chapter is covering the test of the service prototype by the customers. Customer feedback of the service prototype test is presented. Further development proposals to develop the dog physiotherapy service concept are presented for the commissioner.

#### 5.4.1 Service prototype test

Service prototype test gives insights if the service is functioning well. Testing the prototype gives information on how interesting and attractive the service is from the customer perspective. It provides information if the service is easy to use. Testing the service prototype gives insights if the service fits in the company's strategy and whether the service is commercially feasible. (Tuulaniemi 2019, 197.)

The service prototype should be tested with the customers and company employees. This test should take place in the location where the service normally takes place. The service story or dialogue should progress as it has been described during the service. This service story can be improvised on the spot or carried out as a pre-planned script. Information or the knowledge that is communicated during the service interaction becomes visible in the form of flyers, apps or manuals. (Stickdorn et al. 2018, 69.)

Service prototype test is a way to learn by doing. Customers and employees can gain real experience and learn on a different level compared to simply discussing the prototype. It is important to gain an understanding of the interaction of the stakeholders and how the stakeholders are behaving. In the early stages of the service prototype development the aim is to explore different alternatives and to make ideas concrete. The aim is to move ahead fast. Tests create more insights and it is possible to get more clarity where to aim. It is possible to create more detailed prototypes. (Hassi et al. 2015, 49—50.)

The service prototype was tested between 31st of March and 15th of May 2020. Participants were committed to have two dog physiotherapy sessions. It was advised to have three to four weeks between the dog physiotherapy sessions. Every participant were informed of the service prototype test. Participants were offered a chance to give pre- appointment information through the reservation system. Two participants used this option.

The commissioner paid attention to giving understandable home exercise instructions. The home exercise instructions were demonstrated to all participants to make sure the participants understood and knew what to do and why it was important to continue home exercises with the dog. After the first dog physiotherapy appointment participants received written home exercise instructions. It was agreed that each participant had the possibility for one 15 minutes session using WhatsApp or phone call with the

commissioner. This service was provided to get feedback about the progress or to receive further guidance on how to conduct the home exercises. Three participants used this option in between the dog physiotherapy sessions. Two participants used WhatsApp as a platform and one had a Facetime call. One participant decided not to use this service.

According to the commissioner these service prototype test appointments went smoothly. She paid attention to the areas the participants addressed during the co-design process. There was a concern about the success of the meetings due to the Covid-19 restrictions in Finland and the possibility that participants or the commissioner falling sick. Fortunately everything went well. The commissioner was not able to respond to WhatsApp messages immediately and she was concerned customers were not happy with the 24 hours delay with the response. Facetime meeting was done on agreed time and therefore dialogue with the customer was smoother according to the commissioner.

#### 5.4.2 Customer feedback after the service prototype test

The purpose of the prototype test is to generate information. An unsuccessful prototype test can be defined as a test where nothing new was learned. It is valuable for the development process to learn if the prototype is not functioning well. This information created the possibility to develop new ideas and service prototypes. When creating something genuinely new and innovative, it is inevitable that things do not progress as desired. Customers might find the service prototype unuseful or it is not commercially sustainable to launch the service. It is important to hear all feedback including negative ones when developing a service prototype. (Hassi et al. 2015, 52—54.)

The aim of gathering the feedback after the test is to learn and analyze the gained information. This will be a basis for decision making going ahead with the development. It is important to ask what, why and how questions to gain a deeper understanding of customer thinking and behaviour. In the book *Kokeile kehittään* Hassi et. al is presenting a template for how to classify gained information. Positive feedback is describing features the customer liked and felt well functioning. Constructive feedback are things or issues customer would like to improve. Question marks were things or issues customers were left wondering about. The final part is new ideas or proposals that came to customers mind after the prototype test. (Hassi et al. 2015, 125—127.)

Participants were interviewed over the phone during the week starting 18th of May 2020. Timing was right after the service prototype test was completed by all the participants. The interview focused on asking question on four themes. Questions gave the participants the freedom to talk broadly about the service experience.

- Participants were asked how satisfied they were with the dog physiotherapy service?
- Did participants feel they got enough support with the home exercises? What kind of support did they receive? What would have been a better way to receive support in between dog physiotherapy appointments?
- Going forward if there was a service offering of getting support in between dog physiotherapy appointments, would participant be interested in buying the service? How much would the participant be willing to pay for the service?
- Do participants have other feedback or ideas on how to develop the dog physiotherapy service?

Key findings of the feedback interview are summarized in Figure 31. Summary was composed as suggested in the book Kehitä kokeillen (Hassi et al. 2015).

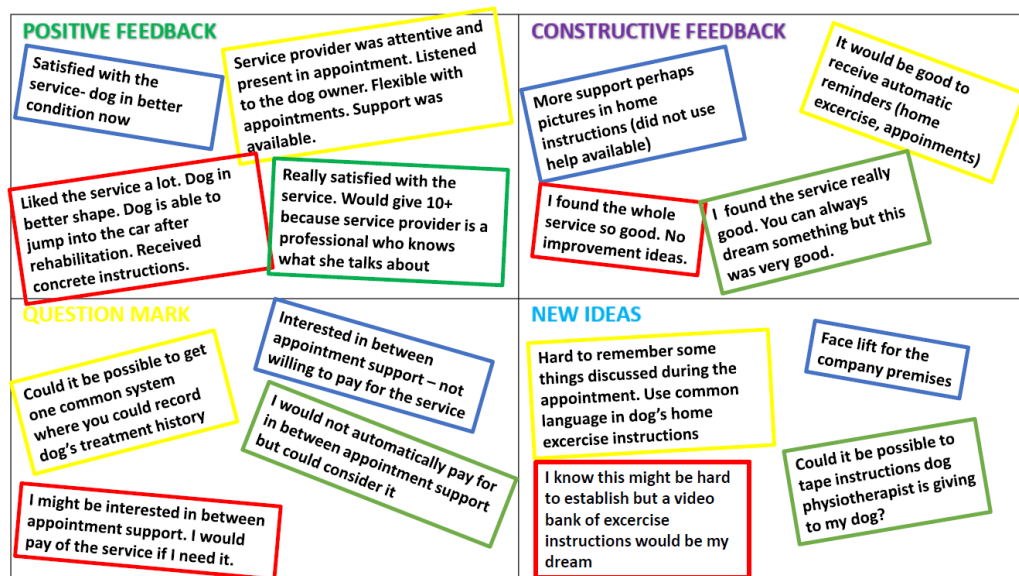


Figure 31. Participant interview summary after service prototype test.

All survey participants were satisfied with the dog physiotherapy service experienced during this service prototype test process. Service provider was thought of experienced

as a credible professional. Dog physiotherapist listened to the customers and was present in the service moment. Most of the customers experienced their dog was in better shape after starting the dog physiotherapy sessions. Dog's ability to move and jump had improved significantly according to a dog owner. Dog owners experienced they received good hands on instructions on how to continue dog rehabilitation and exercises at home. Dog physiotherapist was experienced very flexible with her service offering. Customer support was available and it made participants feel confident with the dog's home exercises.

Two participants could not give any feedback on how to improve the service. According to them the dog physiotherapy service was fulfilling all their needs. One individual said it is possible to dream about unrealistic things but when taking into consideration what I would be willing to pay for the service I can not dream of anything more. One participant hoped to get more visual home exercise instructions. Instructions could include pictures of the exercises and this would help customers to remember better how to carry them out at home. One participant suggested an automatic reminder to conduct home exercises with the dog.

Three participants could potentially be interested in between dog physiotherapy support service. Only two individuals would be ready to pay for the service. One customer wondered if it would be possible to create one common communication platform for dog physiotherapist and veterinary doctors. She was aware of the fact there are no country level regulations and it would be most likely impossible to create one common platform even though it would help all stakeholders involved in dog's life and treatment.

Some new ideas came to participants mind while participating in this service development project. One customer thought of the dog physiotherapist having a video bank where it would be possible to share home exercise guides to customers. The possibility to visually see how to carry out dog's home exercises would be beneficial. One participant was hoping the dog physiotherapy company's facility could have a facelift. It was experienced to be out of date. One interviewed individual came up with an idea of video taping the home exercise instruction as a part of the dog physiotherapy appointment. One participant experienced she might feel so excited and overwhelmed in the appointment it would be hard to remember instructions at home. Therefore it would be beneficial to use understandable language when composing the home exercise instructions.



One participant gave spontaneous feedback "I would give the dog physiotherapist a 10+. It was superb service. I could not dream of anything more!"

#### 5.4.3 Further development proposal

Service concepts need to be tested with real customers. Service development is an ongoing process that never ends. Measureable outcomes are important when piloting services. It is possible to interview and observe customers, arrange mystery shopping and ask the company to make internal evaluations. A service concept can be half ready and it needs to be productized in an early stage to allow customers to evaluate the service. When a service concept has been tested in the market and it is proven to be ready for the launch, the service process needs to be defined in details. These details are service premises and customer journey contact points. (Tuulaniemi 2016, 232—234.)

When the service is ready to be launched, the company needs to communicate about it to customers. The customers need to understand the benefits of the service. A communication plan needs to be conducted in an environment where the target group is active. Continuous evaluation and development aims to keep service competitive in the desired market. (Tuulaniemi 2016, 239—241.)

The commissioner was met early June 2020. She had made adjustments based on customer feedback in the design process like placing a coat rack in the waiting area. Information gained through this research including the service prototype test and feedback from customers was summarized. A high level suggestion of solutions how to improve the customer journey (Figure 32.) was presented to the commissioner. Commissioner should start to develop and establish the company website. Online reservation system has already a feature that enables customers to share pre-meeting information. This could be promoted among customers. Customers could be offered an opportunity to record home exercise instructions given by the dog physiotherapist. A precise amount of dog's home exercise repeats should be given. This would make it easier for dog owners to continue with the home exercises. Customers should have possibility to share publicly their service experiences. This feedback could be placed in the company's home pages. These suggestions were discussed with the commissioner.

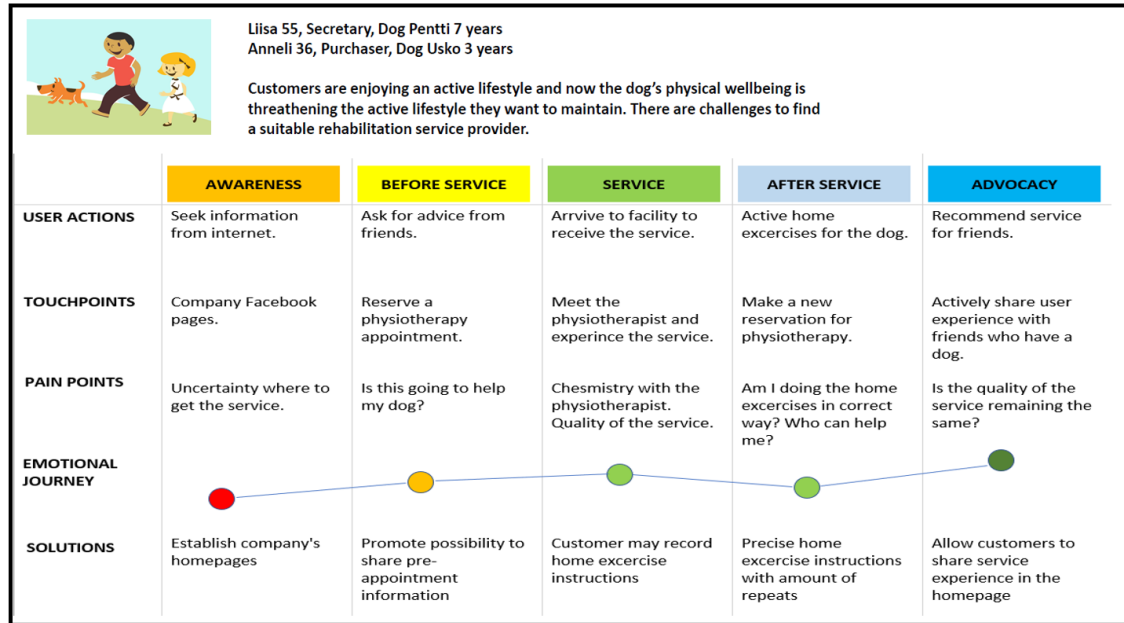


Figure 32. Customer journey map including solutions after service prototype test.

Company's home pages need to be established for the company to be visible in the digital platform and in the animal physiotherapy business field. Home pages should be informative where customers and potential customers can discover information about animal physiotherapist's area of expertise. Available services should be described in details. It would be recommended to include customers in the home page creation process. The commissioner will buy the home page creation from external service provider. Maintenance of the home pages will be done by the commissioner. A good way to share area of interest could be establishing a blog. This idea came from the customers during the design process. Home pages could be a platform where customers can share feedback about the service. This way customers can validate how other customers have experienced the service.

The commissioner should inform customers about the information sharing feature of the appointment reservation system. This feature is already existing and would not create any extra expense for the commissioner. Customers could share information before the dog physiotherapy appointment. Customers were asking for one united platform to share dog's health history. This system would be complex to establish as different animal services have different legal requirements in Finland.

Commissioner was not supportive of allowing customers to record the home exercise demonstration. This is due to possibility of spreading the recordings in the digital world

out of context. It is important to understand a dog's condition before any exercises can be recommended to a specific dog. She would prefer if customers would take pictures for themselves as a reminder how to conduct their dog's home exercises. It is important to provide written home exercise instructions in an understandable language. Amount of exercise repeats can be given in most of the cases. There is a need to take individual dog's condition into consideration. Therefore exact amount of repeats can not always be defined. According to customer feedback they are not automatically willing to pay for in-between dog physiotherapy appointment service. One alternative could be to start to promote 90 minutes appointment and this would offer possibility to give time for more detailed instructions for the dog owner about home exercises. This way dog physiotherapist would get paid for the service given to the customers.

All these development proposals would need to be tested in real life to see if the adjustments are meeting customer expectations. As stated, the commissioner needs to establish the company's website. The commissioner should consider engaging customers in the creation process to make sure home pages are well functioning from a customer perspective.

A new developed version of the service blueprint (Figure 33.) was created based on the gained feedback from customers during the design process and after the discussion with the commissioner. Before the service customers are looking for information on dog physiotherapy service providers on the internet. Online advertising would help customers discover the service provider. The dog physiotherapy company can advertise and encourage customers to give pre-information through the online reservation system. When a customer provides pre-information, the dog physiotherapist needs to familiarize herself with the provided information before the appointment takes place. Some customers found it important to arrange the appointment in a way where unfamiliar dogs would not meet. This is not possible to arrange physically in the current facility setting. It is however possible to make a notification about this request when making the online reservation. This way the dog physiotherapist can make sure unfamiliar dogs do not meet. When the appointment is over and the customer wants to make a new reservation, it would be advisable to give a recommendation on the frequency of appointments.

In between the appointments, the dog physiotherapist can read different articles or publications and compose blog texts about her area of expertise. There could be publications in other social media channels like Facebook. Customers may read these publications and benefit from the information shared by the dog physiotherapist. This

would be an opportunity for the dog physiotherapist to reinforce her value proposition and service offering. After the customer has completed her service use it would be favourable if the customer followed the dog physiotherapist's Facebook page. This would provide an opportunity to share information on the area of expertise and to share information about available services and offers. It would be good for the dog physiotherapist service provider to establish collaboration with veterinary doctors. This would possibly benefit both stakeholders and eventually customers in need of dog physiotherapy service.

Dog Physiotherapy Service Blueprint after design process

		BEFORE THE SERVICE					DURING THE SERVICE							IN BETWEEN THE APPOINTMENTS		AFTER THE SERVICE	
Physical evidences		DOG IS INJURED/HAD A SURGERY	MAINTAIN DOG'S WELLBEING	ONLINE SERVICE	ONLINE SERVICE	ARRIVE TO FACILITY	PHYSIOTHERAPY BUILDING	PHYSIOTHERAPY ROOM					DOG IS EXERCISING WITH THE OWNER		DOG'S WELLBEING IS IMPROVING		
User action		RECOMMENDATION	LOOK FOR INFORMATION ON THE INTERNET	BOOK AN APPOINTMENT	PRE-INFORMATION	PARK THE CAR	ENTER THE TREATMENT ROOM	GREET	GIVE INSIGHTS	ASK FOR QUESTIONS	OBSERVE	ASK FOR QUESTIONS	RESERVE A NEW APPOINTMENT	CONDUCT HOME EXERCISES	READ PUBLICATIONS	RECOMMEND THE SERVICE	FOLLOW COMPANY'S FACEBOOK
Line of interaction	Employee actions onstage	PREVIOUS CUSTOMERS CAN RECOMMEND	COMPANY'S FACEBOOK & HOME PAGES			COMFORTABLE WAITING AREA	SECURE DOGS NOT MEETING	GREET THE CUSTOMER AND THE DOG	GATHER BACKGROUND INFO	EXPLAIN WHAT YOU DO	GIVE PHYSIOTHERAPY TREATMENT	GIVE HOME EXERCISE INSTRUCTIONS	FREQUENCY OF APPOINTMENT		BLOG, FACEBOOK STORIES	RECOMMEND THE SERVICE	COMPOSE CONTEXT TO FACEBOOK
Line of visibility	Employee actions backstage	ONLINE ADVERTISING	PROVIDE CONTEXT TO FACEBOOK	SHARE AVAILABLE APPOINTMENT TIMES	FAMILIARIZE WITH PRE-INFORMATION						DOCUMENT EVENTS			CONSULT COLLEAGUE	READ SCIENTIFIC ARTICLES	OPEN NEW APPOINTMENT TIMES	NETWORK WITH VETERINARY DOCTORS
	Support functions	TAKE PICTURES	BUY DIGITAL SERVICES											CLEAN THE FACILITY			
	Problems / challenges	NEW COMPANY, NO LONG HISTORY									NO RECORD LIBRARY FOR HOME EXERCISES						

Figure 33. Dog physiotherapy service blueprint after service design and service prototype test.

Based on the whole service design process short term proposals were discussed and agreed on with the commissioner for further development of the service concept:

- Company should establish its own webpages
- Commissioner should inform customers about the possibility to provide pre-appointment information through the reservation system
- Commissioner should ask customers to reserve a longer 90 minute appointment when new home exercise instructions are needed
- Home exercise instructions should include precise amount of repeats and frequency for exercises. Instructions should be presented in easily understandable language
- After establishing company's own webpages, commissioner should offer a possibility for customers to share service experience publicly

A business model canvas was developed further based on this service design process. The company's value proposition was developed. The commissioner offers evidence based dog physiotherapy and rehabilitation. Each interaction with a customer and a dog needs to be individual. Dogs' wellbeing is the commissioner's passion. The whole dog physiotherapy service is based on evidence based dog physiotherapy.

Customer relationships can be developed by launching company's own webpages where customers can find detailed information about the available dog physiotherapy service. This is important when customers are looking for a suitable dog physiotherapy service provider. Opening a transparent feedback channel for customers to share their service experiences could reassure new customers to try the service. A blog would offer the commissioner a pathway to share stories about her area of expertise in dog physiotherapy. This would offer customers a channel to find the commissioner's dog physiotherapy services through digital channels. Commissioner should share information about dog physiotherapy and available events through social media channels like Facebook and Instagram. Updated business model canvas is presented in Figure 34. Developed areas are marked in green.

## Business Model Canvas

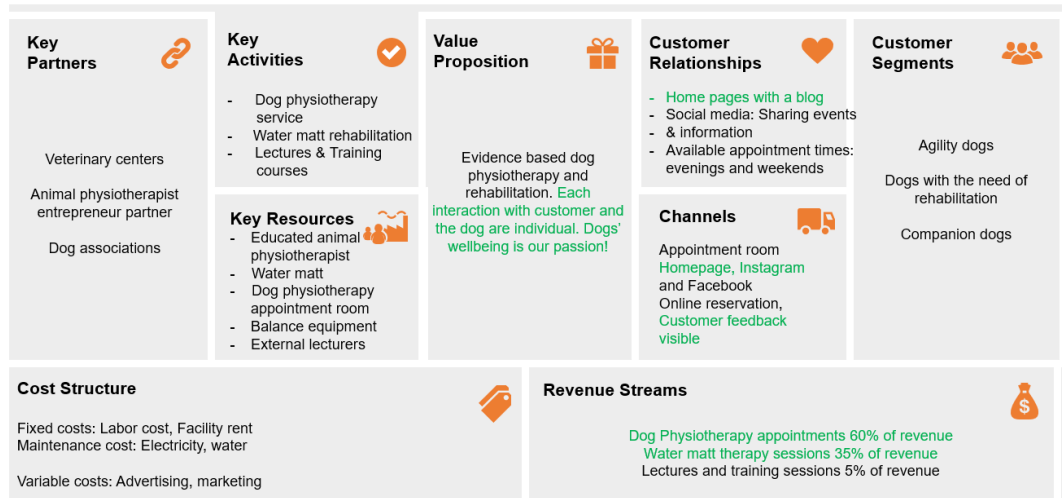


Figure 34. Business model canvas after the service design process.

## 6 CONCLUSIONS

This thesis was a case study where a service design project was conducted in a one person company by using service design methods and tools. The aim of this thesis was to research how the dog physiotherapy service concept could be developed together with the customers to fulfill and exceed customer expectations for the dog physiotherapy service. A service prototype was created based on a co-design workshop with customers and it was tested with the same customers that were part of the co-design process. The research process followed design process defined by Juha Tuulaniemi in his book *Palvelumuotoilu* (2016). This chapter describes the research process, findings and learnings in connection with proposals for the future.

The research process required a deep dive into the literature about design thinking and service design in business development and service concept development. The theoretical framework has been created for big organizations and companies. Implementation on a small entrepreneur run company required to simplify things. The commissioner is running a one person, newly established company and therefore there was limited possibility to invest manpower and make financial investments into this design process. On the other hand it was possible to make fast decisions as the commissioner is the only person working for the company. This study showed it is possible to implement design thinking, service design and service concept development in a one person run company.

Design thinking is a human centric way to design services where human needs are in the center. Developing an understanding and empathy for users is important. The problem should come from the customer and development process is iterative learning by experience or mistakes. Service prototypes are built and they are tested by customers. Co-design is designing services with customers. Developed services need to be commercially feasible and provide a competitive advantage for the company. Design thinking is always aiming for an improved quality of life.

Service design is aiming to increase usability of the service and to improve customer experience. Information gained through service design process helps a company make strategic choices. It is possible to grow the business with the current service offering to existing customers or trying to acquire new customer groups to use the service. In the long term it is possible to develop revolutionary innovations to transform the business



field. Entrepreneurship refers to innovative action where the outcome is uncertain but pragmatically feasible.

Service concept explains the complete story of the service. The customer is the center of the service concept development. When customer-driven innovations have been identified, the next step is to develop concepts that respond to these opportunities. The created concept can be tested with the customers. Service concept development includes designing the concept and communicating it to customers. This follows by implementing the service concept and capability to serve the customer. A strong concept creates meaning for the customer.

The definition phase defined the current status of the dog physiotherapy business field and research area. Benchmarking for dog physiotherapy showed there are in total four service providers in Turku. Competition exists but there is room for more dog physiotherapy service providers in the area. The online survey for the dog owners defined the most common way to search for a dog physiotherapy service provider is the internet. The main reason for being satisfied with the dog physiotherapy service was the dog getting help from the service. Dog physiotherapist professional competence and how well the service provider treats the dog makes customers return to the same service provider. The biggest cause for disappointment in the dog physiotherapy service was customers not getting any instructions for the dog's further rehabilitation.

The research phase increased an understanding of service users needs, goals and expectations for the dog physiotherapy service. Mystery shopping proved current service to be on a good level. This is based on the feedback the mystery shopper gave about the service experience. Customers participating in the co-design process were interviewed and they stated that the main criteria for selecting the dog physiotherapy service provider is professional competence and knowledge of the service provider. Customers expressed a need for advice on how to prepare for the dog physiotherapy meeting and hoped for more support and follow up in between dog physiotherapy appointments. The customer journey map and service blueprint helped visualize the customer journey and they were used as a basis for the co-design workshop.

The co-design workshop with customers defined areas to develop before, during and after the dog physiotherapy appointment. An empathy map was created for the service prototype ideation and creation with the commissioner. A service prototype was created

based on the findings from the co-design workshop and in alignment with the commissioner's possibility to invest and business feasibility.

A service prototype test was conducted by customers participating in the service design process. Customers were interviewed after the prototype test. All customers were satisfied with the service. Not all customers used the in-between dog physiotherapy support available. Only two customers could potentially pay for the in-between dog physiotherapy service. The evaluation phase summarized and analyzed the gained results and a proposal for further development was discussed and agreed with the commissioner.

Research question "*How current dog physiotherapy service concept can be developed to meet and exceed customer expectations?*" was addressed to dog owners through an online survey and to dog owners who participated in the co-design process and service prototype test. Results show both groups were addressing the need for the dog physiotherapy service provider to make the area of expertise in dog physiotherapy visible for the customers. Service provider's presence in the digital environment is essential for customers to discover information. Human interaction qualities for the service provider was regarded high. It is important to explain to the customers what dog physiotherapist is doing while examining and giving treatment to the dog. Research showed visible rehabilitation results for the dog is important for customers.

Second research question addressed "*What support would dog owners benefit from in between dog physiotherapy appointments?*". Customers defined written home rehabilitation instructions as a must for them to continue the dog's rehabilitation. Instructions should be visual and written in generally understandable language. During the co-design workshop customers were specifying in more in detail what kind of in between dog physiotherapy appointment support they would benefit from. These were video taped home exercise instructions. A possibility to have in between dog physiotherapy appointment support call where dog owner could present progress or address issues was defined. However not all customers were using in between dog physiotherapy appointment support and most of the customers would not be willing to pay for this support.

Some findings discovered during the research were easy to adjust immediately to fit better the customer requirements. One of these was placing a coat rack in the waiting area. Customers were hoping for better collaboration between veterinary doctors and dog physiotherapist. One idea was a common pathway to share information. This is hard to

accomplish due to different legal requirements for the veterinary doctors and animal physiotherapists.

The reliability and validity of this case study has limitations. This study was conducted in one company with limited amount of participants. This study is defining the situation in the commissioner's company during the time of research. The online survey defines general point of view of animal owners and towards dog physiotherapy services. The research outcome was used in the commissioner's service concept development. During this research it was possible to use service design methods and tools for small company service concept development purposes.

The research process was straight forward despite the Covid-19 restrictions that were in place in Finland during spring 2020. The commissioner and the customers participating in the survey were motivated to support the research. This study proved it is feasible to use service design tools and methods in small company setting with limited financial investment possibilities. This research defines situation in the commissioner's company during the spring 2020. Service concept development is an iterative process and further development and testing with customers is needed. Recommendation for the commissioner is to co-develop dog physiotherapy company's webpages with customers. This would be a natural step as it provides a solution to how to find service provider. Webpages would be a suitable platform for the service provider to share her area of expertise in dog physiotherapy.

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## Appendix 1. Online survey for dog owners and results of the survey.

1. For how long you have owned a dog?	A. 0-5 years (8) B. 6-9 years (11) C. Over 10 years (13)
2. What is the main purpose for you owning a dog?	- Agility, togo or other type dog related hobby (12) - Active lifestyle (11) - Companion dog (6) - Exhibitions (3)
3. What services have you purchased for your dog during the past 12 months?	- Trimming service (26) - Veterinary doctor service (22) - Training for the dog (18) - Physiotherapy (15) - Massage (12) - Water matt rehabilitation (12) - Dog hotel service (12) - Spa service (8) - Accupuncture (6)
4. My houshold is	A. 1 adult without children (10) B. 2 adults without children (7) C. 1 adult with children (4) D. 2 adults with children (11)
5. How much money have you spent on dog services during the past 12 months?	A. 0-300€ (4) B. 301-500€ (13) C. 501-800€ (10) D. 801 €- (5)
6. If you have purchased dog physiotherapy, how do you select the service provider?	- I look for information on the internet (12) - I ask for recommendations from my network (10) - Recommendation from veterinary doctor (3) - I try a service to see if the service provider is suitable for me (2)
7. Have you been satisfied with the dog physiotherapy service? If yes, why?	- My dog was able to get help with the rehabilitation (10)

	<ul style="list-style-type: none"> <li>- Our case was considered throughly when giving the treatment (7)</li> <li>- We were taken as individuals (5)</li> <li>- We were refereed to animal doctor as the case needed veterinary doctor's input (3)</li> </ul>
<p>8. Have you been disappointed with the dog physiotherapy service? If yes, why?</p>	<ul style="list-style-type: none"> <li>- Did not get any instructions about the future rehabilitation (6)</li> <li>- Our chemistry did not match (5)</li> <li>- Quality did not match the fee of the service (5)</li> <li>- Physiotherapist was not focusing on my case (4)</li> <li>- Treatment was not convincing (4)</li> <li>- Dog did not like the physiotherapy (3)</li> </ul>
<p>9. Dog physiotherapy: what is important for you when deciding to use the same service provider again?</p>	<ul style="list-style-type: none"> <li>- Professional competence of the service provider, How service provider is able to convince me she is a professional in the field (10)</li> <li>- Dog physiotherapist must treat the dog well (10)</li> <li>- I need to see visible results (8)</li> <li>- If the physiotherapist is giving home instructions to excercise at home (7)</li> <li>- Our chemistry needs tó match (5)</li> </ul>



Appendix 2. Customer interview questions and summary of answers before the service concept development.

1. For how long have you had a dog?
2. For what purpose do you have a dog?
3. If interviewed person is active with the dog, what is the hobby?
4. Why is your dog in need of physiotherapy
5. What is important for you when selecting a physiotherapy service provider?
6. What are the (potential) challenges with do a physiotherapy?
7. What other things would you like to share with me before starting the project?

Questions for participants	Participants reply (how many times mentioned)
How long have you owned a dog?	<ul style="list-style-type: none"> <li>- Over 15 years (2)</li> <li>- Over 20 years (2)</li> </ul>
Why do you own a dog?	<ul style="list-style-type: none"> <li>- A companion dog (4)</li> <li>- Agility as a hobby (4)</li> <li>- Dog is for owners exercise purposes (3)</li> <li>- Dog is for breeding purposes (2)</li> <li>- Dog is for exhibition purposes (1)</li> </ul>
Why do you need dog physiotherapy?	<ul style="list-style-type: none"> <li>- Need was based on injury (2)</li> <li>- Preventive measure to maintain dog's wellbeing (2)</li> <li>- Guided exercise (2)</li> </ul>
What is important when selecting a dog physiotherapy service provider?	<ul style="list-style-type: none"> <li>- Recommendation from other people (4)</li> <li>- Professional competence of service provider (4)</li> <li>- Service provider gives written instructions (3)</li> <li>- Personality of the service provider, how you treat dog during appointment (2)</li> <li>- Measureable results (1)</li> <li>- Selection of the service provider is based on type of injury (1)</li> </ul>
What are the pain point of the dog physiotherapy service?	<ul style="list-style-type: none"> <li>- How to prepare for a dog physiotherapy appointment (4)</li> <li>- Follow up and support during dog physiotherapy treatment (3)</li> <li>- Parking instructions missing in webpages (1)</li> <li>- How to arrive to dog physiotherapy service provider's facility so dogs are not meeting each other (1)</li> </ul>

## Appendix 3. Summary of co-design workshop outcome.

	Findings
Pain points before dog physiotherapy	<p>Increased collaboration between veterinary doctors and dog physiotherapists in an aim to exchange referral information and to make the dog physiotherapy appointment smoother</p> <p>Common platform where it is possible to share information</p> <p>Dog physiotherapist to familiarize with possible veterinary doctor referral before the dog physiotherapy appointment</p> <p>The dog physiotherapist composing blog stories where customers could get information about the dog rehabilitation topics in their interest</p> <p>Dog physiotherapy service provider's presence in the digital world</p> <p>Be visible in digital world to enable customers to find the service provider. Customers were hoping for Google advertising and Instagram feeds</p>
Pain points during dog physiotherapy	<p>Make arrangements in a way where unfamiliar dogs would not meet each other in the dog physiotherapy facility</p> <p>Waiting area would need to have a coat rack and it would be nice if scales for the dog was available</p> <p>Dog physiotherapist could take the lead of the appointment situation as dog owner might feel insecure of the situation for various reasons</p> <p>Customers would appreciate to be informed about what takes place during the dog physiotherapy appointment</p> <p>Important to understand what dog physiotherapist is doing</p>

	<p>Physiotherapist should focus on the customer's case and not be preoccupied</p> <p>Customers would value honest feedback about the dog's condition</p> <p>Important to receive introduction to dog's home exercises</p> <p>Detailed and precise instructions including amount of repeats of each exercise movement guided by dog physiotherapist</p> <p>A sheet where dog owner could document the exercises she has done with the dog</p>
Pain points in-between dog physiotherapy	<p>Recommendation of frequency of appointments from the dog physiotherapist</p> <p>Video instruction how to conduct the home exercises</p> <p>A picture or visual aid how to carry out home exercises</p> <p>Get feedback about the progress from dog physiotherapist over the phone or with a help of WhatsApp call</p> <p>After the consultation dog physiotherapist could provide input how to perform home exercises in a more optimal way</p>