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SERVICE DESIGN MODEL FOR AGILE CO-DESIGN PROJECTS

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MASTER'S THESIS | ABSTRACT

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SERVICE DESIGN MODEL FOR AGILE CO-DESIGN PROJECTS

This thesis studied suitable service design model for a startup company to succeed in agile and experimenting, rapid co-design development projects in artificial intelligence business domain. The aim of the thesis was to provide the commissioner with a fit-for-purpose service design model that helps the commissioner to offer pioneering world-class solutions to their customers. The model includes a selected set of design methods and tools. The thesis tried to find an answer to two questions: What kind of service design model could reduce the total workload and keep the development cost low in artificial intelligence projects of the commissioner and at the same time improve customer experience? What are the most applicable, yet common and easy-to-use service design methods and tools that could serve the purpose in the most typical customer projects of the commissioner?

Qualitative research methods were used to research the business landscape, customer and user base, as well as the commissioner and their service offering. Participatory action research was also utilized. Various service design methods were conducted to gain insight and information about the desired state. Over 15 methods and tools were either tested in customer projects or studied otherwise by the author. Co-design methods, such as participatory workshop, were conducted. Surveys and interviews, as well as mood boards, stakeholder maps, and customer journey maps, were part of the study.

As a result, service design model with process description and selected toolkit was provided for the commissioner. In addition to measuring suggestions, the model includes instructions and best practices for deployment. The focus of the model is on streamlined, yet innovative design process with simple and easy-to-use tools for prototyping in short and iterative, agile customer projects.

KEYWORDS:

service design, co-design, design thinking, software robot, startup, coaching

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PALVELUMUOTOILUMALLI KETTERIIN YHTEISSUUNNITTELUPROJEKTEIHIN

Tässä opinnäytetyössä tutkittiin startup-yritykselle sopivaa palvelumuotoilumallia, joka auttaisi toimeksiantajaa menestymään ketterissä kokeiluissa, jossa yhteissuunnitellaan nopealla syklillä tekoälyliiketoiminnan ratkaisuja. Tutkimuksen tavoitteena oli tuottaa toimeksiantajalle käyttötarkoitukseen sopiva palvelumuotoilumalli, joka auttaa yritystä tarjoamaan ennennäkemättömiä, maailmanluokan ratkaisuja asiakkailleen. Malli sisältää valikoiman toimintatapoja ja työkaluja. Opinnäytetyö pyrki vastaamaan kahteen kysymykseen: minkälainen palvelumuotoilumalli voisi vähentää kokonaistyömäärää ja pitää yrityksen kehityskustannukset alhaalla tekoälyprojekteissa samaan aikaan, kun käyttäjäkokemus paranee? Mitkä ovat parhaiten sopivat, yleiset ja helppokäyttöiset palvelumuotoilumenetelmät ja -työkalut, jotka toimisivat tyypillisimmissä toimeksiantajan projekteissa?

Kvalitatiivista tutkimusmetodologiaa käytettiin liiketoimintaympäristön, asiakkaiden ja käyttäjien, sekä toimeksiantajan ja heidän palvelutarjontansa tutkimiseen. Myös osallistuvaa toimintatutkimusta käytettiin hyväksi. Erilaisia palvelumuotoilumenetelmiä hyödynnettiin syvällisen ymmärryksen saamiseksi tutkimuskohteista sekä tavoitetilan määrittelyssä. Yli 15 menetelmää tai työkalua testattiin asiakasprojekteissa tai muutoin opinnäytetyön tekijän toimesta. Tutkimuksessa käytettiin yhteisöllisiä muotoilumenetelmiä kuten osallistavaa työpajaa. Kyselyitä, haastatteluita, mood boardeja, sidosryhmäkaavioita sekä palvelupolkuja hyödynnettiin.

Lopputuloksena toimeksiantajalle luovutettiin palvelumuotoilumalli prosessikuvauksineen sekä työkaluvalikoimineen. Mittaussuositusten lisäksi malli sisältää ohjeita ja hyväksi havaittuja toimintatapoja käyttöönottoa tukemaan. Malli keskittyy suoraviivaiseen, mutta innovointiystävälliseen muotoiluprosessiin, joka on yksinkertainen ja helppokäyttöinen kokeilevissa, lyhyissä ja ketterissä asiakasprojekteissa.

ASIASANAT:

palvelumuotoilu, yhteissuunnittelu, muotoiluajattelu, ohjelmistorobotti, startup, valmennus

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LIST OF ABBREVIATIONS

AI	Artificial Intelligence (STANDS4 LLC 2019)
API	Application Programming Interface (Eurostat 2019)
CES	Customer Effort Score (Qualtrics 2019)
CRM	Customer Relationship Management (Eurostat 2019)
CSAT	Customer Satisfaction (Qualtrics 2019)
FAQ	Frequently Asked Questions (SCHUB International 2013)
HW	Hardware (STANDS4 LLC 2019)
MVP	Minimum Viable Product (STANDS4 LLC 2019)
NPS	Net Promoter Score (Qualtrics 2019)
PAR	Participatory Action Research (Milledge et al 2019)
SaaS	Software as a Service (SCHUB International 2013)
SW	Software (STANDS4 LLC 2019)
SWOT	Strengths, Weaknesses, Opportunities, Threats (Eurostat 2019)
UI	User Interface (STANDS4 LLC 2019)
UX	User Experience (STANDS4 LLC 2019)

1 INTRODUCTION

In 1967, the Finnish parliament established Sitra, the Finnish Innovation Fund. It was a gift to the Finnish people to celebrate the fifty independent years of the republic. Sitra was the fund for the future. Sitra's mission is to help the nation to succeed as a pioneer in sustainable well-being by funding innovative Finnish initiatives. (The Finnish Innovation Fund Sitra 2017.)

At the end of year 2016, Sitra launched an innovation challenge competition aiming at finding a winning solution which would help to identify and utilize competence and skills better. The challenge was called “Ratkaisu 100” and 231 teams, with a maximum of 5 members in each, registered for the competition. Fifteen teams were selected to the finals and their solutions were developed with the help of Sitra and external parties like professional coaches, researchers, service designers, in the course of 6 months. The award for the winners announced to be one million euros, so there was a monetary motivation factor for the teams, too.

“Osaamisbotti” (Skills Bot) was one of the competitors. It is a software robot for finding job seekers' skills and competence – not only the lines in curriculum vitae (CV), but also latent knowledge and skills that have been piled up beyond the education and other certifications. For instance, extra-curriculum activities like hobbies and other interests can develop skills remarkably. This type of competence is often invisible when applying for a job. The Osaamisbotti team was established at the beginning of 2017 and the concept was created according to the challenge given.

In December 2017, Sitra's challenge competition award was given to two teams, of which both got 500.000 euros to develop their services further. Osaamisbotti was rated the third. Despite the results of the competition, Osaamisbotti team decided to establish a company and start to deploy their solution to the market now that the software robot has drawn media attention and the team has got enquiries from prospective customers. As a fresh company, processes and ways of working are needed to be formalized to meet the expectations and to utilize the gained publicity. Since Osaamisbotti Oy is considered mainly a Software as a Service (SaaS) provider with innovative and customizable solution, using a suitable service design model from the beginning would be really beneficial. Almost all customer requests so far have shared the same needs, and a

generic design process would serve the purpose of meeting both the customer and Osaamisbotti Oy objectives.

This research is focusing on choosing the best set of service design tools and create a specific model to enable Osaamisbotti Oy implement their vision and deploy services to customers in a flexible, iterative and profitable way. It is done by firstly explaining each method one by one supported by literature sources, and secondly by analyzing the compliance in the context of Osaamisbotti Oy business and customer intent.

The model should speed up the development and deployment process as well as keep the quality level high. It should also be generic in the extent that it (or its subset) can be re-used in majority of the customer cases where the solution is based on Osaamisbotti core technology and functionality. The most applicable existing service design methods and processes are to be examined and a selection of them are piloted in customer cases.

The author of this thesis has been working for Osaamisbotti Oy from the beginning. He works as a designer responsible of the visual outlook of the company and its services. He has been leading the service design approach within the organization, too. The author has bachelor's degree in business administration and a long career in a variety of information management positions in global telecommunications business, both in expert and managerial positions.

In the following chapter, Osaamisbotti Oy and its business environment is explained. *Chapter 3* describes the research design – for instance, the problem area and the aim of the research are exposed, as well as the frame of reference. Osaamisbotti solution is introduced in *Chapter 4*. The following chapter outlines the theoretical dimension of the thesis by describing the methods. *Chapter 6* explains the practical testing of the methods. A tailored service design model for Osaamisbotti Oy is proposed in *Chapter 7*, whereas *Chapter 8* evaluates and concludes the thesis.

2 OSAAMISBOTTI OY

Startups with genius business ideas and genuine enthusiasm are interesting soil for developing new practices and working methods. They usually are open for fresh viewpoints and even radical suggestions as they do not have long history, traditions, or well established and hardly flexible policies. Startups are mostly small companies at their early phases willing to receive help from students and trainees. In this study, Osaamisbotti Oy was commissioned in the field of service design. In the following chapters Osaamisbotti Oy is presented as a company. Additional information can be found from their website: www.osaamisbotti.fi.

2.1 History

In February 2017, Osaamisbotti team was formed. Five persons with largely different backgrounds and from various fields of businesses joined forces to concretize the idea of a software robot that would help in making latent competence visible. The team is interdisciplinary and consists of experienced specialists, professionals in the areas of product management, software engineering, sales and marketing, social psychology, and design.

The innovation got its form in couple of months when the team was asked to develop a piece of software for Tampere City. The goal was to create a tool for the coaches of employment services department. Since then, Tampere City has been a customer of Osaamisbotti.

Osaamisbotti Oy was founded by the Osaamisbotti team on 21st of December 2017 to continue the work done by the group during Sitra's challenge competition. Year 2018 was a period of growth and development of services. The company is a privately-owned startup firm headquartered in Tampere, Finland. The main business is software engineering and development (Suomen Asiakastieto Oy 2017).

2.2 Service Offering

Osaamisbotti platform can be used to serve employment services, as piloted in Tampere, but also for other coaching and customer service solutions where automatization in customer interaction and customer relationship management (CRM) process can bring added value to business. As an artificial intelligence (AI) chatbot assistant for different types of customer service and coaching processes, customer segment of Osaamisbotti is not limited to municipalities and job seekers. For example, *Opiskelijan Neuvontabotti* is a service where any student in Tampere can ask software robot a question about studying in Tampere and artificial intelligence finds the answer instead of human labor. Machine learning is utilized in the solution. Another example is *Trebotti*, a chatbot service where Tampere citizens can ask AI to help them with questions related to infrastructure and environment related questions online.

OPObotti, which is tailored for study advisors, uses the same technology as Osaamisbotti for the unemployed. Similar service is utilized by couple of coaching companies. They share the same Osaamisbotti platform, but user interface (UI) and functionality differs to a certain extent. Osaamisbotti platform is described in detail in *Chapter 4*.

2.3 Vision and Brand

Osaamisbotti Oy has a vision to answer the demand of competence and skills screening bots and similar, coaching-related, software robot technology solutions in public and private sectors. The strong value of Osaamisbotti SaaS emerges from a unique idea where technology and human workforce (coach) form a seamless entity that effectively supports the goals and actions of customer segment. Service available 24/7 is offered in a way that enables continuous learning, independent of time and place.

There is another new solution evolving, which adds to the vision starting from year 2019. Flipped Coaching was added to the portfolio of Osaamisbotti Oy in the beginning of 2019 and as a vision it brings another, parallel segment into strategy and roadmap. Flipped Coaching adapts Flipped Learning concept into coaching domain. Core of the concept is to offer users a platform where taking advantage of learning by watching and creating videos easily with mobile phone help in the process of meeting the coaching targets.

Innovation combines easy to use application, short and straight to the point videos, gamification, interaction between the coach and the coachee, and questionnaires. Osaamisbotti Oy has started to research business opportunities and global markets for making Flipped Coaching one of the main focus areas. From the research point of view, it widens the use of service design model.

The brand of Osaamisbotti Oy is based on their pioneering technology, and positive, customer-centric attitude. It is reflected in all marketing material and is present in every meeting with customers. The company logo and Osaamisbotti software (SW) robot symbol are shown in *Figure 1*. As a new startup company, the brand is heavily personified by the employees and it is known that the presence of different personalities sharing the same enthusiasm and customer orientation has been an advantage of Osaamisbotti Oy.

Figure 1. Osaamisbotti logo and SW robot symbol.

2.4 Customers

Osaamisbotti Oy has both municipalities and private sector companies as their customers. Municipalities mainly use Osaamisbotti to gain better results in employment services by automation, process enhancement, and motivating end users to take action.

In private sector, the emphasis is more on coaching side: companies want to have a tool for their coaches to manage and serve their customer more effectively, thus have an advantage compared to their competitors.

In addition, Osaamisbotti Oy is involved in a national AI program *AuroraAI*, led by the Ministry of Finance. AuroraAI is an initiative where many AI entities are integrated to serve citizens throughout their lives – in different life events such as moving to a new place of study or staying employed due to competence development. The program is still at its early stages and Osaamisbotti was chosen to be one of the service providers in the preliminary study phase. (The Finnish Ministry of Finance 2019.)

List of Osaamisbotti Oy customer and co-operation reference cases is shown in *Figure 2*. The information is based on the status of the 1st of February 2019.

Figure 2. Case references of Osaamisbotti Oy.

2.5 Organization

Osaamisbotti pursues an increasing market share as an innovation studio. The organization of the company is small and diverse, build upon extensive competence, experience, and synergy. There are five team members with an addition of seasonal workers according to the workload. Subcontractors and consultancy are bought on case-by-case basis.

Each employee has a long work history; 20 years on average. The team has accumulated experience in academic research (as human behavior and software), local Licentiate of Technology (Signal Processing, Neural Networks, Speech Recognition), Doctor (Social Psychology), Master of Business Administration (International Business and Marketing), Bachelor of Business Administration (IT Systems), and Master of Science (Software Engineering). Two members of the team are studying leadership and service design. Organization is described as a chart in *Figure 3*.

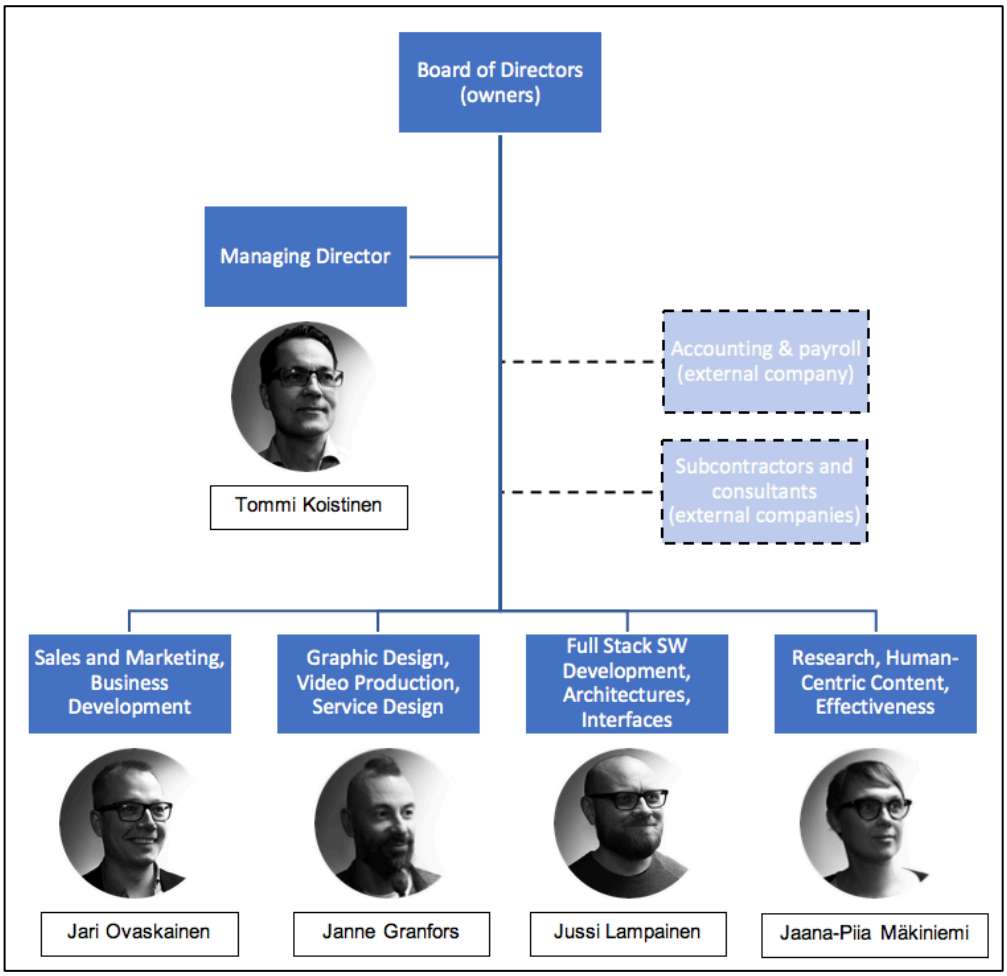


Figure 3. Organization of Osaamisbotti Oy.

3 RESEARCH DESIGN

The research is done by utilizing both widely used “de facto standard” means of business concepting and development, and more specific service design and design thinking methodology. Applying theory herein is primarily studied from the perspective of the commissioner objectives such as lean development and agile way of working. In other words, exaggerated proposals would not serve the purpose.

3.1 Problem Area

There is no light, user-friendly nor modern tools for recognizing expertise, especially latent skills and competence. People tend to have a large amount of expertise that have been piling up during the years, but yet it is not part of any formal examination and hence it is not shown to employers and people might not even recognize it themselves. This can lead to mismatches in fulfilling positions and roles or preventing a person to apply for a job in the first place.

Foremost, in Finland this problem occurs in employment services as Employment and Economic Development Offices (TE Offices) and municipal employment services. The number of job seekers for one employment service officer to serve, can be as high as 1 000, depending on the area (Yle 2018). It is stated by the law that the job seekers must be interviewed every 3 months, but basically it does not happen. The main reasons for not conducting the tasks in time are lack of resources and difficulties in contacting the job seekers.

Besides interviews in general, the latent expertise is not shown in the job seeker's CV, and interviews over the telephone might not be the best solution for the employment officer to dig out the hidden skills and competence. Most of the young job seekers prefer using other (social) channels than telephone.

Osaamisbotti Oy conducted their first customer case of Tampere City as co-creation initiative in an iterative way. Osaamisbotti solution was used by the city of Tampere for a short test period of two months. The pilot project included three employment coaches called “OMA coaches” (expertise, motivation and activity -coaches) and 15 unemployed job seekers (coachees). Osaamisbotti acted as a work mate for OMA coach and handled

the routine interview tasks. It asked the user about his/her abilities and forms a competence profile out of the data gathered. Osaamisbotti functioned the other way around compared to traditional chat bots which answer the questions user asks them. The feedback was promising, and positive results were obtained in a form of increased activity and motivation amongst the job seekers, and reduced time of OMA coaches needed for routine tasks. However, if the development methods were studied and presented to all stakeholders at the beginning and if there was a robust model how to design the service in the first place, the process and outcome would have been better and faster.

Similarly, the private sector has also challenge in finding the right workforce and making the best possible matches of a position and a person. The need for different expertise in workplaces can change rapidly. Managers might not have enough time to support the ever-changing competence development. Having a proper competence profile and utilizing it in matchmaking or other human resource processes, is not happening throughout the corporate business.

For individuals, all the above-mentioned problems can cause frustration, loss of motivation, health problems or unemployment. For businesses, it might show as ineffectiveness, loss of revenue and increase in costs. The public sector cannot afford high unemployment rates and specifically long-term unemployment, particularly within the younger population.

Firstly, Osaamisbotti solution tries to ease the common problem of match-making of the unemployed people and the recruiting needs of the employers. Employees of the employment offices in Finland do not have enough resources to handle the vast number of job seekers they currently have. Also, there is a challenge of ineffectiveness and poor user experience in coaching process in many organizations (including municipalities and private companies) that new technology – as artificial intelligence driven CRM systems – can give advantage by improving the workflow. These challenges set the basis of the business objective of the commissioner.

Secondly, in order to accomplish the company's mission, there is a problem how to enable high-quality implementation of the required solution (software robot instance or other AI/machine learning solutions) for onboarding customers, public sector or privately-owned companies, in fast pace and profitable manner. In Osaamisbotti Oy organization, no service development process description exists, neither is there any documentation

of service design nor internal guidance how to run a development project. Development projects are done on a case-by-case basis using practices that are selected based on the judgment of the individuals involved. This research seeks to address the weaknesses in Osaamisbotti Oy service design process mentioned above.

3.2 Research Problem and Aim

The commissioner is at early phase of its lifespan as a company and thus it lacks many formal process descriptions, procedures, guidelines, routines, and agreed ways of working. There is a strategy available with a clear vision and the company needs to reach out for the set business objectives. It will involve new customer cases and rapid development, structured design models and common guidelines, couple to mention.

While the challenge competition in 2017, the commissioner used couple of service design methods as they were introduced by a consultancy company called Futurice during one workshop session. Later on, bits and pieces of different designing methods have been tested, but no solid directions or agreement how to use them in the future, have been made among the team.

Typically, the solutions that new customers need, are based on the existing technology platform of Osaamisbotti and the customer-specific characteristics, unique functionality, and other new modules, are added. Software robot as a concept might be known to the customer, but the way to tailor/customize the service (the process) might be unknown. The commissioner has decided to take service design as one of the tools to make sure to succeed in the mission and continue receiving good feedback about the solution and work conducted.

The aim of this thesis is to *provide the commissioner with a fit-for-purpose service design model that helps the commissioner to offer pioneering world-class solutions to their customers. The model includes a selected set of design methods and tools.*

The work will be done in cooperation with the commissioner's staff and few of their customers/stakeholders. Precise tasks and roles considering service design inside Osaamisbotti Oy will be defined after the service design model is agreed and the research project finished. Already at the initial stage of the research, it is evident that the service design will be done through co-development, together with the commissioner's

representatives and end users. Iterative, agile development model is to be applied where possible.

3.3 Research Questions

Research questions break down the research aim further in two, more concrete entities. The following questions are the key elements that the study tries to answer the most:

> *1. What kind of service design model could reduce the total workload and keep the development cost low in artificial intelligence projects of Osaamisbotti Oy and at the same time improve customer experience?*
>
> *2. What are the most applicable, yet common and easy-to-use service design methods and tools that could serve the purpose in the most typical customer projects of Osaamisbotti Oy?*

The first question is broader, related to the process and the mindset. By research, the commissioner expects to know whether it is possible to make an average (most common type of a new customer project) development/deployment case more effective in terms of time and resources. Moreover, the customer experience of the project and collaboration must be improved. A way of measuring the above should be suggested.

The second question tries to find out the exact methods and tools to fulfill the objectives in more practical level. That is, the commissioner needs to have a set of proven and usable templates and a process of using them, ultimately as routine work. Easy to use, not too complicated, and moderately branded tools with sufficient guidance are needed to answer the second research question.

3.4 Frame of Reference

The subject of this study is discussed from a perspective where key cornerstones are

- customer(s)
- technology platform
- service provider (Osaamisbotti Oy)
- service design model as the aim of the study

Customer is in the focus when it comes to the commissioner's business. The company exists to serve the customer(s) needs with their software services. There are two kinds of customers: public and private sector customers. Technology platform includes application logic, databases, user interface (UI) modules, and application programming interfaces (API). The service provider makes sure the customer needs and requirements are understood and implemented into the solution as mutually agreed. In this context, service design model will be the central power mill, which is developed together with the service provider, the customers, and Osaamisbotti end users. It will contain the selected toolset of service design methods and tools. The target is to use as many common parts of the model in various customer projects as feasible. The model will be created with help of the customers and users and for their benefit. The frame of reference is depicted in *Figure 4*.

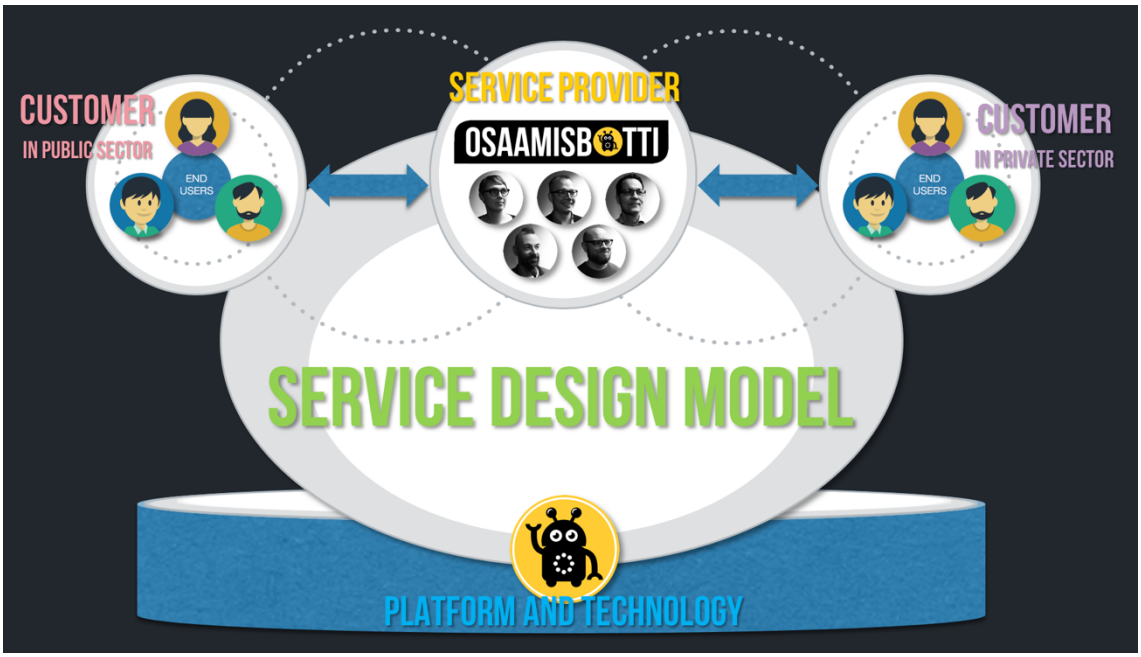


Figure 4. Frame of reference.

3.5 Methods and Tools

There is a clear distinction between the term *method* and *tool* in the context of service design. Both of the terms are commonly used incorrectly. Therefore, the meaning of the

terms is first examined, and only after that the methods and tools used in this research are discussed.

Prestigious players in the field, Stickdorn at the forefront, differentiate the terms from service design viewpoint so people can speak the same language when it comes to working together in a design project with multidisciplinary team of designers, customers, end-users, technical staff, and other specialists, to name a few. In the book *This is Service Design Doing,* Stickdorn et al. clarify the difference in the way that methods are means of approaching something or procedures to accomplish needed actions – contextual interviews as a research method, for instance. Tools like journey maps, storyboard templates, or other given templates, are models that help reaching the objectives in concrete terms and specific structure. (Stickdorn et al. 2018, 37.)

The research is done by using participatory action research process as much as possible. It can be called as research for design and research through design. Moreover, creating the service design model will involve various validated design methods and tools as listed in *Figure 5* below. Participatory workshops, document study, surveys, co-design, interviews, and prototyping are hereby considered as methods, while the other items listed are tools rather than methods as per the definition by Stickdorn et al. (2018, 37).

Figure 5. Methods and tools used in the research.

3.6 Research Process

Process chart is usable for structuring the work in phases and to make sure no important actions are left behind. There are numerous process chart models that can be used in design studies. Holston's (2011, 24–38) 6-phase model was selected to form a basis to Osaamisbotti service design model research. However, the model is significantly modified and supplemented with John Chris Jones' design methods (see *Figure 6*). Also, in this case the process is not linear only: spiral model is present in two phases in the middle. The six phases of Holston's process are:

Phase 1: Establishing the client – designer relationship

Phase 2: Project definition

Phase 3: Design research

Phase 4: Concept development

Pahse 5: Design development

Phase 6: Design evaluation

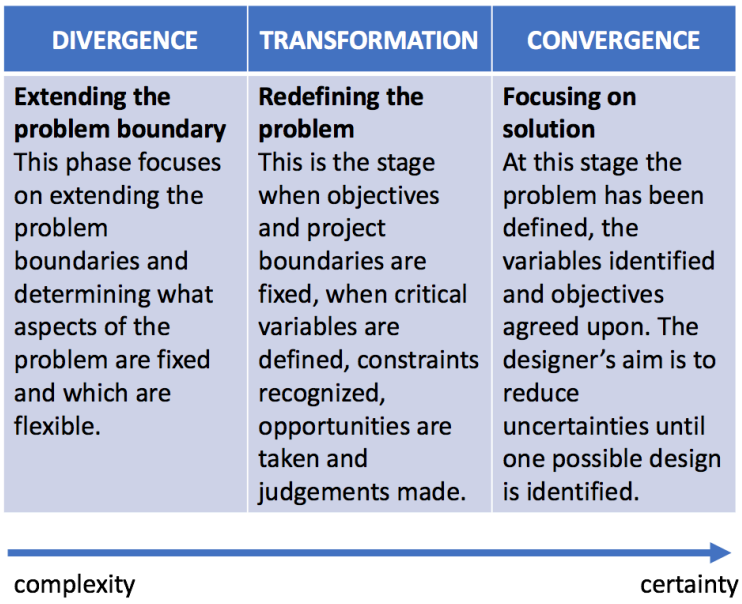


Figure 6. John Chris Jones's design methods (Holston 2011, 26).

The research process of the study comprises of four consecutive phases. The model is adapted from Holston's model and supplemented with John Chris Jones' design methods. Illustration of the process can be found below as *Figure 7*.

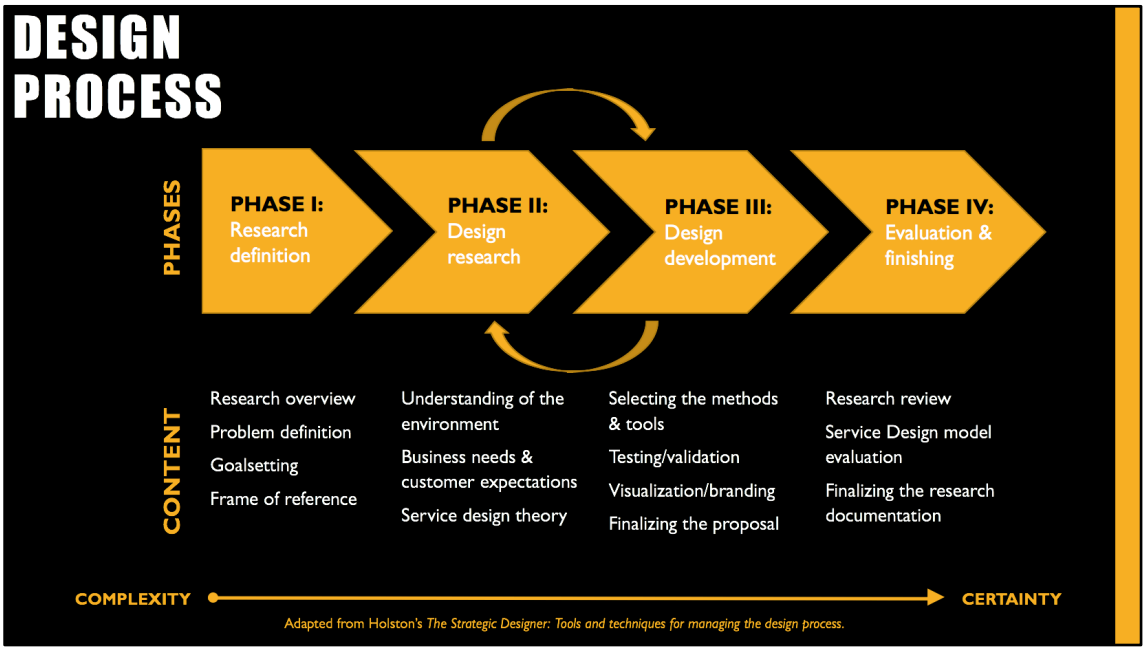


Figure 7. Service design process (adapted from Holston 2011, 24–38).

In the first stage, the problem and thus the research is defined so that goals become clear. This is done in chapter *Research Design*, which discusses the problem area, goals, frame of reference, and overall landscape of the research. A design process description itself is created to depict the overall periodicity and structure with tasks and results as content of each phase. Setting expectations and common understanding about the desired end result is vital at this research definition stage.

After the first step of the process, the actual design research starts by diving into Osaamisbotti solution and business domain. Placing the problem in context and understanding the specifics of business needs and discussing the value proposition are considered in this phase at the latest. Design research includes service design theory discussion; in this context design thinking, as a whole, applicable service design methods and related tools. This is discussed in *Chapter 5*.

During the third phase of the design process the studied methods and tools (toolset) are selected, customized, and validated for Osaamisbotti Oy purposes. Visual representation of the tools, brand elements embedded, is an important factor together with the ease of use. If needed, revisiting phase II can be made to ensure the best fit of the toolset and to be able to create the best possible proposal for the commissioner at the end of the phase III.

Finally, in the last phase the research work is concluded. The research is reviewed, the results are evaluated, and the tailored service design model documents are handed over to the commissioner after a thorough review. Research documents are finalized during this stage.

4 OSAAMISBOTTI SOLUTION

The core offering of Osaamisbotti Oy is a platform, which is provided as a service. The functionality of the solution can be used with two distinct user interfaces: web browser-based UI for coaches and mobile UI for coachees. There are also other variants, namely customer service chatbots, which use the platform for other customer purposes. Most of the information presented here is based on the author's experience gathered while working for the company, therefore references to specific sources are not always mentioned.

4.1 Business Concept

When a prospective customer shows interest in the solution and/or collaboration, they are given a walk-through presentation and demo of the offering. An official offer then follows this first stage.

The service is customized for the customer during a co-development project. Usually, the solution is available for testing from day one, and gets fine-tuned according to the mutually agreed functional requirements and is done in agile way. The project phase is offered at a fixed price and it covers planning, requirement and use case specifications, testing and feedback.

At the end of the project, decision for the continuation is made by the customer. If they want to continue testing, another project is set. If they are ready to take the solution in use, a use phase contract is to be made. That is, a monthly fee will be charged in relation to the user base and the level of support needed.

For customers, the business case can be realized through savings in resources and time spent in the process. Furthermore, user experience and motivation can increase drastically by taking the software robot into use. Automatization in pre-screening phase to easily and fast generate user profiles, advanced communications functionality in form of ready-made questionnaires and group messaging, 24/7 availability, and intelligent customer service functions like chatbot answering to users' frequently asked questions (FAQ), can save the customer a fair amount of money. These kinds of benefits are estimated in *Figure 8*.

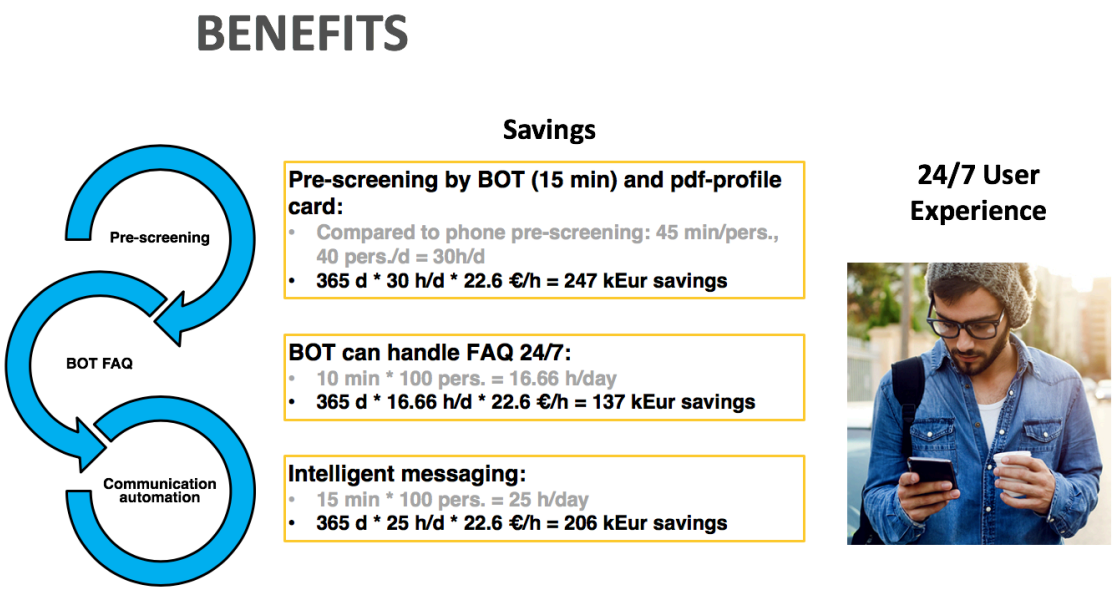


Figure 8. Benefit calculation for customers (Osaamisbotti Oy 2019).

4.2 Functionality

Osaamisbotti started as a helper robot for employment service coaches. The main functionality was skills pre-screening that shortened the process of confronting the unemployed by 45 minutes per person. Ever since, the number of functions has been growing constantly in parallel with the number of onboarding customers. Naturally this kind of a trend is particularly common for new software solutions in the business.

The coachee (or job seeker in employment services domain) is provided with a tool helping him/her find out the latent skills and competence by discussing with the chatbot. Osaamisbotti generates a competence profile based on the conversation and in that way makes the latent information visible. The profile, also known as “skills card”, records the competence and skills gained from hobbies. Interests and motivation become visible, too. Skills card can be utilized to show the user open jobs and study programs matching his/her situation and goals. In the national AuroraAI program Osaamisbotti Oy is piloting a solution for matching user profile with open vacancies and studies.

All this on a handheld device, through Skype app, makes the usage not only instant and easy, but it also makes two-way communication convenient with pop-up messages possible between the user, the chatbot, and the coach independent of time and place.

Additionally, Osaamisbotti has a daily journal function and a possibility for a coach to make notes and search content. The main functionalities for coaches are illustrated in *Figure 9*.

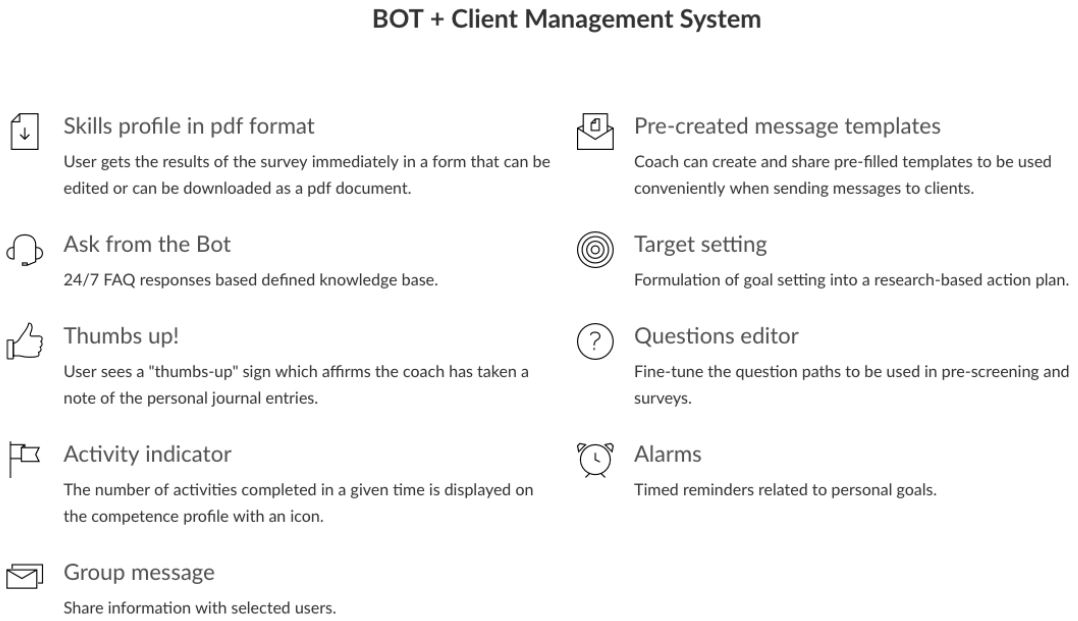


Figure 9. Main functionalities for coaches (Osaamisbotti Oy 2019).

The web interface for coaches is richer in functionality, while the Skype-based user interface for coachees is more restricted and simpler. User interface examples are illustrated in *Figures 10 and 11*. UI used via Skype is the actual bot channel with true two-way interaction. The user gets pop-up messages whenever the bot has a questionnaire or message to present. It has an intuitive interface that enables smooth dialogue with the bot as well as skills card management. In addition, the user is provided with “ask the bot” function that uses AI to find answers to FAQ, feedback feature, message functionality, and open job positions. There is also a web interface available for the coachees. It can be used similarly, but the bot dialogue cannot be conducted without the Skype channel. Osaamisbotti Oy offers Microsoft Teams as an option if preferred over Skype. Support for Facebook Messenger is in the development roadmap, too.

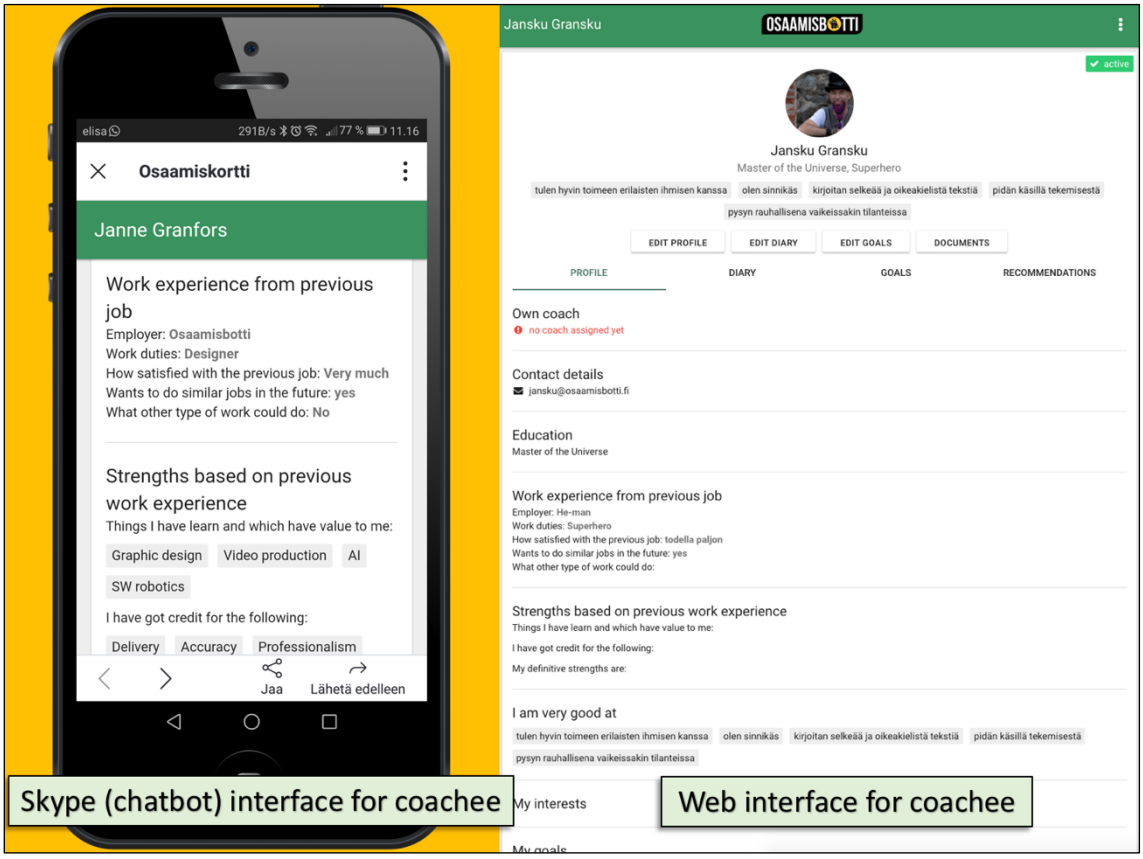


Figure 10. Coachee user interface examples of Osaamisbotti solution.

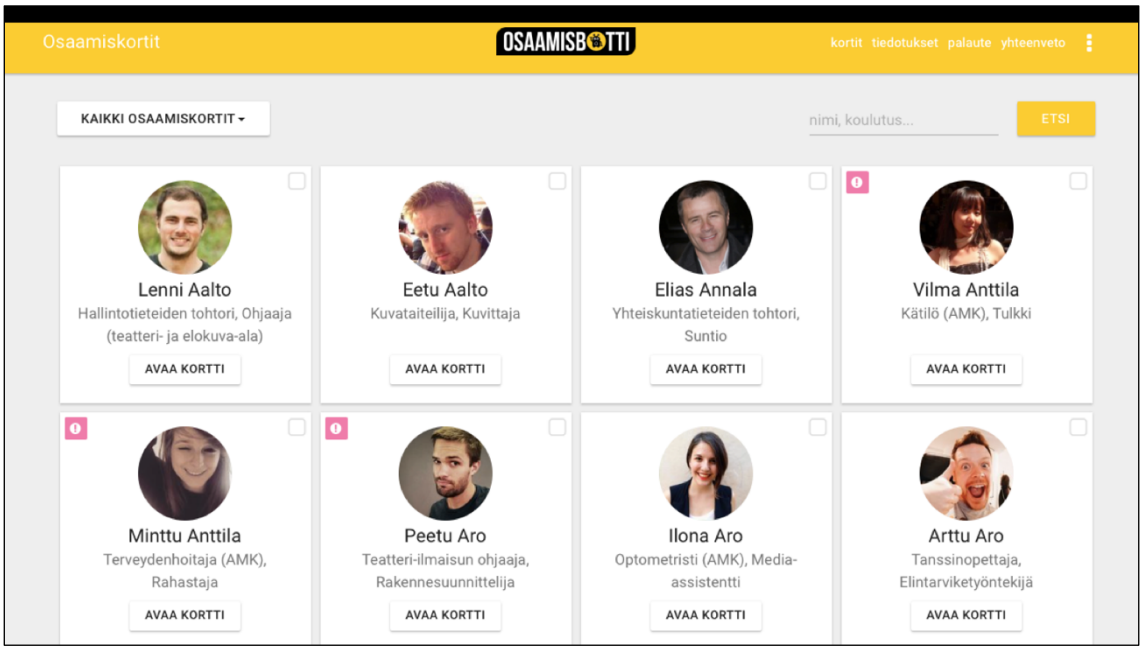


Figure 11. Coach user interface example of Osaamisbotti solution.

Coaches use a dedicated web client because of extended functionality and practicality reasons. It is easier to make questionnaires, select multiple persons, send mass messages, write targets for users and follow up them, and check requests and reports. There are additional features such as search, administration, graphical metrics, user management, notes, reminders, for example.

4.3 Technology

Osaamisbotti platform is built upon Microsoft Azure cloud services. It has multiple components and interfaces, and different customer solutions (Osaamisbotti instances) differ according to the customer needs. As an example, not all customers need the same functionality or UI. Azure offers a wide range of products for CRM, UI, machine learning and artificial intelligence development to be deployed – and tailored, if needed – for many purposes. The overall technology architecture is depicted in *Figure 12* and the third-party components used in Osaamisbotti platform in April 2019 are described in *Table 1*.

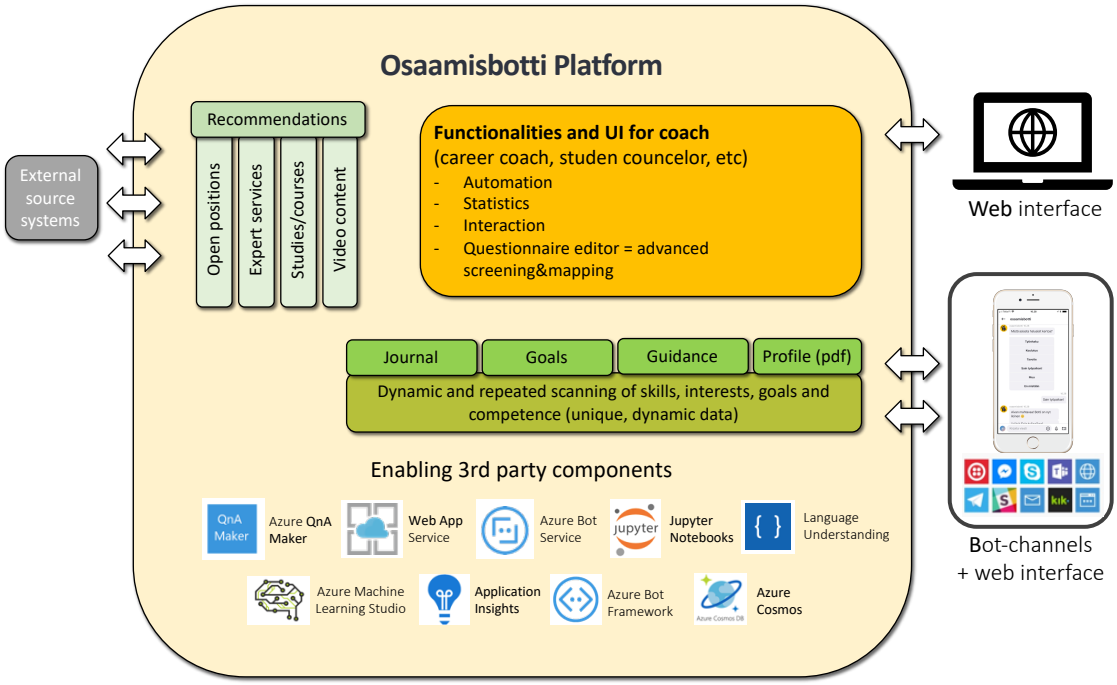


Figure 12. Architecture of Osaamisbotti platform.

Third-party component	Description of the component
Azure QnA Maker	API service for conversational functionality: question-and-answer service from existing data, such as FAQ database, manuals, or websites. Uses natural language to answer the user's question (Microsoft 2019).
Web App Service	A service for hosting web applications. Supports .NET, .NET Core, Java, Ruby, Node.js, PHP, and Python programming languages (Microsoft 2019).
Azure Bot Service	Integrated bot environment to build, connect, test, deploy, and manage intelligent bots. Supports C# and JavaScript programming languages (Microsoft 2019).
Jupyter Notebooks	Open source application for creating and sharing documents with live code, equations, visualizations and narrative text (Jupyter 2019).
Language Understanding	Intelligent API service for machine-learning. Predicts the overall meaning of the user's conversational, natural language (Microsoft 2019).
Azure Machine Learning Studio	Drag and drop tool for building, testing, and deploying predictive analytics solutions from data (Microsoft 2019).
Application Insights	Web application performance management, monitoring and analytics service (Microsoft 2019).
Azure Bot Framework	Service that enables developer to build, control, and integrate intelligent bots. (Microsoft 2019).
Azure Cosmos	Multi-model and global database service of Microsoft, supports document, key-value, wide-column, and graph databases (Microsoft 2019).

Table 1. Third-party components in Osaamisbotti platform.

There is a web API that is used to define the resources, relationships, and navigation schemes accessible to client applications (Microsoft 2019). At present, Osaamisbotti has connections to external source systems, such as open positions portal *MOL* run by TE office, where it pulls data from. Another example is HeadAI system, which provides Osaamisbotti with job and course recommendations based on the user profile. Also,

video content is fetched from a separate content management system, as well as more specific expert services in employment and career coaching cases. Web interface for coach uses Azure's Web App Service module. It is also available for coachees in special cases, but the bot functionality (communication dialogue) is not supported. Coachees are offered several channels for bot UI: Microsoft Skype and Teams, Facebook Messenger and Workplace, and the list expands based on customer preferences all the time.

4.4 Development and Support

Customer-specific development is done in cooperation with the customer staff. If there are needs for other functionality than already implemented, the development is either done as a common project or as use phase enhancement without extra cost to the customer. It depends on the scale of the change and whether the functionality is something that would benefit other customers, too. During the development phase, support is included in the price. Osaamisbotti Oy nominates a dedicated person to handle support requests and to act as a contact point in technical inquiries.

General platform development, such as adding another UI language or refreshing the look and feel, are done so that they can be taken into use by any of the customers if desired. They are not charged separately for these kinds of enhancements.

Normal development tasks are carried out by the Osaamisbotti Oy team. In case of larger initiatives or projects, external consultancy services are used according to balance the workload of own personnel.

Support includes user training (written and oral instructions, video guides), technical support via email and team collaboration tools (Slack, Microsoft Teams), and customer information sessions/visits. Support is covered by the use phase fee.

5 SERVICE DESIGN APPROACH, THEORY AND METHODS

A fundamental part of a reliable research is the theory it is built upon. The theory should support the process of solving the research problem and it should also help in achieving the desired outcome effectively. In the case of developing the service design model for Osaamisbotti Oy, choosing the theory base and the design methods, accordingly, was done at the early stage of the process. In this chapter, the methods are studied from the theoretical perspective and the using them in the design work is described likewise. Service design model is not only about a toolkit or number of methods. One of the most important part is the way of thinking, mindset. Stickdorn et al. (2018, 21) formulates the mind set as "*…service design is pragmatic, co-creative, and hands-on; it looks for a balance between technological opportunity, human need, and business relevance.*" This mindset is often described as "design thinking" and it is be opened up in the following chapters of this research. The approach chosen for the research was discussed with the commissioner and design thinking together with co-design were the most obvious themes to be included because of the way of working in the company. The selection of methods to be tested during the study was formed based on the service design studies and business experience of the author, in addition to the current state and preferences of the commissioner. The chosen methods changed as the research advanced iteratively from the phase I to phase II, and there was a need to clarify the scope and the objective got more specified. Business model canvas was changed to lean canvas and discussion group was left out. Also, stakeholder map was added, and more attention was paid to participatory action research.

5.1 (Service) Design Thinking

What is the purpose of design? Is it that we want better looking products? Or is it that we need more creative ways of using products or services? And if so, how do you measure a design that is good? Raichur (2019) summarizes the purpose of design well in his playbook *Design Thinking: "The purpose of design is to improve the quality of life"*. Thinking like a designer can bring value to systems, procedures, protocols, and user experiences, as he suggests.

Service design is a way to improve existing services or create a new in order to get more value out of an organization. Stickdorn et al. (2018, 14) formulate the service design approach as follows: *"As a design discipline, it is focused on solving the right problem – by framing the problem or opportunity in the right way".* It needs to add, however, that service design thinking is cross-disciplinary and thus may not be considered as a separate discipline as such. Service design is not a stand-alone academic entity, but a combination of methods and tools – some of them adapted from the fields of branding, marketing, user experience (UX), and business development, for instance.

Stickdorn & Schneider (2011, 22) define service design thinking as an evolving approach where a shared language is vital. It is not needed to have it right at first, because testing, prototyping, and a structured process usually lead to better results in improving or creating a service. Reason et al. compare the traditional business thinking and service design thinking in their book *"Service design for business: A practical guide to optimizing the customer experience"* (2016, 7–8) by simplifying it: it is assumed in business thinking that the answers and solutions to business problems exist and just finding the correct one to fit in certain market, is needed. On the other hand, design thinkers reach out to invent a perfect solution because there is one to be found. It involves both imaginative and analytical thinking to succeed in service design.

Early involvement and value co-creation is key in the process; service design thinking and way of working must be embedded in the commissioner's organization from the beginning. Unfortunately, potential benefits in service production are lost when customers are considered as anonymous consumers only. Instead, the customers should be thought as valuable and productive assets in the development process. (Polaine, Løvlie & Reason 2013, 24.)

Also, the entire environment of the service is to be taken into consideration with the five principles of service design thinking introduced by Stickdorn:

1. *User-centered:*

   Services should be experienced through the customer's eyes.

2. *Co-creative:*

   All stakeholders should be included in the service design process.

3. *Sequencing:*

   The service should be visualized as a sequence of interrelated actions.

4. *Evidencing:*

   Intangible services should be visualized in terms of physical artefacts.

5. *Holistic*

(Stickdorn & Schneider 2011, 26.)

Slang (2019) defines design thinking as a 5-stage process. The stages are described as "modes" where the designer iterate the problem statement, ideas, and prototype, towards a solution – not as sequential steps. In every stage the understanding of the users is increased. Cornerstones of design thinking are human-centric problem reframing, creative ideas, and hands-on approach when prototyping and testing. The 5-stage process is depicted in *Figure 13*. (Slang 2019.)

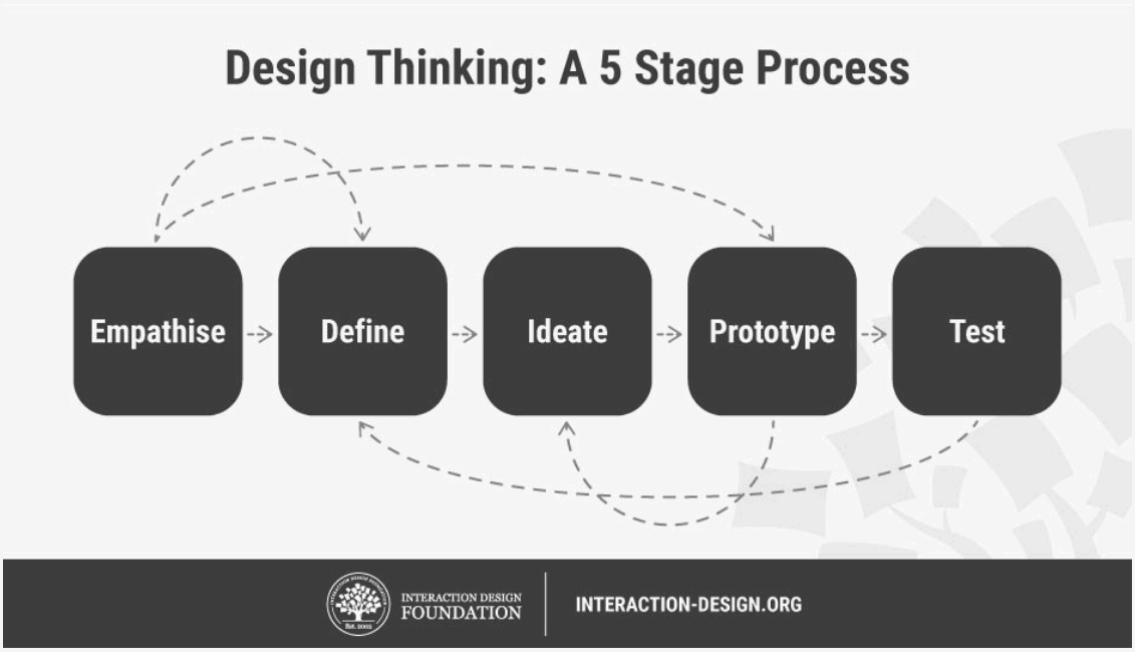


Figure 13. Design thinking process with five stages (Slang 2019).

In practical terms, service design begins with collecting data about the users. Getting insight, putting oneself into customer's position and seeing the world from their perspective, gives an understanding about the needs, problems, and expectations of the most important part of a service – the users. After that, the process continues in a co-

creative manner with all the stakeholders, aiming at improving the service. This way of working is discussed more in the next chapter *Co-design*.

5.2 Lean Approach and Tools

In 1988 John Krafcik wrote an article comparing productivity levels of two car manufacturers. The other manufacturer used economies of scale and high tech, whereas the other had a small amount of stock, a small buffer, and a simple technique (which was expressed as “fragile production system”). Krafcik proved the latter to be more productive but did not like the negative word of “fragile”. Therefore, he renamed the approach as “lean”. The lean car manufacturer was Toyota from Japan. (Modig & Åhlström 2016, 78–79.)

Lean approach is gaining popularity also in other fields of businesses and nowadays particularly in startup scene. As the word “lean” also suggests, the aim is to have more streamlined processes that enable agile development and shorter time-to-market time. Eric Ries (2011, 8–9) has developed a tailored lean model with five principles targeted to startup entrepreneurs:

1. Entrepreneurs are everywhere – Lean Startup approach can work in any sector, industry or size of a company
2. Entrepreneurship is management – a startup is an institution, not just a product (or service)
3. Validated learning – startups exist to learn how to build sustainable business
4. Build-measure-learn – turn ideas into products (services), measure the customer response, learn from the feedback
5. Innovation accounting – startups need to measure progress, setup milestones, prioritize work

In short, lean approach calls for the early involvement of customers to test – often times unfinished and not fully functioning – products or services (Ries 2011, 4). “Trial and error” -type of development can give valuable information to the startup company early enough to avoid larger amount of investments or release of unsuitable product that has been developed for a long time without any customer feedback. Lean is also an operational

strategy: it aims at meeting the goals by highlighting good process flow, not by focusing on resource productivity (Modig & Åhlström 2016, 127).

With lean approach, companies can achieve a lot with minimum effort and in that way get competitive advantage and profitability. Efficiency is achieved with short lead times and low number of errors. They enable short delivery times, high reliability of deliveries, rapid development and product changes, high product availability, and little customer complains. Eventually, costs decrease and revenue increases. (Tuominen 2010, 29.)

In this research, lean canvas was chosen as one of the methods to test in Osaamisbotti case. Lean methodology is being applied in majority of their projects already, but lean canvas has not been one of the tools used. Compared to business model canvas, lean canvas focuses more in customer than the company. However, it shares major blocks with business model canvas. It starts with writing down the customer problems and segments, and lists unique value proposition, as well as solution for the problems. Lean canvas was adapted from business model canvas by Maurya and it is introduced in his book *Running Lean* (2012). The model with fill in order is depicted in *Figure 18*.

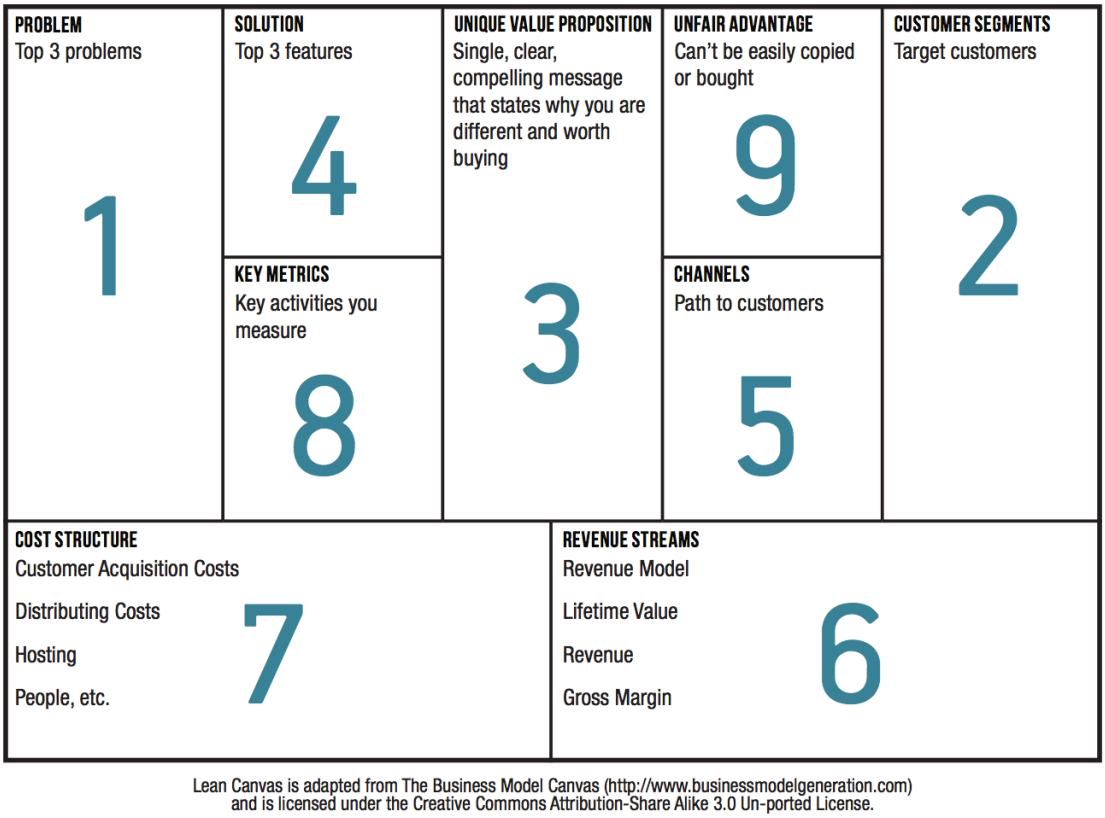


Figure 14. Lean Canvas model (Maurya 2012).

Furthermore, lean service creation tools are in the scope of this study. Sarvas et al. (2016) have compiled a handbook where practical canvases are illustrated with instructions how to use them in lean processes. The following templates are considered worthwhile studying with regards to Osaamisbotti Oy: ideation canvas, experimenting canvas, and MVP Backlog.

The main purpose of ideation canvas (*Figure 19*) is to find and create ideas how to solve a business problem. The user need/problem is described on high level so that the obvious or beforehand thought ideas are not scoped as the only ones. Negative and positive emotions and/or aspects are listed based on the insight got from interviews, for instance. Brainstorming method can then be used to ideate in groups or individually. (Sarvas et al. 2016, 13–14.)

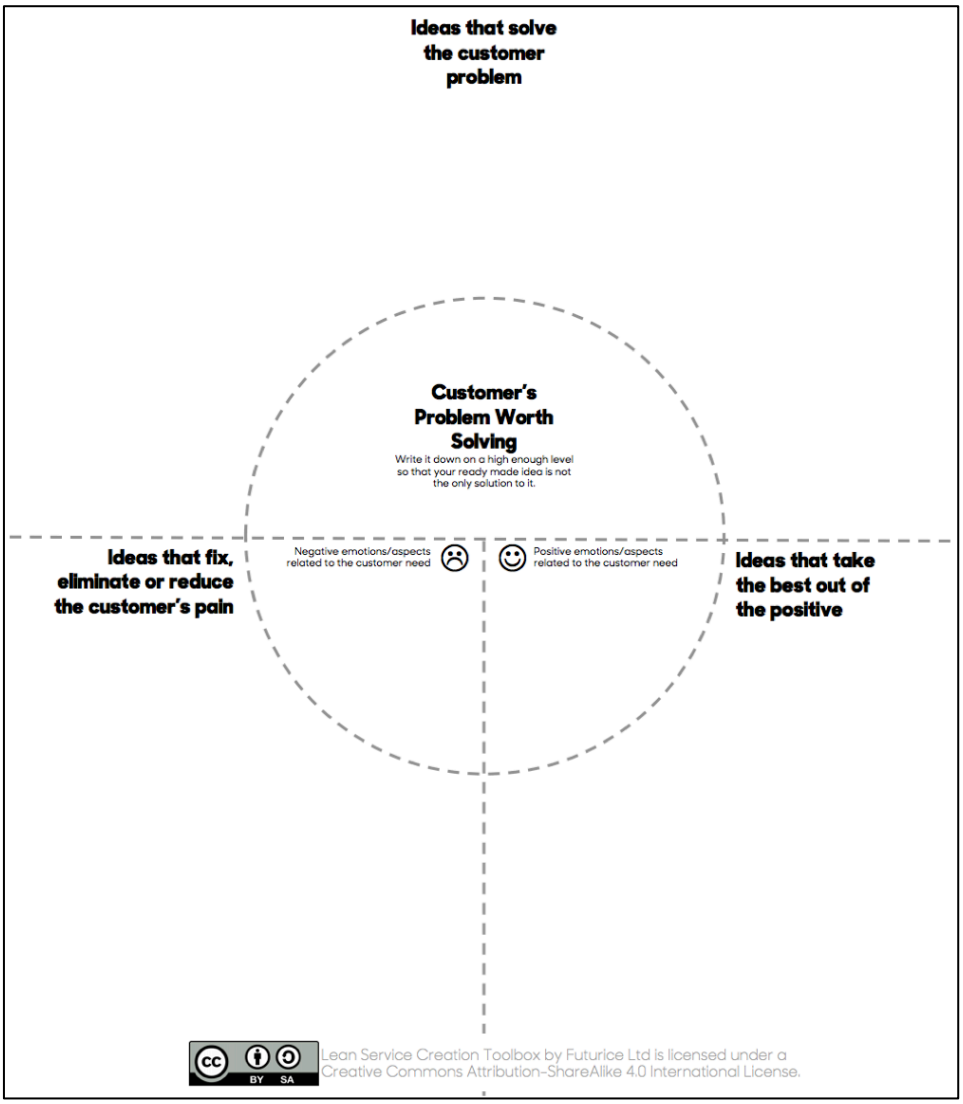


Figure 15. Ideation canvas (Sarvas et al. 2016, 14).

Experimenting canvas is created to help design team to form a backlog and prioritize tasks. It structures the work and helps the team to figure out what to do next and what is important, meaningful, and critical for your business – or to the new service. In the early phases of service creation, many assumptions are made. Experimenting canvas makes the project team to think about them and how to prove them right or wrong. Experimenting canvas template is depicted in *Figure 20*. (Sarvas et al. 2016, 31–32.)

Figure 16. Experimenting canvas (Sarvas et al. 2016, 32).

After having the assumptions in experimenting canvas, next step is to fill in minimum viable product (MVP) backlog. It is not a technical backlog, but a list of required actions and people responsible for conducting the tasks. Also, it documents the most critical business and technical issues. One noteworthy thing is end user verification: the canvas makes you think about the segmentation and value proposition again. MVP backlog is illustrated in *Figure 21*. (Sarvas et al 2016, 35–36.)

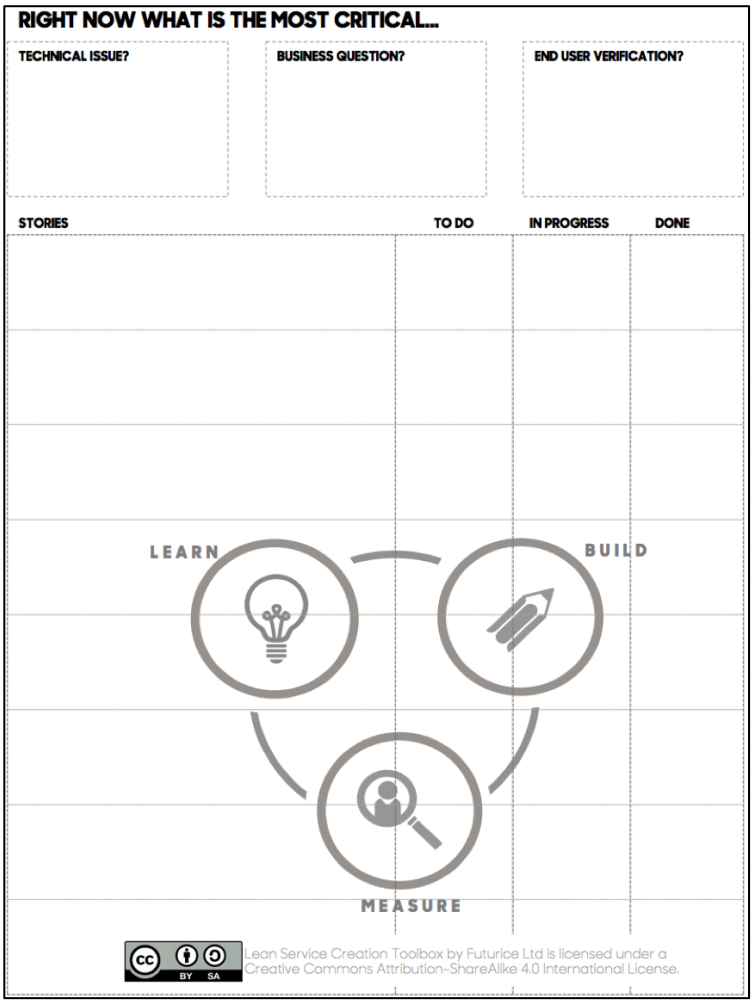


Figure 17. MVP backlog (Sarvas et al. 2016, 36).

5.3 Co-design

In user-oriented service development the users participate in service designing, creation, and testing. While using the service, the user gives feedback to the service provider and therefore the understanding of the user actions and preferences deepens. User experience in turn feeds to alternative solution possibilities and innovations. Koivunen et al. (2014) describe the process and compare it to user-centered development (*Figure 14*).

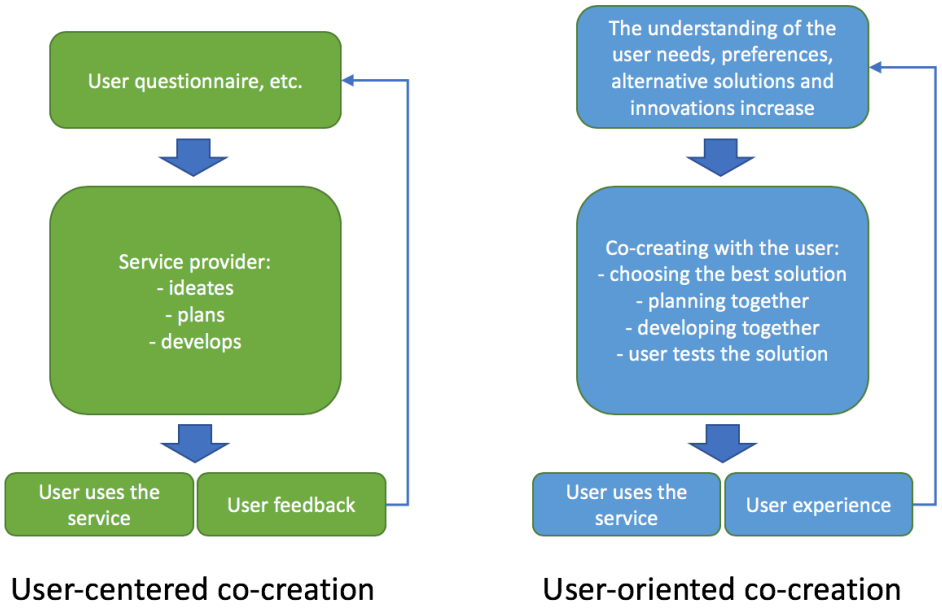


Figure 18. User-centered and user-oriented models (Koivunen et al. 2014).

Sanders and Stappers open up the terminology in their online publication *"Co-creation and the new landscapes of design"* (2008) as follows: *"The user-centered design approach (i.e. 'user as subject') has been primarily a US-driven phenomenon… The participatory approach (i.e. 'user as partner') has been led by Northern Europeans".* Designing has been moved from specialist/expert actions towards user involvement since the 1960's. The participatory approach and user-centered approach are influencing each other and the gap in between is decreasing. Also, co-creation and co-design that are considered to be part of the participatory design research area, are growing. *Figure 15* illustrates the landscape of human-centered design research. (Sanders & Stappers

2008.)

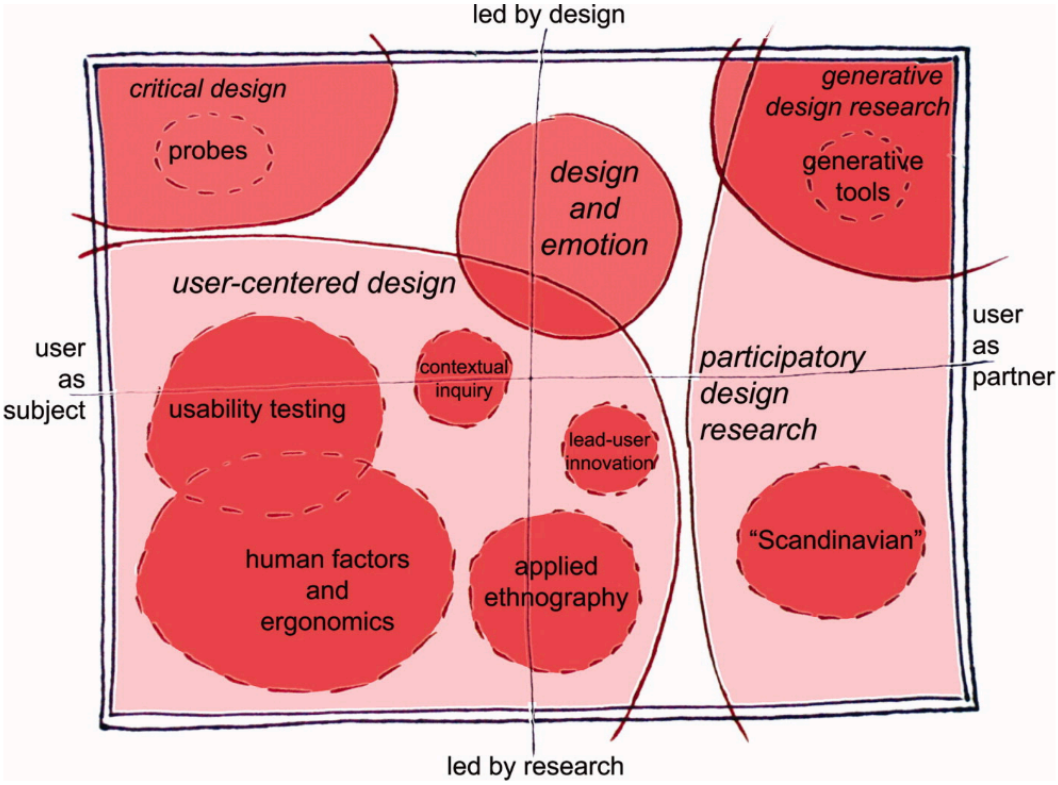


Figure 19. The landscape of human-centered design research as practiced in the design and development of products and services (Sanders & Stappers 2008).

What is the difference between *co-creation* and *co-design*? Co-creation is a wider term describin basically any creative activity which is conducted by two people or more. Co-design is a subset of co-creation. It is collective creativity applied in the whole design development process and it can be done collaboratively by designers and people not trained in design (Sanders & Stappers 2008).

5.3.1 Participatory Action Research

As per definition, participatory action research (PAR) is not a method, but an approach to research. It is a research where information for making a change is gathered using education and action by the people who are affected or concerned about the change itself. Participatory action research is done in cycles of planning, action, reflection, and

evaluation. It is collaborative in nature; every stage involves discussion and working together. In PAR approach, methods like interviews, video, surveys, or group discussion may be used. (Milledge et al. 2019.) Selected methods supporting PAR approach in this research are discussed in the following chapters.

5.3.2 Participatory Workshops

Participatory workshops are held to gather such information from the participants that would otherwise be difficult, expensive, or time-consuming to get. Extracting knowledge from the people who work with the issue at hand, may give invaluable results.

A participatory workshop planning guide published by Jisc organization defines the method in the following sentence: *"…a participatory workshop is an organised event which brings a group of people together to seek their opinions, extract their knowledge and to solve problems in a collaborative and creative environment.*" (Jisc 2019.)

Visual aids are usually used in workshops, and participants are activated with games, tasks, questions, or other icebreakers. No advanced electronic equipment is used in these occasions – paper, pens, sticky notes and such are the main tools for sharing the information. The key is to keep people collaborative and creative, not disrupted by laptops or phones. Many different traditional group work tools can be used in the participatory workshops to capture thoughts and knowledge: brainstorming, issue cards, affinity diagram, mind maps, for instance. (Jisc 2019.)

5.4 Surveys

Surveys are popular means of research when aim is to find a division of opinions or general status regarding a matter. An example would be a survey where people are asked about their opinion on daylight saving procedure: a question about the necessity of the change between normal time and summer time in Finland.

Surveys are good for mapping different situations, practices, conditions, or making comparisons. One advantage of surveys is anonymity, another being ease of use. They are also inexpensive to conduct. However, it may be problematic that not all respondents are willing to answer many queries that they receive, so the loss in coverage may be bigger than in other methods. The magnitude of the loss means that the distribution of

responses is oblique: those who are not interested in the subject or who oppose are left out. The representativeness of the answers is then questionable. (Anttila 2000, 251–252.)

5.4.1 Customer Satisfaction Survey

According to Hill and Alexander (2016), customer satisfaction measurement is about measuring how customers perceive your performance as a supplier. In other words, "*Customer satisfaction is a measure of how your organisation's total product performs in relation to a set of customer requirements".* With customer satisfaction survey, an organization may pinpoint the gaps where dissatisfaction originates from. (Hill & Alexander 2016.)

There are different metrics that can be used in measuring customer experience. Most popular are net promoter score (NPS), customer effort score (CES), and customer satisfaction (CSAT). Here we concentrate on measuring customer satisfaction index. Basically, the survey is all about getting the user answer one question with scale of 1 to 5. Typically, the question writes: "*How would you rate your overall satisfaction with the [goods/service] you received?"*. The answer options are usually:

1. Very unsatisfied
2. Unsatisfied
3. Neutral
4. Satisfied
5. Very satisfied

CSAT results are expressed as a percentage: 100% being total customer satisfaction and 0% total customer dissatisfaction. Calculation formula of the CSAT score:

$$\text{CSAT SCORE} = \frac{\text{NUMBER OF SATISFIED RESPONDENTS}}{\text{TOTAL NUMBER OF RESPONDENTS}} \times 100$$

(Qualtrics 2019.)

5.4.2 Online Survey

An increasing amount of surveys are made online. Online survey does not differ in content compared to more traditional surveys – it only is based on a different media – but the user experience is enhanced and there are many advantages for the organization conducting the survey, too. The pros as are access to unique populations, time, and cost. User groups are easily reached regardless of time and place, and – depending on the tool chosen – at a reasonable level of expenses. (Wright 2006.)

On the downside, there may be access issues or other technical difficulties hindering the user to participate the survey. Many inexpensive online survey tools exist, a number of them are even free of charge. Depending on the scope and objectives of the research, these low-budget alternatives could suit the project well.

5.5 Interviews and Customer Panel

Interview as a qualitative research method can be divided in three categories: structured, semi-structured, and unstructured. In this study, structured and semi-structured interviews are used. The term “in-depth interview” is also commonly used especially in cases of intensive interviews with a small number of respondents to explore their perspectives on a particular idea, program or situation. It is worthwhile to emphasize the distinction to surveys and other more generic data collecting methods. (Boyce & Neale 2006, 3.)

Interview is structured when the questions are prepared well beforehand, are the same for all interviewees, and are answered in the same order (Dudovskiy 2019). This means the answers can be easily analyzed and compared. Semi-structured interviews consist of questions that are meant to all interviewees as well. However, there can be more questions asked during the interview to get more clarification or deeper/wider angle on the subject. (Dudovskiy 2019.)

Customer panel can be used to evaluate the quality of a service and suggest improvements. Customer panel is very similar to focus group interview. It is an occasion where group of customers (current of prospect) are invited to an interview moderated by service/product representatives. It is not run by an external party; hence the questions can be detailed and precise, also the customers can ask any questions and they probably

get answered right on the spot. On the other hand, there is a risk of biased discussion. (McQuarrie 2008, 51–52.)

Interactive customer feedback such as customer panel serves as a valuable feedback channel that supports customer-oriented approach for example in project or concept review – thus easily overcomes internal management reviews. It can also be implemented as an online tool. (Liedtka & Ogilvie 2011, 191.)

5.6 Document Study

Document study means analysis of research material that cannot be gathered by direct, instant and immediate findings (Anttila 2000, 239). Material can be anything from articles, magazines, notes, presentations, and memos to electronic material such as videos, audio recordings, and web sites. These kinds of materials form an additional, supportive set of sources for the research.

In Osaamisbotti Oy case, meeting notes and other internal documents are of importance. Also, electronic presentations about customer organization, processes, concepts, and invitations to tender, are studied by the author to collect background knowledge. Web pages are a natural channel for finding information quickly and help you find the right source of information or contact. So, they are especially utilized in this study.

5.7 Prototyping

After a concept is created upon the ideas, the next stage is to build a prototype. This is a service design method that forms a cycle where many iterations between the concept design and testing are gone through. The service concept is tested in prototype stage and re-tested after commonly decided changes are made. Service design thinking philosophy drives for exploring as many mistakes as possible, not to avoid them. Iterative prototyping model aims at finding the problems early in the process and learn before deployment. (Stickdorn & Schneider. 2011, 122–125.)

According to Cipolla (2013, 51), involving users and designers early on in the prototyping phase support content generation and may input suggestions of using the service in new ways. Testing activities develop user involvement in co-design process further by using taking the working prototype as part of the users' daily routines. As the users are part of

the design process from the beginning to the final definition of the solution, Cipolla mentions the following potential gaps can be addressed by prototyping:

1) Difference between what customers really expect and what management perceived as customer expectation.
2) Difference between management's perceptions of customer expectations and the translation of those perceptions into service designs.
3) Difference between service quality specifications and the actual service delivered to customers.
4) Difference between the service delivered to customers and the promise of the firm to customers.

Service prototypes are valuable to find out whether the service will work or not. High fidelity prototype with lots of interactivity may offer accurate predictions how the service in question would function in production and fulfill customer expectations. *Live prototyping* is similar to *piloting* but has more of a design approach. Stakeholders are represented and the service runs on its planned context. (Blomkvist 2013, 183–185.)

Figure 16 illustrates a form of software prototyping called *tracer bullet development*. It is particularly powerful way of testing the technical feasibility of the solution. At first, a low-fidelity prototype can contain only rough sketch of an algorithm, but it evolves during the process towards higher fidelity or even actual implementation. Tracer bullet development aims at tangible, working digital prototype. (Stickdorn et al. 2018, 286–287.)

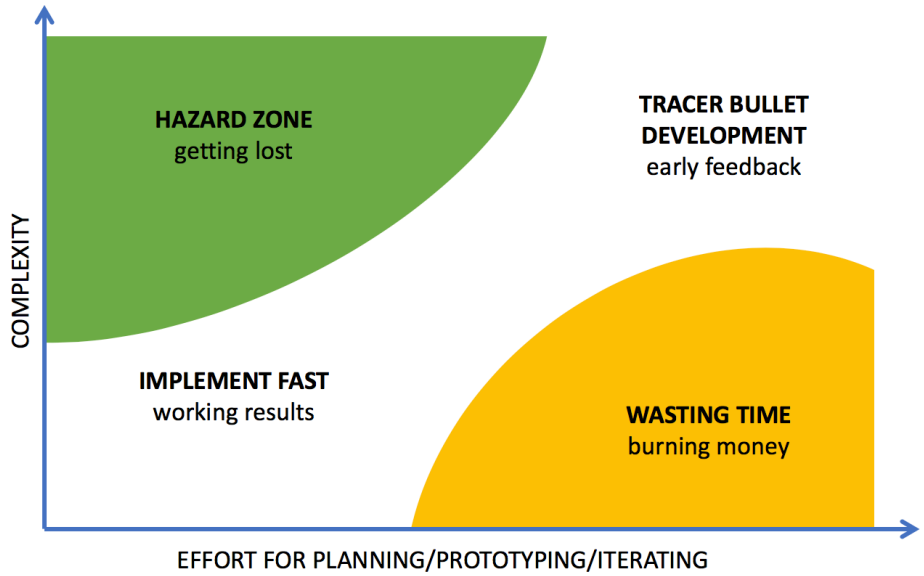


Figure 20. Tracer bullet development (Stickdorn et al. 2018, 287).

5.8 Brainstorming and Brainwriting

According to Curedale (2013, 6), brainstorming is one of the most productive and powerful group methods in ideation. It is easy to use, fits for many occasions, and gives different perspectives as diverse group composition develops wide range of original ideas and they can be improved further the by others. Brainstorming can be applied across fields of businesses, cultures, disciplines, and around the globe. It was made popular by Alex Faickney Osborne in the book "*Applied Imagination*" in 1953. (Curedale 2013, 6.)

Generally, people produce more ideas when working in groups with a moderator (Kantojärvi 2012, 129). However, individuals can brainstorm, too. Osborne suggested the method is at its best in group, but recent research has opposed this assumption (Curedale 2013, 62).

Recommended group size in a brainstorming session is 2-12. A facilitator (moderator) introduces the problem in question and give participants 5-30 minutes to work on the solution. Main idea is to accept literally *any* idea and develop them further during the session. Number of ideas per participant or group can be limited. Ideas are said aloud,

and the moderator writes them in a place where they can be seen by everyone. At the end of the session, results are analyzed. (Curedale 2013, 62.)

The problem might be that not everyone in a group are able to give their ideas immediately because of the others speaking, or the moderator is not capable of writing down the ideas quickly enough (Kantojärvi 2012, 129). Sticky notes or other pieces of paper can help the situation so that the participants can to write down any idea as soon as it comes to one's mind during the session. Furthermore, shy participants might prefer writing their ideas in silence. This model of brainstorming is called *brainwriting*. (Curedale 2013, 75.)

5.9 Mood Board and Design Brief

With mood board the designer can visualize the mood and outlook of the expected end result. It can be used internally or externally, and it is a tool to help finding a common understanding about the future state. Mood board is a general method suitable for many projects and contexts. Mood boards can be used to boost creativity by encouraging the target audience, communicating visually with them, as well as exploring and experimenting the creativity (Cassidy 2011).

Text, sketches, visualizations or other graphical elements, photos, videos, or any other media can be mixed in mood board to transport current of future experiences and style (Stickdorn et al. 2018, 239). Often mood board does not include video for practical reasons. An example of a mood board is shown in *Figure 17*. It was created as a study project work for Turku Music Library by the author.

Figure 21. An example of a mood board.

While mood board is a tool to describe visual appearance of the service provider and/or the solution to the customer, for instance, design brief is a document that summarizes the need and background of the concept and its owner. It is a story about the commissioner, and it captures the overall requirements for a development project. The story defines benefits for the user community and for the organization providing the service. Design brief sets the direction, but not the end result. The brief includes all items that influence the implementation and success of the project. It is a valuable document for service designer. According to Tuulaniemi, a good design brief contains the following items:

- goal of the design work
- primary and secondary target groups
- business objectives of the service
- portfolio of the company
- vision, mission, and strategy of the company

- market situation data of the company and existing services similar to the new service idea
- project scope, schedule, and phases
- budget of the project
- general description of the project
- background information of the project

The design brief is refined during the planning phase. It is used to communicate the goals and idea of the new service within the planning team and other parties involved. (Tuulaniemi 2013, 132–133.)

There are several tools that support design brief task in project. For example, Smartsheet Inc. offers designers and project planners a free template for storing design brief information. It is targeted to advertising and design agencies but can be used in various projects. Smartsheet call it *client creative brief*, and it is shown in *Appendix 1*. (Smartsheet Inc. 2019.)

5.10 Personas

"*Personas are fictional profiles, often developed as a way of representing a particular group based on their shared interests. They represent a 'character' with which client and design teams can engage"* (Stickdorn & Schneider 2011, 172). Personas are useful for making the imaginary and abstract user or user group tangible in the design process. It is more natural to discuss about a person with a name and face, and it can open up the atmosphere in workshops and other planning occasions.

Personas are created on the basis of a research insights that are gathered from stakeholder maps, interviews, or shadowing, for instance (Stickdorn & Schneider 2011, 172). Most persona descriptions include information about the person's background, values, workplace, hobbies, family, personality, motivation, and goals (Stickdorn et al 2018, 41–42) as shown in *Figure 22* (Xtensio online persona graphical tool utilized).

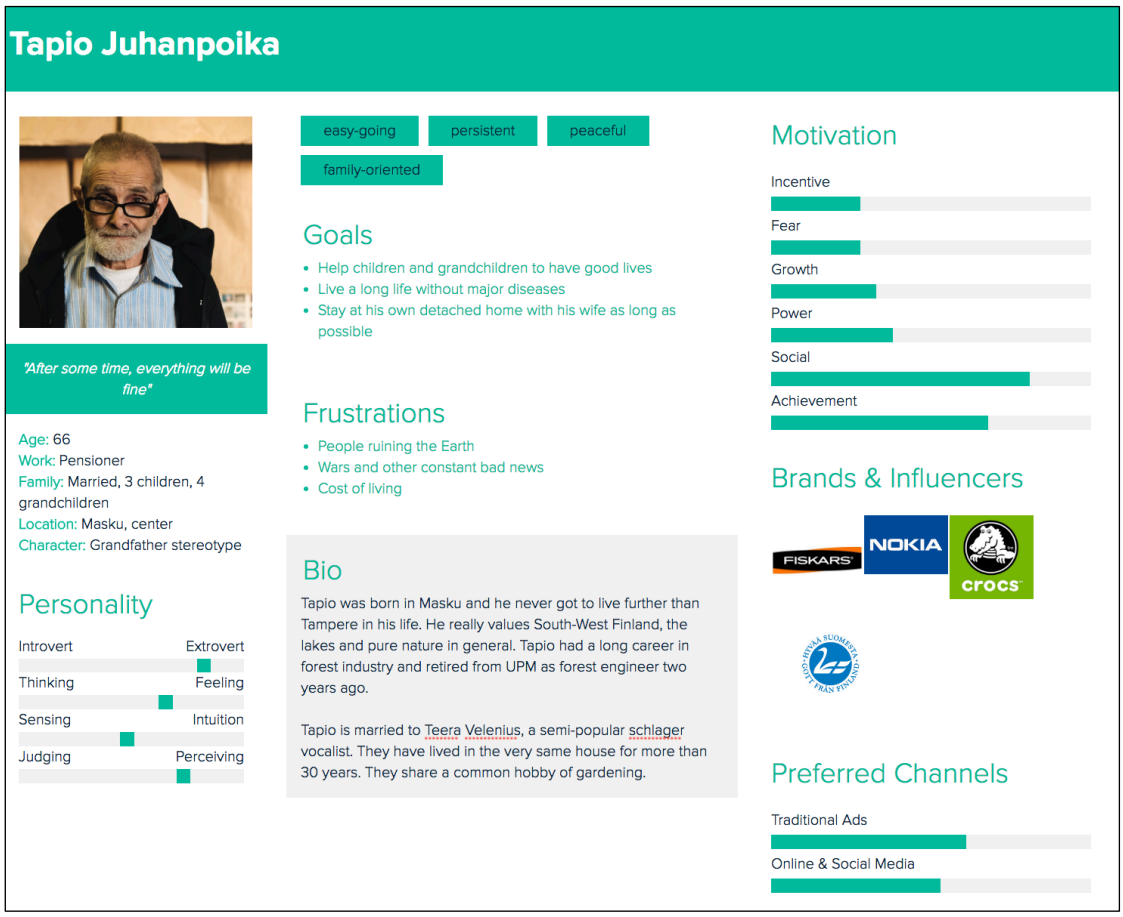


Figure 22. An example of a persona description.

5.11 Customer Journey

The series of interactions through the offerings of service is considered as customer journey (Stickdorn & Schneider 2011, 74). (Customer) journey maps try to visualize the user's journey through a service and thus find possible gaps or pain points. The resulting user experience with emotion and interaction information are valuable input in improving the service or, in case of building a new service, avoiding pitfalls in the development. The method is human-centric and gives a good basis for service blueprint, which is studied in the next chapter.

Journey map can be utilized to visualize current experiences or future (planned) service experiences (Stickdorn et al. 2018, 129). As shown in *Figure 23*, customer journey canvas comprises of elements that are put in sequence according to the service: pre-,

in-, and post-service phases. A persona is used to act as a customer taking visual steps (touchpoints) through the service. The level of detail can differ according to the desired scope and scale. Nonetheless, journey maps are not meant to capture all details and the full complexity of a service offering, but they try to visualize data and facilitate a common understanding between team members (Stickdorn et al. 2018, 46).

If the customer journey map is co-created, the possible bias of the results has to be taken into consideration, because often times the outcome of a co-creative workshop is based on assumptions and thus can be misleading. (Stickdorn et al. 2018, 126–129.)

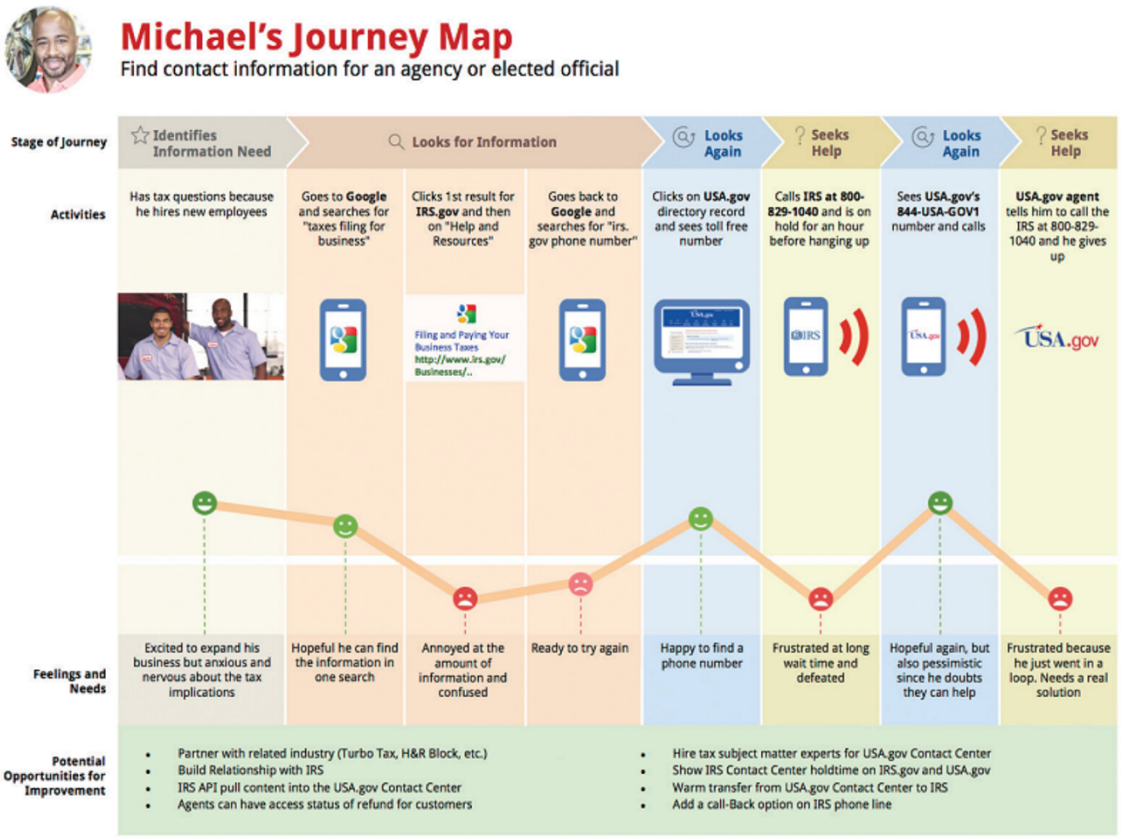


Figure 23. Customer journey representation (Fichter & Wisniewski 2017).

5.12 Service Blueprint

In a way, service blueprint is an extension to customer journey map. Front stage actions and physical evidence, backstage actions and support processes are added to enrich

the representation to cover the whole service environment with actions that happen "behind the scenes" – processes that are hidden from the user. Service blueprint is more holistic visualization of the service and it incorporates all parties that are involved in the service production.

In addition to customer journey, service blueprint uncovers the touch points of both the customer and the service provider, and reveals all the actors in the service process, as Tuulaniemi (2011, 212) mentions. This gives more thorough picture of the process and especially helps designers to pinpoint possible problems in customer and service personnel interaction and communication, efficiency, order and amount of the tasks, and resourcing, for instance.

According to Stickdorn & Schneider, the value added by service blueprint originates from the process and the end result: on one hand, producing the blueprint together and in collaboration contributes to teamwork and co-operation, and on the other hand, as the service elements get outlined and described, overlapping items and inefficient duplicates can be spotted. Also, by no means the least importantly, the most crucial areas come up during the process. Furthermore, they encourage revisiting the service blueprint periodically in workshops to further detail and refine it all the way to the implementation stage of the service. (Stickdorn & Schneider 2011, 202.)

Service blueprint model is layered onto "swim lanes" and thereby it can be used in many ways and it also applies to long service processes. However, it needs to be acknowledged describing the service must begin with customer actions, not with service supply. Hence the opportunities can be brought up before the challenges of implementation. Also, one can attach cost information on the first swim lane to get the adequate price level of the service assessed by the (prospective) customer. Hereby, evaluating the appropriate cost for the customer section by section, intolerable overall price can be addressed by revisiting the individual touch points and process step costs. (Tuulaniemi 2011, 214–215.)

As *Figure 24* illustrates, *the line of interaction* is the point where the user and the service provider interact with each other. *The line of visibility* is the distinction between the front-office staff and visible systems, and the invisible back-office personnel and support processes (Stickdorn & Schneider 2011, 203).

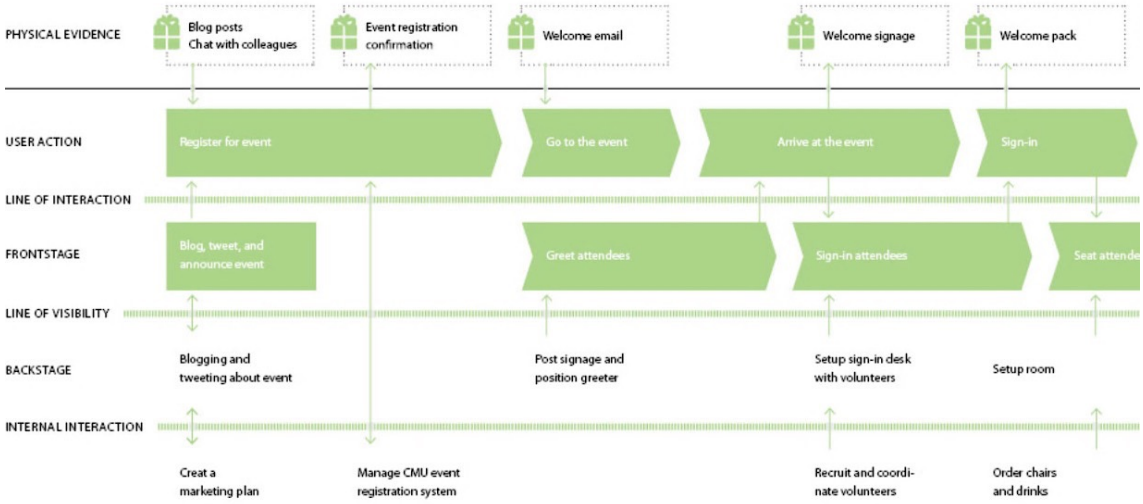


Figure 24. An example of a service blueprint (Stickdorn & Schneider 2011, 203).

5.13 SWOT Analysis

Strengths, weaknesses, opportunities, and threats (SWOT) analysis date back to year 1965, when Albert Humphrey from Stanford University invented a tool to understand strengths and weaknesses, as well as identify opportunities and threats (Curedale 2016, 185). With a simple four-block outlook, it is one of the most known tools used in variety of business areas. It is clear to understand and simple to fill in, yet useful to make people think about the state of the respective subject matter. Strengths and weaknesses are more about internal status of an organization whereas opportunities and threats are considered external characteristics (Holston 2011, 123).

When filling in a SWOT template, brainstorming can be used. However, the data must be verified so that the possible decisions made according to it, are based on correct information. There are questions that help filling in the chart as shown in *Figure 25*.

Strengths	**Weaknesses**
What do we do best? *How do customers perceive us?* *What resources to we have at our disposal?* *How loyal is our customer base?*	*What do we do poorly?* *What negative perceptions do people have about us?* *What resources do we need to move forward?* *How can we restructure to improve performance?*
Opportunities	**Threats**
Which trends currently offer the best opportunities? *What can we do that will provide a competitive advantage?* *In what areas is the competition weak?*	*What negative trends can be identified at present?* *What do we need to avoid in the future?* *What is our competition doing that could hurt us?*

Figure 25. SWOT questions added into template (Curedale 2016, 184; Holston 2011, 123–124).

After answering to the questions, SWOT analysis can be taken further by drawing the connections between the four components. They are made to suggest ways to build on strengths, mitigate weaknesses, exploit opportunities, and avoid threats. (Holston 2011, 125.)

5.14 Stakeholder Map

Why stakeholder map is important in service design projects? Stickdorn et al. explains it in their book *This is service design doing (2018, 59)*: "*Stakeholder maps help us to understand which stakeholders are involved in this ecosystem, help to reveal existing relationships between these stakeholders and identify informal networks or frictions between stakeholder and help us to find unseen business opportunities*".

Stakeholder map depicts the people and organizations involved in a service (or an experience, as Stickdorn et al. express it). By asking the question "*who are the most important actors in the service process?*" designers may find valuable information that can be utilized to make the service more appealing, more effective, streamlined, or otherwise improved. This can be done by adding or eliminating certain stakeholders, or

their relationships. With a stakeholder map, interplay between the stakeholders can be charted and analyzed. (Stickdorn et al. 2018, 59.)

Visually, internal staff of the organization or service, are placed in the middle. The outer layer includes external stakeholders. An example is illustrated in *Figure 26*.

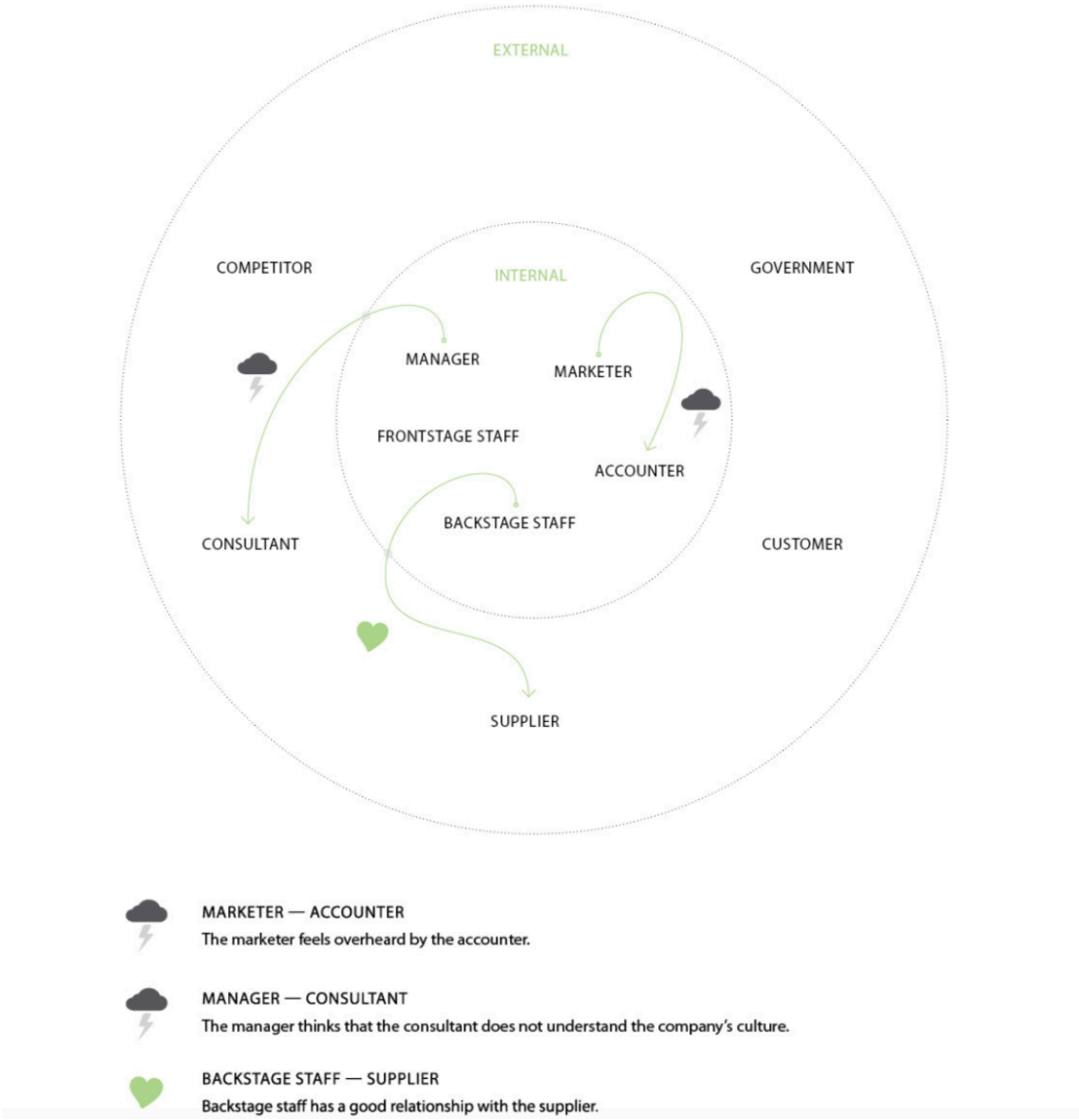


Figure 26. An example of a stakeholder map (Stickdorn & Schneider 2011, 145).

6 DESIGN METHODS IN PRACTICE

Service design methods introduced in the *Chapter 5* are used in real customer cases to test and justify their effectiveness and necessity. Couple of the methods, as process chart and document study, are utilized only in the actual research study instead of real business projects for that matter. Moreover, participatory action research is present in every phase and co-design has taken its share as a self-evident way of working. It is noteworthy that research experiences have accumulated over a year. During that time, there has been a development in the commissioner's working methods and the quality of operations, as well as in the customers' know-how regarding the Osaamisbotti solution and the way the company uses service design in agile environment. Basically, it is evident in the change of mindset, and from a wider scope it is a growing trend in this business area. Service design has become a common word in business vocabulary. It seems that design thinking has been adopted relatively well by the Osaamisbotti Oy customers, too. it is reflected in participation activity and an open attitude towards new working style and collaboration models. The resistance to change is low amongst the key personnel, both in Osaamisbotti Oy and their customers.

6.1 Business Information Collection with Lean Canvas

Instead of business model canvas, lean canvas is used to document the business perspective of Osaamisbotti. For a startup as Osaamisbotti Oy, lean methodology does not only save time and resources, but also helps to simplify multi-dimensional matters as business plan and thus give a shorter and easier way to communicate both with personnel and third parties. Lean canvas was created as a joint effort of Osaamisbotti Oy management, driven and facilitated by the author. Cost structure and revenue streams are confidential information and that is the reason why they are not shown in the chart. It can be found as *Figure 27*.

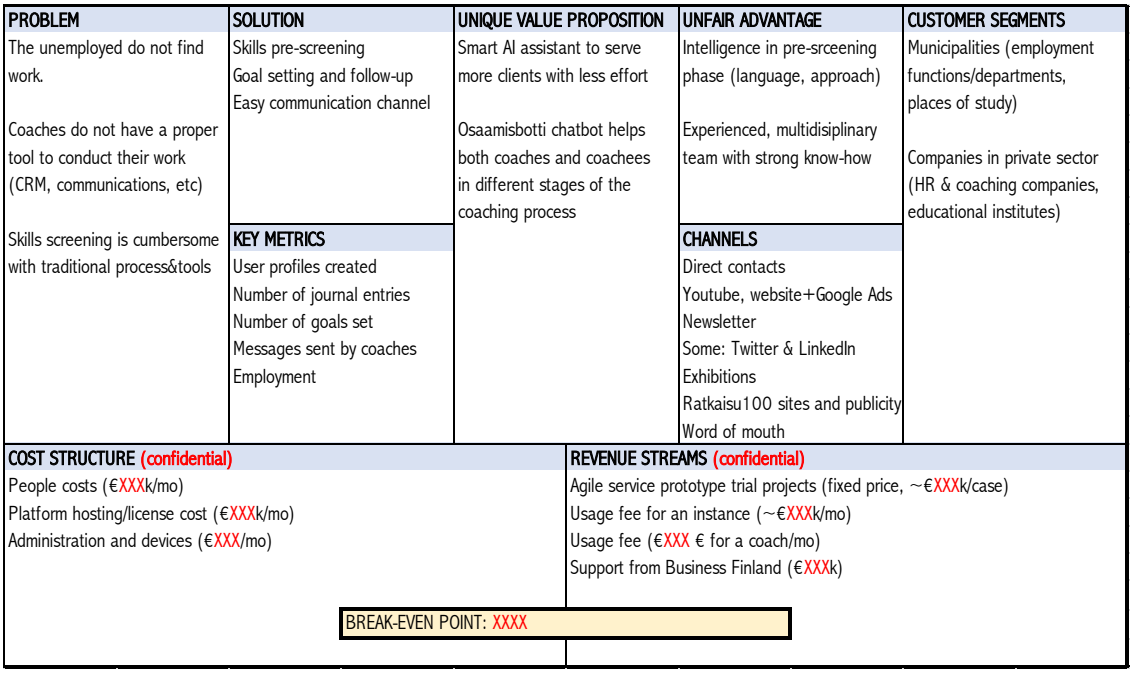
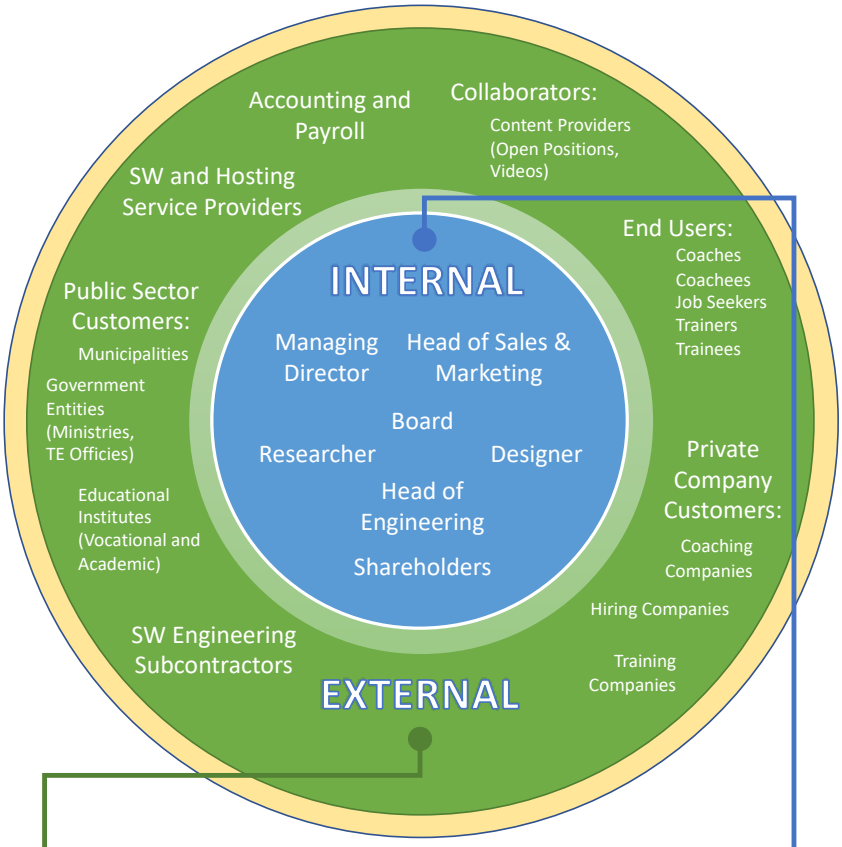


Figure 27. Lean canvas of Osaamisbotti.

6.2 Stakeholder Analysis and Mapping

The stakeholder map of Osaamisbotti Oy originates from the author's day-to-day work in the company. Discussions with people involved in service process and development projects, naturally without forgetting the management and customers, gave input to the analysis and mapping influencers and audience. Mapping was conducted by listing all instances that are either part of the company or relate to the service activities (with influence or involvement), both internal and external. The identification table with roles and stakeholder map are shown in *Figure 28*. It is noteworthy that the stakeholder map covers the entire service life cycle.



INTERNAL	Contributor	Reviewer	Approver
Board			x
Managing Director	x	x	x
Head of Sales & Marketing	x	x	x
Researcher	x	x	x
Designer	x	x	x
Head of Engineering	x	x	x
Shareholders			x
EXTERNAL	Contributor	Reviewer	Approver
Accounting and Payroll	x		
SW Engineering Subcontractors	x		
Public Sector Customers - Municipalities - Government Entities (Ministries, TE Officies) - Educational Institutes (Vocational and Academic)	x	x	x
Private Company Customers - Coaching Companies - Hiring Companies - Training Companies	x	x	x
Collaborators - Content Providers (Open Positions, Videos)	x		
End Users - Coaches - Coachees - Job Seekers - Trainers - Trainees	x		
SW and Hosting Service Providers	x		

Figure 28. Stakeholder map of Osaamisbotti Oy.

6.3 Visualization and Branding of Osaamisbotti with Mood Board

New customers about to onboard can immediately see the style and mood of Osaamisbotti solution by showing them a mood board. At the moment, the mood board that was created during the phase III of the research process (design development), is a general representation of Osaamisbotti, not tailored to any specific customer case. However, if the company allows wider changes in UI look and feel per customer, new mood boards can be customized similarly to cater the requirements and design targets. The mood board was compiled by the author as he is responsible for the visual outlook of the commissioner as his daily work and it is illustrated in *Figure 29*.

The mood board features Osaamisbotti Oy brand colors and animation character that appear in Osaamisbotti video tutorials. Moreover, the co-design approach is present and positive attitude. The small pictures in the middle represent strategic direction towards a large amount of video content.

Even though the brand colors are generally known as alarming colors seeking for attention, the company has decided to use them – partly because of the attention value itself. For particular customer cases, like HR projects and international initiatives, the bright yellow is replaced by deep blue. The proposed service design model should reflect the company brand by supporting the visual appearance in templates and presentations.

Figure 29. Osaamisbotti mood board.

6.4 Co-design Tools Test in a Participatory Workshop

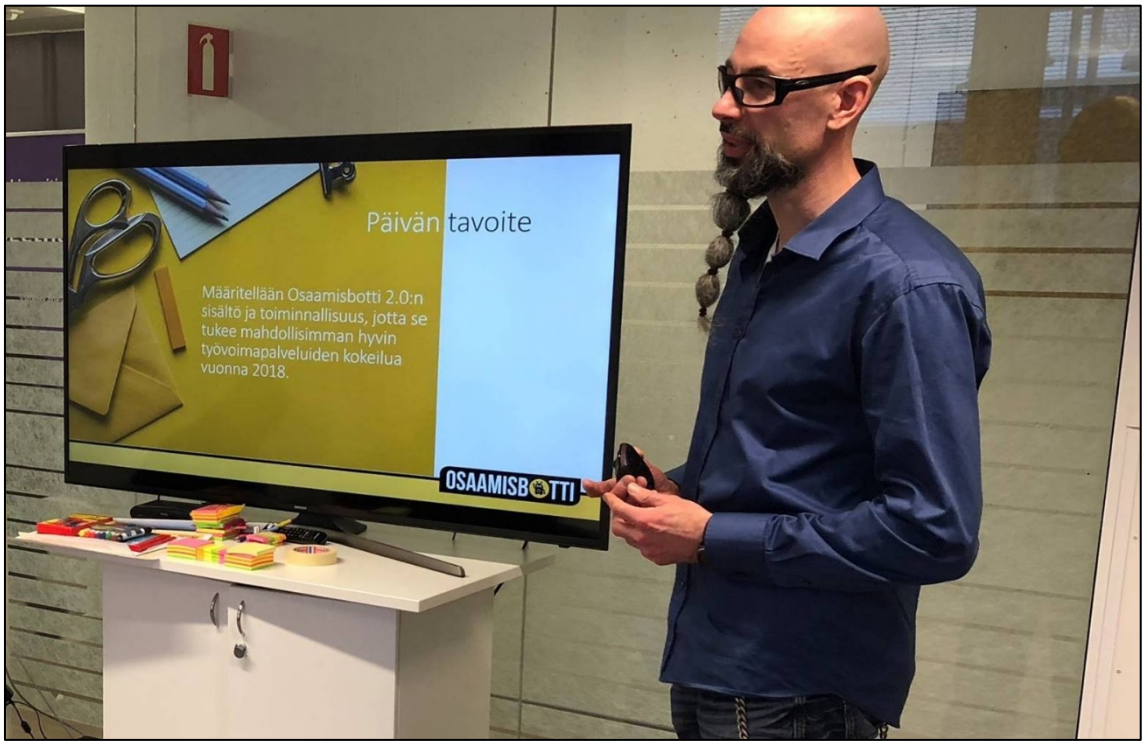
The approach of Osaamisbotti Oy has been “customer first”. Naturally, the company continues to apply co-design in its routines, because feedback and results have been encouraging. Co-design in this study is most prominent in participatory workshop, where customer journeys and service blueprints were created together with the service provider, customer representatives, and end users. Moreover, requirements and features for next service release were brainstormed with help of feature cards and sticky notes. However, co-design in Osaamisbotti context is more than a workshop method and tools utilized as part of it – as discussed earlier in the study. Here the scope is to focus on testing the most appealing and most likely suitable tools to make the development of artificial intelligence services effective and fit for purpose within the set time window and customer involvement, in user-oriented manner.

In February 2018, a participatory workshop with a customer of Osaamisbotti Oy was held. The customer was the employment office of Tampere City and most of the participants were coaches who either use or would begin to use Osaamisbotti as a tool for serving their unemployed customers. There was also respective managers and subject matter experts when it comes to digitalization and employment services. Total number of attendees was nine. The workshop day was facilitated and run by the author, as well as all pre-prepared material. Documentation was done by video, photography, and by taking notes.

The purpose of the workshop was manifold. Firstly, Osaamisbotti Oy wanted to discuss the requirements of the next version of their Osaamisbotti release. Secondly, co-designing process and tools needed to be tested with real customer and users. Thirdly, getting to know the customers and end users better pays always back.

The day started with an ice breaker called “*cocktails”* (Kantojärvi 2012, 56–57). The attendees were given sticky notes and a pen and were asked to write down their name, source of energy, and expectations of the day. The notes were put onto chests and the round started by talking to three less familiar persons about the subjects on the notes. After the round, discussions were summarized, and the party was over. No cocktails served, but the ice was definitely broken. After the warm-up, the author introduced service design thinking and methodology to get the participant on the same page. Few of the workshop attendees knew service design tools or even terms. In that sense, couple

of slides about the co-design side or the process did not hurt the audience. In *Picture 1* the author is opening the workshop part by elaborating the objective of the day.



Picture 1. Running a workshop for a customer and Osaamisbotti Oy personnel.

The most interesting part of the day was the mutual effort of creating customer journey and service blueprint of Osaamisbotti. For this purpose, simplified templates were prepared by the author. Simplification was done to ease the group work because it was known not all participants had experience on service design or even workshops. Additionally, the time was limited, and quick start was needed to get directly to the mapping exercise. Similarly, two persona descriptions (*Figures 30 and 31*) were created beforehand to speed up the process and to have more focus on above mentioned customer journey and service blueprint co-design. Persona templates are adapted from Stickdorn et al (2018, 42).

Participants were divided into two groups: the first group looked at the process through the eyes of a job seeker and the second concentrated on the journey of a coach. At first, only the persona descriptions and customer journey canvas were put on display, not the service blueprint. This was done to keep the participation threshold low and not to

frighten the participants with a complex look of the whole model. Customer journey and service blueprint templates are shown in *Figures 32 and 33*.

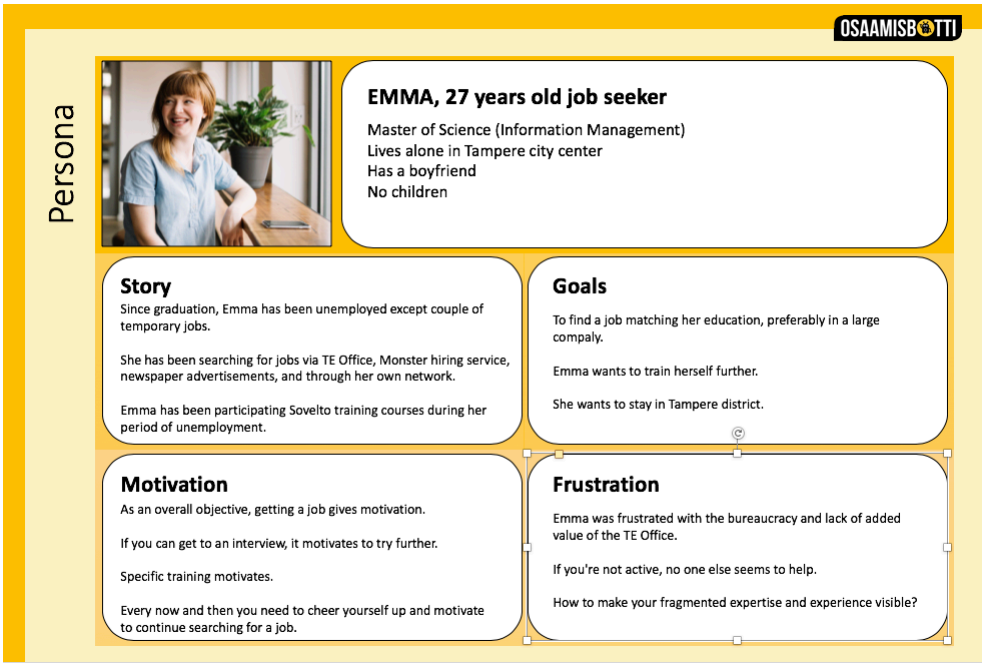


Figure 30. Persona description of a job seeker.

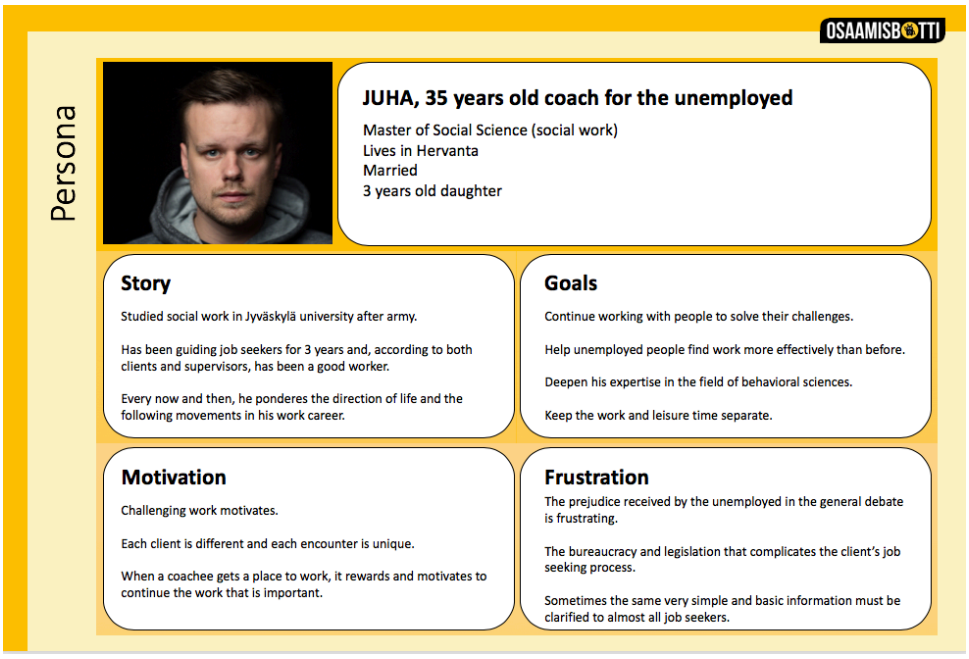


Figure 31. Persona description of a coach.

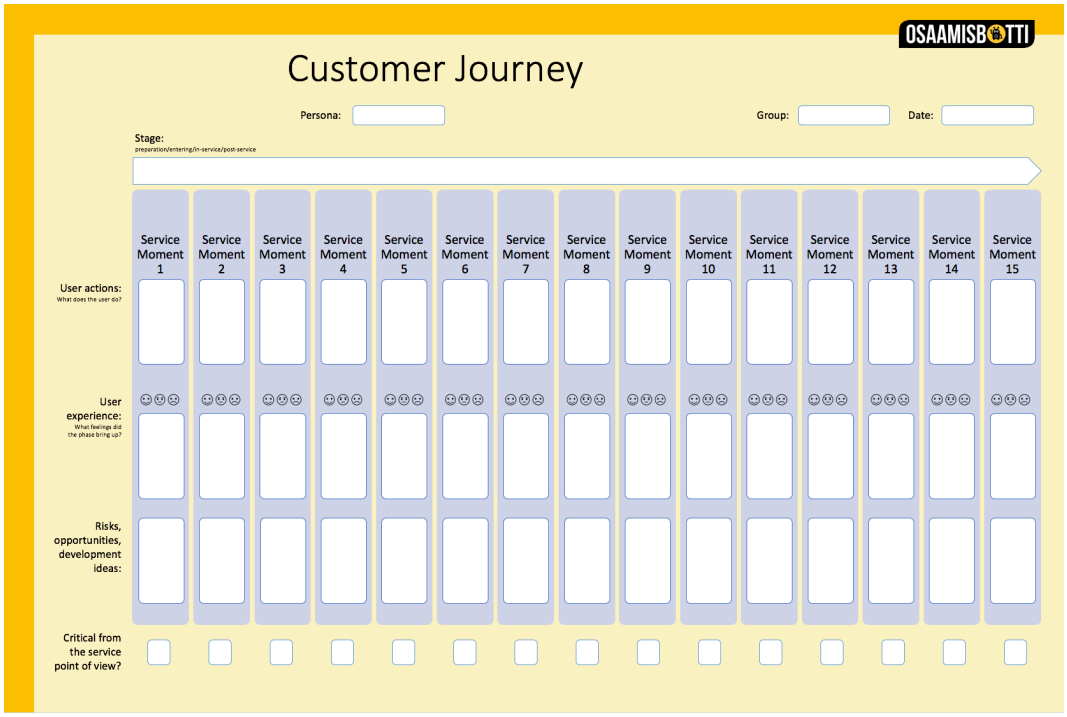


Figure 32. Simplified customer journey canvas (adapted from Curedale 2016, 276).

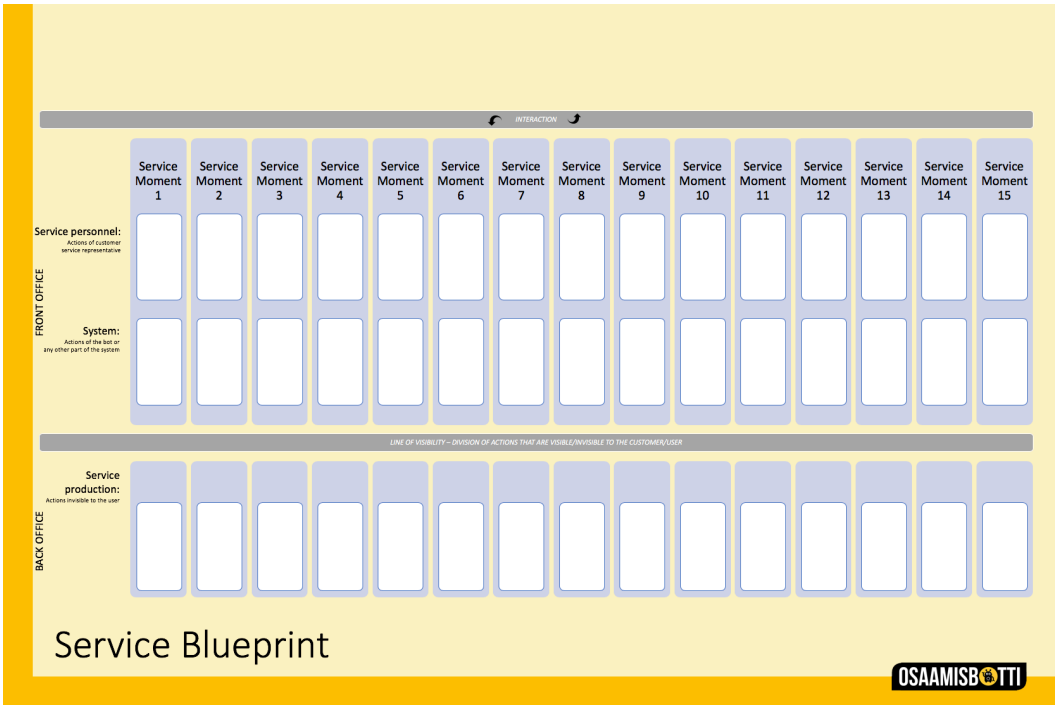


Figure 33. Simplified service blueprint canvas (adapted from Curedale 2016, 326).

Feature cards (*Figure 34*) were used to collect requirements for new functionalities. They were filled in during the course of the day and mounted on the wall of the working space at the end. Feature cards are used in Agile development model, and their purpose is to record key items such as feature identifier (or name), feature description, type, estimated work effort, requirements uncertainty, dependencies, and acceptance criteria (Puri 2009, 181). Cards were simplified for the workshop because the commissioner wanted the users to have as low threshold to fill the template as possible.

Picture 2 shows the functionality needs as expressed by the workshop participants. Dot voting technique was used to rank the features in priority order (Curedale 2013, 86–87). Ultimately, these features were to form one part of the next Osaamisbotti release.

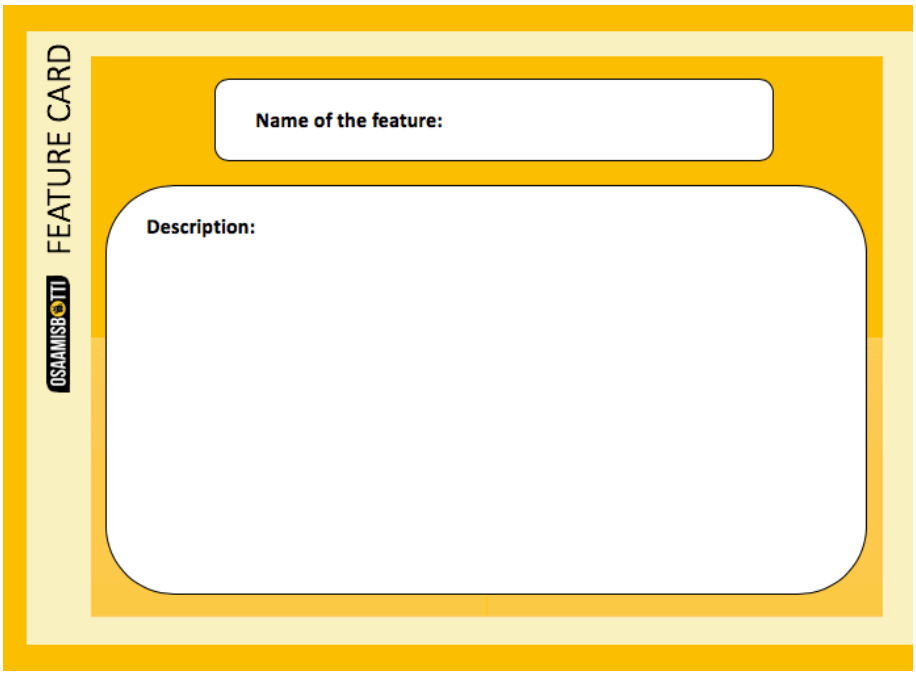
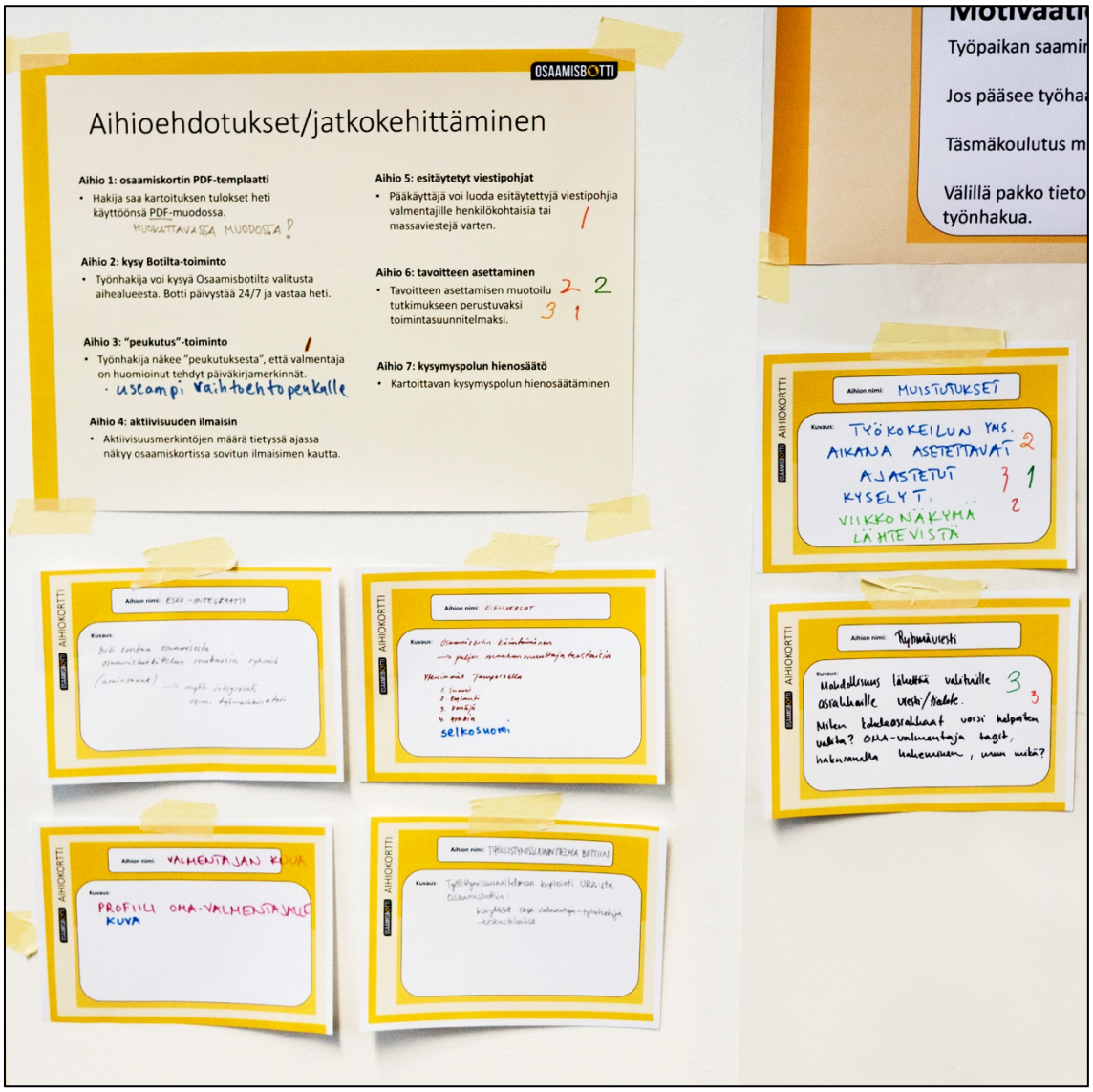


Figure 34. Feature card template.



Picture 2. Prioritized feature cards on the wall.

People were genuinely excited about the co-design approach – actually time set the limit and hence neither group finished the service blueprint part. The discussion was lively and after little guidance the working model got fluent. *Pictures 3* and *4* give an overview of the workshop setting.

Picture 3. Using simplified customer journey template.

Picture 4. Two groups working on service blueprints.

It was evident that the personas, customer journey and service blueprint templates did work. Still, there were room for improvements: the boxes for touchpoints, actions and physical evidence were not big enough and hence the participants were forced to use smaller notes and readability thus suffered. Moreover, the time schedule did not give possibilities to finish up the service blueprints – especially back office actions were not discussed. The author decided not to finalize them later without the involvement of the users. After all, the purpose was to test the process of using the templates, their suitability, and how the audience reacts when using the tool. The time challenge was due to organization, not to tools, and often times it is the case in Osaamisbotti projects that there is only time for one or two workshops during the whole course of the development initiative.

It seemed to be a good decision to refrain from showing the service blueprint part before finishing the journey map – it did not scare the inexperienced designers. The routes of a coach and a job seeker through the service got a lot clearer as the steps and touchpoints were visualized in a form of a customer journey. The final customer journey maps and service blueprints contain confidential material and are therefore not presented in this thesis.

Creating customer journeys and service blueprints helped to find out and discuss the critical points of the process. Service moments 2 and 3 (“waiting for the appointment” -stage) of the coach are critical for job seeker activation. Likewise, monitoring stage was seen critical because there are no time nor tools to conduct the actions currently. Customer journey for the job seeker revealed risks and development ideas that may affect customer experience a lot. It was found critical that there might be problems with email delivery so that the job seeker does not receive an invitation to use Osaamisbotti, or he/she might not have possibilities to use Osaamisbotti in the first place (no access to smart phone or Skype application, for instance). Also, it was noted that if the registration link or the registration itself does not work; it is a critical issue. Service moment 4 (appointment with coach) was found critical. The risk of no-show and difficulties of finding common language and understand each other, were highlighted. Communicating via Osaamisbotti (service moment 7) was mentioned as critical action, too. The challenge might be that the job seeker does not get answers to his/her questions quickly enough.

As a result, the day was a success: the commissioner got needed input for planning the next release, customers and users got more deeply into the system and process, used service design tools got familiar, and lastly; it was a co-design effort where everyone was

on the same side and worked towards the same goal. During the workshop, Osaamisbotti Oy got a clear understanding of the employment office process regarding job seeker management as the customer drew a process diagram and explained every step in detail. Requirements for Osaamisbotti 2.0 were clarified during mutual discussion between the customer and the service provider. Future features were confirmed on high level and they were prioritized. The business goals of the workshop were thus achieved.

From the study point of view, the day proved co-design method conducted as a participatory workshop works well in Osaamisbotti context and can be considered as one item in the commissioner's service design model. The workshop functioned well as a way to gain customer and user understanding and insight. However, attention should be paid to the number of tools used in a workshop like this: time constraints and unforeseen surprises may cause challenges. One might think whether it is reasonable to create service blueprints, for example, together with the customer/users since they concentrate more on the back-office actions. In terms of research, goals for the participatory workshop were achieved. In *Chapter 6.6.2*, feedback from the attendees is gone through. A summary of the day is attached as *Appendix 2* (in Finnish).

6.5 Business Needs and Customer Expectations Identification with Interviews

Interviews were conducted to get insight on the current state of service design in Osaamisbotti Oy. Two board members were interviewed with structured interview model. They were also asked about the target state and direction of development likewise. Moreover, expectations of the thesis study were discussed. In order to get the customer point of view covered as well, the Osaamisbotti main user of Tampere City Employment Office was interviewed in semi-structural manner.

6.5.1 Osaamisbotti Oy Personnel Interviews

Osaamisbotti Oy personnel interviews were conducted in Finnish and face-to-face in Osaamisbotti Oy premises in Tampere. The questions asked by the author were the following:

1. What kind of process is it to develop Osaamisbotti in customer projects? Please tell us the steps of the process.

2. What are the weakest points in the process?
3. Which stages of the process are usually the most successful?
4. Osaamisbotti has been developed together with your customers from the very beginning. What kind of experience have you got from this model?
5. What are the best aspects of the current development model?
6. Are there specific challenges or developmental needs at the moment that the service design model being studied in the thesis work, could be useful?
7. Do you have any idea what methods or tools of service design can be used in the process to improve the outcome?
8. Does the company's internal atmosphere support the use of a service design concept in customer projects?
9. How likely is it, in your opinion, that customers receive the introduction of service design methods beneficial in Osaamisbotti projects?
10. What kind of expectations do you set on a tailor-made service design model?
11. Do you prefer the service design model to be
    a) a toolkit that contains a lot of optional templates
    b) a simpler process description with a collection of recommended, lean-style and general, multipurpose, and faster deployment tools
    c) a process and operational description supported by a selection of the most important service design tools branded for the needs of Osaamisbotti Oy
    d) a combination of the above, with a focus on:
    e) something else:
12. Word is free!

Answers were written down during the session by the interviewer and they are attached as *Appendix 3* (in Finnish). In summary, the interviews helped to elucidate the Osaamisbotti development and design process in general. It was highlighted that as

such, there are no high-scale problems in the process, but couple of things could be done better. Usually the development is started from the clear and concrete need, leaving user experience, emotional, and visual aspects aside. It can be challenging to integrate these as part of the customer journey and experience. Also, understanding the customer requirements and needs can be difficult. On the positive side, it was mentioned that customer relationships and overall satisfaction, as well as project management and communications, are rated high. Co-design, agility, and quick reaction to customer needs are valued and continuous development is considered as advantages at this point. The mindset within the company is positive for changes and design thinking. Basic knowledge on service design tools is present and a number of the design tools have been tested in projects. Regarding expectations to the service design model to be proposed to Osaamisbotti Oy, it was suggested that the model should

a) contain a simplified process description including a selection of recommended, quickly deployable, simple and lightweight, slightly branded service design tools that fit for majority of the customer projects

b) be inspiring, visual, easy to approach and understand (for customers, too)

c) be measurable, yet not too binding – it should support innovative way of working

Moreover, there might not be time for more than one workshop in a project, so the model should suit small-scale initiatives, too. Project materials and feedback should be stored formally in order to be able to reflect the previous projects and learn from the past when running new customer cases.

6.5.2 Customer Interview

Osaamisbotti main user interview took place in Tampere City Employment Office premises in December 2018. Semi-structured interview was recorded on the spot and transcribed afterwards. It was held in Finnish and it took one hour. The questions were prepared beforehand, but they were more open and wider in a way that the interviewee was given freedom to expand her answers on the go without strict boundaries and more questions were asked beyond the prepared ones to get deeper insight and clarifications to the answers. The session turned out to be more conversational and informal. The interviewee seemed to be relaxed and open. The interview included the following questions that were supplemented with a number of further questions:

1. When and why did you first come across Osaamisbotti?
2. What were your first thoughts about Osaamisbotti?
3. Osaamisbotti is being developed together with customers. Was the model already familiar to you?
4. What do you think about such co-development and inclusion in general?
5. Could you tell us about the best aspects of the co-development of Osaamisbotti and the good experiences?
6. How can co-development be improved?
7. What do you think of the following practical implementation of inclusion and co-development in Osaamisbotti projects?
    a) project kick-off workshop
    b) content definition workshop
    c) testing
    d) iterative requirement definition, ideation and brainstorming
    e) continuous interaction
    f) measuring the results and getting feedback
8. Word is free, tell us about working with Osaamisbotti!

The semi-structured interview became comprehensive and useful. *Appendix 4* summarizes the interview in English. The most relevant issues from the customer interview are related to the co-creation, co-design, and the concept itself. The interviewee thinks that the best part of the development projects is actually the collaboration with Osaamisbotti Oy: the customer is taken into the project to design the service, not just offered a product or a service that was done without knowing the users or investigating the need. The customer (in this case the main user of the service) appreciated the constant interaction and communications: *"It has been great to co-design with Osaamisbotti because all ideas are welcome, and they do not judge even the craziest requests. Weekly Skype meetings is a good way to maintain the discussion and relationship. Also, meeting the end users (unemployed, Employment Office*

customers) together with Osaamisbotti Oy and telling them about the bot solution, has been very fruitful and valued." Additionally, the support given in technical issues was mentioned as a positive point. In contrast, no room for improvement was seen. The interviewee hoped everything in the process would stay as currently.

6.6 Customer Understanding Improvement with Surveys

Two separate surveys were concluded to deepen the customer understanding. Customer satisfaction survey aimed at getting general feedback from wider user base, and online survey was targeted to participatory workshop attendees only.

6.6.1 Measuring Osaamisbotti Customer Satisfaction

Customer satisfaction survey was conducted with two questions: a multiple-choice question based on the common options widely used in measuring customer satisfaction: "*How would you rate your overall satisfaction with the Osaamisbotti service?"*. The answer options were: *1. Very satisfied 2. Satisfied 3. Neutral 4. Unsatisfied 5. Very unsatisfied.*

The order of the answer options was reversed to start with more positive approach compared to the earlier theoretical part (5.2.3). An optional, open text question about satisfaction with the service was offered to all users, too. The survey was targeted to both coaches and coachees who use the Osaamisbotti service of Tampere City Employment Office, total of 447 service users (378 coachees and 69 coaches). The coaches received a link to SurveyMonkey service via email, whereas the coachees were asked to respond to the questions via Osaamisbotti chatbot.

35 responded to the survey, so the response rate was 7,8 %. Is should be noted that the survey was sent to all user accounts, including obsolete users. A few coachees and coaches have discontinued using the service because of various reasons – few of the coachees have been employment or were attending courses during the time of the survey, couple of the coaches have changed jobs or were on vacation.

The customer satisfaction score was 46,7 on scale 0-100. Thirteen respondents were satisfied and one very satisfied. Majority of the respondents were neutral (17). *Figure 35* illustrates the division of respondents.

Figure 35. Customer satisfaction survey results.

It should be noted that there were 23 answers to the open text question, too. The answers reflected general satisfaction and no clear pain points, or improvement ideas were highlighted this time, even though 6 of the respondents expressed unsatisfaction. The most significant feedback from the coaches was suitability for their own workflow and the status of their customers: one said the solution does not fit to the way of working and the application seems unfinished. One coach noted that his/her customers are in a poor condition where they cannot use services like Osaamisbotti. Also, a need to have job seekers' phone numbers in the system was expressed. Job seekers mentioned it is positive to have a communication channel as Osaamisbotti. An alternative channel for Skype is wanted. Couple of respondents were dissatisfied with the automatically suggested open positions, and they did not find it effective in getting a job.

6.6.2 Collecting Workshop Feedback with an Online Survey

Online survey was carried out immediately after the participatory workshop. The aim was to get feedback from the participants: how did they feel about the content, organization and facilitation, working methods, and if there was any suggestions or other comments regarding the day. The survey was conducted via Microsoft Forms, an online tool that is part of the Microsoft Office suite. It is a convenient tool to not only answer the survey,

but also to create one and analyze the results visually. The survey was sent to all participants by email. The respondents were asked five questions with two additional open questions at the end. The questions were:

1) The content of the workshop (scale: totally agree – somewhat agree – somewhat disagree – totally disagree – don't know)
    a. was according to my expectations
    b. customer journey suited well for the purpose
    c. service blueprint suited well for the purpose
    d. presentation material and templates were good
    e. the workshop met the objective set
2) Organization and facilitation (scale: totally agree – somewhat agree – somewhat disagree – totally disagree – don't know)
    a. as a whole, the workshop was well organized
    b. there were right persons/roles attending
    c. the facilities suited well for the purpose
    d. the facilitator did his job well
3) The number of participants was
    a. suitable
    b. too low
    c. too high
4) The duration of the workshop was
    a. adequate
    b. too short
    c. too long
5) We did Osaamisbotti succeed well

6) What can be done better the next time?

7) Other thoughts, comments or greetings?

The results were encouraging, even though only five persons responded. People were happy about the workshop in general. The following points are noteworthy from the service design perspective.

- Customer journey suited well for the purpose: 20 % totally agreed and 80 agreed
- Service blueprint suited well for the purpose: 60 % totally agreed and 40 agreed
- Presentation material and templates were good: 60 % totally agreed and 40 agreed
- There were right persons/roles attending: 80 % totally agreed and 20 % somewhat disagreed
- The number of participants was: 40 % too low, 60 % suitable

Hereby are comments worth picking up (translated from Finnish):

- *The discussion was led so that we stayed in the context and subject. The conversation did not go into too technical level nor irrelevant subjects.*
- *You managed to elaborate the objectives well and involve participants.*
- *Well organized occasion, the participants were taken into account.*
- *There could have been more time to spend. Maybe the assignments could be shorter.*
- *Bigger ideation group needed.*
- *There were enough subjects for two workshops.*
- *On the other hand, it was good that no superiors of the customer service staff were present, even though I first thought otherwise.*
- *It is nice to be in the center of further development of an innovation.*

All of the online survey results are attached as *Appendix 5* (in Finnish).

6.7 SWOT Analysis to Support the Proposal Creation

Based on the experimenting and testing of the service design methods and tools in real life work has given insight on processes, customers, service, technology and strategy of Osaamisbotti Oy. The most significant sources of information to feed into SWOT are the interviews, surveys, lean canvas, workshop, and author's working experience in Osaamisbotti Oy. SWOT analysis was conducted by the author. In *Figure 36* below, the information is structured into strengths, weaknesses, opportunities, and threats.

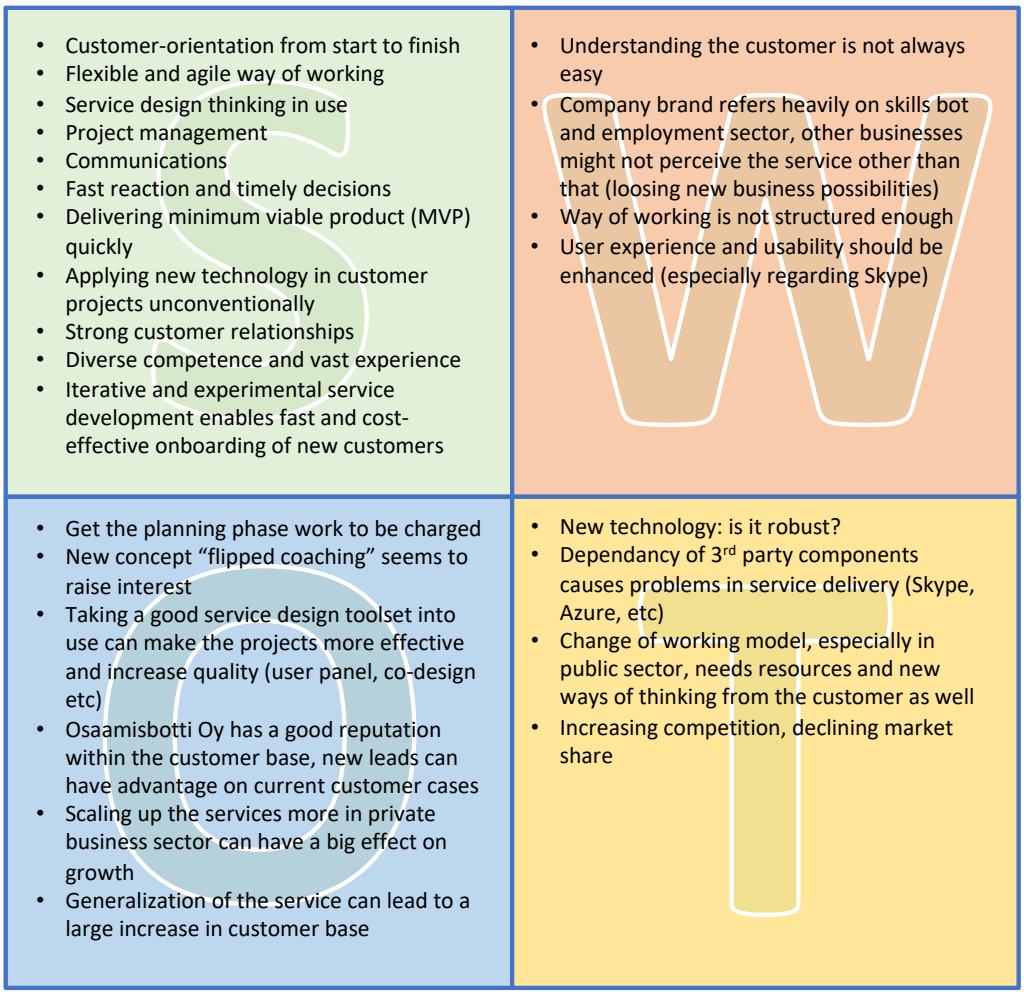


Figure 36. SWOT chart of Osaamisbotti Oy.

Opportunities could be realized with strengths. Service design thinking can make the development work more effective, structured and disciplined, as well as the service/platform more general and increase the quality. Scaling up the services in private

sector may realize by applying new technology unconventionally and communicate the offering effectively. Several weaknesses could correspondingly be solved by opportunities: taking a proper service design toolkit into use and apply design thinking throughout the organization, could tackle shortcomings in customer understanding. Furthermore, communicating and launching the concept of flipped coaching could lead to positive impact in Osaamisbotti brand when facing the private sector corporations. Way of working structures and model could be greatly improved by utilizing the service design toolkit, design thinking mindset, and clarifying roles and responsibilities. For user experience and usability weaknesses, likewise, taking new channels (technologies) into use in fast pace could enhance the situation a lot. Osaamisbotti Oy is known for its agile and open-minded operations, hence new ways of making user experience better might be innovated by co-design.

Taking into account the purpose and the scope of the study, SWOT analysis confirms the need for lean and agile service design model implementation in Osaamisbotti Oy organization. Quick and experimental development projects are vital for the commissioner to compete in their field of business and gain new markets, especially in private sector. The operating model and mindset are ideal for introducing design thinking.

7 SERVICE DESIGN MODEL PROPOSAL

During the course of the thesis work, the author gained profound understanding of the current state of the service design practiced in Osaamisbotti Oy's development projects. According to the understanding, most parts of the design work is on decent or good level. For instance, design thinking and experimenting (experimentation-driven innovation), are already implemented in the way of working and they are well received by the customers. On the other hand, there are no formal, agreed ways to apply service design methods or tools in development work. Design thinking should be the driving force to get the most out of the process, both internally and externally. Actually, service design is a mix of a mindset, process, and toolset (Stickdorn et al 2018, 21). To meet the requirements set in the beginning of the study, the model should help to reduce the total workload and keep the development cost low while improving customer experience. The toolset should present common and easy-to-use service design methods and tools for typical Osaamisbotti AI projects. The following chapters suggest components to form a model to be taken into use in Osaamisbotti Oy.

7.1 Service Design Process

The research revealed a fact that there is only limited time to arrange and facilitate common workshops with the customers/users. Even a half day together with customer representatives can be challenging to organize. The working assumption is that there would be only one workshop during the shortest and smallest projects – and the actual co-design is done as day-to-day work. Project lifecycle can be everything between two weeks and six months, and it can involve couple or tens of people. Iterative and agile approach together with the experimental (prototyping is referred as "*experimenting*" within Osaamisbotti Oy organization) operating model requires a lean and effective process that leaves room for innovation, too. However, part of the initiatives might be only a deployment of an existing solution to another customer with minor changes.

The author has produced promotion videos for Osaamisbotti Oy that are targeted to prospective customers and to raise awareness of the AI-boosted coaching concept and the company itself. These videos should be used in the first confrontation situation with the customer, where the whole service provision is presented. Similarly, user guidance videos are made to be utilized in getting buy-in and commitment of new users. This

should happen when the users are already notified about the tool and are ready to register and start using the service. By using the animated videos, user experience can be maintained on high level since typically people are more willing to watch a short video than read a manual. These videos can be found on Osaamisbotti YouTube channel at https://www.youtube.com/channel/UCqE0bJk02IUhpfUuF98GkPQ/videos (Valmentajan ohje 1 ja 2, Työnhakijan ohje 1 ja 2, Osaamisbotti kahdessa minuutissa).

The commissioner pointed out the process should fit to majority of the projects and it should also be visual enough to be understandable. From the above mentioned and other starting points of the research, the 6-step process proposal was created adopting loosely Service Design Process by Tuulaniemi (2013, 129–131), Lean Startup Process by Wadhawani Foundation (2019), and the 5 Stage Process by Slang (2019). It is illustrated in *Figure 37*.

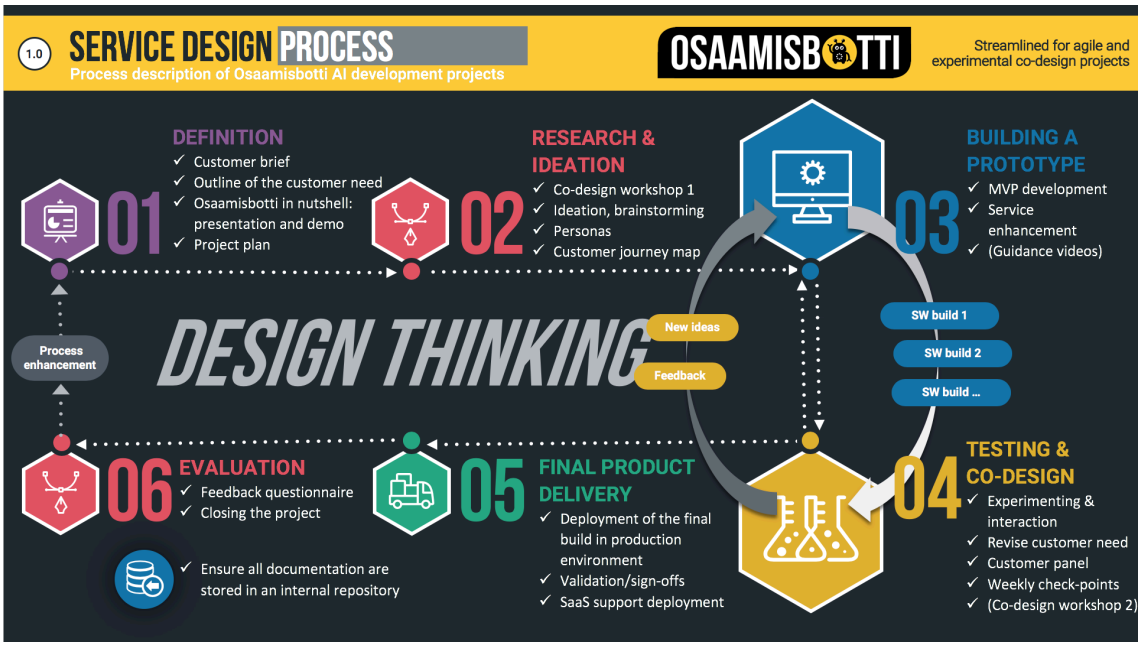


Figure 37. Service design process for Osaamisbotti Oy.

Stages 1 and 2 define the need and focus on forming an understanding of the customer, users, and the service that is needed. The process is user-oriented, and the future users should be involved early on. The prototype is built based on the insight and ideation phase. Stages 3 and 4 form an iterative cycle where the service development is agile and experimental – users provide developers with new ideas, improvement requests,

and other feedback. When the service appears to be good enough and mutually validated, final release is deployed to production environment at stage 5. Use phase support is ramped up and the development project advances to stage 6 for final feedback and evaluation before closing. The project material (evaluation, feedback, technical and non-technical documentation) are stored in shared internal storage and compared to earlier project data to measure the success, and to assess possible process refinement needs.

7.2 Roles and Responsibilities

Osaamisbotti Oy human resources are limited and hence the whole organization needs to have sufficient knowledge on service design to certain extent to be able to serve the customers in timely and professional manner. There can be times when optimal project composition with regards to staff is not possible, yet the company needs to deliver fluently and with high standards. As the results of in-depth management interviews show, Osaamisbotti Oy is wanted to be received as professional, organized, and knowledgeable brand with skilled personnel who know service design and how to run AI development projects. Handling technical and financial matters are scoped out from this proposal.

Head of sales and marketing, managing director, and designer are the ones that should be familiar with the service design model more deeply than the others. One of them leads a customer project as project manager at a time and depending on the project, either the project manager or someone else, facilitates the co-design as service designer. Service designer is responsible of selecting the suitable tools for service design and documenting the output. Project manager is in charge of the project milestones and targets, as well as feedback and review.

Even though it is widely recommended to have single contact point towards the customer, the co-operation practice between Osaamisbotti and the customers, and the results of interviews, imply that quick reach and availability are more important to have one contact person only. For that reason, the commissioner is recommended to have 2-3 persons to serve the customer at forefront in service design projects. One of them, naturally the project manager in most cases, should be nominated as primary contact.

7.3 Toolset

The study comprised several service design methods and tools as a starting point to find the right means for making the design process of the commissioner effective, structured, easy, and general enough. After researching the current state with help of various tools such as lean canvas, document study, brainstorming, process description, workshops, co-design, interviews and surveys, and SWOT analysis, the original idea of suitable tools changed. The conclusion is to suggest the following service design methodology for Osaamisbotti Oy development process:

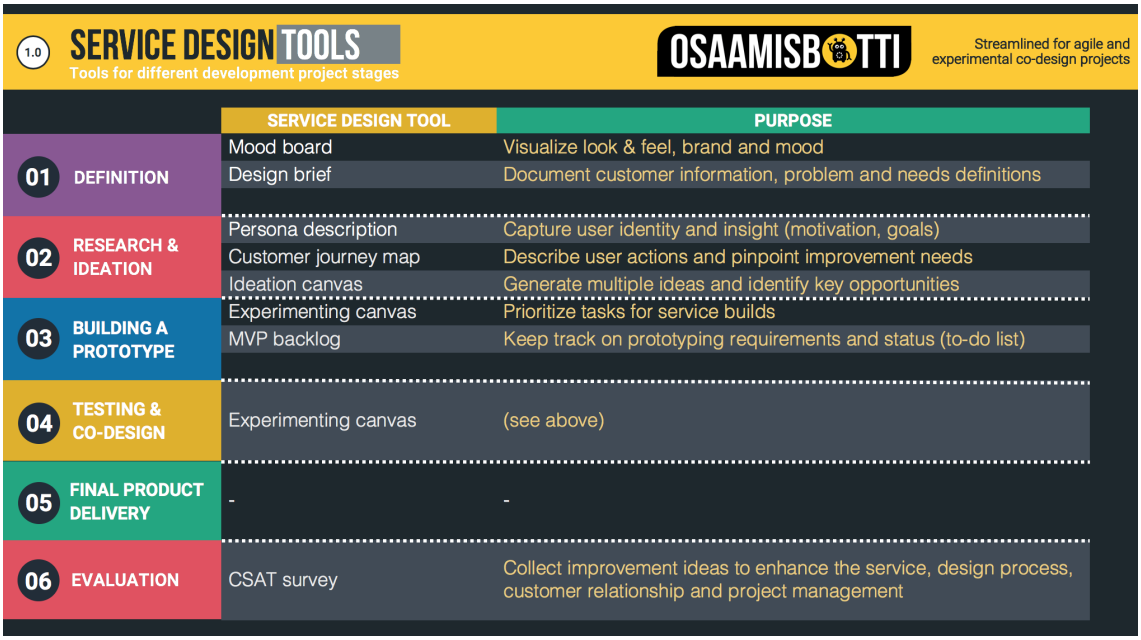
Methods

- Co-design (at a certain level already in use, but to be introduced in more widely)
- Participatory workshop
- Brainstorming (as part of ideation)
- Experimenting (prototyping)
- Customer panel

Tools

- Mood board
- Design brief
- Persona description
- Customer journey map
- Ideation canvas
- Experimenting canvas
- MVP backlog
- Customer satisfaction survey

Table 2 describes how the selection of tools links to different steps of Osaamisbotti service design process. The idea of the table is to show at a glance when and which service design tool can be used and what its purpose in the process is. Every phase is equipped with optional tools except the final product delivery stage is not provided with service design assistance directly.



	SERVICE DESIGN TOOL	PURPOSE
01 DEFINITION	Mood board	Visualize look & feel, brand and mood
	Design brief	Document customer information, problem and needs definitions
02 RESEARCH & IDEATION	Persona description	Capture user identity and insight (motivation, goals)
	Customer journey map	Describe user actions and pinpoint improvement needs
	Ideation canvas	Generate multiple ideas and identify key opportunities
03 BUILDING A PROTOTYPE	Experimenting canvas	Prioritize tasks for service builds
	MVP backlog	Keep track on prototyping requirements and status (to-do list)
04 TESTING & CO-DESIGN	Experimenting canvas	(see above)
05 FINAL PRODUCT DELIVERY	-	-
06 EVALUATION	CSAT survey	Collect improvement ideas to enhance the service, design process, customer relationship and project management

Table 2. Service design tools in different process stages.

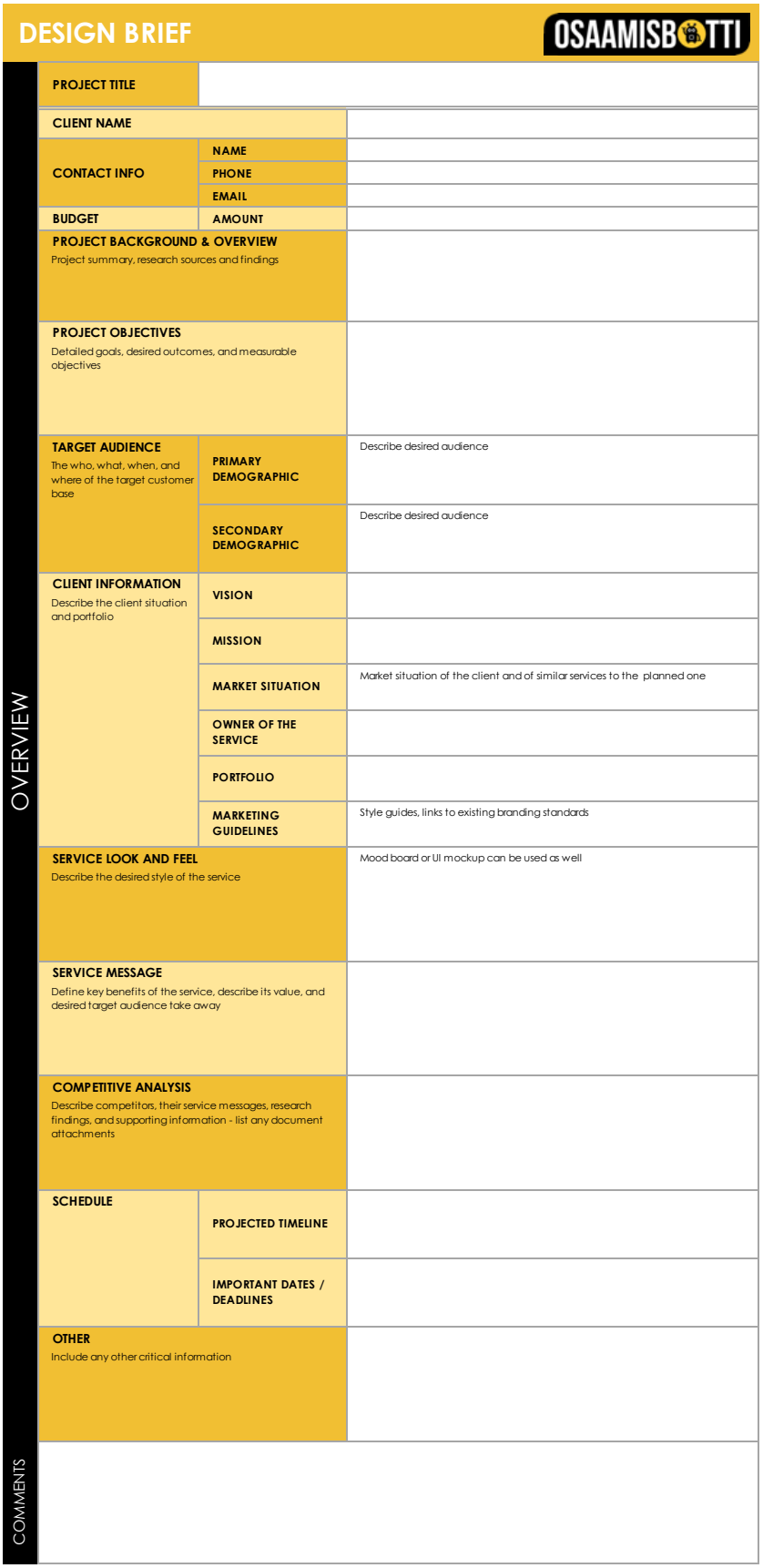
As there are customer projects where the intention is not to increase the number of functionality or otherwise develop the system further, the balance of tools to be used obviously differs from a project where the solution is remarkably tailored for a customer. In these cases, ideation phase shall be minimized to retain cost and time schedule targets. The efficiency and ingenuity of service design are not entirely in the tools available, but in how and when they are used.

Branded templates are provided for the recommended service design tools (tools that are listed in *Table 2*). Basic Osaamisbotti mood board can be adapted to new customer cases where needed. It was created during the study and is shown in *Chapter 6.3.* Editable Adobe InDesign file is delivered to the commissioner for future modifications. Measuring the success with customer satisfaction survey in evaluation stage is discussed in *Chapter 7.5* below since there is no particular template for it.

Figure 38 includes a persona description template which is customized for efficient workshops with limited time and knowledge on service design. It adopts attributes from Stickdorn et al (2018, 42).

Figure 38. Template for persona description (adapted from Stickdorn et al 2018).

Brief is done by the owner of the service idea and it serves as an evolving communication tool between the different parties involved in planning the service (Tuulaniemi 2013, 133). However, Osaamisbotti Oy is proposed to initialize the design brief document creation in definition stage if the owner from customer side have not created one. Again, the template is streamlined for Osaamisbotti purposes from Tuulaniemi's viewpoints (2013, 132–134) and Smartsheet creative template (2019). *Figure 39* depicts a document model for design briefs.



DESIGN BRIEF — OSAAMISBOTTI

OVERVIEW

PROJECT TITLE		
CLIENT NAME		
CONTACT INFO	**NAME**	
	PHONE	
	EMAIL	
BUDGET	**AMOUNT**	
PROJECT BACKGROUND & OVERVIEW Project summary, research sources and findings		
PROJECT OBJECTIVES Detailed goals, desired outcomes, and measurable objectives		
TARGET AUDIENCE The who, what, when, and where of the target customer base	**PRIMARY DEMOGRAPHIC**	Describe desired audience
	SECONDARY DEMOGRAPHIC	Describe desired audience
CLIENT INFORMATION Describe the client situation and portfolio	**VISION**	
	MISSION	
	MARKET SITUATION	Market situation of the client and of similar services to the planned one
	OWNER OF THE SERVICE	
	PORTFOLIO	
	MARKETING GUIDELINES	Style guides, links to existing branding standards
SERVICE LOOK AND FEEL Describe the desired style of the service		Mood board or UI mockup can be used as well
SERVICE MESSAGE Define key benefits of the service, describe its value, and desired target audience take away		
COMPETITIVE ANALYSIS Describe competitors, their service messages, research findings, and supporting information - list any document attachments		
SCHEDULE	**PROJECTED TIMELINE**	
	IMPORTANT DATES / DEADLINES	
OTHER Include any other critical information		

COMMENTS

Figure 39. Design brief template.

Customer journey canvas for workshops was modified to apply Osaamisbotti requirements of straight-forward and fast mapping. It originates from Curedale's journey maps (2016). *Figure 40* contains the simplified customer journey map template for Osaamisbotti Oy.

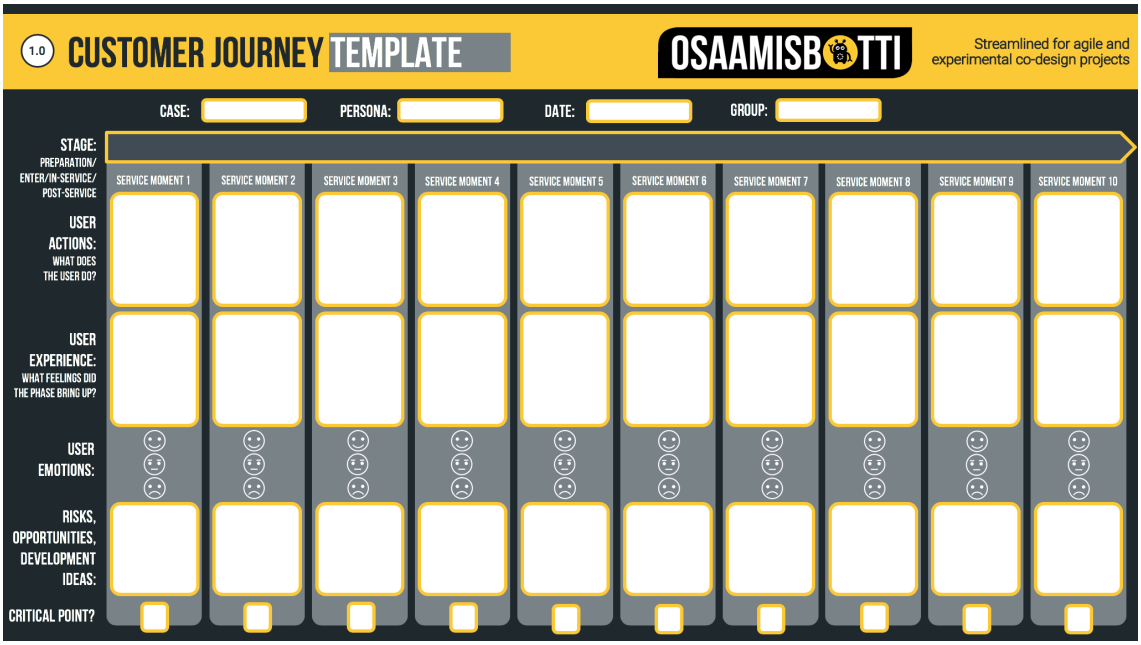


Figure 40. Simplified customer journey template (adapted from Curedale 2016, 276).

Lean service creation toolkit compiled by Sarvas et al (2016) focuses on best practices in agile service creation, design thinking, and lean startup. Their ideation and experimenting canvas, as well as MVP backlog templates, fit directly to Osaamisbotti Oy design approach. They are self-explanatory yet makes one think and give room for innovation. *Figures 41, 42, and 43* depict ideation canvas, experimenting canvas, and MVP backlog template respectively.

In short, the ideation canvas captures ideas starting from the user need in the middle. Negative and positive emotions in relation to the need are then written down. On the top part, ideas are listed – this can be conducted via brainstorming activities, with low criticism. Then, on the lower part of the canvas, ideas tackling the negative emotions are listed, as well as the ones that amplify the positiveness. (Sarvas et al. 2016 13–14.)

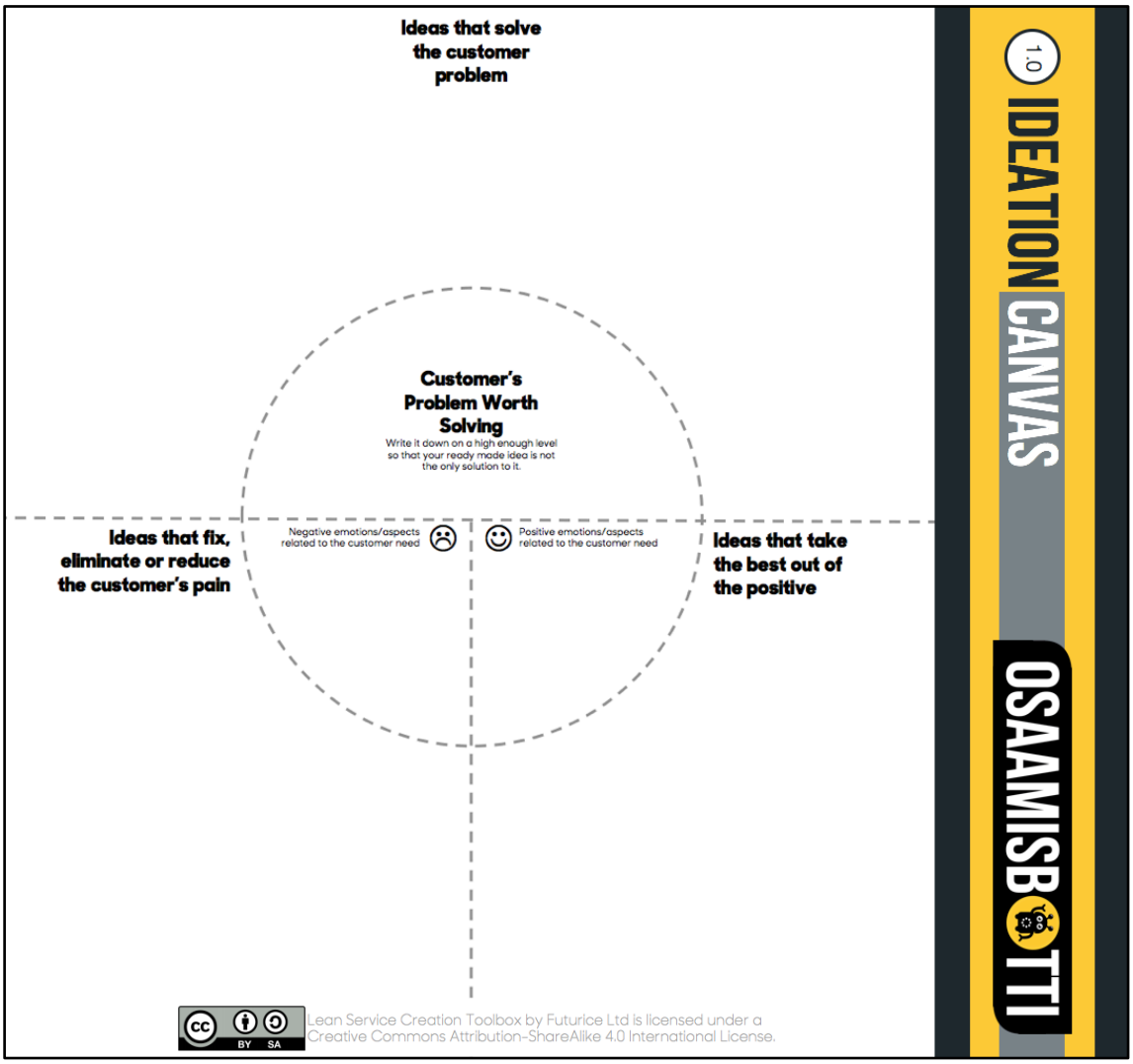


Figure 41. Branded ideation canvas (adapted from Sarvas et al 2016, 14).

Experimenting canvas helps the team to focus on meaningful and critical items. It includes the main assumptions (even the most obvious ones), ways to experiment, success criteria, and key findings. As a template it is simple and almost too obvious, but actually it is usable when one needs to focus on the essential. (Sarvas et al 2016, 31–32.)

Figure 42. Branded experimenting canvas (adapted from Sarvas et al 2016, 32).

MVP backlog states “What is in between current state and the launched MVP”. The most urgent and important technical issue from experimenting canvas should be inserted in the technical issue box at the top of the template. The same analogy applies with the most burning business issue in the next text box. End user verification implies to the question of target audience: it should be checked that segment is right. In the backlog section, user stories (or tasks) are to be listed. To do, in progress, and done boxes indicate the person who is doing the task. (Sarvas et al. 2016, 35–36.)

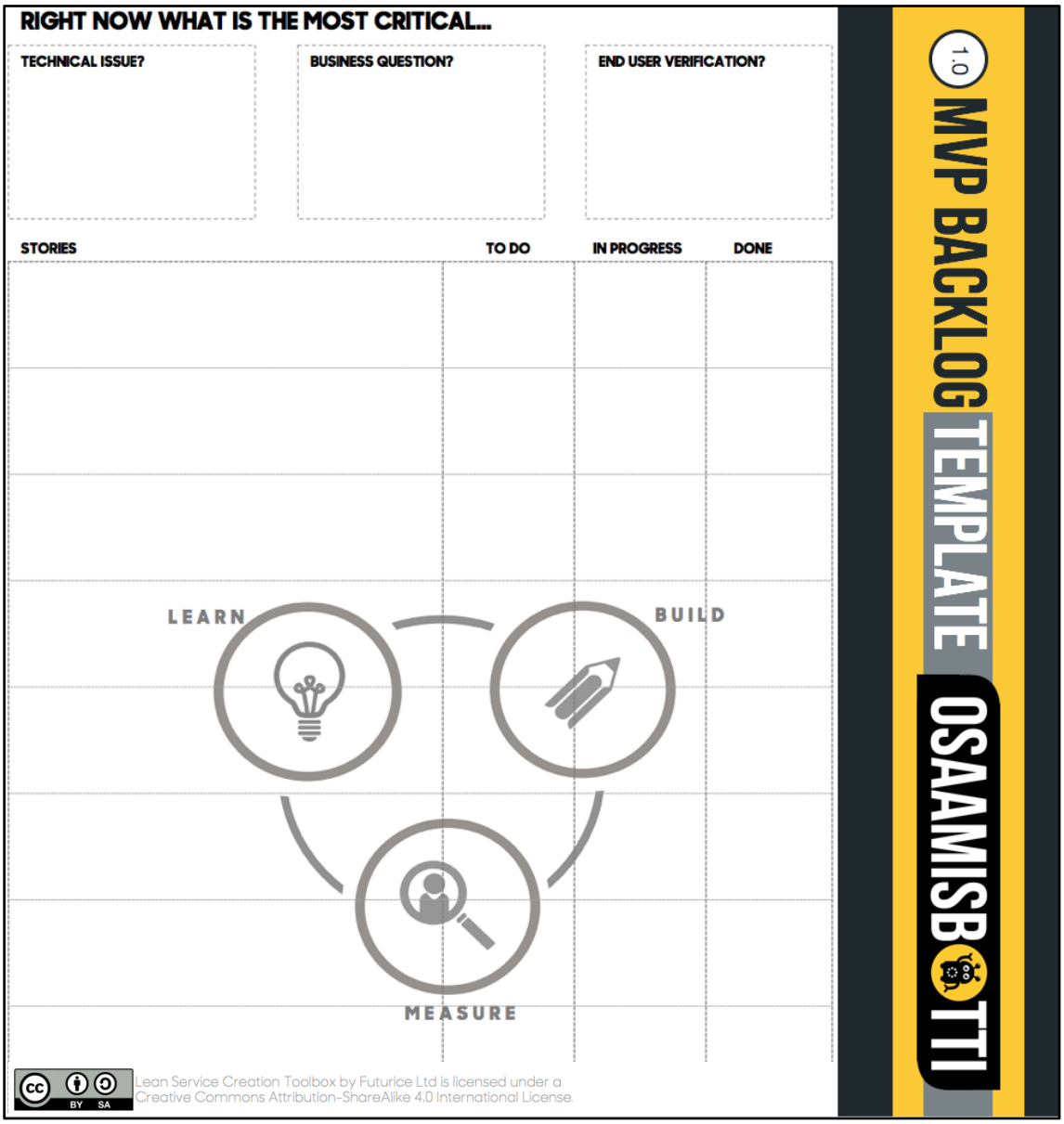


Figure 43. Branded MVP backlog template (adapted from Sarvas et al 2016, 36).

The toolset should be stored in internal, shared storage together with printable versions in small and large sizes for workshop use. All comments about the toolset should be gathered and documented for improvement purposes, and templates modified accordingly. Video instructions to be considered.

7.4 Tips and Best Practices

In addition to the above models, the proposal also includes guidelines and advice on how to use a certain number of the methods. These hints are chosen based on the current co-design workflow of the commissioner and keeping in mind the recommended changes caused by the proposed, enhanced process and way of working. For example, holding workshops would be easier by using the following best practices.

Key items to keep in mind when planning an effective design workshop are goal, participants, structure, and outcomes. Activities in planning phase are:

1) Set the goal
2) Decide the participants
3) List the tangible outcomes
4) Decide the place and time
5) Work backwards to make a plan (an outline with time estimate for sections)
6) Detail the activities in each section (also a warm up game)
7) Delegate when needed
8) Make slides
9) Practice & fine-tune
10) Organize the necessary tools

Respectively, an agenda for a half-day participatory workshop can be formed utilizing the following model:

1) Intro (15 min)
    - Goal of workshop
    - Agenda
    - Brief introduction of participants
2) Building understanding (45 min)
    - Presentation of Osaamisbotti solution (10 min)
    - Background info on customer domain
    - Framing the problem and discussing the desired state

(possibly with help of sketching/mind mapping)

— Break (10 min) —

3) Customer journey mapping (90 min)

(Optional warm-up exercise)

Personas (can be premade)

Mapping customer journey

Summary

— Break (10 min) —

4) Brainstorming (30 min)

(Optional warm-up exercise)

Brainstorming/brainwriting session

Sharing the ideas

Dot voting

Summary

5) Wrap up and next steps (5 min)

6) Feedback on how session went (5 min)

(Adapted from Kantojärvi 2012, 28–31; Chang 2019; Jisc 2019.)

Brainstorming is a method that helps to generate multiple ideas quickly. As it is a team effort, it gives a broader viewpoint and expanding set of alternatives. It is a widely known, semi-structured, and effective tool. (IDEO U 2019.)

The study recommends two commonly recognized brainstorming methods that fit well to the quick co-design projects managed by Osaamisbotti Oy; traditional verbal brainstorming and brainwriting techniques. The only difference between these two is that in brainwriting the ideas are written on paper instead of presenting them verbally (Curedale 2013, 75). Curedale adds that writing can activate shy people more and it reduces the problems of groupthink. It is up to the session moderator which method to choose.

Brainstorming session begins with short introduction to ideation theme and possible warm up exercise. The moderator asks the participants to shout out ideas without

criticism and he/she writes them on a board. In brainwriting, pieces of papers are used individually in silence, one idea on one paper. The ideas can be written or sketched. Papers can be circulated within the group to feed further thoughts. (Stickdorn et al 2018.)

It is useful to set a time limit for the brainstorming session. For example, 5-10 minutes for throwing ideas and 10-15 minutes to discuss and cluster them. To get most out of the brainstorming effort, seven important rules should be followed (IDEO U 2019):

1) Defer judgement
2) Encourage wild ideas
3) Build on the ideas of others
4) Stay focused on the topic
5) One conversation at a time
6) Be visual
7) Go for quantity

Brainstorming combined with *dot voting* (tested in a participatory workshop during the study) can be effective to prioritize items quickly by workshop participants. It is a simple and easy way to take a vote and inclusively proceed with smaller amount of ideas. Starting point should be a wall of ideas grouped by similarity or affinity. The ideas must be explained before voting in order to have all participants aware of the content. In short, to run the method after a brainstorming session, the following steps need to be taken:

1) Ask the participants to vote on their two or three favorite ideas. Sticky notes, pins, magnets, or just pen/marker can be used by the participant to vote. Alternatively, a moderator can record the scores on behalf of the participants.
2) Sum up the votes and rearrange the ideas from most dots (votes) to least
3) Discuss about the ideas with the highest number of dots. Try to estimate the general level of comfort with taking one or more of those ideas to the next step.

(Curedale 2013, 87.)

7.5 Measuring

Every service design project, big or small, should be measured to be in better position for the upcoming projects. It is vital to know how a project went in order to improve

performance. Osaamisbotti Oy management naturally seeks for cost-effective solutions, and the quality of service delivery matters. Ultimately, high customer satisfaction and user experience are key success elements of a service provider like Osaamisbotti Oy.

In this service design model proposal, measured items are:

- Customer satisfaction
- Duration of project compared to complexity
- Resource need compared to value

Customer experience concerning the co-design/development project phase is recommended to be gathered via Osaamisbotti questionnaire function. It covers the experimenting stage only.

Customer satisfaction in continuous use phase should be measured so that it is easy to do by the service user. It should not take more than 2-3 minutes to answer and only couple of mouse clicks or finger taps. Using services like *SurveyMonkey* or *Microsoft Forms* are recommended, and a form factor as piloted during this study (can be found from *Chapter 6.6.1*). Survey should be done once after service deployment (approximately one month of usage) and on continuous basis every 6 or 12 months. Obviously, feedback is always welcome, and customers are encouraged to give feedback whenever they want and via all possible channels.

Duration and resource metrics are more project steering related and managerial indicators, not typical service design instruments. Measuring the duration is not complicated, but it should be compared to the complexity of the project. Hereby, the recommendation is to rate the complexity both at the beginning of the project and after finishing it. It is not always possible to predict the level of complexity at start. Osaamisbotti Oy project group is recommended to use scale 1-3 (1=complex, 2=normal, 3=easy) as a factor to normalize the duration data according to the complexity.

Resource need compared to project value measures the contribution versus profit. Resource, in this context, is work hour: hours that Osaamisbotti Oy personnel has been working for the particular project. Efficiency can be calculated by subcontracting the invoiced total price of the project with the working hours spent in the project. It is not meant to measure total expenditure including SW, hardware (HW), or other costs, but only working hours.

Project measurement results and feedback data will accumulate project after project. It is suggested to review the data at least annually or prior to offering a bigger scale project. Furthermore, the entire service delivery model should be reviewed and adjusted, if needed.

8 EVALUATION AND CONCLUSIONS

The study was conducted between December 2017 and May 2019. Because the research was mainly done in free time, alongside work, the study took longer than expected. The thesis work has been fruitful and manifold. It has been a journey through theory, best practices, methodologies, mindsets, operation models, and ways of thinking. The subject was interesting and business domain both fresh and innovative. Overall, the study went well, and the commissioner was satisfied with the results. From the studying and learning point of view, the author believes the objectives were met as per curricula.

8.1 Initial Goal, Methods and Results

The aim of the study was to find a service design model – a process and a toolset – that would help the commissioner offer high-quality services to their customers. The process description was created and a toolset with tools and methods was compiled. However, the final toolset was not tested entirely during the course of the study, hence the ultimate results of the model remains to be seen over the next couple of months, or year. The first research question stated that the model was required to reduce the total workload and keep the development cost low while improving customer experience. In the same way, more time is needed to realize the savings caused by the new service design model. According to the surveys and interviews, the customer (user) experience trend has been increasing already during the research. The second research question asked what would be the most applicable, common and easy-to-use service design methods and tools that served the purpose in the most typical customer projects of Osaamisbotti Oy. This was answered by the service design model proposal after the research phase of the study.

Majority of the methods and tools that were chosen at the beginning of the study, were used to get the insight of Osaamisbotti Oy and its customers: users of the service, development approach, requirements, vision, resources, and the way of working. A proportion of those methods and tools were also included in the proposal, whereas brainstorming, experimenting, and customer panel were introduced at the late phase of the research. They were not part of the original scope but were included in the final proposal because of user and Osaamisbotti Oy feedback and positive experience in project work. All in all, there were lots of methods and tools under consideration and

tests. Relatively large simplification was done as the requirements of the commissioner got clearer.

8.2 Validity and Reliability

By default, results of the study are valid for the purpose set in the beginning. However, validation in real projects and operation model has not been gained by the time of concluding the research. Also, the constant change in information technology and especially in AI domain can bring uncertainty about the long-term accuracy of the results. Additionally, internal changes and development in startup companies like Osaamisbotti Oy, might happen at short notice.

When it comes to reliability, the toolset selected represents proven methods and tools that are widely used in the business. The question is probably more interpretive in such qualitative studies, where the samples are small, and decisions made based on limited data. On the other hand, the author has been working for the commissioner for over two years and insight of Osaamisbotti Oy and their customers and users has grown cumulatively already before the thesis work.

8.3 Suggestions

The commissioner is suggested to take the proposed service design model into use immediately. The author is available to continue the work as needed. At least a review of the feasibility needs to be done as soon as there is experience on usage. User feedback and customer satisfaction data collection are proposed to be implemented as continuous routines. Furthermore, basic service design training, being it online or classroom course, is recommended for Osaamisbotti Oy personnel who act as project manager or who participate actively in customer projects and other co-design initiatives. Design thinking and user-oriented development could even be included in the strategy and mission statement.

SOURCES

Anttila, P. 2000. Tutkimisen taito ja tiedon hankinta. Third edition. Hamina: Akatiimi Oy.

Blomkvist, J. 2013. Conceptualisations of Service Prototyping: Service Sketches, Walkthroughs and Live Service Prototypes, in Miettinen, S. and Valtonen, A. (eds.) Service Design with Theory: Discussion on Change, Value, and Methods, Second edition. Vantaa: Lapland's University Press.

Boyce, C. & Neale, P. 2006. Conducting In-depth Interviews: A Guide for Designing and Conducting In-depth Interviews for Evaluation Input. Pathfinder International. Consulted 14.1.2019 http://www2.pathfinder.org/site/DocServer/m_e_tool_series_indepth_interviews.pdf.

Cassidy, T. 2011. The Mood Board Process Modeled and Understood as a Qualitative Design Research Tool. ReseachGate. Consulted 17.4.2019 https://www.researchgate.net/publication/263775523.

Chang, C. 2019. Design Workshops That Work: How to Get Better at Brainstorming. Consulted 17.4.2019 https://www.intercom.com/blog/running-design-workshops.

Cipolla, C. 2013. Solutions for Relational Services, in Miettinen, S. and Valtonen, A. (eds.) Service Design with Theory: Discussion on Change, Value, and Methods, Second edition. Vantaa: Lapland's University Press.

Curedale, R. 2013. 50 Brainstorming Methods for Team and Individual Ideation. First edition. Topanga: Design Community College.

Curedale, R. 2016. Experience Maps: Journey Maps – Service Blueprints – Empathy Maps. Comprehensive Step-by-step Guide. Topanga: Design Community College.

Dudovskiy, J. 2019. Interviews. Consulted 14.1.2019 https://research-methodology.net/research-methods/qualitative-research/interviews/#_ftnref1.

Eurostat 2019. Abbreviations and Acronyms. Consulted 30.4.2019 https://ec.europa.eu/eurostat/ramon/cybernews/abbreviations.htm.

Fichter, D. & Wisniewski, J. 2017. Tackling the Omnichannel Experience with Customer Journey Mapping. Consulted 24.2.2019

http://www.infotoday.com/cilmag/oct17/Fichter-Wisniewski--Tackling-the-Omnichannel-Experience-With-Customer-Journey-Mapping.shtml.

Hill, N. & Alexander, J. 2016. Handbook of Customer Satisfaction and Loyalty Measurement. Third edition. New York: Routledge.

Holston, D. 2011. The Strategic Designer: Tools and Techniques for Managing the Design Process. Cincinnati: HOW Books.

IDEO U 2019. Effective Brainstorming Techniques. Consulted 23.4.2019 https://www.ideou.com/pages/brainstorming.

Jisc 2019. Planning a Participatory Workshop. Consulted 13.1.2019 https://www.jisc.ac.uk/guides/planning-a-participatory-workshop.

Jupyter 2019. The Jupyter Notebook. Consulted 23.4.2019 https://jupyter-notebook.readthedocs.io/en/latest/notebook.html.

Kantojärvi, P. 2012. Fasilitointi luo uutta. First edition. Helsinki: Talentum Media Oy.

Koivunen, K.; Vuorela, T. & Haukkamaa, J. 2014. Käyttäjät ovat merkittävä, mutta vähän hyödynnetty mahdollisuus tutkimus- ja kehitystyössä. OAMK tutkimus- ja kehitystyön julkaisut. Consulted 23.2.2019 http://www.oamk.fi/epooki/index.php?cID=545#cite-text-0-0.

Liedtka J.; Ogilvie T. 2011. Designing for Growth: A Design Thinking Tool Kit for Managers. New York: Columbia University Press.

Maurya, A. 2012. Running Lean: Iterate from Plan A to a Plan That Works. Second Edition ed. Sebastopol: O'Reilly Media Inc.

McQuarrie, EF. 2008. Customer Visits: Building a Better Market Focus. Third edition. New York: M.E. Sharpe, Inc.

Microsoft 2019. Azure Products. Consulted 22.4.2019 https://docs.microsoft.com/en-gb/azure/#pivot=products.

Milledge, D.; Pain, R. & Whitman, G. 2019. Participatory Action Research Toolkit: An Introduction to Using PAR as an Approach to Learning, Research and Action. Durham University & Lune Rivers Trust. Consulted 24.2.2019 http://communitylearningpartnership.org/wp-content/uploads/2017/01/PARtoolkit.pdf.

Modig, N. & Åhlström, P. 2016. Tätä on LEAN: Ratkaisu tehokkuusparadoksiin. Eevastiina Aho. Fift edition. Halmstad: Rheologica Publishing.

Osaamisbotti Oy 2019. Coaching Process Reloaded. Consulted 21.2.2019 https://osaamisbotti.fi/english.

Polaine, A.; Løvlie, L. & Reason, B. 2013. Service Design: From Insight to Implementation. Brooklyn: Rosenfeld Media.

Puri, CP. 2009. Agile Management: Feature Driven Development. New Delhi: Global India Publications PVT LTD.

Qualtrics 2019. Customer Satisfaction (CSAT) Surveys: Examples, Definition & Template. Consulted 13.1.2019 https://www.qualtrics.com/experience-management/customer/satisfaction-surveys.

Raichur, R. 2019. Design Thinking Playbook. Consulted 13.1.2019 http://designthinkingsummit.com/wp-content/uploads/wpforo/default_attachments/1512384333-Design-thinking-playbook.pdf.

Ratkaisu 100 Challenge Competition. Consulted 9.11.2017 https://ratkaisu100.fi/osallistu.

Reason, B.; Løvlie, L. & Flu, MB. 2016. Service Design for Business: A Practical Guide to Optimizing the Customer Experience. Hoboken: John Wiley & Sons Inc.

Ries, E. 2011. The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. First Edition. New York: Crown Business.

Sanders, EB. & Stappers, PJ. 2008. Co-creation and the New Landscapes of Design. CoDesign. Consulted 23.2.2019 https://doi.org/10.1080/15710880701875068.

Sarvas, R.; Nevanlinna, H. & Pesonen, J. 2016. Lean Service Creation: The Handbook v1.7. Futurice.

SCHUB International 2013. The Official Supply Chain Dictionary: 8000 Researched Definitions for Industry Best-Practice Globally. BookBaby.

Slang, TY. 2019. Interaction Design Foundation. Design Thinking: A 5 Stage Process. Consulted 30.4.2019 https://www.interaction-design.org/literature/article/design-thinking-get-started-with-prototyping.

Smartsheet Inc. 2019. Client Creative Brief. Consulted 19.2.2019 https://www.smartsheet.com/free-creative-brief-templates.

STANDS4 LLC 2019. The Web's Largest Resource for Acronyms & Abbreviations. Consulted 30.4.2019 https://www.abbreviations.com.

Stickdorn, M.; Lawrence, A.; Hormess, ME. & Schneider, J. 2018. This is Service Design Doing: Applying Service Design Thinking in the Real World: A Practitioners' Handbook. First Edition. Sebastopol: O'Reilly Media Inc.

Stickdorn, M. & Schneider, J. 2011. This is Service Design Thinking: Basics – Tools – Cases. Amsterdam: Bis Publishers.

Suomen Asiakastieto Oy. Consulted 2.1.2018 https://www.asiakastieto.fi/yritykset/fi/osaamisbotti-oy/28750479/yleiskuva.

The Finnish Innovation Fund Sitra 2017. Consulted 9.11.2017 https://www.sitra.fi/en.

The Finnish Ministry of Finance 2019. Consulted 19.2.2019 https://vm.fi/ihmiskeskeinen-yhteiskunta?p_p_id=56_INSTANCE_5hz2uBURjoCg&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_count=3&_56_INSTANCE_5hz2uBURjoCg_languageId=en_US.

Tuominen, K. 2010. Lean – kohti täydellisyyttä: Itsearvioinnin oppi- ja työkirja. Juva: Readme.fi.

Tuulaniemi, J. 2011. Palvelumuotoilu. Helsinki: Talentum.

Wadhwani Foundation 2019. Lean Startup. Consulted 29.4.2019 https://wiki.wfglobal.org/lean-startup.

Wright, K. 2006. Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Services. Consulted 13.1.2019 https://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.2005.tb00259.x.

Yle. Yle selvitti: Näin aktiivimalli vaikuttaa TE-toimistoissa – yhdellä virkailijalla jopa 1 000 asiakasta. Consulted 26.1.2018 https://yle.fi/uutiset/3-10029166.

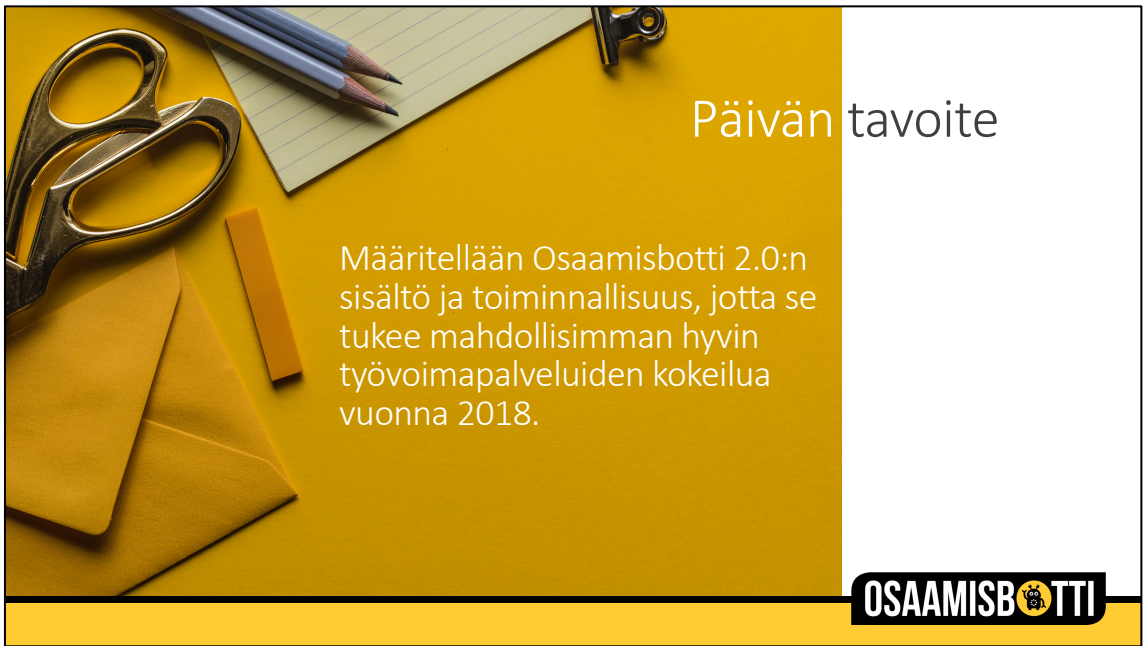
Smartsheet Template for Client Creative Brief

CLIENT CREATIVE BRIEF	Click here to explore additional templates and resources for free in	smartsheet
CREATIVE OVERVIEW		
PROJECT TITLE		
CLIENT NAME		
CONTACT INFO	NAME	
	PHONE	
	EMAIL	
	MAILING ADDRESS	
BUDGET Detailed financial projections	AMOUNT	
	FINANCE SOURCES	
	NOTES	
PROJECT OVERVIEW Project summary, research sources and findings		
PROJECT OBJECTIVES Detailed goals, desired outcomes, and measurable objectives		
MARKETING GUIDELINES Detailed approval process for all pieces, style guides, links to existing branding standards		
MARKETING MATERIALS Describe the pieces required along with the strategic reach and	COPY	Taglines, slogans, body copy requirements
	PRINT ADS	List any printed materials
	DISPLAY ADS	List type of advertisement, length of time required and type
	SIGNAGE / BANNERS	List items needed and deadlines
	EVENT / PROMO PIECES	List items needed and deadlines
	WEBSITE	Describe web requirements
	SOCIAL MEDIA	List platforms, manpower, and desired outcome
	OTHER	Detail needed materials and deadlines
TARGET AUDIENCE The who, what, when, and where of the target customer base	PRIMARY DEMOGRAPHIC	Describe desired audience
	SECONDARY DEMOGRAPHIC	Describe desired audience

TARGET AUDIENCE The who, what, when, and where of the target customer base	**PRIMARY DEMOGRAPHIC**	Describe desired audience
	SECONDARY DEMOGRAPHIC	Describe desired audience
CALL TO ACTION Detail the desired reaction of the target audience		
CAMPAIGN LOOK AND FEEL Describe the desired style of the campaign		
CAMPAIGN MESSAGE Define key benefits of product, describe its value, and desired target audience take away		
COMPETITIVE ANALYSIS Describe competitors, their campaign messages, research findings, and supporting information - list any document attachments		
IMAGE REQUIREMENTS List needed imagery and projected sources	**GRAPHICS**	
	PHOTOGRAPHY	
	MULTIMEDIA	
SCHEDULE	**PROJECTED TIMELINE**	
	IMPORTANT DATES / DEADLINES	
OTHER Include any other critical information		

COMMENTS AND APPROVAL	
CLIENT CONTACT NAME & TITLE	
COMMENTS	
DATE	**SIGNATURE**

Summary of a Participatory Workshop with Customer



Aikataulu

9:00	Alustus ja lämmittely
9:30	Kaupungin prosessi ja vaatimukset TYPA-palveluihin liittyen
10:30	Palvelupolun muodostaminen *(”Customer Journey 2.0”)*
11:30	Lounas
12:30	Palvelumallin työstäminen *(”Service Blueprint”)*
13:30	Prioriteettijärjestyksen sopiminen ja mittarointi
15:00	Seuraavat askelmerkit sekä päivän yhteenveto
16:00	Kotia kohti (viimeistään)

OSAAMISBOTTI

Työpajassa käytetään palvelumuotoilun työtapoja ja menetelmiä.

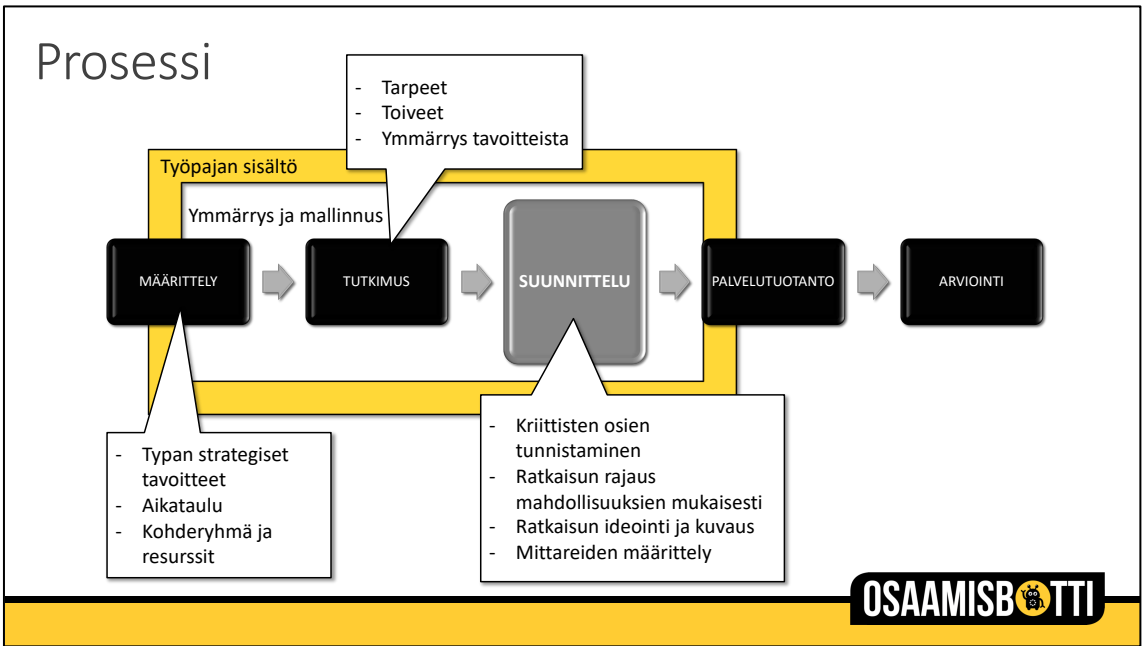
Kantava ajatuksena **yhteiskehittäminen**.

”Palvelumuotoilu on systemaattinen tapa lähestyä palveluiden kehittämistä ja innovointia yhtä aikaa sekä analyyttisesti että intuitiivisesti.”

Juha Tuulaniemi

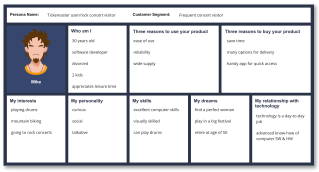
OSAAMISBOTTI

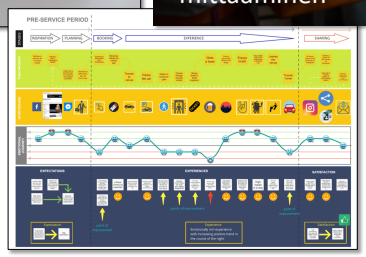
Prosessi



Työtavat

Persoonat (”Personas”)





Palvelupolku
(”Customer
Journey”)

Palvelumalli (”Service Blueprint”)

OSAAMISBOTTI

Vahvistetut toiminnallisuudet

Käyttäjien hallinta

- Roolit: admin, valmentaja
- Valmentajien tilejä voi luoda ja poistaa
- Jokaisella valmentajalla omat tunnukset
- Pääsykoodin kysyminen uudelta botin käyttäjältä

Sivutus

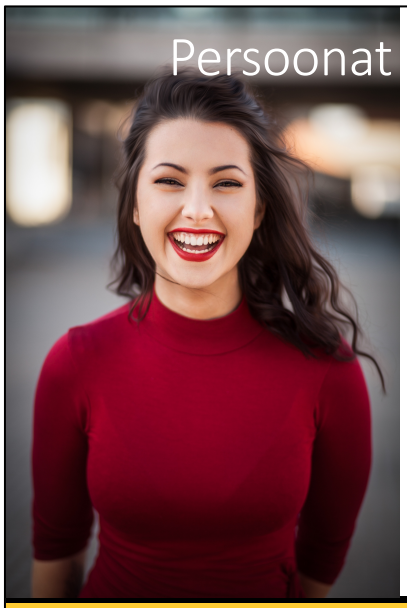
Suodatus (/valmentaja /uudet kortit)

Hakutoiminto

Suora vastaus työnhakijan viestiin (pyydettiin TYPA1-palautteessa)

Viestihistoria jää näkyviin (pyydettiin TYPA1-palautteessa)

OSAAMISBOTTI



Persoonat kehittämisen apuna

Käytetään persoonia/asiakasprofiileja, jotta pystyttäisiin asettumaan mahdollisimman paljon asiakkaan (loppukäyttäjän) saappaisiin, eikä katsota asioita vain omasta näkökulmasta.

Persoona on tietyn asiakasryhmän yleistys. Yleensä tähän valitaan kaikkein keskeisimmät asiakasprofiilit.

Meidän tapauksessamme Emma ja Juha ovat persoonia, joita hyödynnämme tämän päivän työssämme.

OSAAMISBOTTI

Persoona

EMMA, 27-vuotias työnhakija

Filosofian maisteri (tietojenkäsittelytieteet)
Asuu yksin Tampereen keskustassa
Seurustelee
Ei lapsia

Tarina

Valmistumisestaan lähtien Emma on ollut työttömänä muutamaa pätkätyötä lukuun ottamatta.

Hakenut töitä TE-toimiston kautta, Monster-palvelusta, lehti-ilmoitusten perusteella sekä oman verkostonsa kautta.

Osallistunut Sovelton koulutuksiin työnhakuaikana.

Tavoitteet

Löytää omaa osaamista vastaava työpaikka, mieluiten isosta yrityksestä.

Haluaa kouluttautua.

Haluaa pysyä Tampereen seudulla.

Motivaatio

Työpaikan saaminen motivoi kokonaistavoitteena.

Jos pääsee työhaastatteluun, se motivoi eteenpäin.

Täsmäkoulutus motivoi.

Välillä pakko tietoisesti tsempata ja motivoida itseään jatkamaan työnhakua.

Turhautuminen

Oli turhautunut aiemmin TE-keskuksen byrokratiaan ja lisäarvottomuuteen.

Jos ei itse ole aktiivinen, kukaan muukaan ei tunnu auttavan eteenpäin.

Miten saada oma pirstaleinen osaaminen ja kokemus näkyväksi?

OSAAMISBOTTI

Persoona

JUHA, 35-vuotias OMA-valmentaja

Yhteiskuntatieteiden maisteri (sosiaalityö)
Asuu Hervannassa
Perheeseen kuulu vaimo ja 3-vuotias tytär

Tarina

Luki Jyväskylän yliopistossa sosiaalityötä armeijan suoritettuaan.

Työskennellyt työnhakijoiden ohjauksessa 3 vuotta ja on sekä asiakkaiden että esimiestensä mielestä hoitanut työnsä hyvin.

Pohtii välillä elämän suuntaa ja seuraavia liikkeitä työurallaan.

Tavoitteet

Jatkaa työtä ihmisten parissa haasteita ratkoen.

Auttaa työttömiä aikaisempaa tehokkaammin työnhaussa .

Syventää osaamistaan käyttäytymistieteiden alueella.

Pitää työ ja vapaa-aika erillään.

Motivaatio

Haasteellinen työ motivoi.

Jokainen asiakas on erilainen ja jokainen kohtaaminen uniikki.

Kun oma valmennettava pääsee töihin, se palkitsee ja motivoi jatkamaan tärkeäksi kokemaa työtä.

Turhautuminen

Työttömien saama ”leima” yleisessä keskustelussa turhauttaa.

Asiakkaista monimutkaiselta tuntuva byrokratia ja lainsäädäntö.

Välillä samat perusasiat saa vääntää rautalangasta melkein kaikille työnhakijoille.

Ajankäytön haasteet.

OSAAMISBOTTI

Palvelupolun (customer journey) muodostaminen

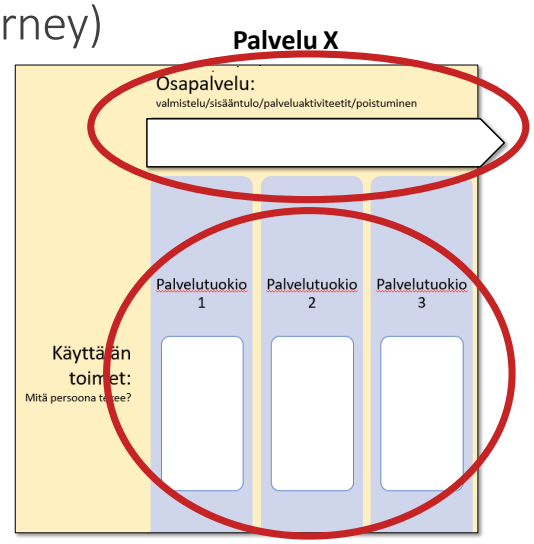
- Palvelu koostuu osapalveluiden sarjasta

- Osapalvelussa on palvelutuokioita, jotka sisältävät kontaktipisteitä

- Palvelutuokio voidaan muotoilla kontaktipisteiden avulla vastaamaan asiakkaan toiveita ja odotuksia

- Parhaat kontaktipisteet ovat ne, joilla saadaan asiakkaalle paljon arvoa pienellä kustannuksella

- Palvelupolkuun vaikuttaa sekä suunniteltu palveluprosessi että asiakkaan tekemät valinnat



OSAAMISBOTTI

Palvelumalli (service blueprint)

- Kun palvelupolkuun eli asiakkaan kulkeman reitin kuvaukseen lisätään palveluun keskeisesti liittyvät muut toimijat kontaktipisteineen, saadaan toiminnallinen tekojen sarja, palvelumalli (service blueprint)
- Palvelumalli kuvaa asiakkaan kytkeytymistä tuotantomalliin
- Visuaalinen kuvaus vaadittavista resursseista
- Asiakaskokemusta visualisoidaan ”palvelun näyttämö” –osalla (front stage)
- Asiakkaalle näkymättömää palveluntuottajan toimintaa havainnollistetaan palvelutuotanto-osalla (back stage)

OSAAMISBOTTI

Aihioehdotukset 1/2

Aihio 1: osaamiskortin dokumenttitulostus

- Hakija saa kartoituksen tulokset heti käyttöönsä muokattavassa muodossa.

Aihio 2: kysy Botilta-toiminto

- Työnhakija voi kysyä Osaamisbotilta valitusta aihealueesta. Botti päivystää 24/7 ja vastaa heti.

Aihio 3: "peukutus"-toiminto

- Työnhakija näkee "peukutuksesta", että valmentaja on huomioinut tehdyt päiväkirjamerkinnät.
- Useampi vaihtoehto "peukulle"

Aihio 4: aktiivisuuden ilmaisin

- Aktiivisuusmerkintöjen määrä tietyssä ajassa näkyy osaamiskortissa sovitun ilmaisimen kautta.

Aihio 5: esitäytetyt viestipohjat

- Pääkäyttäjä voi luoda esitäytettyjä viestipohjia valmentajille henkilökohtaisia tai massaviestejä varten.

Aihio 6: tavoitteen asettaminen

- Tavoitteen asettamisen muotoilu tutkimukseen perustuvaksi toimintasuunnitelmaksi.

Aihio 7: kysymyspolun hienosäätö

- Kartoittavan kysymyspolun hienosäätäminen

OSAAMISBOTTI

Aihioehdotukset 2/2

Aihio 8: Esko-integraatio

- Botti koostaa osaamisesta osaamisluokittelun mukaisia ryhmiä (avainsanat)

➡ myöh. integrointi, esim. Työmarkkinatori

Aihio 9: kieliversiot

- Osaamisbotin kääntäminen ➡ paljon maahanmuuttajataustaisia
- Yleisimmät Tampereella:
  1. Suomi
  2. Englanti
  3. Venäjä
  4. Arabia
- Selkosuomi

Aihio 10: valmentajan kuva

- Profiiliin OMA-valmentajan kuva

Aihio 11: työllisyyssuunnitelma bottiin

- Työllisyyssuunnitelman kopiointi Ura-järjestelmästä Osaamisbottiin: käyttöä OMA-valmentaja/työnhakija -keskusteluissa

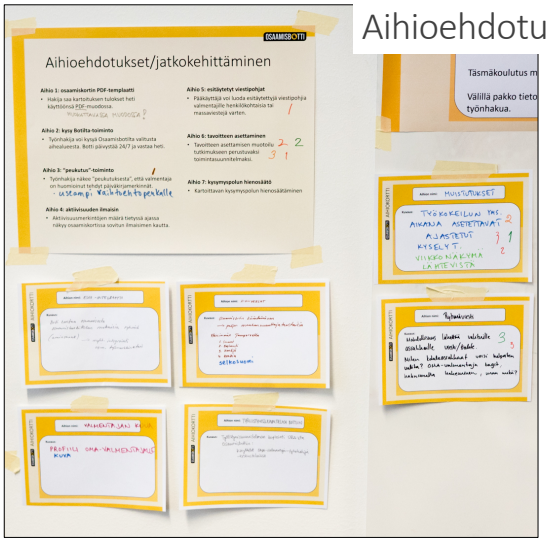
Aihio 12: muistutukset

- Työkokeilun yms. aikana asetettavat ajastetut kyselyt
- Viikkonäkymä lähtevistä

Aihio 13: ryhmäviesti

- Mahdollisuus lähettää valituille asiakkaalle viesti/tiedote
- Miten kohdeasiakkaat voisi helpoiten valita? OMA-valmentaja -tägit, hakusanalla hakeminen, muu - mikä?

OSAAMISBOTTI



Aihioehdotusten priorisointi - äänestystulokset

Aihio 12: muistutukset ★★★★★★★★

Aihio 7: kysymyspolun hienosäätö ★★★★★★★★

Aihio 13: ryhmäviesti ★★★★★★

Aihio 3: "peukutus"-toiminto ★

Aihio 5: esitäytetyt viestipohjat ★

Aihio 1: osaamiskortin dokumenttitulostus

Aihio 2: kysy Botilta-toiminto

Aihio 4: aktiivisuuden ilmaisin

Aihio 6: tavoitteen asettaminen

Aihio 8: Esko-integraatio

Aihio 9: kieliversiot

Aihio 10: valmentajan kuva

Aihio 11: työllisyyssuunnitelma bottiin

OSAAMISBOTTI

Mittarointi

Työllistymisusko

Työnhakuni tai koulutushakuni tuottaa vielä tulosta.

Pääsen varmasti minulle sopivaan työhön tai koulutukseen jossain vaiheessa.

Uskon työllistyväni ja/tai pääseväni koulutukseen puolen vuoden sisään.

Työnhakijan aktivoituminen

Seuraan aktiivisesti työ-, harjoittelu- ja/tai koulutuspaikkoja.

Lähetän aktiivisesti työhakemuksia avoimiin työpaikkoihin ja/tai koulutuksiin.

Jatkan työnhakua sinnikkäästi, vaikka tulisi pettymyksiä.

Myönteinen palvelukokemus

OMA-valmentaja ja Osaamisbotti auttavat aktiivisesti työnhaussa/koulutuspaikan haussa .

OMA-valmentaja ja Osaamisbotti innostavat jatkamaan työnhakua/koulutuspaikan hakua.

OMA-valmentaja ja Osaamisbotti auttavat ymmärtämään, missä olen hyvä.

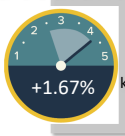
Minkä arvosanan annat OMA-valmentaja Osaamisbotti-työparin toiminnalle?

Alkukartoitus

Työvoimapalvelu auttaa ymmärtämään, missä olen hyvä

Aktivointi ja seuranta

Auttaa aktiivisesti työnhaussa / koulutuspaikan haussa



Innostaa jatkamaan työnhakua / koulutuspaikan hakua

Käyttäjäkokemuksen muutos alku- ja loppuarvioiden välillä

OSAAMISBOTTI

Mitkä olisivat olennaisimmat vaikuttavuus-mittarit?

Osaamisbotin käyttäjäryhmän ja vertaisryhmän työllistymisaika?

Osaamisbotin käyttäjäryhmän ja vertaisryhmän aktiivisuus?

Pilotissa käytetyt mittarit (vrt. edellinen sivu)

Structured Interviews of Osaamisbotti Oy Personnel

Haastateltava: hallituksen jäsen, co-founder

Paikka ja päivä: Tampere, 6.2.2018

Haastattelija: Janne Granfors

1. Miten Osaamisbotin kehittäminen tapahtuu asiakasprojekteissa? Kerrotko prosessin vaiheista.
   - Prosessiin kuuluu asiakkaan toimintaympäristön ja vaatimusten ymmärtäminen, yhteisen tavoitetilan muodostaminen, konkreettisen toimintasuunnitelman rakentaminen ja toteuttaminen. Yleensä sovitaan myös jatkuvasta seurannasta, esim. viikottaiset puhelut.

2. Mitkä ovat prosessin heikoimmat kohdat?
   - Asiakkaan ongelman ymmärtäminen on vaikein osuus.
   - Suunnitteluvaiheen saaminen mukaan laskutettavaksi työksi.

3. Missä prosessin vaiheissa yleensä onnistutaan parhaiten?
   - Projektinhallinta
   - Kommunikaatio

4. Osaamisbottia on kehitetty alusta alkaen yhdessä asiakkaiden kanssa kokeillen. Minkälaista kokemusta tästä mallista on saatu?
   - Hyvää on ollut tiivis yhteistyö
   - Haasteena toimintatavan muutos (varsinkin julkisella puolella), että ymmärrettäisiin kehitystyön jatkuvuus ja että se vaatii panostusta myös tilaajalta

5. Mitkä ovat nykyisen kehitysmallin parhaat puolet?
   - Palvelun jatkuva kehittyminen perustuen asiakkailta saatavaan palautteeseen

6. Onko tällä hetkellä erityisiä haasteita tai kehitystarpeita, jossa tutkittavana oleva palvelumuotoilumalli voisi olla hyödyksi?
   - Palvelumuotoilumalli voisi tuoda toistettavat tuotokset paremmin näkyviin tilaajalle (asiakkaalle) ja se tehostaisi työtä Osaamisbotti Oy:n osalta

7. Onko sinulla näkemystä, mitä palvelumuotoilun menetelmiä tai työkaluja prosessissa voitaisiin käyttää lopputuloksen parantamiseksi?
   - Käyttöliittymäsuunnitteluun liittyvät työkalut, esim. klikattavat prototyypit
   - User (customer) journey

8. Tukeeko yrityksen sisäinen ilmapiiri palvelumuotoiluajatuksen käyttämistä asiakasprojekteissa?
   - Tukee, mutta resurssit on otettava huomioon

9. Miten todennäköistä mielestäsi on, että asiakkaat kokevat palvelumuotoilun menetelmien käyttöönoton Osaamisbotti-projekteissa hyödylliseksi?
   - Laadukkaasti käytettynä asiakkaat kokevat varmasti hyödylliseksi

10. Minkälaisia odotuksia Osaamisbotille räätälöidylle palvelumuotoilumallille asetat?
    - Mallin pitää olla asiakkaalle helposti lähestyttävä, ymmärrettävä ja innostava
    - Osaamisbotti Oy:lle mallin pitää olla toistettava ja mitattava (työmäärä; paljonko malli säästää kokonaistyöajasta: valmistelu, itse työ sekä tuotokset)

11. Näetkö kehitettävän palvelumallin mieluiten

    A) työkalupakkina, joka sisältää paljon vapaasti valittavia yksityiskohtaisia mallipohjia

    B) yksinkertaisempana prosessikuvauksena, jossa on kokoelma suositeltavia, lean-mallin tyylisesti yleistetympiä, useampaan tilanteeseen soveltuvia ja nopeammin käyttöön otettavia kehityksen apukeinoja, vai

    C) prosessi- ja toimintatapakuvauksena, jota tukee valikoima tärkeimpiä palvelumuotoilumenetelmiä Osaamisbotti Oy:n tarpeisiin brändättynä

    D) ylläolevien yhdistelmänä, painopisteen ollessa: 60% B ja 40% C (maltillinen brändäys)

    E) jonain muuna, minä?

12. Sana vapaa!

Käytämme jo jollain tasolla palvelumuotoilutoimintatapoja, mutta meiltä puuttuu ”speksattu” työkalupaketti. Käytännössä mallin pitäisi olla kevyt, koska projektit ovat pieniä ja aikataulullisesti rajallisia – aikaa voi olla esim. vain yhteen työpajaan, jossa projektin tavoitteet pitää saada selviksi. Mallin pitää tukea tämän tyyppistä nopeaa toimintatapaa. Sisäisesti olisi hyvä, että meillä olisi ”reference bank”, jossa on aikaisempien projektien materiaali ja sitä kautta voidaan kehittää toimintatapaa edelleen. Tällä hetkellä meiltä puuttuu reflektio; ei systemaattisesti katsota projektin lopussa tavoitteita ja lopputuloksia.

Haastateltava: hallituksen jäsen, co-founder

Paikka ja päivä: Tampere, 6.2.2018

Haastattelija: Janne Granfors

1. Miten Osaamisbotin kehittäminen tapahtuu asiakasprojekteissa? Kerrotko prosessin vaiheista.
   - Ensin on asiakasyhteydenotto, joko asiakas ottaa yhteyttä tai me. Meillä on jo platform, joten sen jälkeen katsotaan, miten hyvin nykyinen ratkaisu kattaa tarpeen. Sen jälkeen katsotaan, mitä tarvitaan lisää. Tehdään MVP-toteutus ja annetaan se asiakkaan käyttöön. Tämän jälkeen kerätään palaute, iteroidaan ja tehdään uusi release platformiin.
   - Pyrimme tunnistamaan asiakkaan puolelta käyttäjiä, jotta voidaan kehittää palvelua suoraan heidän kanssaan.

2. Mitkä ovat prosessin heikoimmat kohdat?
   - Asiakkaan kokonaisvaltainen tarve: aika usein lähdetään selkeä konkreettinen tarve edellä ja toteutetaan toiminnallisuus. Käyttäjäkokemukseen liittyvät, emotionaaliset ja visuaaliset lähtökohdat jäävät helposti toissijaiseksi. Näiden integroiminen osaksi käyttäjän palvelupolkua ja käyttäjäkokemusta on haasteellista.

3. Missä prosessin vaiheissa yleensä onnistutaan parhaiten?
   - Reagointi asiakkaan tarpeeseen: lähdetään nopeasti liikkeelle
   - MVP:n toteuttaminen ja sen vieminen asiakkaalle (nopeus, vasteaika)
   - Validaation aktiivinen hakeminen, asiakaslähtöisyys

4. Osaamisbottia on kehitetty alusta alkaen yhdessä asiakkaiden kanssa kokeillen. Minkälaista kokemusta tästä mallista on saatu?
   - Vaikka puhutaan yhteiskehittämisestä, on vaikea saada loppukäyttäjiä mukaan (esim. työnhakijoita). Asiakkaan edustajia kyllä saadaan mukaan.
   - Kokemukset ovat hyviä, mutta se vaatii strukturoitua toimintatapaa (esim. työpajat)
   - Mahdollistaa vuoropuhelun palvelun kehittämiseksi

5. Mitkä ovat nykyisen kehitysmallin parhaat puolet?
   - Yhteiskehittäminen vahvistaa asiakassuhdetta koko organisaation osalta (ei pelkästään myyntihenkilöt ja asiakaskontakti)
   - Yhteiskehittäminen antaa mahdollisuuden oppia paljon enemmän asiakkaasta ja heidän organisaatiostaan
   - Kehittämisen ketteryys ja nopeus

6. Onko tällä hetkellä erityisiä haasteita tai kehitystarpeita, jossa tutkittavana oleva palvelumuotoilumalli voisi olla hyödyksi?
   - Uuden konseptin (Flipped Coaching) määrittely ja alustava toteutus vaatii jonkun asiakkaan, jonka kanssa kehitetään yhdessä (reliability, validation)
   - Käyttökokemuksen ja käytettävyyden parantaminen nykyisessä palvelussa

7. Onko sinulla näkemystä, mitä palvelumuotoilun menetelmiä tai työkaluja prosessissa voitaisiin käyttää lopputuloksen parantamiseksi?
   - Yhteiskehittäminen
   - Käyttäjäraati: ryhmä käyttäjiä, joiden kanssa ja avulla saadaan nopeaa palautetta ja ideoita, ”friendly customer base”, jolla voidaan pilotoida ja kokeillla asioita
   - A/B-testaus

8. Tukeeko yrityksen sisäinen ilmapiiri palvelumuotoiluajatuksen käyttämistä asiakasprojekteissa?
   - Kyllä

9. Miten todennäköistä mielestäsi on, että asiakkaat kokevat palvelumuotoilun menetelmien käyttöönoton Osaamisbotti-projekteissa hyödylliseksi?
   - Kokemukset ovat, että asiakkaat kokevat tämän hyödylliseksi ja miellyttäväksi tavaksi tehdä yhteistyötä Osaamisbotti Oy:n kanssa

10. Minkälaisia odotuksia Osaamisbotille räätälöidylle palvelumuotoilumallille asetat?
    - Toiminnallisuuden lisäksi käytettävyys ja visuaalisuus pitäisi olla otettu huomioon mallissa. Toiminnallisuudet ovat olleet tärkeimmässä roolissa

aiemmin. Mallin pitäisi mahdollistaa innovointi eikä sitoa liikaa. Sen voisi myös alustaa toteutusvaihetta (esim. roolit, tulokset, aikataulut mukana).

11. Näetkö kehitettävän palvelumallin mieluiten

A) työkalupakkina, joka sisältää paljon vapaasti valittavia yksityiskohtaisia mallipohjia

B) yksinkertaisempana prosessikuvauksena, jossa on kokoelma suositeltavia, lean-mallin tyylisesti yleistetympiä, useampaan tilanteeseen soveltuvia ja nopeammin käyttöön otettavia kehityksen apukeinoja, vai

C) prosessi- ja toimintatapakuvauksena, jota tukee valikoima tärkeimpiä palvelumuotoilumenetelmiä Osaamisbotti Oy:n tarpeisiin brändättynä

D) ylläolevien yhdistelmänä, painopisteen ollessa: B&C siten, että B:ssä on mukana brändäys ja asiakkaille päin voidaan viestiä yrityskulttuuri: palvelumuotoilu on mukana toiminnassa, yritys tietää, mitä tekee ja johtaa tekemistä, ymmärtää asiakkaan tarpeen ja osaa valita oikeat menetelmät projektia varten

E) jonain muuna, minä?

12. Sana vapaa!

Yritys on päässyt tähän tilanteeseen nimenomaan yhteiskehittämisen kautta. Alusta lähtien on työskennelty yhdessä asiakkaan kautta.

Semi-structured Interview of Osaamisbotti Customer

Interviewee: The main user of Osaamisbotti in Tampere City Employment Office

Place and date: Tampere, 18th of December 2018

Interviewer: Janne Granfors

1. When and why did you first come across Osaamisbotti?

   In May 2018, I got an invitation to a meeting regarding Osaamisbotti solution because I was chosen to be the main user of the service in Tampere City Employment Office. I had heard about Osaamisbotti before, but this time I really got involved.

2. What were your first thoughts about Osaamisbotti?

   I got really excited, I thought: "why hasn't this been available before?". I reckoned it as a strong tool, customer-oriented one. As I started to seek for information about it, I ran to Osaamisbotti videos, that got me really inspired. This was already before I got to test Osaamisbotti myself.

3. Osaamisbotti is being developed together with customers. Was the model already familiar to you?

   The model itself was known by me, but I haven't been involved in that kind of project before. Agile development was familiar because in Tampere City we have practiced it for a while now.

4. What do you think about such co-development and inclusion in general?

   It enables the service to be functional – not by everybody doing their share separately, but together with the customer and personnel.

5. Could you tell us about the best aspects of the co-development of Osaamisbotti and the good experiences?

   From the day one, the collaboration with Osaamisbotti has been the best part of the initiative. The way how Osaamisbotti Oy has been available all the time via

email, phone, Skype, et cetera. And how quickly the co-operation was established and maintained weekly. It has been great to co-design with Osaamisbotti because all ideas are welcome, and they do not judge even the craziest requests. Weekly Skype meetings is a good way to maintain the discussion and relationship. Also, meeting the end users (unemployed, Employment Office customers) together with Osaamisbotti Oy and telling them about the bot solution, has been very fruitful and valued.

6. How can co-development be improved?

   Everything is working! No need for improvement, but I hope that everything in the process would continue as today – I need Osaamisbotti Oy to support in technical issues and it is great to have direct contacts in Osaamisbotti to solve any problems user might have.

7. What do you think of the following practical implementation of inclusion and co-development in Osaamisbotti projects? (editorial note: the interviewee was given the right to choose which items to answer to)

   g) project kick-off workshop

      It would have been better to begin earlier with more resources (both sides)

   h) content definition workshop

   i) testing

   j) iterative requirement definition, ideation and brainstorming

      All the brainstorming and ideation sessions have been very good. We have really ideated development solutions continuously.

   k) continuous interaction

      Continuous interaction has been important and working very well. For instance, collaboration in marketing material creation as roll-ups and poster for customer occasions have been fast and high in quality.

   l) measuring the results and getting feedback

Again, this has been done as a collaborative effort between Tampere City and Osaamisbotti Oy. Feedback is collected from the users via Osaamisbotti service and analysis is done together. According to the feedback, users are satisfied with the service and I believe the way of getting feedback is ok. "Customer panel" has also been very good channel of receiving direct feedback.

Generally, Osaamisbotti Oy clearly develop their service for both Tampere City and the customers of Tampere City. That is the target and vision as well – we serve a common customer together and we have the desire to help them.

8. Word is free, tell us about working with Osaamisbotti!

If I see potential in a project or matter, I'm in – and in Osaamisbotti I see lots of potential. The concept of chatbot asking the user questions to generate the skills profile is brilliant. I have noticed that not all job seekers can write about themselves in a way that describes their competence and skills. They need help in wording and to think about their strengths.

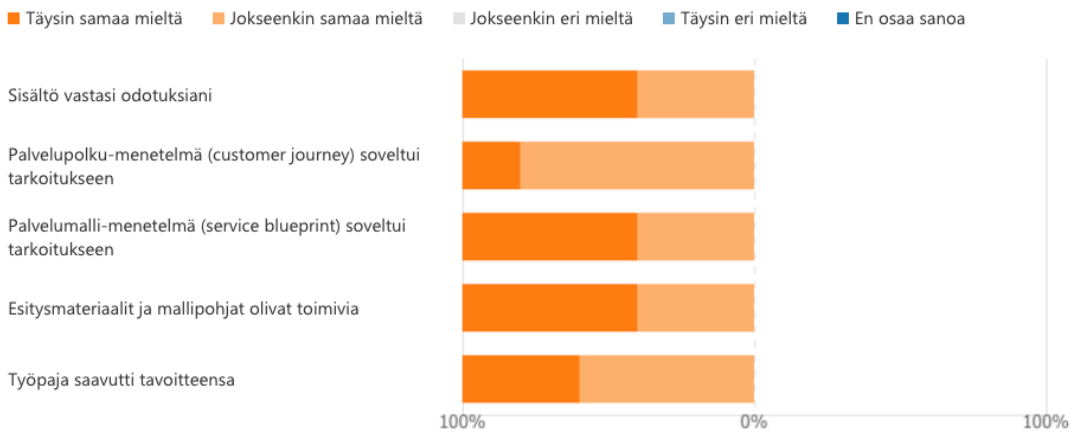
Using the bot is so simple that almost nobody needs support for it. Having said that, taking Osaamisbotti into use might be the bottleneck: because it requires Skype app, there have been issues. Installing Skype is not the number one for the youngsters (some say it messes up with their Xbox account somehow), so other channels need to be considered. Surprisingly enough, older people (40 years old and older) do not have as many issues with Skype. We have been talking about Facebook Messenger to be taken into use as Osaamisbotti channel in Tampere City, but it remains to be seen.

Another good thing is that there is always a person behind the little assistant (bot). At first, it confused some of the users that now you only discuss with a robot instead of a human. But as we have informed all that there is a real customer servant reachable via the bot, it has been alright. This service does not replace all humans in the chain but makes the process more efficient and easier for some people to contact.

Online Survey Results

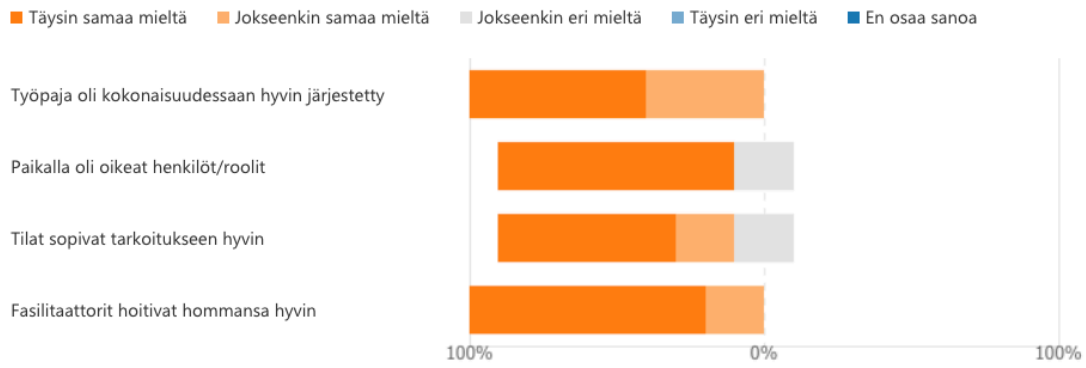
1. Työpajan sisältö

Lisätietoja



2. Organisointi ja fasilitointi

Lisätietoja



3. Osallistujia oli

Lisätietoja

sopiva määrä	3
liian vähän	2
liikaa	0

4. Tilaisuus oli kestoltaan

Lisätietoja

sopiva	4
liian lyhyt	0
liian pitkä	1

5. Missä onnistuimme hyvin?

5 vastausta

Tunnus ↑	Nimi	vastausta
1	anonymous	Keskustelua johdettiin niin, että pysyimme hyvin asiassa. Keskustelu ei mennyt liian tekniselle tasolle eikä epäolennaisuuksiin.
2	anonymous	Konkreettinen priorisointi.
3	anonymous	Työpajan tavoitteiden kertomisessa, osallistamisessa.
4	anonymous	Hyvin järjestetty tilaisuus, osallistujat otettu hyvin huomioon. Kiinnostava tuote.
5	anonymous	-

6. Mitä asioita voisimme tehdä ensi kerralla paremmin?

5 vastausta

Tunnus ↑	Nimi	vastausta
1	anonymous	Aina voisi olla lisää aikaa, tälle aikatekijälle ei varmasti voi mitään. Ehkä tehtävänannot voisivat olla tiivistetympiä.
2	anonymous	Isompi ideointiryhmä.
3	anonymous	Asiaa olisi ollut ehkä kahteenkin pajaan. Aikataulu meni hieman pitkäksi. Mutta tähän vaikutti yllättävät tekijät joihin ei voinut vaikuttaa.
4	anonymous	Mielestäni hyvin organisoitu.
5	anonymous	-

7. Muita ajatuksia, kommentteja tai terveisiä?

3 vastausta

Tunnus ↑	Nimi	vastausta
1	anonymous	Kiva tilaisuus. Toisaalta oli hyvä, että asiakastyötä tekevien esimiehiä ei ollut paikalla, vaikka ensin ajattelin toisin.
2	anonymous	Mukava olla innovaation jatkokehittämisen keskiössä ja seurata siinä sivussa matkaanne yrittäjinä :)
3	anonymous	Odotan, että pääsen kokeilemaan Osaamisbottia.