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BUILDING A BETTER CLIENT EXPERIENCE FOR CASE REGISTRATION VIA WEB

– Case Collection Company X

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This thesis was made for a commissioner, debt collection company called company X. Company X offers a web service for its clients where they can register invoices to collection securely. For some reason, all clients still do not use the web service to transfer invoices to collection but use email and mail, which are more error prone and less secure. The aim of the thesis is to learn more about those clients and redesign the web service to better meet client needs and to entice them to start using the web service. One aim is also to learn if nudging can be used to change client behavior towards using the web service.

The research questions are set as:
Why do some clients not send data via electronic channels?
How can the service be redesigned to better meet client needs?
Can nudging be used to help clients adopt the web service?

The research methods used in this thesis were observations by Teams and Skype using thinking out loud and interviews. The research data was then analyzed using coding and word cloud. From the analyzed data, personas and their customer journey maps were made. The customer journey maps showed that the study subjects could be divided into two categories: those who start using the web service when they first receive the username and password but use the service the minimum amount possible and those do never log into the service on their own, when they receive the username and password. The problems found in the research were divided into four categories: lack of guidance from the system, process difficulties, difficulties understanding the terms, and personal factors.

Workshops were held to ideate solutions for the problems, and value proposition canvas was used to choose the most fitting solutions. After that, recommendations were made for the commissioner on how the web service should be redesigned to better meet client needs, but also how to redesign the services surrounding the web service, to make sure that clients adopt the web service and expand the use. There were also recommendations made on the different nudges that can be used with the different solutions to make sure that clients do adopt the web service.

KEYWORDS:

service design, web service, debt collection

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BUILDING A BETTER CLIENT EXPERINCE FOR CASE REGISTRATION VIA WEB

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Tämä opinnäytetyö tehtiin toimeksiantajalle, perintätoimistolle, jota opinnäytetyössä kutsutaan nimellä yritys X. Yritys X tarjoaa asiakkailleen web palvelun, jota kautta nämä voivat rekisteröidä laskuja perintään turvallisesti. Jostain syystä kaikki asiakkaat eivät siltikään käytä web palvelua, vaan siirtävät laskut perintään käyttäen postia ja sähköpostia. Nämä tavat ovat alttiimpia virheille ja vähemmän turvallisia. Opinnäytetyön tarkoitus on oppia lisää asiakkaista, jotka eivät käytä web palvelua ja suunnitella palvelu uudelleen siten, että palvelee paremmin kaikkia asiakkaita. Yksi opinnäytetyön tarkoitus on myös nähdä voiko tuuppaamista käyttää muuttamaan asiakkaiden käytöstä siten, että he alkaisivat käyttää web palvelua.

Tutkimuskysymykset ovat:
Miksi jotkut asiakkaat eivät käytä sähköisiä kanavia datan lähetykseen?
Kuinka nykyinen palvelu voidaan suunnitella uudelleen palvelemaan asiakkaita paremmin?
Voidaanko tuuppausta käyttää työkaluna, jolla saadaan asiakkaat ottamaan palvelu käyttöön?

Tässä opinnäytetyössä käytetyt tutkimusmetodit ovat observointi Teamsia ja Skypeä käyttäen, sekä haastattelut. Tutkimuksista saatu data analysoitiin koodaamalla ja sanapilvellä. Analysoidun datan perusteella rakennettiin persoonat ja asiakaspolut. Asiakaspolut osoittivat, että tutkimushenkilöt voitiin jakaa kahteen kategoriaan: ne, jotka aloittavat web palvelun käytön, kun ensimmäisen kerran saavat käyttäjänimen ja salasanana, mutta käyttävät palvelua niin vähän kuin mahdollista sekä ne, jotka eivät koskaan kirjaudu palveluun itsenäisesti, kun he saavat käyttäjänimen ja salasanan. Tutkimuksessa löydetyt ongelmat jaettiin neljään kategoriaan: systeemistä puuttuva ohjaus, vaikeudet prosessissa, termien ymmärtämisen vaikeudet, ja henkilökohtaiset tekijät.

Ratkaisujen löytämiseksi pidettiin kaksi työpajaa, ja arvolupauskanvasta käytettiin työkaluna sopivien ratkaisujen löytämiseen. Tämän jälkeen toimeksiantajalle tehtiin suosituksia siitä, kuinka web palvelua voisi muotoilla uudelleen asiakkaiden tarpeille sopivammaksi, mutta myös siitä kuinka web palvelun oheispalveluita voisi muotoilla uudelleen sen varmistamiseksi, että asiakkaat ottavat palvelun käyttöön ja käyttävät sitä nykyistä enemmän. Suosituksia tehtiin myös siitä, kuinka tuuppausta voi käyttää eri ratkaisujen kanssa sen varmistamiseksi, että asiakkaat ottavat palvelun käyttöön.

ASIASANAT:

palvelumuotoilu, web palvelu, perintä

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LIST OF ABBREVIATIONS (OR) SYMBOLS

GDPR	General data protection regulation

1 INTRODUCTION

Debt collection companies have a great deal of data coming into the company system daily because of the invoices their clients sent for collection, information about customer payments, and other such messages. To accommodate the different needs of clients, companies have set up many ways to receive data. Data can be transferred directly from the system of one company to the system of another, namely from client to the debt collection company and vice versa. Information can also be added manually to a web portal that then imports the data into the debt collection company´s system. Collection companies have built different web portals where the client can log in, check the collection situation on chosen customers, send and read messages, give further information on the customer´s situation, inform the debt collection company about payments, and so on. All clients are encouraged to use the web portal because it serves their needs and they usually get answers faster than by any other means of communication. The web portals are usually meant to be as easy to use as possible because they are thought to be one of the tools clients need to use daily. Clients are recommended to use the web portal as much as possible because of the benefits it brings.

Handling the data electronically is not only faster and cheaper, but the chance of errors is significantly smaller. It takes a lot of time and effort to handle the data manually, and systems handle data more accurately than humans. Thus, companies are striving to get all their data in electronic form from their clients, and other parties. The preferred way to send data is from one system to another, and companies have made it very easy to send data electronically because of the benefits of electronic data transfer. When the transfer directly from one system to another is not possible, clients are recommended to use the web service. Registering invoices for collection via the web service has the same benefits; the invoices are in collection faster and there are fewer mistakes made.

Despite the accommodations made to ensure that clients send their data either electronically from one system to another or via the web portal, there are still quite a few clients who send their invoices to collection via email or mail. As stated above, handling those client requests is time consuming because the case registration must be done manually in the collection company. The peculiar part is that many of those clients may use the web portal for other needs such as checking the status of collection, sending and

checking messages, and sending and checking payments, but for some reason they do not register cases to collection via the web service. Those clients have been informed about the benefits of using the web service, but it seems that there is something stopping them from using the service for case registration.

1.1 Motivation of the Study

It is difficult to build one service that accommodates all clients and encourages them to use the service, particularly when there are also other options clients can use. Debt collection companies want to offer their clients the best service possible, while still making sure that the data coming into collection is transferred as quickly as possible and as accurately as possible. The way the client chooses to transfer their data greatly affects the speed and accuracy, and thus it is in the best interest of both parties if the customer uses either direct data transfer from system to system, or the web service for registering invoices to collection.

As the clients are different and have different ways of working in how they transfer data to collection, it is important to understand the client. A deeper understanding can bring insights into how the web portal can be made more enticing, what kind of information the clients may need to change their process, or what kind of encouragement or instructions they may need. If the needs of the clients are met, it may be possible to use different techniques such as nudging to get the clients to adopt the web service.

1.2 Debt Collection as a Field of Business

As a business, debt collection does not have a very good image. Jalonen and Takala (2018) have researched the image debt collection has and found that the customer who owe the money view debt collection agencies as expensive, greedy, extortionate, uncompromising, threatening and frightening, but also adaptive, trusting, and well behaved. According to Jalonen and Takala, this divided image can be explained by the fact that once an invoice is transferred to collection, the collection company adds collection fees and interest to the invoice. (Jalonen and Takala, 2018, 14-15.)

When an invoice is transferred to collection, it is usually the debt collection company that adds the overdue interest to the invoice. The overdue interest belongs to the company that has sent the original invoice to collection but Jalonen and Takala (2018) explain that once an invoice has been transferred to collection, the customer no longer sees that there are different parts of the claim that belong to different parties and see that all the fees added to the claim are for the debt collection company. This makes the collection company seem as expensive or greedy, when the collection company does not keep the whole amount they collect, but only the collection fees. The rest of the money is transferred to the original invoicing company. In Finland collection fees for consumers are regulated by law. (Kilpailu ja kuluttajavirasto, 2020), and at the time of writing this thesis, Finnish Parliament is making a legislation that will also regulate the collection fees for companies for 1.1.2021-30.6.2021. (Yrittäjät, 2020). It may be that the collection fee regulation for companies will also be permanent after the initial period is over.

Jalonen and Takala (2018) also explain in their article how debt collection companies work in between two stakeholder groups; clients who send the invoices to collection and customer who´s invoices are in collection. On the one hand, debt collection companies serve the client who has not yet received the payment for goods or services rendered and would like to be compensated as quickly as possible. On the other hand, the person with the unpaid invoice may need to negotiate more time for their payment because of payment difficulties they have not anticipated. The collection company is in the middle of these two groups, trying to find a solution that compromises the needs of both parties. (Jalonen and Takala, 2018, 14-15.)

Debt collection companies also handle a lot of data about clients and customers. Thus, it is important that they handle data securely and they can be trusted with the data they

have. That is partly why debt collection companies have built online web portals for their clients to use when transferring data to collection. Web portals are more secure than email, that always needs to be sent as encrypted. It would be in the best interest of all parties if the clients of debt collection companies would adopt secure ways of transferring invoices to collection. Secure handling of data has become more and more important with GDPR privacy laws. (Jalonen and Takala, 2018, 14-15.)

1.3 Commissioner

The commissioner of this thesis is a debt collection company, later called collection company X. The writer of this thesis works in the company at the time of the thesis first as a collector and later as a process specialist, and thus has a good working knowledge of the company and of the clients. Company X has the same strive to get data only in electronic form, as debt collection companies overall. The company has set up two systems via which customers can send in data electronically. The data can be sent directly from the client system to the collection company X system, or the data can be manually added to a web server that then brings the data in electronically. The advantages of using either of these systems is increased accuracy of data. In any company, it is paramount to get the information right. In debt collection companies, it is crucial to know that the data coming into collection is correct. Collection companies handle the personal data of those who have debts, and the handling of personal data is heavily governed by law. The collection companies need to be sure that the data they receive is reliable and there are no errors made by manual handling.

Collection company X has many clients, and the data of the invoices coming to collection must be transferred to the company database daily. Thus, these clients can cause a lot of manual work that is prone to errors and takes time to process. Company X has tried to shift the incoming data of invoices coming to collection to be transported electronically to their system for years but there are quite a few that still send the data via mail or email, to be processed manually by a person. The clients have been notified of the benefits of electronic data processing many times, but with certain clients the mere knowledge of the benefits has not changed their behavior.

Company X is in the process of redesigning their web portal to better meet the needs of their clients and to entice the last clients into using the new web portal. Clients will be

interviewed to gain an understanding not only of their processes when handling the data, but also of their thinking process. Also, other suitable methods will be used when necessary.

1.4 Aim of the Study and Limitations

There are several clients who still do not send their invoices to collection via the electronic channels. Those customers are from different parts of Finland and from different fields. The clients will not be named directly in the thesis, but personas will be made of them as representations for typical client types. The idea of the personas, as well as the research, is to better understand the client.

The aim of the research is to reach as many clients from as many fields as possible, both big and small companies. Some of the customers interviewed should also work in private companies and some in cities or municipalities to make sure that the study subjects represent the clients as well as possible. The purpose of the thesis is to redesign the case registration in the web service offered to the client to better meet their needs and get them use the service instead of sending their data for manual registration. When the clients are understood better, the web service and other possible service around it can be built to better meet client needs. Another aim is to learn whether nudging can be used as a tool to help clients to adopt and use the web service in the future. Based on the findings, recommendations to the commissioner can be on how the web service could be redesigned.

The limitations are that the study project ends before the implementation of the changes begins and thus, there is no testing phase of the new ideas and no data can be gathered to see how the changes implemented have affected client behavior during this thesis project. The implementation and data gathering will continue as a separate project within the commissioner, company X after the thesis.

Research Questions

Research questions rose from the need of getting to know the clients of company X and from understanding what their reasons are for not using the service offered, how the service could be redesigned to entice the clients into using it in the future and understanding if there are other methods besides redesigning the web service that could be used to entice the clients to use the service. From online research, nudging was found to be a candidate to be used as a tool to enticing clients to use the service, and thus it was chosen to be a research topic.

The research questions are set as:

Why do some clients not send data via electronic channels?
How can the service be redesigned to better meet client needs?
Can nudging be used to help clients adopt the web service?

1.5 Process and Schedule

In this thesis, the Double Diamond method introduced by the Design Council (2015) was used. The double diamond is a way to divide the design into four sections where the process starts with discovery and definition phases and moves to development and delivery phases. Below is the design process used in this project. Because the scope of the project was not to implement or validate the recommendations, the focus of the process was on data gathering, data analysis and making recommendations. The double diamond service design process can be seen in the figure 1 below. (Design Council, 2015.)

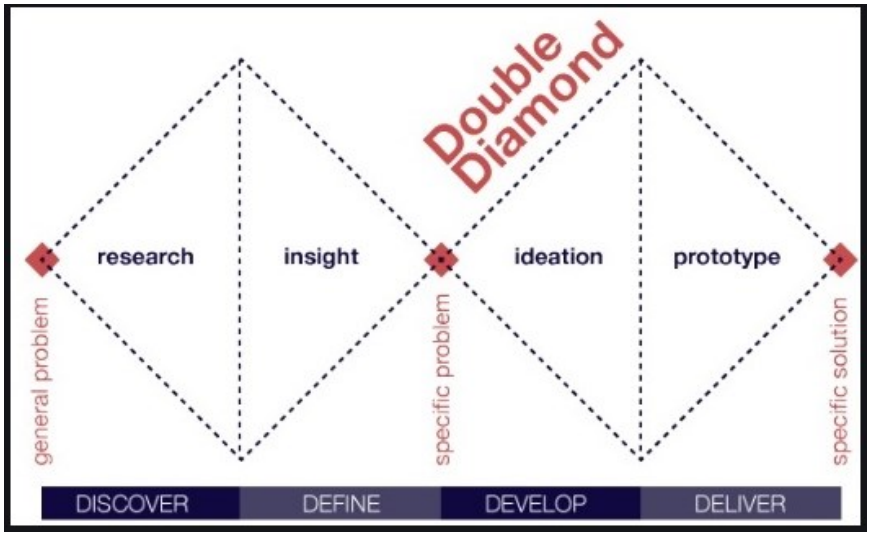


Figure 1: Double diamond by Design Council (2015)

The process was started in March 2020 with the project plan and choosing the study subjects and continued in September 2020 with the research phase, where the observations and interviews were done. After that, the data was analyzed in December 2020 and the project moved onto the definition phase. In this phase, personas and customer journey maps were developed, and the theoretical background for the thesis topic was researched. Preparations for the workshops for the employees for company X were done by deciding the workshop participants and methods used in the workshop. The workshops were held in February 2021 and the data from them was analyzed directly after the workshops were done. After that, the project moved onto the development phase, where a value proposition canvas was used to select the ideas that best match the customer offering. In April 2021 benchmarking was used to check for the best practices to finalize the customer offering. From there on, recommendations were done to the commissioner on how to redesign the web service, the project documentation was finished, and the project was closed. The project timeline can be seen in the table 1 below.

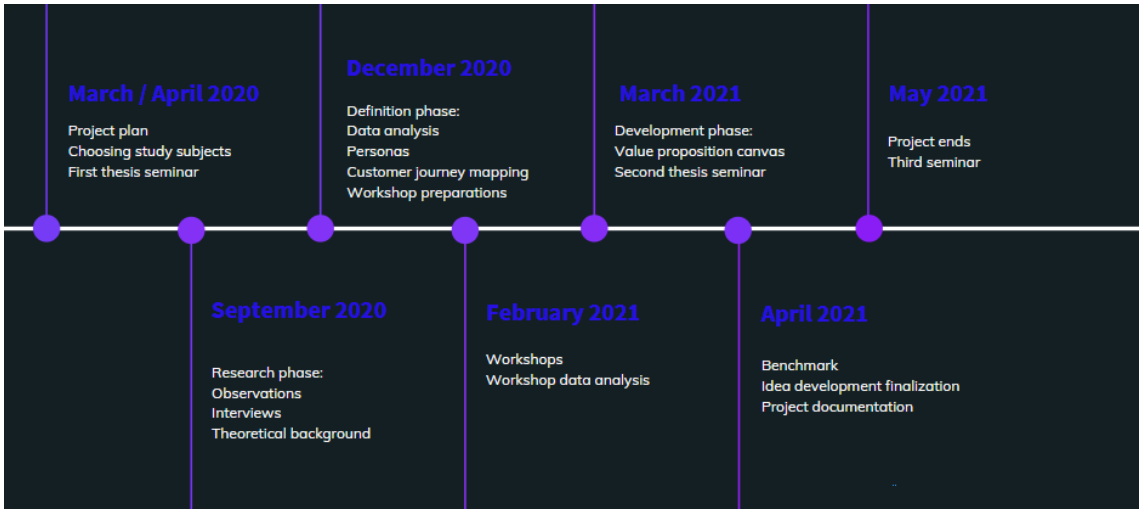


Table 1: Project timeline

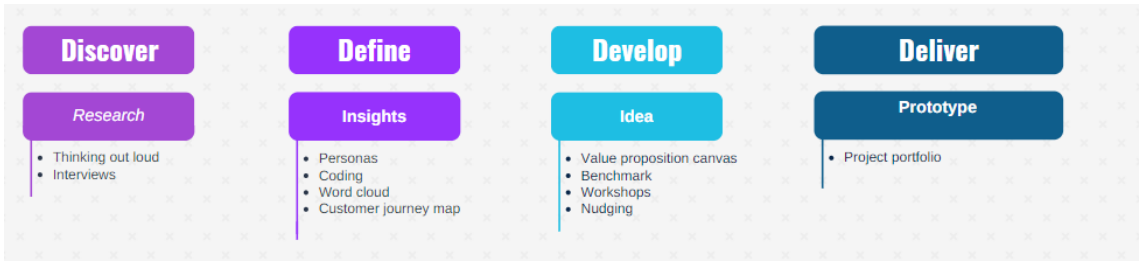


Figure 2: Process steps and tools

The process steps and tools are introduced in the figure 2. In the discovery phase, thinking out loud and interviews are used to gain data on the study subjects. After that, in the definition phase, coding and word cloud are used to analyze the data gathered. From the analyzed data, personas and customer journey map are built. In the development phase, workshops are used for idea generation, after which the ideas are analyzed using value proposition canvas. Benchmarking is used at this point to see what kinds of solutions have been used for similar situations before, and nudging is researched to learn whether it can be used to aid the final recommendations. In the

delivery phase, the project portfolio is finalized to introduce the findings and recommendations to the commissioner, and the thesis is finalized. The implementation and testing of the recommendations continued as a separate project in company X after the project portfolio is finished.

2 TOOLS, METHODS, AND FRAMEWORK

The research methods chosen for this study are qualitative. Qualitative methods are used because of the need for deep data on client thinking and behavior. When choosing research methods, it is important to consider the reliability, validity and representativeness of the study. Reliability refers to the fact that the same results should be found by anyone redoing the research. If the study subjects give very different answers depending on who is interviewing them, there is no certainty to which answers represent their actions and thoughts. Validity means that the answers given by the research subjects may not provide a correct answer of how they behave in real life. If the study subjects do not provide a correct picture of how they behave in real life, the study outcome cannot give a valid answer of the reason for their behavior. (McNeill and Chapman, 2005, 9-11.) In case of this study, if the study subjects do not give an accurate picture of their pain points, the service cannot be redesigned to remove those pain points for them. Representativeness refers to the need that the sample should be representative to the segments being studied. If the study subjects are not a valid representation of the phenomena or people studied, the results of the study cannot be generalized. (McNeill and Chapman, 2005, 9-11.)

To make the data as reliable, valid and representative as possible, the study subjects need to be a heterogenous group with representatives from many different fields, and many kinds of companies, cities and municipalities. The study questions also need to be designed to bring up the real thoughts and feelings of the study subjects. (McNeill and Chapman, 2005, 31 - 50.) Even though the issue of data transfer electronically is not an emotional issue, study subjects may modify their answers if they feel that they are stupid or inferior for not using the electronic way of data transfer.

When formulating the questions on the research, it is important to keep in mind the research questions proposed. If the right questions are not asked, the data gathered will not answer the problems the research aims to answer. (McNeill and Chapman, 2005, 31 - 50.) During the study period, two types of clients are interviewed. One group is the clients who do use the web service regularly but as little as possible and have noticed some changes they would like the service to have. The second group are clients who have never used the web service. The study subjects were from bigger and smaller companies, as well as from private companies and municipalities. The aim was to study

as heterogenous group as possible to gain knowledge on what the subjects think about the web service. The study was done in the fall of 2020.

2.1 Frame of Reference

The Mirriam-Wester dictionary (2020) defines frame of reference as “a set of ideas, conditions, or assumptions that determine how something will be approached, perceived, or understood”. The frame of reference for this thesis can be found in figure 3. The most important concept for this thesis is the way different clients adopt online services. The clients studied in the thesis are late adopters, or laggards, and need a specialized service concept to entice them to adopt the service. The aim of this thesis is also to learn whether nudging can be used as a tool to affect the client behavior to be more accepting of the web service. Data security is also an important factor because the change in the way clients send their invoices to collection plays a key role in how securely the data is being handled. Other important concepts are systems thinking and web services, and service design.

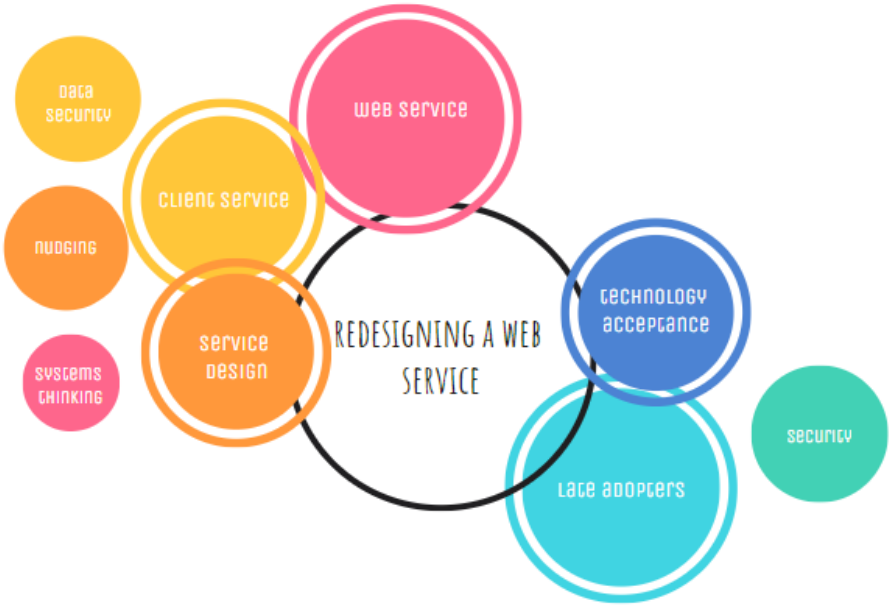


Figure 3: Frame of reference

2.2 Research Methods

In the following chapters is a list of all the research methods used in the study done for this thesis. The different research methods are chosen because they are deemed to be the most suitable for gaining data on the research subjects. There are also explanations on how the data is gathered.

2.2.1 Thinking Out Loud

Thinking out loud, or think-aloud, is a qualitative research method for researching how people feel about a certain subject and what they think about it. During the research, the subjects do the task being researched while voicing the thoughts and feelings that come to their mind at the time of taking actions. The researcher can either be in the same space with the subjects to take notes of the thought and feelings, or the session can be for example videotaped. It is important to encourage the subjects to talk aloud about everything they are thinking to make sure that all the material is gathered from the research session. (Charters, 2003.)

The advantages of thinking aloud are that it brings forward higher-level thinking processes and that it brings forward individual differences in performing the same task. The method gives highly reliable data about the thought and feelings of doing the task at hand, when used correctly. The researcher needs to consider that the task cannot be too demanding. If the task takes too much cognitive skills from the research subject, they may not express all their thoughts and feelings out loud. The subjects may also forget to talk out loud if they are too concentrated with the task. If the researcher hears the study subject go quiet and starts asking them questions to prompt them to start speaking out loud again, they may lead the subject to say something they might have not said on their own. To avoid leading questions, it is a good idea to agree with the study subject for a gesture for prompting them to continue speaking without the researcher affecting the session. After the thinking out loud session is over, the researcher can ask further questions from the subject if they feel that they need more information on certain parts of the session. (Charters, 2003.)

In this thesis, thinking out loud was used to research the pain points of the clients that do not use electronic data transfer or who use it very little. The study covered 7

individuals, who were observed via Skype or Teams. There was a meeting scheduled with the study subjects beforehand, and they were asked to have material ready to register invoices to collection via the web service during the thinking out loud session. During the observation, each study subject registered at least two customers´ data into collection to make sure that the different features were of the web service were explored during the study session. The subjects were asked to simultaneously talk about what they are doing and thinking, and to bring up any questions or points of uncertainty they had about the service. The invoice registration was done in the web service offered by the commissioner in the same way it would be done if the client registered invoices by themself. After the observation, the client was interviewed.

2.2.2 Interviews

Interviewing is a good method for gaining deeper data of the test subjects. It is a tool to generate insights and expand the understanding of the subjects. (Eriksson and Kovalainen, 2016, 91.) Interviewing is beneficial for the kind of research done in this thesis, where the aim is to gain deep knowledge of clients. There are three kinds of interviews that can be conducted: structured, semi-structured or unstructured. In structured and standardized interviews, the questions are the same for all participants. In guided and semi-structured interviews, the topics of the interview are outlined but the discussion is not limited to certain types of answers. In unstructured, open interviews with some guiding questions are given but the interview flows freely. (Eriksson and Kovalainen, 2016, 93.)

Semi-structured interview questions were used in this study. Using semi-structured questions is important so that the study subjects can express their opinions freely. On the one hand, there needs to be questions guiding the interview process. If there are not questions made and the interview is more of a discussion, it can be that the research does not give answers to the specific points that are studied. On the other hand, the structure of the questions may guide the study subjects in their answers. (Eriksson and Kovalainen, 2016, 93.) To avoid too much guidance, as the last question the study subjects were asked to bring up any thoughts, feelings or questions that rose during the process. The answers were typed up to a document and analyzed after the interview.

As the interviews were done directly after the observations, the same 7 study subjects were interviewed and observed. The interview questions were made based on customer expectations, or the benefits and outcomes they expect from the service, the problems customers have when using the service or when trying to use the service, and what currently works well. The customers were also asked if they have any ideas for solutions for the problems they have found. The questions asked were what works well in the web service, what could work better in the service, how did the client feel about using the web service, what would make the client use the web service in their everyday work, in what kinds of things they feel that they would need support, has the client explored the instructions that can be found, how would they like to receive instructions, and what kinds of instructions would help them the most. The conversation flow in the interviews was open. There was also discussion about the additional service the clients would like to have pertaining to the web service.

2.2.3 Benchmarking

The idea of benchmarking is to find the best practices or highest standards for products, services and processes. After identifying the best practices, they will be implemented in the desired way to reach the highest standards in the field. Benchmarking can be used to learn how other companies have solved certain problems, what their processes are, and so on. When benchmarking a service, it is important to understand the services that are being benchmarked, and to whom the service in being built. If the services benchmarked against do not match the services being built, the best practices or service ideas gained may not bring usable information. Benchmarking can be done against many fields of business that are like the service being developed, if it is understood how the fields differ and what parts of the fields are similar enough to be benchmarked. (Elmuti and Kathawala, 1997.)

In this thesis, benchmarking was used in the ideation phase by researching for other fields of business where customers have successfully been enticed into using a web-based service. Benchmarking was done as a literary review online to learn how other companies regardless of their field of business have been successful in nudging their customers into using an online service or persuaded their customers in some other means. One field with a lot of experience on online service is online retail, where a lot of

successful solutions have been built for making sure that the online experience suits all kinds of customers.

2.3 Service Design Tools and Methods

There are several tools and methods used in service design. Some of the tools are personas; profiles representing the typical user groups. Other tools include stakeholder maps, journey maps and service blueprints, just to name a few. (Stickdorn et al, 2018, 57.) In the following chapters is a description of the different tools and methods used in this thesis process.

2.3.1 Personas

Personas are a tool to represent the different customer groups that have risen from the research. Personas are a good tool for visualizing the users, what they want and how the user groups differ from each other. Personas should represent a real person in the sense that that typically a persona card is made with a photo, name, age, and other information describing the customer. (Stickdorn et al., 2018, 41 - 43.)

Based on the data gathered in the research, personas of each customer type were created. The personas were used to understand the different types of customers, their needs and ways of adopting new technology. Personas were also used in workshops as a tool to convey to participants the kinds of client they were building solutions and creating ideas for, and to make sure that the ideas gathered take into consideration the client point of view. Personas were also used as a reference point throughout the process to make sure that the needs of the client groups studied were taken into consideration when doing the redesign.

2.3.2 Workshops

Workshops are a method of co-creation. Co-creation, or co-design, is often used in service design to include and engage stakeholder groups and customers into the service design process. Co-design is used to bring together the viewpoints of many different individuals to innovate and find new solutions. A co-design process also brings out new

perspectives that can be further developed into offerings in the ideation phase. (Stickdorn et al., 2011, 194-197.)

In the thesis process, workshops were used for the ideation phase. There were two online workshops held for the employees of company X at the end of February 2021 and there were some six participants in each workshop. There were 7-10 persons per workshop. The aim of the first workshop was to ideate how the client onboarding process could be changed so that clients would be more interested in logging into the web service once they get the emails with username and password, and how the service can be introduced to the client based on the needs the individual client has. The aim of the second workshop was to ideate how an ongoing support should be built so that clients get the help they need, and they are encouraged to start using the service more than they currently are using it. Another focus of the second workshop was to ideate how the way of working of long-term clients could be affected so that they would adopt the web service and how they would start using the service in more versatile ways than they currently are using it.

The tool used in the workshops was customer experience mapping. In customer experience mapping, a loose model of customer journey map is done where all the touchpoints of a customer journey are mapped. The idea of the customer experience map is to show all the points where the customer, or client, engages with the company to bring out what clients are thinking and feeling during those steps. The feeling a client has when using the service has a big impact on how likely they are to use the service again, and customer experience mapping is a good tool for bringing the thought and feelings of the clients to the forefront. (StartupGrind, 2020.)

The customer journey map with touchpoints for case registration was done before the workshops using the data from the interviews. The map was shown on the screen for all the participants and it was discussed briefly to make sure that the map was clear to all participants. After that, the topic of the workshop was introduced. Because there was not an opportunity to invite clients to the workshops, the idea of the customer journey map was to put the workshop participants into the role of the client and get them to do the ideation from that perspective. They were encouraged to bring out their wildest ideas and wishes as to how they would like the service to be changed and what kinds of solutions they would like to see in the future if they were the clients using the service. The workshops were held as group discussion and all the different points brought up in the conversations were written down as text to be analyzed later.

2.3.3 Value Proposition Canvas

Value proposition canvas is a tool for making sure that the service meets the client needs. The tool can be used for redesigning an existing product or service or for building a new one. Osterwalder et al. (2014, 3 - 61) have introduced a model of value proposition canvas, where the values offered for the client are presented on one side of the canvas and the client is presented on the other. The side with the offered values is further divided into three sections. The sections describe the products and services offered, pain relievers – or how the product or service eliminates or reduces the annoyances of the client, and gains – or the benefits the customer expects, desires, or would be surprised by. Together, these three parts build a picture of the different aspects of the product or service being offered. (Osterwalder et al. 2014, 28 - 34.) The other side, where the client is introduced, is also divided into three parts. It consists of jobs, pains and gains. Jobs describe what the client is trying to get done, whereas pains and gains describe the things that add risk to not getting the job done or that prohibit it from getting done, whereas gains represent the positive, expected, or even unexpected outcomes, respectively. The value proposition canvas is a good tool for choosing the solutions that best match the individual needs of the clients and it shows which things are a priority to the client and which ones would be simply nice to have. (Osterwalder et al. 2014, 12 - 20.)

The most important aspect of the value proposition canvas is fit. Fit is not shown as a separate aspect of the canvas, but the canvas shows whether the offering matches to the client jobs, pains, and gains. Because client may have several jobs, pains, and gains, it is important to choose the most important ones and offer a solution to those. Fit can be achieved in three levels: problem – solution fit, product – market fit, and business model fit. Problem – solution fit is achieved when the value proposition matches the client wants and needs. Product – market fit is achieved when the offering is received well in the market and there is a demand for the offering. Business model fit occurs when the offering is also scalable and profitable for the company producing the offering. (Osterwalder et al. 2014, 42 - 49.)

The value proposition canvas was used in this thesis to make sure that the solutions brainstormed in the workshops fit the client needs. The focus is on problem – solution fit, as the aim of the thesis is to redesign a service that entices clients to use the service more in the future. The canvas brought a clarity to the way the different solutions ideated

in the workshops fit the client needs, what their role is in the final offering made to the client and how they can be used to increase client adoption of the service.

2.3.4 Customer Journey Map

Customer journey maps are used to visualize the customer, or in the case of this thesis, client experience. They can be used to describe either the current client journey or a future client journey with the planned changes to the service. Customer journey mapping helps to understand the different aspects the client considers when adopting or using the service. The map shows client actions, contact points with the company, client satisfaction, and other important aspects of the client journey through using the service. (Stickdorn et al., 2018, 129.)

In this thesis project, the customer journey map was used to understand the client and to highlight the touchpoints when the client is in contact with the company in some way. The customer journey map was used in the workshops to visualize when the client is in contact with company X and to see if their customer journey can in some way be helped in those contact points. The current customer journey was also used to ideate new touchpoints where the client can be helped to better adopt the service.

2.3.5 Service Blueprint

Service blueprint is a tool to visualize the service offering and to show the processes linked to the services. The processes shown are both from the frontstage, or what shows to customers, and from the backstage, or what does not show to the customer. Service blueprint brings together the company perspective and the customer perspective to show all the actions taken to produce and consume the service. Service blueprint is used for better understanding of the service delivery process and it is used in service design for process improvement. The blueprint also shows the responsibilities for the different processes and highlights what individuals of departments produce the service to the customer. The service blueprint is divided into three categories of what is shown or produced to the customer, what is done by customer service in the company, and backstage processes. The three categories are aligned to show what processes are linked and done at the same time. The service blueprint also shows the customer touchpoints for the service selected in a logical order, showing the order the customer

goes through the touchpoints. The benefits of the service blueprints are that it shows the service in a logical order that helps see the different process owners, learn about possible bottle necks in the service, and shows how the backstage actions need to be changed if the service is redesigned (Stickdorn et al., 2018, 54-56.) In this thesis, the service blueprint was used to map out the existing service and the redesigned service to show the differences.

2.4 Analysis Methods

Qualitative and quantitative data are processed differently. Quantitative data can easily be transferred into figures and tables that give a visual presentation of the results. If a Google sheets or some similar online service is used for interviews and questionnaires, the answers to closed questions can be analyzed quite easily. (Cuesta, 2013, 15). The research data gathered in the process of this thesis is qualitative. Qualitative data cannot be turned into tables as easily as quantitative data and the data needs to be analyzed using different methods. In the following chapters is an introduction to the analysis methods used in this thesis and the reason behind choosing them.

2.4.1 Coding

Coding is a method for identifying patterns in qualitative data. It is a way to organize the data and find meaning. (Gläser and Laudel, 2013). Coding was used to organize the answers from the interviews done according to the main issues they fall under. Coding was done by writing the answers the study subjects had given to post-it notes. After all the answers were written down, the post-it's were grouped together according to the topic of the answers. The groups were then named with a heading that best describes the key findings in each group. Below is a picture of the outcome of the coding process. The coding process helped to organize the answers in a way where similar issues and observations were grouped together to form a coherent picture of the overall themes found in the research. In the coding process, the data was categorized into terms that were then used as categories for finding the solutions for the similar problems under the categories. The outcome of coding can be seen in picture 1. The five categories have been marked on papers and post it notes have been added to each category to list the topics pertaining to the categories. Coding was done manually.

Picture 1: Coding

2.4.2 Word Cloud

Word could is a collection of words, shown in different sizes. Word clouds can be made with a word cloud generator. The more a word is used in the text fed into the word cloud generator, the bigger the word appears in the word cloud. Thus, word clouds can be used to find similarities between different texts. Work cloud is a good tool for visualizing text and finding customer pain points. Because it highlights similarities in the texts, it also shows the biggest problems customers have as a group. (Boost labs, 2014.)

Word cloud was used to see what words were used the most by the study subjects in the interviews. The data from the word cloud cannot be thought to represent the biggest issues of the study subjects unambiguously but it does give an implication on what kinds of themes there may be in the answers gotten from the interviews. The word cloud was used as an indicator as to what kinds of things the study subjects brought up the most and if those things have something in common. Different word clouds were made to highlight the positive findings and the negative findings from the interviews.

2.5 Sampling

Service design rests on accurate research data. Raw data collected in research is turned into findings in the form of tables or other materials. Even though the researcher should remain objective when conducting the research, it is almost impossible to gather completely unbiased data. The research methods, among other things, affect the final data in some way. (Stickdorn et al, 2018, 37.) Qualitative research data such as quotes, or observations bring a deeper understanding of the research subjects. Quantitative data such as statistics or metrics brings for example a knowledge of whether the research subjects are a heterogenous or homogenous group. (Stickdorn et al 2018, 53.)

The research subjects were determined from the client base of company X. Those clients were chosen who either did not transfer data electronically or via web or had recently started using the web service. The sample was made as heterogeneous as possible by choosing medium and small companies from the private sector as well as from the public sector. Municipalities were also chosen. There were no big companies in the study because they already send in their data electronically. 20 companies were chosen to be contacted. The companies were initially contacted via email, and after that with a phone call. In the end, there were seven companies that took part in the study. Some of the study subjects had used the web service before and for some of them the study situation was the first time.

3 THEORETICAL FRAMEWORK

Companies have started to take their customer service and data online from the 2010´s onwards. There have been studies done into the different customer segments, and how they adopt new technologies. The benefits of building a customer friendly web service are manyfold. Foster (2005, 250 – 251) argues that web service does not only help companies to better serve their customers and to better understand customer needs, but companies are also able to save resources. For customers to get value out of using a web service, they must put value into the system. This means that customer must put in time and effort towards using the web for it to deliver value to them. The key point is to understand the customer to know when they feel that they get value out of using the web service. (Foster, 2005, 250 - 251.)

3.1 Technology Acceptance Model

Technology acceptance model describes when a client or a customer is ready to accept a new technology to use. Talukder (2014) introduces the two key factors in the technology acceptance model as originally developed by Davis, Bagozzi and Warshaw in 1989. The two key factors are perceived usefulness and perceived ease of use. Perceived usefulness describes how probably the customer sees the system as increasing their work performance, and perceived ease of use describes how probably the customer sees the use of the system to be effortless. (Talukder, 2014, 33.) In other words, the system offered for the customer cannot only be useful for the customer, they also need to see the system as something that is easy to use. Talukder also explains the model introduced by Venkatesh, Morris, Davis and Davis (2003), unified theory of acceptance and use of technology. In this model, other factors such as gender, age, previous experience, and voluntariness of use are added to the technology acceptance model. Venkatesh et al. argue that these factors together explain who will adopt new technologies and when the technology is adopted. In other words, different individuals have different point where they see the technology as helpful and easy enough to use depending on their personal experience using technology, and other personal factors. (Talukder, 2014, 36 – 37.) In the following chapters in figure four is a visualization of the unified theory of acceptance and use of technology, done by Davis Jones 2020. The

figure visualizes the different factors for technology acceptance and the connections between the factors.

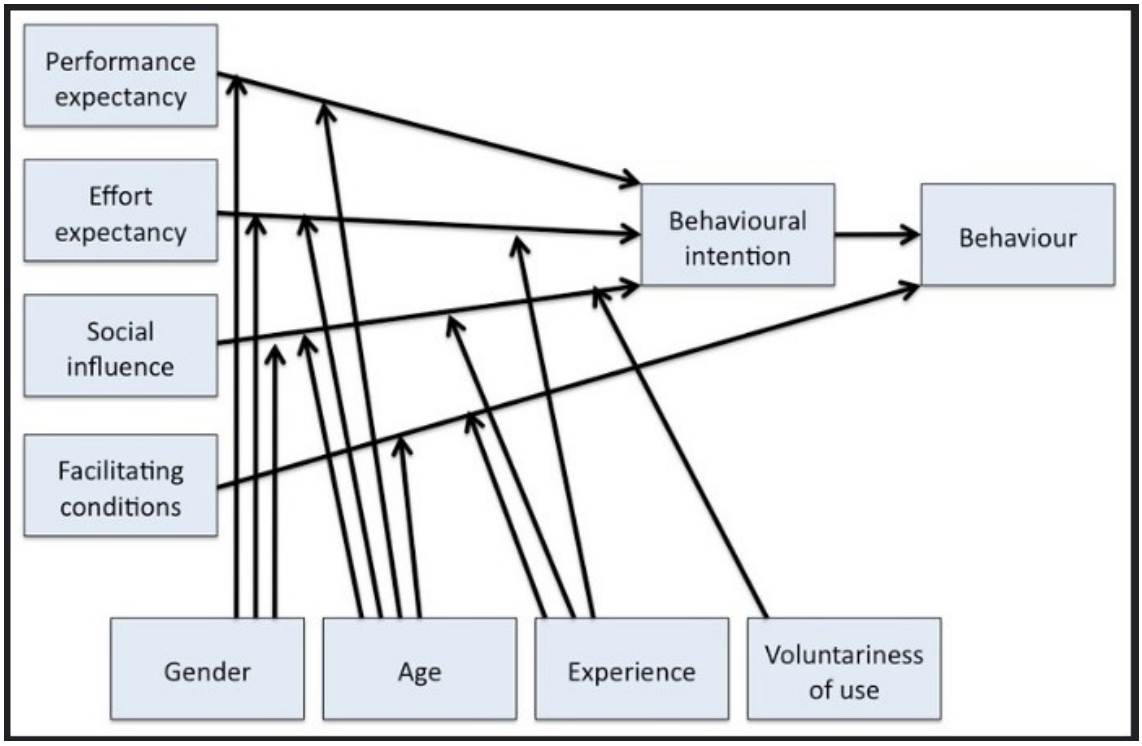


Figure 4: Unified theory of acceptance and use of technology. Picture by Davis Jones 2020

In the diffusion of innovation model, Rogers describes the stages of how customers come to accept or reject a new innovation. In the model technology is accepted through phases that start with the customer learning about the new technology. There are some people who learn about new technology because they active seek out new solutions. Those individuals are also more likely to adopt the new innovations. In the second phase of the model, the customer forms an attitude towards the innovation. This is the persuasion stage where the customer may seek for more information about the technology or decide without additional research that the technology is not interesting to them. Making the decision about the innovation is the third stage, where the customer decides to adopt or decline the new innovation. (Rogers, 2003, 169-177.)

There are many reasons for why a customer may decide to adopt or reject the new innovation. Some of the reasons are economic: personal costs versus social benefits, access to information, or insufficient incentives. Other reasons are behavioral: priorities, motivations, rationality, and risk-taking propensity. Yet other reasons are organizational:

goals, routines, and company culture. Some reasons are also structural: sunk cost fallacy, and governance. When a customer decides to adopt the new technology, they always consider these factors and give them different weight depending on the situation. (Tidd, 2010, 3-4.) Different customers have different adoption values of costs and benefits that they consider when making their decisions. Those costs and benefits build a threshold value that determines how early a customer is to adopt the new innovation. If the costs are seen to be greater than the benefits, it takes more time and persuasion to get a customer to adopt the new innovation. Also, customers cannot have perfect knowledge of the innovation, making adoption usually slower because all the benefits are not known. Different customers can be incentivized to adopt new innovations by giving them the information that is relevant to them, not by general marketing tactics. (Tidd, 2010, 13-15.)

3.2 Studied Clients

In the diffusion of innovations model, Rogers also describes five types of customers according to their willingness to adopt new technologies or innovations. Those types are innovators, early adopters, early majority, late majority, and laggards. Innovators are the first group to adopt a new technology or innovation. Technology is a big interest in their life and they sometimes seek out new technology out of interest. Innovators are a small but important group in the launch of a new technology. The second group is early adopters. They are quick to adopt new technologies because they are innovators who seek out new technology for the benefits it brings. The third group of early majority are those people who know that many new technologies and innovations may pass quickly and they want to make sure that the innovation is well established before they adopt it. The fourth group, late majority, are quite like early majority but they are not confident in using new technology and thus wait until the technology is widely in use. The last group is laggards, who are unwilling to adopt new technologies unless they are buried in with another technology or if they are forced to. (Rogers, 2003, 169-170.) The clients studied in this thesis are laggards, who are unwilling to adopt the new web service company X is offering them.

According to Moore, different customers need to be approached differently when persuading them to adopt a new technology. Because the other groups have already adopted the technology, the way to persuade laggards is to reference the benefits the

other groups have found. However, facts and numbers alone do not persuade laggards. They need to feel a strong personal benefit from using the technology in order to adopt it. When selling or marketing a product or service to laggards, they need to be presented with specific benefits that are important to them. (Moore, 2009, 33-40.)

3.3 Designing for Laggards

Designing for laggards can help companies overcome barriers of adoption and to differentiate from their competition. Designing for laggards can also help identify emerging trends and find new markets. The critical insight from late adopters can bring information on the weaknesses and limitations of the design and help modify the product or service to avoid decline over time. The insight from laggards can also help prolong the life cycle through involving larger market segments. (Jahanmir and Lages, 2015.)

When considering the different user groups and their needs in the design, it is important to consider factors such as intuitively or ease of use, value-based propositioning, and the different user capabilities. The ease of use may mean that the user is guided through the service to make sure there are few mistakes and thus little frustration from the user. It can also mean measurable things such as the reading level on web page or the positioning of text. With value-based propositioning, the value of the service is not defined by the company, but by the users. Understanding the values, the users want from the service may differ greatly from what the designers of the service have in mind when developing the service. Laggards are a group with many kinds of users in it. Some people may be old and do not want to learn new technologies, whereas others may be too busy to learn complex systems and thus do not adopt them. When the different capabilities are considered in the design, adopting the new service becomes easier. (Wong, 2019.)

There are also methods developed to ensure that the customer experience online is the best possible. Although those methods are usually developed for online sales, they can also be adopted for online services when applicable. The principles of good online service are using personalization techniques, making products easy to find, creating an easy checkout process, integrating a customer service to the online service, and building good product pages. These principles, when modified, can also be used to building or redesigning an online service, such as an online customer web. If the web design remembers the user preferences, the user experience is instantly enhanced. Because

online services do not have products, the principle of making products easy to find can be modified to making features easy to find. If the user needs to for example enter data into the service, it should be easy for the user to know where the different data is entered and what kind of data is required. The next principle is creating an easy checkout process. Online services do not have checkouts where customer pays for a product, but the exit from the system should be easy and the user should be left with a secure feeling that all the data they entered or changes they made have been received. The next principle, integrating an online customer service, is applicable to online services as it is. The more complex the online service is, the more customers may have questions about the use of the service or other issues. In those situations, they should be able to get assistance at that moment. If there is no help to the issue at hand right away, it may cause for the customer to not want to use the service later. The last principle, building good product pages, does not apply to online services directly. However, every online service should have easy to use and visual pages that customer can navigate. (Fryer, 2020.)

3.4 Systems Thinking and Service Design

Systems thinking is a method to analyze the parts of a system and to learn how they work together. A system does not only consist of things, but it also consists of elements, interconnections, and purpose. It is important to understand the system to understand how the changes made in one place affect other places in the system. (Huotarinen, 2020.) In service design, systems thinking can be used to diagnose the causes for problems customer are having with the service. Once the organization is understood, a better system can be designed to support the new service structure. Systems thinking encapsulates the whole problem area with the actual system the serviced is used on, the people producing the service, and the connection between them, making the whole system visible in a holistic way. (Darzentas and Darzentas, 2016.)

Systems thinking can be utilized in building online web services by modelling the customers into the system and taking their point of view into account when designing the service. Systems thinking is a strategical tool that makes the design of web-based services deeper than just the visual design of the web page. The more of the function of the service is considered during the design, the longer the service can be expected to be functional. Systems thinking brings together the needs of the customer and the needs

of the company to bring solutions that are viable and that do not cause unintended problems later in the process. (Meadows, 2009, 75-125.) The better the web service and the systems around it are understood, the easier it is to know what solutions already works and what solutions need to be iterated. Even when the whole web service is redesigned as new, keeping the working solutions from the last model make working on the new design easier. (Dean, 2014.) As the aim of this thesis is to redesign an existing web service, it is important to understand the service, the parts that currently work and how the changes made to the service may affect the broader system.

3.5 Banking Sector and Data Security

Many banks have changed their customer service online in the recent years. Banking sector can be seen to be like debt collection in the sense that both sectors handle private customer data and monetary issues. There may be a similar barrier to web use in debt collection companies as there was with banks. There are some studies done on the expectations of customers on online banking. Abeka (2013) introduces studies done about the attitudes of online banking. There were many factors found in the studies, partially same as introduced in the unified theory of acceptance and use of technology model. Added to the model, Abeka states that in banking sector customers were also interested in the security of the service. It is paramount that the customers feel that their data is safe with the company and that they can trust the processes of the company. The safer the customers feel about data security, the more open they are towards adopting new service designs from the company. (Abeka, 2013, 25.) The General Data Protection Regulation, or GDPR, came into effect in EU in 2018. All customer data needs to be protected and handled as stated in the law. (GDPR, 2018). Security and privacy are important issues in the debt collection sector, and they need to be taken into consideration when developing or redeveloping a web service. In redesigning the new service, it is paramount to make clients feel that the data they feed into the system is secure and that they can answer possible concerns from customers with a certainty that the data is handled as required by the law.

4 NUDGING

Nudging, or choice architecture, is a way to affect decisions made in the service by the way the service is designed. Because humans tend to make decisions on automated thinking processes, design is done to make the user choose the better option without taking away or restricting their freedom to choose. Digital nudging can be applied in many ways and in many scenarios, so it is a versatile tool to use when designing online services. (Stryja et al, 2019.) There are several ways of nudging users, such as facilitating, confronting, deceiving, social influence, fear, and reinforcement. Each of these applications have multiple ways of doing the nudging, which are further discussed below. (Caraban et al., 2019.)

Nudging by facilitating aims at diminishing the mental effort or using the service. The design encourages people to take predefined actions to reach the goals intended. Making default options the user needs to active change has a significant impact on user behavior because a big portion of users never changes out of the default when making decisions. Another way is to make certain parts of the service opt-out. A user is automatically enrolled for some part of the service and they need to actively cancel that part for them to not receive the part of the service. The color and position of the offers made in the web service also affect the decisions users make, and positioning is an effective way of nudging. For example, if there is a list from which customers can choose, they tend to choose among the top of the list. Hiding and suggesting alternatives are also well-established nudging techniques for example in e-commerce. Similarly, to positioning, if some of the choices are more difficult to find, users tend to not look for them. And if the service recommends for a similar option, users may choose that options because it is recommended to them instead of the option, they were going to choose themselves. (Caraban et al., 2019.)

4.1 Confronting Nudges

Confronting nudges aim at pausing an unwanted action by causing doubt in the user. The aim is to break mindless behavior and encourage a thought-out choice. A time buffer is one of the ways to break mindless actions. During the buffer time the user gets to rethink the choice they are about to make and may alter the choice. Another effective

nudge is reminding of the consequences. When a user is reminded of the possible negative consequences of the choice they are about to make, they may make a different choice in the situation. Creating fiction and providing multiple viewpoints are also types of nudges, which cause the user to consider their behavior. Friction may cause the user to rethink the choice they are about to make and providing multiple viewpoints can change their mind because of increased knowledge. (Caraban et al., 2019.)

4.2 Deceiving Nudges

Deceiving nudges use deception mechanisms to affect how the user perceives the given alternatives, and how they experience the activity. One way to use a deceiving nudge is to offer an inferior alternative. If the other alternatives offered seem worse, the user is more likely to choose the alternative wanted. Placebos can also be used for nudging. Placebos are elements that have no effect on the user condition but can improve their response due to perceived effect. Placebos can used for example when the background of a service is changed in a way that does not affect the use of the service, but it decreases user stress levels. Biasing user´s memory of past experiences and deceptive visualizations can also be used as deceptive nudges. Because memories change over time, it is possible to change the way users remember their past experiences of the same or different services. Deceptive visualizations can be used to make the outcomes seem better than they are, for example by changing the way charts are shown. (Caraban et al., 2019.)

4.3 Social Influence Nudges

Social influence nudges take advantage of the fact that many people make decisions based on what they think society expects of them. Social influence can be used in many ways, such as invoking a feeling of reciprocity, leveraging public commitment, raising the visibility of user actions, and enabling social comparisons. In short, many times people want to do as they think is expected of them, and as they think others do, and they make decisions according to that. Those choices can be affected by reminding users of their social nature or by making their decisions public. (Caraban et al., 2019.)

Nudges that use fear aim at changing behavior by invoking fear, loss or uncertainty in the user. The feeling of loss can be evoked by making resources scarce, which can rise

the perceived value. When a psychological distance is reduced, the threshold for making the recommended decision is reduced and thus the user nudged. Psychological distance can be anything that makes reaching the end goal feel distance to the user. (Caraban et al., 2019.)

4.4 Reinforcement Nudges

Reinforcement nudges aim at reinforcing behavior by increasing their adaptation in an individual´s thinking. Just-in-time prompts are types of reminders that draw the user´s attention to the desired action. Ambient feedback aims at reinforcing desired actions while reducing the disruption on the current action. Subliminal priming uses the unconscious mind to change behavior by exposing the brain to the desired action many times in the hope of affecting user choices. Instigating empathy is a way to represent the effects of choices by making the effect visible in some way that rises the empathy of the user, such as the well-being of animals. (Caraban et al., 2019.)

4.5 Designing a Nudge

Deciding which nudge to use in different situations is not always simple. For designing a working nudge, the goal needs to be defined first. It is paramount to understand the user to make sure that nudge is effective to that group of users. After that, the nudge can be designed and tested. (Scneider et al., 2018.) In figure 5 is a picture of the nudge design process.

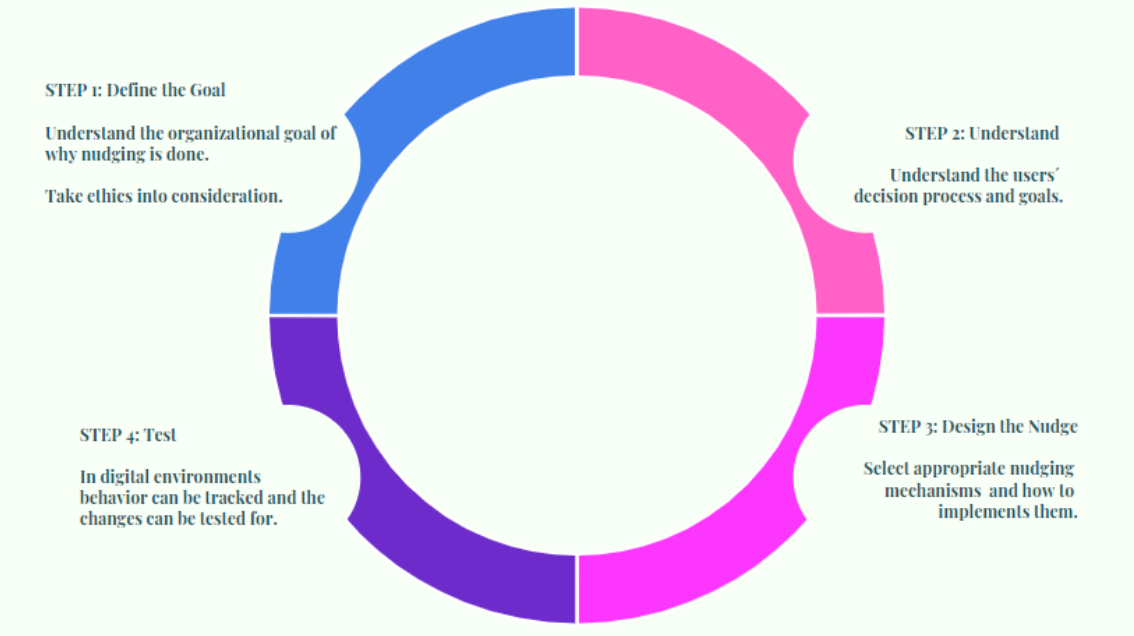


Figure 5: Designing a nudge. Inspiration from Caraban et al., 2019.

Designing a nudge starts with defining the goal. It is important to understand the organizational goal and to keep it in mind throughout the whole process. The goal defines what kind of a choice is being designed for, which in turn defines what kind of a nudge will be used. It is important to understand the customer in order to know what kinds of decision makers they are and what kinds of nudges work on them. In the designing phase, the appropriate nudges are selected by the type of a decision that is aimed at. After the nudge is designed, it can be tested to make sure that the nudge works, and it can be iterated if the outcome is not what was aimed for. Ethical factors are also important to consider when designing nudges, as unethical nudges can backfire and damage the image of the organization. (Scneider et al., 2018.)

5 FINDINGS

Based on the analyzed research findings, personas and a customer journey maps were created. The personas and customer journey maps were then used as material for the ideation workshops. For the value proposition canvas, the data from the word could was used to see what the biggest factors for clients and what problems are are the most important to solve form the client point of view. The ideas from the workshops were grouped using value proposition canvas to see which ideas can be developed further into recommendations for the new service.

5.1 Research Findings

There were several findings that rose from the observations and interviews. The research subjects gave positive feedback on some features on the web service, and negative feedback on others. Study subjects also give their solutions for the negative features they found, which were saved to be used later in the solutions phase of the project. The positive and negative findings was grouped into bigger categories using coding. Trough coding, five categories were built from the research data: lack of guidance from the system, process difficulties, difficulties understanding the terms used in the web service, personal factors, and others.

The first category is lack of guidance from the systems. When using the system to register new invoices into collection, the study subjects stated that there are several places in the registration process where the user is supposed to know what to do or how to enter the information into the system. There were two very clear examples for those situations: when adding a new invoice into collection with reminder costs and interest, the system does not indicate that the reminder cost and interest need to be entered as separate invoice lines. Because there is no indication or information about that in the system, many study subjects wanted to include the reminder cost and interest into the capital amount to save time in registration. Another point where the system should guide the user better is when adding new invoices to collection. There are times when an additional invoice can be included into an ongoing collection case and times when it cannot be done. The system gives no information on in which cases the invoice can be

added and it does not guide the user at all to better understand those situations to avoid mistakes in the future.

The second category was process difficulties. Process difficulties rose when a very old invoice date was entered into the system and the feature counting the due date from the invoice date broke. Another difficulty rose when trying to find information from the system. For example, there are several user guides in the web service, but they are not easy to find. Overall, it seems that the study subjects should have known more about collection process as a whole to be able to make correct decisions in some points of the registration process. Because clients are rarely knowledgeable about collection, using the web service should be easy for everyone.

The third category was difficulties understanding the terms used in the web service. There were several terms that the study subjects did not understand and needed help with. Some of those terms are additional specifier (lisätarkenne), interest rate (korkokanta), debt type (saatavan laji), and name of the original debtor (alkuperäisen velkojan nimi). All the terms are not mandatory to fill into the service when registering an invoice to collection but encountering terms that are not familiar stopped the workflow of the study subjects and in some cases caused them to get stuck in the registration process. Getting stuck in the process in turn made the case registration take a lot of time and gave the user an image of service that is obscure and difficult to use.

The fourth category found was personal factors, which was probably the biggest category in the findings. Study subjects stated that they could not find time in their workdays to learn to use the web service, they felt that there was no encouragement from their company or team to learn the new service, and they were shy to use new technologies before getting a comprehensive introduction to the service. The study subjects also felt that the old way or sending an email or mail was more efficient. They did not want to make mistakes that would affect the collection or caused resentment in the customers, and therefore did not use it. Many of the study subjects used the web service for the first time during the observations and were positively surprised of the ease of use. They also stated that they would need a set time in their calendar to learn the use of the service, but due to their workload, would never add the time themselves because there are always other, more important tasks at hand.

The four categories can be seen in the table 2. The fifth category of finding is other, and it consists of other observations that came up during the research. Those observations

are not pertinent to the study subject of case registration, and they were noted for future reference. The fifth category is not discussed or developed further in this thesis.

Category	Factor
Lack of guidance from the system	Cost and interest need to be added as separate lines
	When an additional invoice can be added
Process difficulties	Old invoice date breaks due date counter
	Finding user guides
Difficulty understanding terms	Gets user stuck in the process
Personal factors	No time to learn the service
	Feels that sending invoices via mail or email is faster
	Does not want to make mistakes
	No encouragement to learn the service

Table 2: Table of findings

5.2 Word Clouds

Word clouds were made on the positive and negative feedback received during the research period, to better illustrate what kinds of factors the study subjects found from the web service and if there were any factors that rose to be more significant than others. Most of the findings came up during the observations when the study subjects used the web service and discussed what parts of the service they found easy or difficult to use and why.

5.2.1 Positive Findings

As the biggest positive findings, the study subjects brought up that the system is easy and fast to use overall, and that the search option works well. On top of that, it is easy to print out the material they may need to save for later use. Below is a word cloud of the positive findings.

Picture 2: Positive findings

5.2.2 Negative Findings

There were several negative findings that rose from the study. The biggest negative finding was the lack of guidance from the web service. Because the web service does not always give information to the users, they are not sure what to do in certain situations. The biggest obstacle is when trying to decide whether a new invoice can be added to a collection case that is already open, or if the invoice needs to be added as a new case. Another finding was that the terms used in the service are not always clear. Some study subjects also stated that registering the invoices via web feels slower than sending them via email. This may be because they consider only the time it takes for them to get the task done, not the overall time it takes for the invoice to be in collection. Overall, some study subjects stated that the web service is quite easy to use and that they do not need support, whereas others stated that they would like to get more information about how to use the web service before they want to try using it by themself. Below is a word cloud of the negative findings.

Picture 3: Negative findings

5.3 Personas

There were two distinctive personas found in the study. The personas rose from the observation and interview data, where it could be seen that different clients had very different attitudes towards the service. The two personas had also different pain points in their customer journey, which set them apart as types of client. One persona, Lisa, is a more independent user who wants to try out new services and starts using a service within their limits. The other persona that rose from the study was Anna, a timid user who does not want to learn the web service simply by starting to use it but would like to get a comprehensive introduction to the service from the start. For both users, the everyday work is so busy that learning to use the web is not a top priority, and it is thus postponed at least to some extent.

5.3.1 Lisa

Lisa has been working in the same company for some time and has seen the ways of working change. She has a long career and is used to having to learn new programs and technologies, so she sees it as a part of her work. She learns the necessary skills to the extent they are needed in the everyday work but does not get into the details of every program or service she uses. Because she is focused on getting the work done, she seeks out the information needed and helps her team members when needed. In her free time, she does not enjoy computers or IT related things; IT is more of a necessary evil that comes with work. She likes to learn the new IT related programs and services only to the extent that they pertain to her everyday work and does not like to seek out features or new ways of doing only for the sake of learning more.

Lisa does use the web service provided by company X. She sees the benefit of using the service and has learned the basic skills she needs to use it in her work. When she was learning how to use the web service, she did ask for help in her first use to make sure that case registration has been done correctly. She is sure that there are other things in the web service she could use, but she has not time to learn more than the basics of the web service. She has noticed some features in the web service she does not understand or that could work better in her opinion, but because the service works well for her needs, she has not asked assistance for those parts. Lisa uses the web service always the same way because she has memorized paths to get things done. She would like the web service to guide the user more so that the user would not have to make so many decisions independently. Lisa´s persona can be found in figure 6.

Figure 6: Lisa´s persona

5.3.2 Anna

Anna has been working in the same company for quite some time. She has seen the ways of working change but does not always see the benefits of the changes. She feels that the customers are the most important thing in her work and that the different IT solutions and programs at work are sometimes in the way of good customer service. When a new program or web service is adopted to the way of working, Anna feels that many times she does not get enough time or guidance on how to use the program. If using the program is not necessary to her work, she will most likely not adopt it to her daily work but continues doing her work the same way as before. Anna is not an IT oriented person at home, and she sees IT as a necessary evil when it comes to life.

Before taking part in the study, Anna had not used the web service at all. She knows that company X has a web service, but she does not see the benefits of using it. She is also afraid of making mistakes that would cause customer complaints. When using the web service during the observation, she noted that the service seems to work well and that she will use it in the future. She also noted that to start using the service she would need a dedicated time in her calendar and someone to help her get started. She is not comfortable with learning new things on her own and thus would need support. Anna found some of the terms in the web service to be confusing, and she would like the web service to guide users more so that the user would need to make no decisions independently. Anna´s persona can be found in figure 7.

Figure 7: Anna´s persona

5.4 Customer Journey Map

There were two customer journey maps built: for Lisa and Anna, respectively. The customer journey maps show that the two personas have similar customer journeys overall. The biggest difference is that the personas contact company X in different points of their journey and that Anna needs more help in her journey than Lisa. The customer journey maps are done from the point of making the contract with the client to the point where the client adopts the web service for everyday use. That period was selected because the aim of this thesis is to entice clients to start using the web service for case registration as a part of their everyday work.

In the customer journey maps, the touchpoints are making a contract, getting access to the web, registering first case, asking for help, and everyday use. These refer to the first row of the customer journey map. The starting point is making a contract, where the client decides to start using company X for their debt collection needs. Even though the users of the service are usually not those who make the contract, the web service is introduced in contract phase and client is asked for a list of future users for the service. The second step for the client is getting access to the web service by receiving an email with the user credentials. The next step is starting to use the web service by registering the first case to collection. The aim of company X is that every client would start using the web service from the start, and this is an important step towards that goal. If the client does not actively log into the web and ask for help when needed, they will not adopt the service as a part of their everyday use. With those clients, the goal of everyday use is not achieved.

The customer journey maps in Table 2 and Table 3 below, view the steps above from the viewpoints of client goals (called customer goals in the map), client actions (called customer actions in the map), client experience (called customer experience in the map), touchpoints, and process ownership. The overall client goal is to reduce credit losses and to outsource debt collection to a partner. Debt collection is legally different from invoicing, and thus it is easy to work with a professional debt collection partner. Client actions have to do with either adopting the web service as a part of their everyday work or keeping the ways of working the same as before. Client experience is an important part of the map because it shows how differently the different clients experience the web service, which can be used as an indicator as to whether they will adopt the service. Touchpoints show how the client is contact with company X. From these, the most

important touchpoints that have the most impact can be mapped out and the service in those points can be redesigned if necessary. To redesign the service in the touchpoints, it is important to know who the process owner is so that it is known who oversees making sure the process is done as well as possible.

5.4.1 Customer Journey Map for Lisa

For Lisa, the customer journey starts with her getting the user credentials to the web service via email. She does not sign into the web service immediately to learn what the new tool is but starts using the service as soon as she is informed that the web a part of her everyday work. She logs into the service when she has her first cases to register for collection. If she needs help in using the service, she calls company X and asks for the help she needs in order to get her work done. Because she seeks out the advice she needs actively, she is quickly in the phase where she uses the web service in her work every day or almost every day. She only uses the features she needs to and does not try out different options or click different things in the web service to learn about all the features of the service. Lisa is quite happy throughout her customer journey; she is not necessarily happy when she receives the user credentials and learns that she needs to use yet another program, and she would not want to use her work time to learn it or to ask for help, but once she has started using the service, she is happy with using it in the capacity she does. Lisa´s customer journey map can be found in table 2 and in Appendix 1.

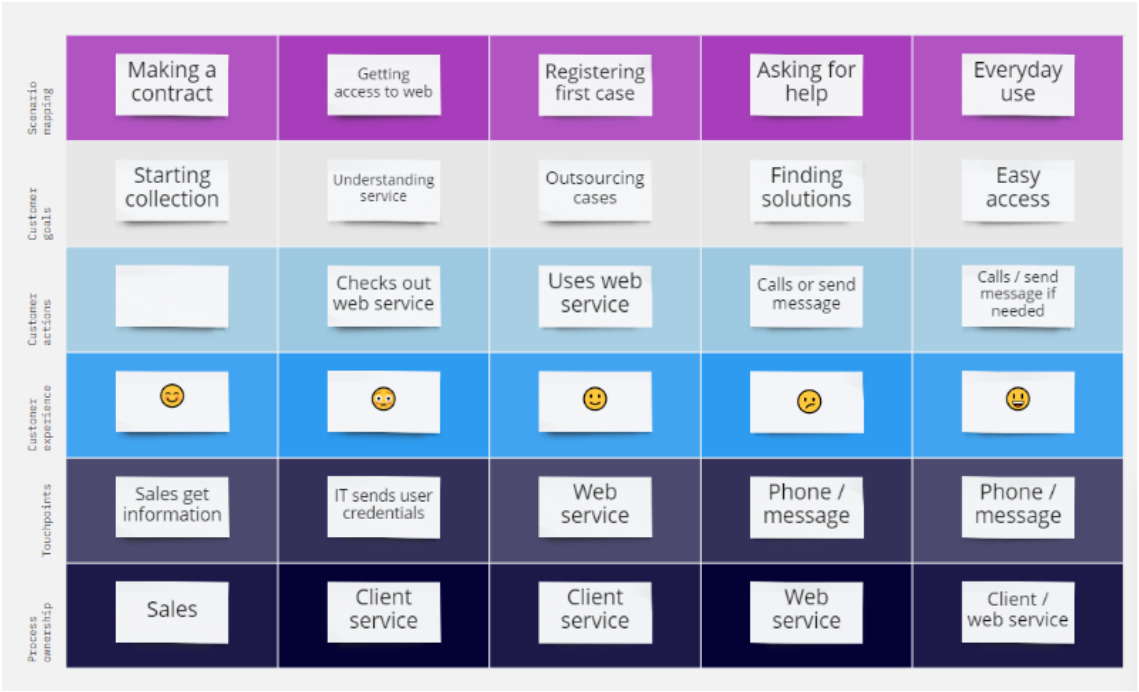


Table 3: Lisa´s customer journey map

5.4.2 Customer Journey Map for Anna

Anna´s customer journey also starts when she receives the user credentials to the web service. She is quite frustrated that she needs to learn another program, and thus she ignores the emails. Even when she is informed that there is a new web service in use, she does not want to take the time to learn how to use it. It may be that Anna does not sign into the service at all and continues working the same way she has always done, sending the new cases to collection via email. If she does log into the system with the help of a colleague, she stops using the service when she finds the first obstacle or does not understand what to do. At this point, she does not active seek for help from company X but reverts to sending the cases to collection via email. Anna may never reach the state where she uses the web service as a part of her daily work. Anna is also not very happy in her customer journey. She is happy to know that a contract has been made and debt collection has been outsourced, but she is not happy that it means a big change in her daily routines. She feels that learning a new program takes a lot of time and effort, but she does not have that time. She also does not block out time in her calendar to start

learning the service without an outside prompt. Anna´s customer journey map can be found below and in Appendix 2.

Scenario mapping	Making a contract	Getting access to web	Registering first case	Asking for help	Everyday use
Customer goals	Starting collection	Understanding service	Outsourcing cases	Finding solutions	Easy access
Customer actions		Checks out web service	Uses web service		
Customer experience	😊	😐	🙂	☹	☹
Touchpoints	Sales get information	IT sends user credentials	Web service	Phone / message	Phone / message
Process ownership	Sales	Client service	Client service	Web service	Client / web service

Table 4: Anna´s customer journey map

5.5 Adopting a Web Service

There are several ways that companies have increased their product adoption. One way is to increase the product magnetism by having customer testimonials, case studies, and product demos shown to potential customers. Showing the opinions of satisfied users may increase the willingness of a potential user to adopt the service and to take the time to learn how to use it because they see the benefits of the service. Another important factor of getting potential customers to adopt a service is to get them to experience the “aha” moment while trying out the service or a trial version of it. An “aha” moment refers to that moment when the customer gets an insight of all the benefits the service can bring them and how the service fits their way of working. An “aha” moment is difficult to describe but usually easy to recognize. It is also important to decrease the potential customer´s attachment to status quo. Many times, people are attached to doing things the way they have always done them, or the way others do them. It is important to get the potential customer to understand the benefits of the new service and to make sure

that they also take the possibilities of the new service into consideration, not only the status quo of the old way of working. (Graham, 2021.)

The first time a customer uses the service is paramount to them adopting it. It is important to make sure the that the first time a customer uses the service, they get a feeling of the benefits the service offers them. If customer thinks that there are no benefits or the benefits are small, they may not adopt the service and continue working the way they have. Companies usually build demos and walkthroughs to introduce the service and show the different features. When logging into a new online service, there is an option to learn about the different features by watching a short video or by getting a short tour of the different features and their benefits. Seeing the different features and the benefits they bring may cause the “aha” moment in the user that gets them to adopt the service. Many companies also host online webinars and live demos of the service so that the users can learn more about the different features. (McMillen, 2017.)

Companies can help their customer to reach the “aha” moment in many ways. One way is to personalize the customer journey in the service. Customer journeys can be customized by using customer data to segment the different customers, but sometimes there is not always enough data to do that, and gathering data takes time. Some companies have solved that problem by asking customers to segment themselves. That can be done by asking in the beginning of the service how the customer thinks they will be using the service, for example by choosing from three different options, and then introducing them to the features that best suit their needs. To create the “aha” moment, the customers need to be engaged to the service. It is important that the customers take time to engage and to use the service to learn the ways it benefits them. To increase engagement, it is important to get customers to return to the service and to let them use it if they want. Learning the service and the different benefits can sometimes take time, even though it is preferable for the customer to get the “aha” moment in the beginning of their user journey. (Davis, 2020.)

Upkeeping status quo is a thinking bias, in which people prefer things that stay unchanged. Those individuals that experience status quo bias experience new ways of doing as negative, because they have a strong aversion to change and they do not want to deviate from how things are usually done. The status quo bias is difficult to overcome. Laggards and people with status quo bias have similar thinking patterns, namely hesitancy towards new services out of fear of loss resulting from change, resistance to marketing and sales techniques, and loyalty to the brands they are familiar with, even if

they offer inferior service. Even though status quo is difficult to overcome, one way to overcome it is by highlighting the emotional reasons for why the new service should be adopted. When introducing the service, it is important to use language that directly answers the questions that may rise. The customers with a status quo biased thinking use the smallest reason to opt out of using the service, so it is important to answer all their questions and to make sure that the important information is easily available. Many companies tackle the need for information by having frequently asked questions sections in their web page and by having the most asked questions answered in the service tutorials. (Shewan, 2018.)

5.6 Building the Client Offering

Once the data from workshops was analyzed and grouped, a value proposition canvas was used to match the ideas to customer needs. Those ideas that were found to not meet customer needs were disregarded. The value proposition canvas can be found below in picture 4. The different points were written on post it notes and added to the canvas. The process was done manually.

Picture 4: Value proposition canvas

The value proposition canvas is divided into two sides. On the right side there are the client jobs, pains, and gains. Client jobs are the actual things they need to achieve, which for these clients are credit loss aversion, customer service, legal help, and specific knowledge of debt collection. Client pains are customer complaints, speed of recovering credit losses, privacy issues and GDPR, and overall insecurity of the debt collection process. Client gains are decreased errors, speed of the debt collection, and more efficient ways of working. On the left side of the canvas there are pain relievers, gain creators, and products and services. The idea of the value proposition canvas is to match client pains to the pain relievers the new service brings, gains to gain creators, and finally to solve customer jobs with the new service. The pain relievers of the new service are physical changes made to the web service in order to make it more easily usable and making sure that using the web service feel safe for the client. The feeling of safety needs to cover any issues the client would have about the service meeting GDPR standards, but also the issues clients have with their own insecurities on whether they are using the service correctly and filling in needed information. The gain creators for the new service are a better way of working with the client, where they know exactly what to do in their end to make sure that the invoices are transferred to collection as quickly as possible and with no errors. Part of client gains is also making it as easy as possible for the client to log into the web service for the first time to make sure that they adopt the service from the moment the contract is made. The actual services built are redesigning the information the client gets when they first start, redesigning the web service to better meet client needs, creating nudges to urge the use of the service, and creating ongoing support for the clients. All solutions are further discussed in the next chapter 6, Recommendations.

6 RECOMMENDATIONS

Based on the research, workshops, and benchmarking, recommendations for the redesign of the service were made. One recommendation is to see the web service as a system, where the adaptation of the web service for the client group researched is not solely on the redesign of the web service but the other features around the service are also redesigned to make the web service more approachable for all client segments. Because the critical point for adaptation in the customer journey map is before the client starts using the web service for the first time, the service needs to be redesigned from that point on. The recommendations portion is divided into different categories that cover getting the client started with the web service, the physical changes recommended to the web service, and ongoing support for users once they have started using the service. The difference between the old and new service processes are also visualized with a service blueprint.

6.1 Getting the Client Started

The most important point in the customer journey for clients represented by the persona Anna was getting access to the web service, as can be seen in Table 2. Once the user is added, they receive an email with their username and another email with their password. Most clients then make the effort of signing into the web service and learning how to use it, but there is also a portion of clients who do not take that step independently. For those clients, there needs to be incentives or nudges for them to take the initial step and start using the web service. It is recommended that there are short and easy to read manuals already attached to the emails where the client receives their username and password. There needs to also be a link to the web service in the email so that the client does not need to search for it online. It is also recommended to have a video embedded to the emails, showing how the first steps to the service are taken. The video needs to be very short and only encourage the client to sign into the service for the first time.

Once the client has signed into the service, there should be an option to take tour of the web page. It would be recommended that the tour lasts some five to ten minutes so that it does not take too much of working time and start feeling like a chore. Because five to ten minutes is too short a time to show all the features of the web page, there should be

options for the client to choose what they want the tour to show. The options could be for example: case registration, checking customer information, or checking the phase of collection. The tour video is the first step towards building the “aha” moment, where the client understands the benefits using the web service would bring them. At the end of the tour, the client should be shown where to find the instructions and guidance videos in the web service, should they need them later. If the client has not logged into the service within a week from getting their username and password emails, they should get a reminder email that would prompt them to log into the web service.

Nudging Techniques; Reducing Psychological Distance and Opt-out

The nudging technique in use in this phase is decreasing the psychological distance. When the prompts to access the web, service are in the emails received, the threshold to sign into the web service for the first time is reduced. The client is given not only the tools to access the service but also the push to do so right at that moment. If there is a need to make the nudges even more effective, opt-out nudge can be used. When the client has received their username and password emails, they could also be automatically enrolled into an online workshop or a tutoring session for how to use the web service. The opt-out nudge might work in getting the last clients to sign into the web service because now they have a dedicated time in their calendar where they get advice without having to reach out to company X. It may be psychologically easier to attend the session than to decline it and later start using the web service independently. The downside of using the opt-out nudge is that clients may feel it to be intrusive and complain about it. The opt-out nudge should be used after careful consideration and the use should be stopped if clients complain about it.

6.2 Redesigning the Web Service

There were several points about the web service that should be redesigned to make using the service easier. Once the client has adopted the service, their rate of using the service depends on how easy they find the use to be. The research found several points in the service that could be redesigned to make the web service easier to use. Implementing the changes would probably mean that those clients that only use the service when necessary would start using the service more and start exploring the

different features in the service more, making the user experience for them better overall. The findings were divided into four categories: guidance from the system, process difficulties, difficulties understanding the terms, and personal factors.

6.2.1 Guidance from the System

One research finding was that there is not enough guidance from the system. Because of the lack of guidance, clients are not sure what actions they can take and sometimes make wrong decisions, which makes them feel unsure about using the service. One example of the lack of guidance in the system is adding new invoices to a customer that already has invoices in collection. In some cases, the new invoices can be added to an existing collection case, and in some cases the collection for those new invoices need to be started from the beginning. The system does not guide the user with the different kinds of cases and give advice on how to proceed. To make the user experience better, trying to add an invoice to an already existing case where new invoices cannot be added, the service should open a text window that informs the user that new invoices cannot be added to that particular collection case. The text should also remind the user that the customer needs to be sent a reminder for the invoice before it can be transferred to collection. That way, there is no ambiguity on whether the client has acted correctly, and they also know what they should do next.

There were several places in the system where the study subjects wished for more guidance on what the best action is. Another example for registering new cases is different kinds of debts. Legally, there needs to be different additional information with different kinds of debt, like address for rental debts, electricity, and so on. Currently, the system does not guide on what kind of information is needed in each debt type. The best solution would be to add a box where the client could select the type of debt, and then answer the questions for the additional information needed for that debt type. This would guide the user to give all the needed information at once and they would not need remember what kind of information they need to add to the different debt types.

In addition, there could be tooltips added to several places in the case registration process where taking the mouse on top of the tooltip would give the user more information on what kind of information is needed or how the information is filled into the system.

6.2.2 Difficulties with the Terms

There were several terms that the study subject found difficult to understand. Some of the terms were in fields that are necessary to fill in and some were in fields that the user can leave empty. One of the findings from the observations was that even though the terms that were difficult to understand were in the fields that were not mandatory to fill in, it sometimes interrupted the workflow of the study subjects and made them concentrate of the term they did not understand instead of continuing with the process. This in turn made the case registration slower and gave the subject a feeling that the case registration was more difficult that it was. The study subjects for whom the obscure terms caused the most difficulties are described as the persona Anna. Because it is important to make sure that all the terms used in the web service are understandable to the client, even though the terms are in fields that are not mandatory to fill in, it is important to go through all the terms used in the web service and to change the more obscure terms for terms that are easy to understand.

6.3 Personal Factors

In the client group represented by the personal Anna, the study brought to surface the importance of feeling secure in using the web service. If the user feels that they are not certain that they register the invoice to collection with the correct information, they do not want to do the registration themself. Making mistakes and errors in the registration process may lead to customer complaints and extra work later in the collection process, and the client does not want to be the source of the customer annoyance. Another feeling that hinders their adoption of the web service is feeling too busy in their daily work to start learning how to use the service. It is very personal, how actively people want to learn new skills and how much they need help to get started. The clients in this study are the ones that need a lot of encouragement and help to start using the service, and to keep them using the service.

One of the solutions that helps clients feel more secure using the web service is adding the tooltips and other such information to the web service. When the service guides the user more, they are bound to feel more secure in the information they give. If a mistake is detected, is important to contact the client and explain to them why the information is required and how to fill in the correct information the next time. A solution for the client

not finding time for learning how to use the web service is booking a time slot in their calendar for a meeting where the client gets to log into the web service and explore the service with someone helping them and answering their questions. Some actions, like case registration, can also be done together during the booked time to build the confidence the client has in their own abilities to use the web independently later.

Because one client company usually has many clients using the web service, there are several adoption rates to the service. From a team of five people, one client can use the web service for all their needs, three use it for most of their needs, and one does not use the web service at all. In these cases, it is important to target the person who does not use their service and help them get started. The person who has not started to use the service can be contacted personally to set up a meeting or to discuss the difficulties with using the web service and to get them started with the service. A personal way of contacting the client and setting a meeting with them is better than having some kind of a group tutoring because the client needs personal assistance and may not ask the questions they have during a group session. In a personal meeting the different features of the web service can be explored in a pace that makes the client feel that they understand the service and get the “aha” moment of how using the service can benefit them.

Nudging Technique; Social Influence and Popularity

Many times, people want to do things the way that is socially acceptable or that is a social norm. When discussing web use with a client that does not use the web service, it can be beneficial to let them know that the web service is widely used among clients and that many find it a fast and easy way to register invoices to collection. If a client is a member of a work team where everyone else uses the web service, they usually do not want to feel like they are the only one not able to use the service, when they learn that others use the service daily. Using the nudge of social influence is difficult because the mention of the popularity of the service needs to come up naturally in a conversation. If the client is purposely told that they are the only one not using the service, they may feel ridiculed for their lack of skills, or they may feel that they are pushed to do something they are not ready to learn. Social influence can be used in a subtle way when introducing the client to the service and discussing it with them.

6.4 Ongoing Support

After the client has started using the web service, the aim is to not only keep them using the service, but to expand the use. If the client starts using the service for case registration, for example, the next steps are to get them to check collection status and to inform payments via the service as well. One solution for getting a client to expand their use is to have a monthly newsletter with tips and tricks on how to use the service. The newsletter can be sent to everyone so that the clients' needs to opt-out of the letter if they do not want to receive it. The web service use should be discussed more also in client meetings, where it can be set as a part of the agenda. If a client has difficulties with some portion of the web service, it is easy to discuss about the topic and show them how to use the specific portion of the web service during the meeting. That way, the clients may adopt the web service more into their everyday use and asking for help becomes easier.

Nudging Technique; Social Influence and the "Aha" Moment

Once the client has started using the web and they see the benefits of the use for some features, it is easier to cause the "aha" feeling for also the other parts of the service. At this point, it is also easier to get the client more aware of data security and GDPR requirements. Once the client understands that the web is a secure way of sending all kinds of information, they are more likely to adopt the web service to all their needs, not only case registration. The nudging technique is social influence, where the client learns that there is not only a legal demand for secure handling of customer information, but also a social expectation that customers have for the way their data is handled.

6.5 Redesigning the Process

The study findings categorized as process difficulties were the fact that it is assumed that the user knows more about debt collection than they do and that finding information from the web service is difficult. However, it has become apparent during the thesis process that the whole customer journey needs to be redesigned, not only the web service, and thus it is paramount to also improve the services the client gets around the web service itself.

Before the redesign, the service was quite straight forwards and there were not many actions taken. The client was sent their username and password, and nothing more was done to make sure that they actually start using the service. As the client gets the username and the password to the new service via email, they log into the service and register their first collection case via the web service. After that, the information is transferred from the web service to the collection system and the information is authenticated. The client can save the information for further need if necessary. The information will be found in the web service for client to check the status of the collection or update the information whenever they need. The information from the web service is then updated to the collection system so that the data is up to date. The process is easy and straight forward when the client adopts the service from the start. If the client does not adopt the service, however, they keep sending the information via email or mail, which causes manual work and delays in the updating of the information. The redesigned service is demonstrated in the service blueprints in table 5. The redesigned service and how it nudges clients to use the web service in the future.

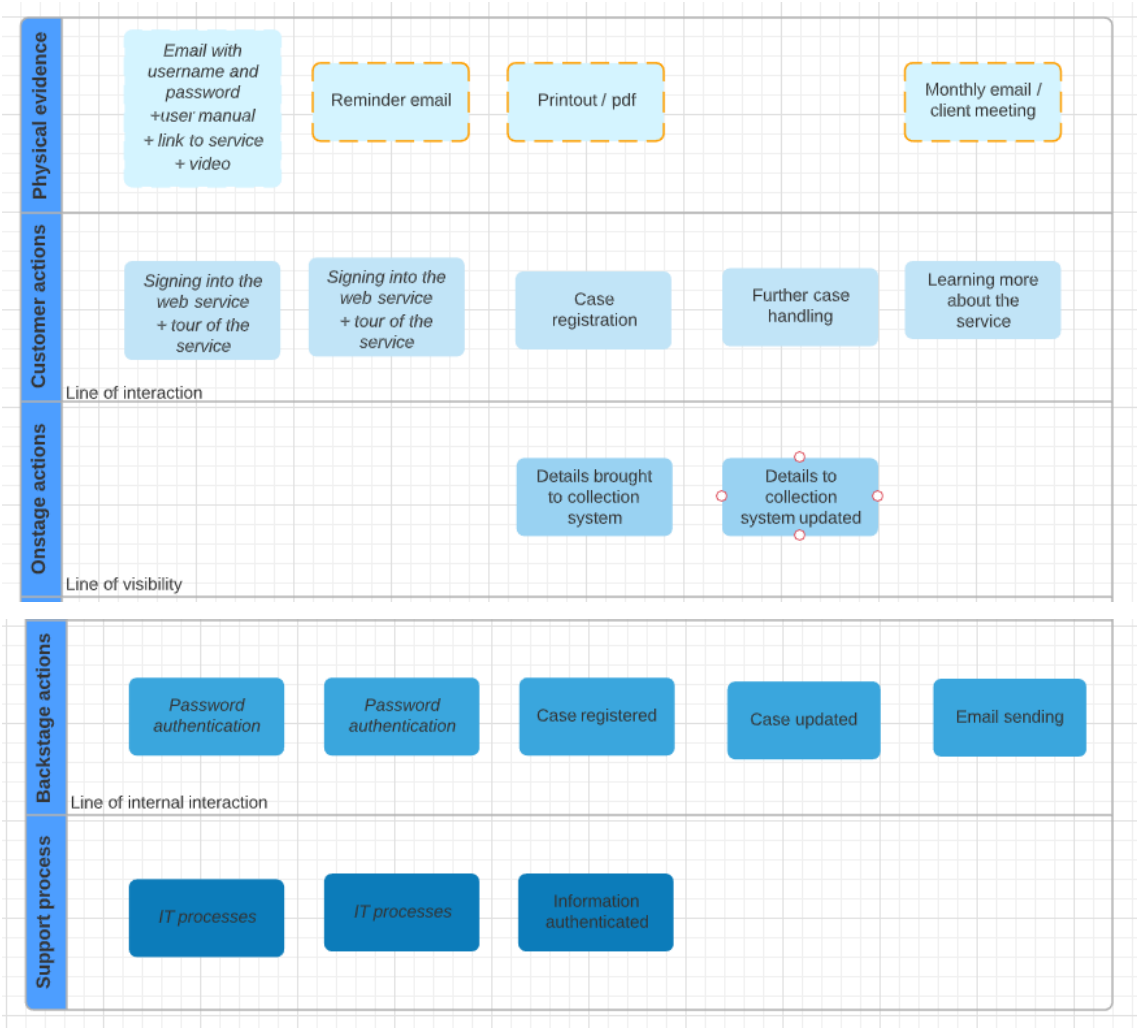


Table 5: Service blueprint after the redesign

The redesign is done to better match the needs of the persona Anna, to make sure that they get the support they need to start using the service. After the redesign, the client gets more information in their first email. In addition to the username and password, they receive a user manual, a link to the service, and an embedded video of how to log into the service for the first time. If the client does not log into the service within a week from receiving the information, they get a reminder email prompting them to sign into the service. When the client signs into the service, they can watch a video of how to use the service in a topic of their choosing. After the client has adopted the service, the case registration and information updating works the same way as it did before the redesign. As a new feature, all clients get a monthly newsletter where they learn tips on how to use the service more efficiently and what kinds of information they can find from the service. The use of the web service can also be an ongoing topic of discussion in client meetings,

as discussed above. If there are questions or comments about using the web service that rise in every client meeting, those are good topics to add to the newsletter as permanent features. From those questions, it is also easy to get more data on what kinds of features in the web service still do not meet the needs of clients and what kinds of additional information or services they wish to have regarding the web service. With time, having more discussion about the web service with clients brings a better understanding of how they see the changes made to the service and what kinds of changes they would like to have in the future.

7 CONCLUSION

This thesis was done as a commission for a debt collection company, company X. Debt collection companies handle so much data daily that there is a need for the data to be handled securely and correctly. Debt collection as a field of business that handles data because they get from the client the data of the customer and the debt they have to the client company. Because all the data is sensitive, both parties must be careful with making sure that the data is correct and handled securely at all stages of the process. Company X has provided clients with two ways transfer data securely; data transfer from the client system directly to the collection system and a web portal where the data can be transferred case by case. Despite these secure transfer systems, there still are some clients who do not use them but send their data to collection via email or mail. There are several problems that rise from using email or mail for sending unpaid invoices to collection. The biggest problem is that the data needs to be handled manually, which is prone to errors and the process is slow. Any errors in the data in collection cause customer complaints and need to be clarified with the client, which takes them time and effort. As the customers make partial payments to their invoices also during the time they are being transferred to collection, the longer it takes to register the invoice to collection, the more probable it is that the information is not up to date. Thus, using data transfer or the web service to transfer invoices to collection are the best solutions for all parties.

The motivation of the study is to redesign the existing web service to better meet client needs so that the last clients that have not adopted the web service into their everyday way of working would start registering their invoices to collection via the web service. The aim is to gain enough information of those clients who do not use the service or transfer their data system to system but send the information via email or mail and understand them better to better meet their needs. One aim was also to see if nudging can be used to influence their behavior and to get them to use the web service. Based on the things learned, recommendations were made to the commissioner on how the web service can be redesigned to better serve all client segments in the future. The limitations of the thesis are that testing and data gathering on the recommendation will be done in a separate project in company X after the thesis, and thus those phases are not included into the thesis process.

The research questions were set as:

Why do some clients not send data via electronic channels?
How can the service be redesigned to better meet client needs?
Can nudging be used to help clients adopt the web service?

The thesis work was started in March 2020 with choosing the study subjects. It was important to make the study subjects as representative of the client base as possible to make sure that the outcome represents the needs of the clients. The study subjects were picked to be as heterogenous as possible, with client from big and small companies and from private and public sector. The next step was starting the study in September 2020 with the research phase, where the observations and interviews were done. The clients who had agreed to be studied were contacted via Skype or Teams to observe them registering cases via the web service. The study subjects were then interviewed after the observation to learn about their thoughts and feelings during the case registration. Some of the study subjects had been using the web service for case registration before and for some the study session was the first time to use the web service.

At the same time with the observations, the theoretical background of the topic was explored. The first theoretical point studied was technology acceptance model. The model states that the two most important factors for adopting new technologies are perceived usefulness and perceived ease of use. The rate of technology acceptance is dependent on how much the user excepts the new technology to help them in their everyday work and how easy the technology is to use. In addition, technology acceptance is determined by personal factors such as gender, age, and previous experience with technology. From the diffusion of innovations model, it was learned that the study subjects of this thesis are laggards, or those individuals who are in the last group to adopt new technologies into their life or way of working. The different customer segments need to be approached differently when persuading them to adopt new technologies. When designing for the customer group laggards, it is important to build the new product or service to be easy to use, not be complex to navigate, and there should be assistance available to the user at the right moment.

It became clear during the thesis process that designing only the web service is not enough, but that there need to be additional services tied to the web service to make sure that the client gets the information they need and is able to adopt the service as

easily as possible. Systems thinking was found in the theoretical framework phase to be a tool that helps to map out the service from the point of view of the client as well as from the point of view of the company, bringing forth solutions that are optimal for the needs of both groups. After systems thinking, the banking sector was studied to learn how they have solved the problem of handling private customer data and keeping a trustworthy image with customers. Finally, nudging was studied to see if there are any nudging techniques that could be used in the recommendations made for the commissioner.

After the research was done, the thesis moved on to definition phase in December 2020. The data from the study was analyzed in using word cloud and coding. From the analyzed data, personas were built, and customer journey mapping was done. The study findings were divided into five categories: lack of guidance from the system, process difficulties, difficulties understanding the terms used in the web service, personal factors, and others. Lack of guidance from the system describes the points in the web service where the clients felt that the web service did not give enough information for them to know how to proceed with case registration. Process difficulties describe other problems that stopped the process of case registration, such as errors in the system. Difficulties understanding the terms describes the fact that if there are any terms in the web service that the client did not understand during the observation, they got stuck at the term even in cases where the term was not mandatory to be filled in. Personal factors describe the client and how they feel about using the web service. Some clients did not have time to learn to use the web service in their everyday work and they also expressed a need to get a comprehensive introduction to the service before wanting to use it. The fifth category describes other features or problems that arose in the study that are not pertinent to the topic of the thesis and thus are not discussed further in it.

In February 2021, two workshops were held for the employees of company X, to brainstorm ideas for the problems and difficulties found in the study. The ideas from the workshops were set to a value proposition canvas to choose the ideas that match the needs of the clients. The idea of the value proposition canvas is to identify client jobs, or what they want to achieve, their pains and gains. To those, pain relievers and gain creators were listed to see what kinds of things need to be considered when building the services. The solutions were matched to the four categories found in the study; lack of guidance from the system, process difficulties, difficulties understanding the terms used in the web service, and personal factors. After benchmarking and idea development finalization in April 2021, the recommendations for the redesign of the service were

made. The recommendations were documented separately for the commissioner and the thesis was finalized. The recommendations are in four categories: getting the client started, redesigning the web service, personal factors, and ongoing support.

As for the research questions posed at the beginning of the thesis process, the answers were found. The first question asked was “Why do some clients not send data via electronic channels?” The lesson learned was that there are several factors that deter a portion of the clients from using the web service, pertaining both personal factors of the clients and the features of the web service. Those factors were divided into categories when the findings of the research were handled and the solutions for those problems were found later in the research. In the theory part, the customer segment that is the least likely to adopt new services was also identified to make sure that the services designed are aimed at that group of clients. The second question was “How can the service be redesigned to better meet client needs?” There were several solutions recommended to the commissioner on how the web service should be redesigned, and how the services can be built around the web service to make sure that the services offered entice all the client groups to use the service in the future. The third question, “Can nudging be used to help clients adopt the web service?” was also answered by introducing nudging techniques that can be used to affect the client and their adoption of the web service in the different phases of starting to use the service in the beginning of the customer journey, as well as later with clients who have been using the services of the commissioner longer but have not started to use the web service.

REFERENCES

Abeka, S. 2013. Corporate customers acceptance of internet banking: A case study of East African Trade Finance customers. Anchor academic publishing: Hamburg.

Boost labs. 2014. Word Clouds & the Value of Simple Visualizations. Accessed 27.12.2020. https://boostlabs.com/blog/what-are-word-clouds-value-simple-visualizations/.

Caraban, A., Karapanos, E., Goncalves, D. and Campos, P. 2019. 23 Ways to Nudge: A Review of Technology-Mediated Nudging in Human-Computer Interaction. Proceedings of the 2019 CHI Conference of the Human Factors in Computing Systems. Paper No. 503, p. 1-15. Accessed 9.1.2021. http://persuasive.cut.ac.cy/wp-content/uploads/sites/55/2019/01/paper.pdf.

Carsta, S.; Tagliabue, M. 2018. Feeding the behavioral revolution: Contributions of behavior analysis to nudging and vice versa. Journal of Behavioral Economics for Policy. Vol. 2, No. 1, 91 – 97. Accessed 21.11.2019. https://pdfs.semanticscholar.org/6cd7/fbed8bf7ac3aa058c4f59375b3b094ab3fac.pdf?_ga=2.202768342.691469190.1574359466-82649173.1574359466.

Charters, E. 2003. The Use of Think-aloud Methods in Qualitative Research: An Introduction to Think-aloud Methods. Vol. 12, No. 2, 68 – 82. Accessed 21.3.2020. file:///C:/Users/Mari/Desktop/38-120-1-PB.pdf.

Cuesta, H. 2013. Practical Data Analysis. Birmingham: Packt Publishing Ltd.

Darzentas, J. and Darzentas, J. 2016. Product-Service Systems or Service Design 'ByProducts'? A Systems Thinking Approach. Design Research Society 50th Anniversary Conference. Brighton; UK.

Davis, J. 2020. How To Craft A Powerful Aha! Moment For Your Customers. Accessed 13.2.2021. https://www.messagely.com/aha-moment/.

Dean, S. 2014. System Thinking and UX part 2: System Traps how to avoid them Accessed 6.1.2021. https://medium.com/@stewdean/system-thinking-and-ux-part-2-system-traps-and-advice-on-how-to-avoid-them-6e6803a10772.

Design Council. 2015. The Design Process: What is the Double Diamond? Accessed 20.12.2020. https://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond.

Elmuti, D. and Kathawala, Y. 1997. An overview of benchmarking process: a tool for continuous improvement and competitive advantage. Benchmarking for Quality Management & Technology. Vol. 4 No. 4, 229 – 243. Accessed 20.11.2019. MCB University Press. https://pdfs.semanticscholar.org/8748/092dcb7f88ab1e1f09d7826f8c07402918ce.pdf

Eriksson, P. & Kovalainen, A. 2016. Qualitative Methods in Business Research: A Practical Guide to Social Research. London: Sage Publication Ltd.

Foster, T., 2005. Creating digital value: at the heart of the I-E-I framework. Journal of Business and Industrial Marketing. Vol. 20, No. 4/5, 245 – 252. Accessed 5.4.2020. https://www.emerald.com/insight/content/doi/10.1108/08858620510603927/full/html?skipTracking=true

Foundation & Framework. Designing for Behaviour Change Toolkit; A Guide to Using Behavioural Economics with Service Design. Accessed 21.11.2019. https://toolkit.bridgeable.com/wp-content/uploads/2017/10/Bridgeable-Designing-Behaviour-Change-Toolkit_201725.pdf?submissionGuid=c60c3696-a64a-43bc-a230-5c67a1985761.

Fryer, V. 2020. 6 ways to create the best ecommerce customer experience. Accessed 3.1.2021. https://blog.dotdigital.com/6-ways-to-create-the-best-ecommerce-customer-experience/.

GDPR. Intersoft Consulting. Accessed 29.3.2020. https://gdpr-info.eu/.

Gläser, J. and Laudel, G. 2013. Life With and Without Coding: Two Methods for Early-Stage Data Analysis in Qualitative Research Aiming at Causal Explanations. FSQ Forum Qualitative Sozialforschung / Forum: Qualitative Social Research. Vol 14, No 2. Accessed 20.11.2019. http://www.qualitative-research.net/index.php/fqs/article/view/1886/3529.

Graham, M. 2021. Product adoption: how to get customers to embrace your product. Accessed 13.2.2021. https://www.intercom.com/blog/product-adoption/.

Huotarinen, J. 2020. What is systems thinking and how should I use it? Accessed 6.1.2021. https://gofore.com/what-is-systems-thinking-and-how-should-i-use-it/.

Jahanmir, S and Lages, L. 2015. The Lag-User Method: Using Laggards as a source of innovative ideas. Journal of Engineering and Technology Management. Vol 37, July-September, 65-77. Accessed 3.1.2021. https://d1wqtxts1xzle7.cloudfront.net/44308276/2015_JETM_Jahanmir_Lages_Lag-User_Method_Using_Laggards_as_a_Source_of_Innovative_Ideas.pdf?1459546553=&response-content-disposition=inline%3B+filename%3DThe_Lag_User_Method_Using_laggards_as_a.pdf&Expires=1609667022&Signature=anSSb0WxvzETuPADxxD0nP6YeX7TB0tZnfsIqfol39vZy95-~Ke0HGPdQw4iVNojA78Ap4oon22dwOCYpNJspAYHIo740AFBenyx0qdTbLoFQjxKyyOMODPiubB2g2QOlovGEu6T1mOm7MVUfznsao-2~R~rug4z3lolXET5GdEN7FFtiny6iGdHJOkcMGXZpfiVfa8omaYvMwrmm7MGYcjGkpbStItdUAqU2U3oFiyTfhBt6KfwVzpVICuyvibja6UJuZoXiKz5oCU2XxQE6IVXaRaVRGIcCJ4WDfybM-9HYGEmksZRKapcc4krw5g903DB9NVtc6-58ayzCxIGEA__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA.

Jalonen, J., and Takala, T., Debtors' Ethical Perceptions of the Debt Collection Process, Electronic Journal of Business Ethics and Organization Studies, Vol. 23, No. 1 2018. Accessed 7.12.2020. http://ejbo.jyu.fi/pdf/ejbo_vol23_no1_pages_14-19.pdf.

Kilpailu- ja kuluttajavirasto.2020. Accessed 7.12.2020. https://www.kkv.fi/Tietoa-ja-ohjeita/Maksut-laskut-perinta/perinta/perintakulut-ja-perinnan-eteneminen/.

Lembcke, T. Englbrecht, N. Brendel, A., Kolbe, L. To Nudge or Not to Nudge: Ethical Considerations of Digital Nudging Based on its Behavioral Economics Roots. 2019. Accessed 19.12.2020. https://aisel.aisnet.org/ecis2019_rp/95.

Lydeard, S. 1991. The Questionnaire as a Research Tool. Family Practice. Volume 8, Issue 1, March, 84 – 91 Accessed 20.11.2019. https://academic.oup.com/fampra/article-abstract/8/1/84/506211?redirectedFrom=PDF.

McMillen, J. 2017. 7 Ways To Accelerate Product Adoption (Without Spamming Your User Base). Accessed 13.2.2021. https://www.crazyegg.com/blog/accelerate-product-adoption/.

McNeill, P. and Chapman, S. 2005. Research methods. New York: Taylor & Francis Group.

Mirriam – Webster. Accessed 4.4.2020, https://www.merriam-webster.com/dictionary/frame%20of%20reference.

Moore, G. 2009. Crossing the Chasm. Marketing and Selling High-Tech Products to Mainstream Customers. Revised edition. Harper-Collins e-books.

Meadows, D. 2009. Thinking in Systems. A Primer. Earthscan; London.

Osterwalder, A., Pigneur, Y., Bernarda, G., and Smith, A. 2014. How to Create Products and Services Customers Want. Get Started with… Value Proposition Design. John Wiley & Sons Inc: New Jersey.

Rogers, M. 2003. Diffusion of Innovations. 5th edition. Free Press: New York.

Schneider, C., Brocke J. & Weinmann M. Digital Nudging: Guiding Online User Choices through Interface Design. Communication of the ACM. June 2018, 61(7):67-73. Accessed 21.11.2019. https://www.researchgate.net/publication/320419336_Digital_Nudging_Guiding_Online_User_Choices_through_Interface_Design.

Shewan, D. 5 Cognitive Biases & How to Overcome Them On Your Landing Page. Accessed 13.2.2021. https://www.wordstream.com/blog/ws/2014/05/22/landing-pages-cognitive-biases.

StartupGrind, 2020. Customer Experience Mapping: What Is It And How To Do It? Accessed 11.2.2021. https://www.startupgrind.com/blog/customer-experience-mapping-what-is-it-and-how-to-do-it/

Stickdorn, M., Hormess M., Lawrence A. and Schneider, J. 2018. This Is Service Design Doing: Applying Service Design Thinking in the Real World. Canada: O'Reilly Media Incorporated.

Stryja, C. & Satzger,G. 2019. Digital nudging to overcome cognitive resistance in innovation adoption decisions. The Service Industries Journal, 39:15-16. Accessed 9.1.2021. https://www.researchgate.net/profile/Carola_Stryja/publication/328504120_Digital_nudging_to_overcome_cognitive_resistance_in_innovation_adoption_decisions/links/5dd3b269a6fdcc7e138d40c6/Digital-nudging-to-overcome-cognitive-resistance-in-innovation-adoption-decisions.pdf.

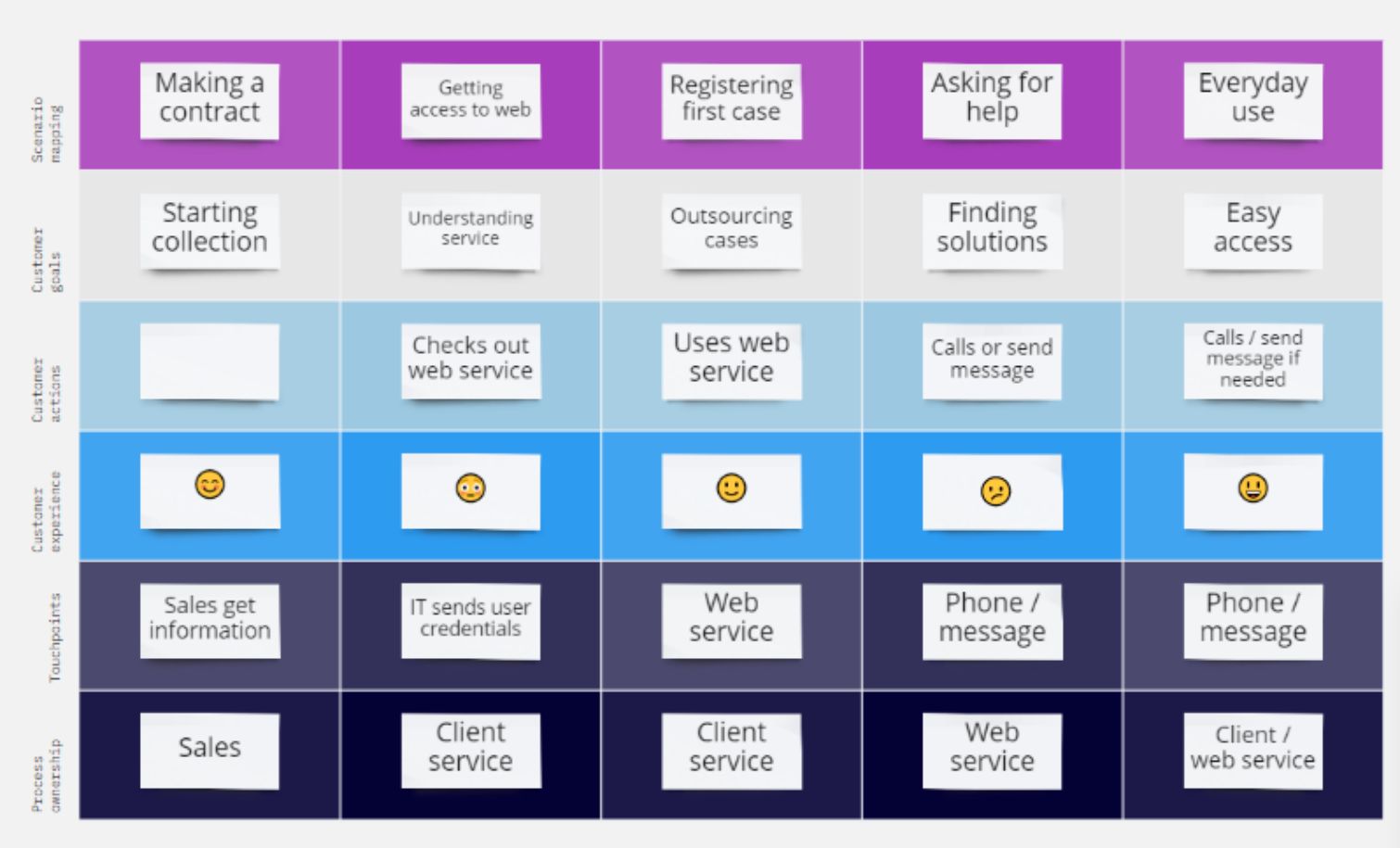
Talukder, M. 2014. Managing Innovation Adoption: From Innovation to Implementation. Gover Publishing Limited: Surrey.

Tidd, J. 2010. Gaining Momemtum. Managing the Diffusion of Innovations. Imperial College Press: London.

Wong, K. 2019. How to design for late adopters of technology. Understanding a different audience. Accessed 3.1.2021. https://uxdesign.cc/how-to-design-for-late-adopters-of-technology-8d0ca7de7ab.

Yrittäjät. 2020. Perintälaki muuttuu väliaikaisesti, muutoksia perintäkuluihin – ”kulukatosta pitää tehdä pysyvä”. Accessed 7.12.2020. https://www.yrittajat.fi/uutiset/637098-perintalaki-muuttuu-valiaikaisesti-muutoksia-perintakuluihin-kulukatosta-pitaa-tehda

Appendix 1: Customer Journey Map for Lisa



Appendix 2: Customer Journey Map for Anna