

Service Designing Co-working Possibilities

Internal Communication in Virtual Expert Teams

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Abstract

The Master's Thesis focused on service designing co-working possibilities and internal communication in virtual expert teams in the case organization. The aim of the thesis was to provide first iteration of virtual customer team communication framework to be piloted and iterated by the commissioner organization. The scope and the focus of the thesis is in the most complex customer segment. The methods used to meet the research goals were literature review, planning meetings, analysis of the secondary research data, employee and customer interviews, self-documenting, observation, co-design workshops, ideation, brainstorming, and concepting. The service design tools used were stakeholder map, business model canvas, personas, storytelling, visualization, and service blueprint.

Based on the research, and employee and customer experiences, the case organization is following its core values in its service creation. The values are proactivity, passion to succeed, willingness to develop and to delight the customer. However, certain development areas in the internal communication were identified in collaboration with customer team members. Internal communication practices should be clarified in certain service journey situations to improve customer centricity. Services need to be more coordinated and customer responsibility and roles should be clarified. Customer success measurement tools should be developed to evaluate performance.

As an outcome of the research, a framework for virtual customer team's internal communication was concepted. The framework was visualized as a service blueprint, and a plan for the concept implementation was introduced. The concept includes guidelines and tools for communication practices of the virtual customer teams.

Language: English

Key words: virtual teams, internal communication, co-creation, service design

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1 Introduction

This thesis focused on developing co-working possibilities and internal communication in virtual expert teams with the help of service design. The development work was done with the employees working in virtual teams and the customers of the Commissioner. This study was also facilitating the virtual teamwork among the employees. This thesis is a practical case study developing guidelines for the Commissioner providing professional services for its customers. Author's background is in administrative and social sciences. Author's research interest is in researching organizational behavior and work. Interest towards pragmatic research and will to develop organization's performance, and services has been driving this thesis work. The Commissioner is also the employer of the author.

The nature of work has been changing. Work is no longer attached to a physical space and geography. The use of technology and the Internet have emerged new ways of working. Work is done everywhere, from home, during travel in trains, weekend resorts or elsewhere. This also means, for example, that organization's outsourced accounting, HR and payroll services can be provided from different cities - despite the location of the service. This creates new possibilities for digital services but also challenges organizing the leadership and work of distributed or virtual teams. Technology is pushing organizations forward while our ways of collaboration are still stable and relying on traditional leadership. (Salovaara 2015; De Paoli 2015.)

Research methods in this thesis were a mix of literature review, preparation and follow-up meetings, personnel interviews, observation, customer theme interviews, co-creation workshops, ideation, brainstorming, and concepting the communication plan. From theoretical point of view, this study examined service design of digital services and virtual organizations. In this research service design methodology was utilized in the process development project.

In chapter two, the background of the study is presented, which contains the theme of changed working in 2000's and the commissioner introduction. Chapter three describes the research process, frame of reference, research questions and goals, service design process and research methods and consideration of ethical aspects of the study. In chapter four the theoretical framework is introduced including defining the main concepts of the thesis. Chapter five contains the practical implementation of the research. In chapter six development suggestions are summarized and one pilot case is described. In chapter seven

conclusions are demonstrated and in chapter eight the study is evaluated, and future research possibilities are discussed. To narrow down the scope of the thesis, the measurement, and the development of measurement practices of the customer satisfaction are excluded from this study.

2 Background

The Commissioner wants to support virtual teamwork in order to provide a fluent and outstanding customer experience about the services they provide. To do this, the obstacles of the virtual teamwork should be lowered and ways of working harmonized. This thesis examines relevant and current topic many organizations face when organizing teams, services, and functions. The aim of this study is to provide concrete tools and methods for improving the customer experience with the help of service design methodology. How to effectively communicate and build trust with the team when working in different geographical areas, different time zones and cultures? How to find appropriate communication methods and sequences within the team?

The latest change in new ways of working remotely has been experienced in the form of the Corona pandemic. The impact of the virus may be substantial for societies and work, but it is still too early to estimate what kind of changes there are going to be. The popularity of remote working has increased through the 21st century but possibilities have varied between industries and businesses. The Corona pandemic may significantly change the meaning of remote and virtual work practices (Yle 2020a). The Corona virus is potentially a ‘Black Swan Event’, an occurrence, that has not been taken into consideration in any future scenarios as it is highly improbable, but can have severe consequences to work life, societies and global economy (Yle 2020b).

2.1 The New Norm of Work

Western societies are currently living in the era of elemental global transformation which can be compared to the first and second industrial revolutions. This new era of a society is described, and named by Peter Drucker, as a post-capitalist society. In the post-capitalist society knowledge is the asset. In a knowledge-based society the value of a product or a service is based on its encapsulated intelligence. (Morath & Schmidt 1999, 193.)

Transformation of the society means that work has gone through a change in the last decades. Atypical working careers have become a new norm in work. Work requires high skill level, continuous learning, adaptation, and ability to transform. Digital transformation, new technologies and platform economy effect on work life and employment. Work is no longer tied to a place and time and remote work is very common. Ways of working and types of employment are manifold. (Työelämä 2020, 2019.)

Andriessen and Vartiainen (2006) introduce the concept of Mobile and Virtual Work (MVW) as a new reality in different business areas, such as professional services and mobile customer service. MVW is driven by societal forces such as technology, competition in the markets, and individual choices and preferences. Products and services are getting more complex and require knowledge from different areas of expertise. Customer orientation as a strategic business perspective demands higher achievements in analyzing customer needs in designing products and services according to these needs. Technology enables possibilities to work in any place and time. (Andriessen & Vartiainen 2006, 3 – 4.)

In Finland, a new working hours act came into effect 1.1.2020. The purpose of the new law is to respond to changes of labor markets and work life, such as the independence of work from time and place. The increased flexibility of work and working hours is taken into consideration more broadly. The legislation and same rules are now applied to remote work as well. (Ministry of Economic Affairs and Employment of Finland 2020; Working Hours Act 872/2019.)

2.2 The Commissioner

The Commissioner of this study is a company providing Human Resource (later HR), payroll, financial, accounting, reporting, and software services for its customers. The Commissioner is acting on Business to Business (B2B) markets and its customers are companies and organizations. The Commissioner is a modern accounting company providing outsourced finance and human resources services. The Commissioner's goal is to provide wide repertoire of different services so that the customers can do business only with one outsourcing partner. The Commissioner's typical customer is a startup or a growth company which has outsourced its payroll and accounting services and related software services to the Commissioner. By outsourcing financial and payroll services, customers can reduce administrative duties and focus on the core business. Outsourcing gives flexibility

for customers and reduces fixed wage costs. The Commissioner service catalogue and value promise for its customers is visualized in Figure 1.

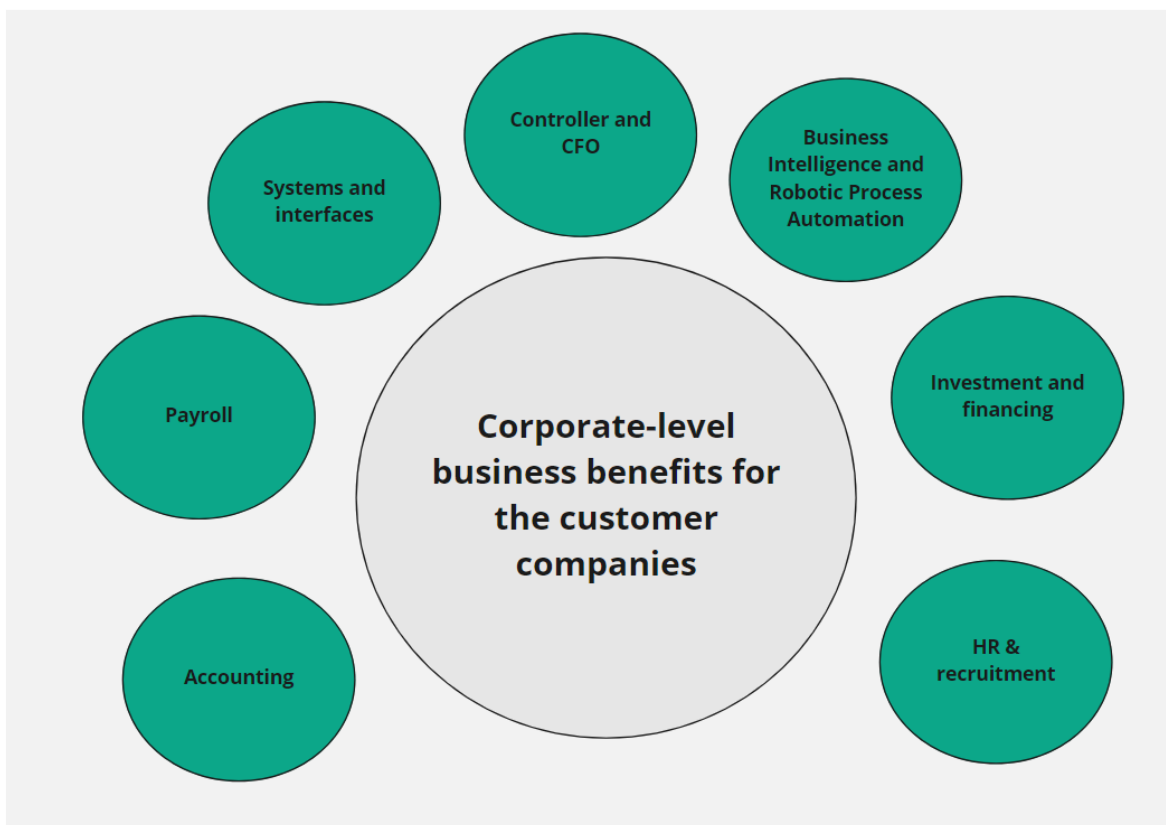


Figure 1. Service Catalogue of the Commissioner.

The Commissioner has approximately 300 employees located in 10 offices in different cities. The Commissioner was established in 2010. There are offices in Finland, Sweden, and Estonia UTC+2 and UTC+1 time zones, which eases the working arrangements. The Commissioner's core values, and customer promise include delighting the customer, honesty and appreciation towards other people, willingness to develop, and passion to succeed together. The Commissioner organization is a matrix organization with shared responsibility areas. Responsibility is divided into substance support and local support of the management. The organization hierarchy is low. An employee can belong to several teams for example, local office team, accounting substance team, and several virtual customer teams. The Commissioner organization chart is presented in Figure 2.

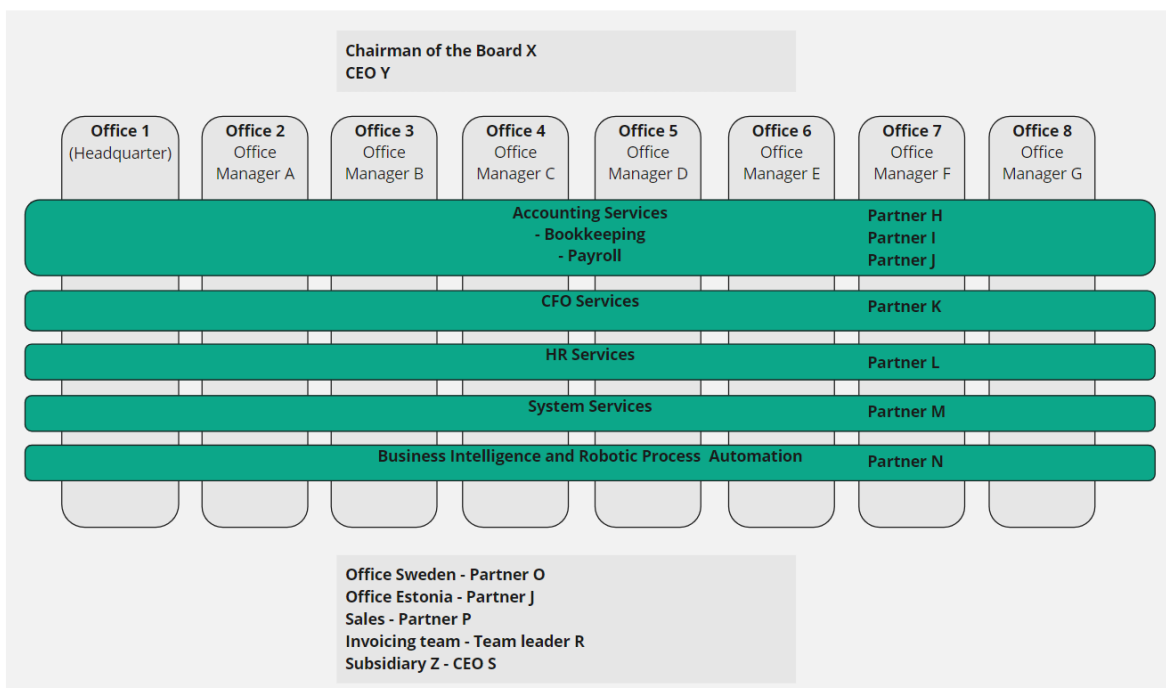


Figure 2. Organization Chart of the Commissioner.

Typical professions of the Commissioner's employees are Accountant, Payroll Specialist, Chief Financial Officer (later CFO), Human Resource Specialist (later HR Specialist), Systems Specialist and Data Analyst. Majority of the staff, 49% work in the accounting services. Accounting services include tasks such as handling customer's payment transactions, accounts payables, accounts receivables, tax reporting, and bookkeeping. CFO services consists of 18% of staff distribution and payroll services 14%. CFO services provide outsourced and interim financial management services for customer such as statutory reporting, budgeting, and financial advising on investments. Payroll services provide outsource payroll, statutory reporting and expense handling services for customers. More detailed staff distribution between different service areas is presented in Figure 3.

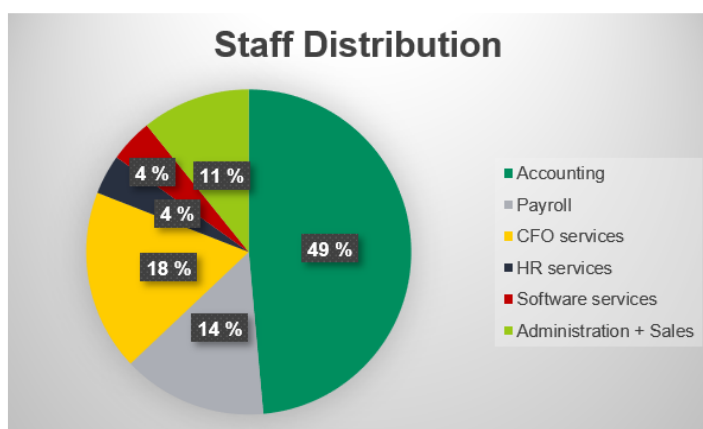


Figure 3. The Commissioner Organization's Staff Distribution in Different Teams.

The goal of the Commissioner is to provide excellent service experience and to work as a customer centric organization. The Commissioner is facing questions on how to optimize and standardize internal communication and customer communication. In addition, means of measuring service level and customer satisfaction are developed simultaneously. Developing service and customer experience measurement is out of the scope of this research. The development need from the Commissioner is visualized in Figure 4.

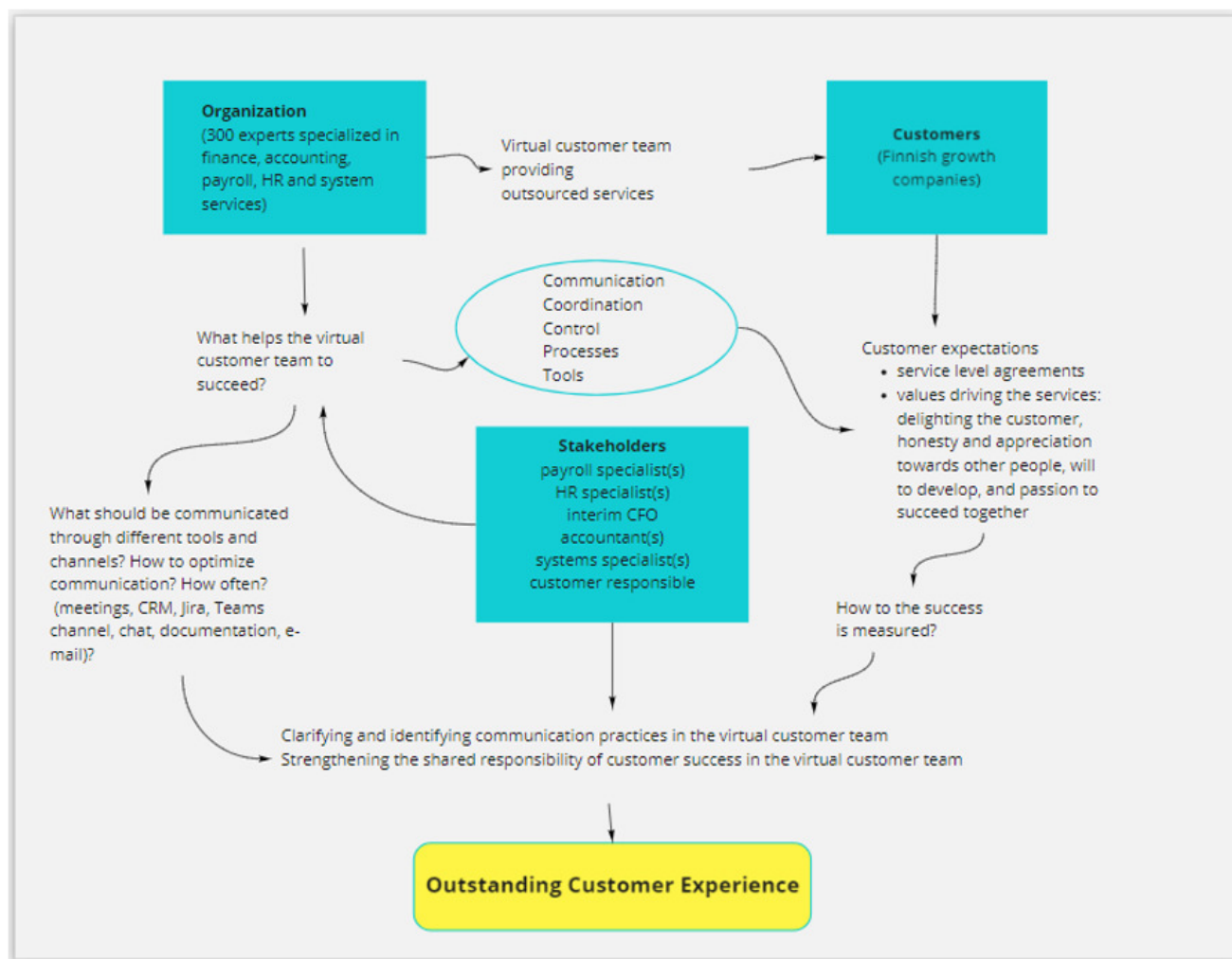


Figure 4. Service Design Development Need of the Commissioner.

Customer companies can buy one or several different services from the Commissioner. Some customers buy only accounting services, others a combination of payroll, financial management, accounting, and software services. Typically, the versatility of services the customer buys, and the size of the customer, increases the complexity of service production and internal communication required between service teams and inside a virtual customer team. The Commissioner's customer segments and service catalogue is presented in the matrix below (Figure 5).

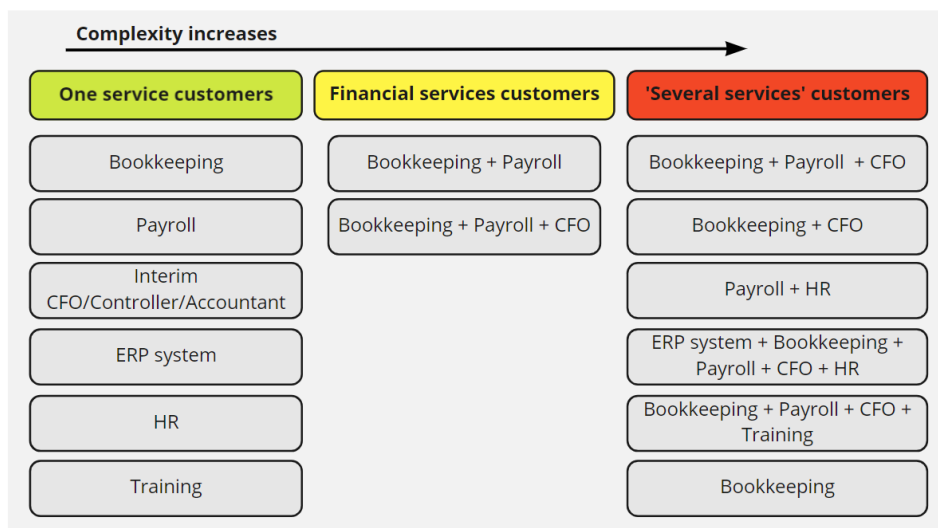


Figure 5. Customer Matrix of the Commissioner.

3 Research Process

The initial planning meeting about the topic of the thesis was arranged in early December 2019 with the Commissioner's Customer Relationship Manager. The Commissioner's problem was introduced as a one of the biggest and current issue faced in daily work. In December 2019, the Commissioner's problem was documented, and the research questions were defined into a short research plan. The research plan was then re-iterated together with the Customer Relationship Manager via e-mail. After the first iteration, the topic was introduced to the Commissioner's Chief Executive Officer (later CEO) and one of the office managers. The research was warmly welcomed and supported by the CEO and office manager as well. This thesis was supervised by Ms. Elina Vartama, the Head of the Degree Programme of Leadership and Service Design at Novia University of Applied Sciences.

In this chapter the research process of the thesis and frame of reference are introduced. The goal and the research questions are defined, and ethical aspects of the study are discussed. Concentrating on customer success and customer experience should be guiding the work performed in virtual expert teams providing professional services for the customers.

3.1 Frame of Reference

The frame of reference describes the main concepts and theoretical framework of the thesis. Below in Figure 6 is an illustrated frame of reference for the thesis. The main concepts for the thesis are virtual customer teams and the goal is to provide high quality professional services and excellent customer experience for customer companies. To enhance this, co-

creation and service design methodology are used to facilitate virtual teams and development of internal communication.

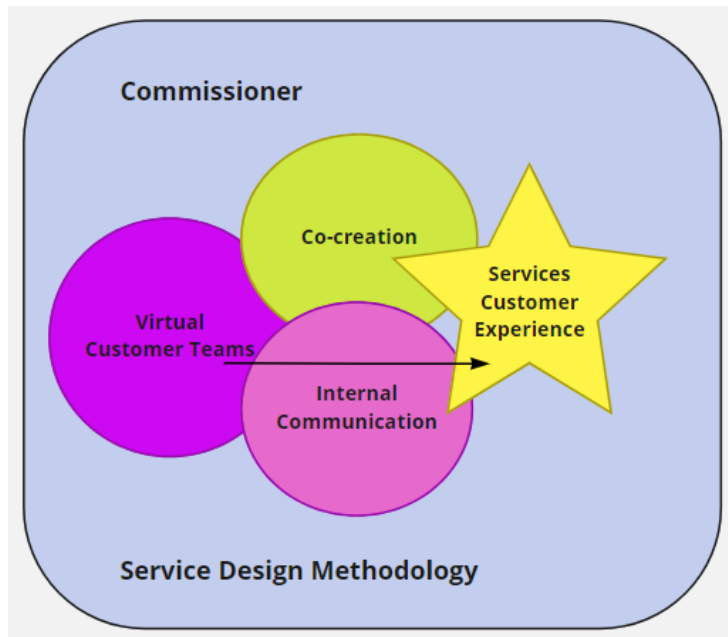


Figure 6. Frame of Reference for the Thesis.

3.2 Goal and Research Questions

The initial research hypothesis is that good internal communication facilitates a virtual team's coordination, a unified service experience and excellent services for the customer. The goal of this thesis is to provide a first iteration of virtual team communication concept to be piloted and finetuned by the Commissioner. The outcome will be a framework for virtual customer team's internal communication. The framework will give practical guidelines for the virtual customer team communication. The scope and the focus of the thesis is in the most complex customer segment. The customer segment categorization was presented in detail in chapter 2.2.

The research questions are:

- What are the experiences and expectations for internal communication in a virtual customer team?
- How should internal communication be developed so that relevant and necessary information is communicated to all specialists in the virtual customer team?
- How to strengthen the sense of belonging to the virtual customer team?

3.3 Service Design Process and Research Methods

In order to study improvement and development of virtual customer teamwork, service design methodology, tools and qualitative research methods are utilized. The research is following the Double Diamond model of the design project. First theoretical background and the main concepts are studied. Next theme interviews and online co-creation workshops for identified core team stakeholders are performed. Themes for interviews and workshops are formed based on desk research and theory. Interviews and workshops are conducted to gather experiences, expectations, and ideas from the stakeholders. Theory, design process and service design methodology are introduced in the following chapters of the thesis. The empirical materials for this study were collected through quantitative and qualitative methods. The research process started in November 2019 and finished in May 2020.

When reporting and analyzing the research results, the interpretation is always imperfect. Researcher, examinee, and reader interpret research or its results in their own unique ways (Figure 5). These different interpretations are not united. The unite portion of interpretations is visualized in Figure 7 based on Hirsjärvi et al. (2000, 214). When analyzing research results, this hypothesis should be kept in mind.



Figure 7. Multiple Interpretations of Research after Hirsjärvi et al. (2000, 214).

The Double Diamond Model resembles the service design process used in the thesis. How insights are gathered and developed to ideas with the help of service design methodology. The Double Diamond model is divided into four phases, Discover, Define, Develop, and Deliver. The Double Diamond is adapted into the process chart visualizing the research process. In creative processes, a vast number of possible ideas are created before refining and narrowing down the best idea. The Double Diamond indicates that this happens twice. To discover, which ideas are best, the creative process is iterative. Ideas are developed,

tested, and refined several times. This cycle is the important part of thorough design. The research process in Figure 8 includes all the research methods and service design tools utilized in this thesis. (Design Council, 2019.)

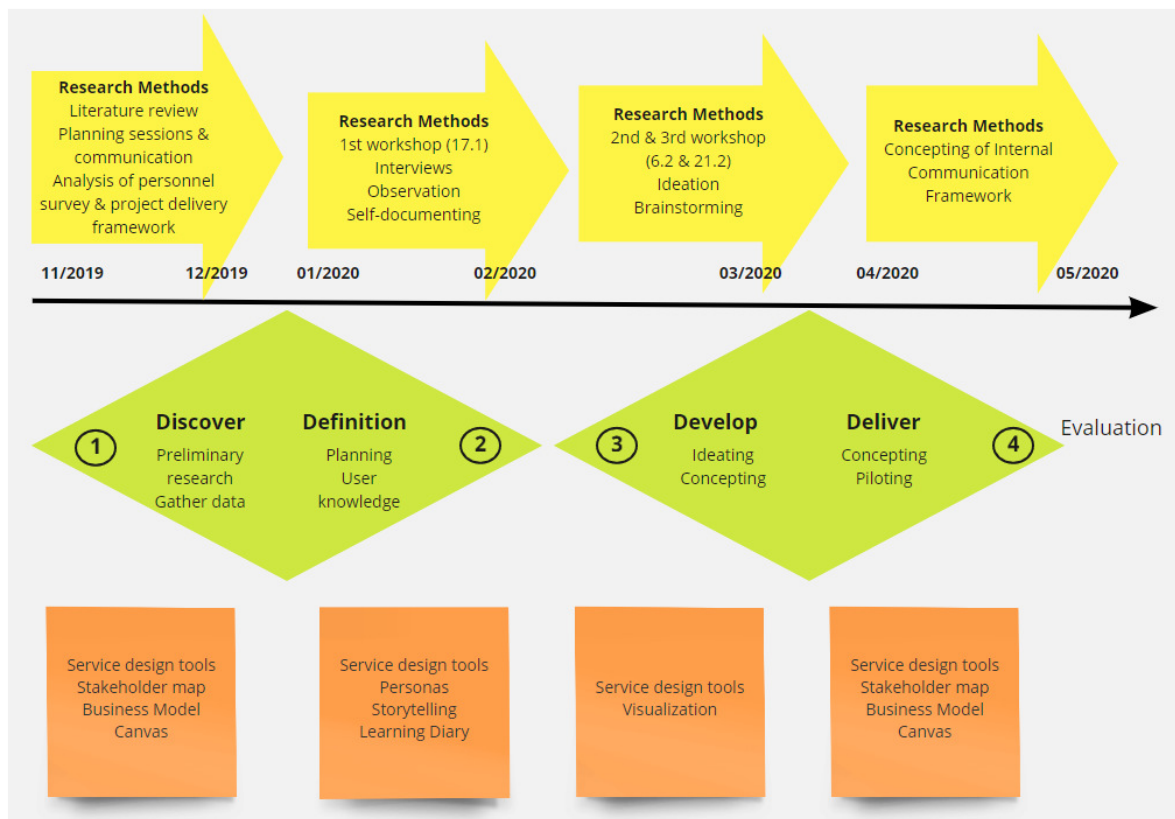


Figure 8. The Process Chart of the Thesis.

The first phase, *Discover*, covers the start of the project - new things are discovered and insights are gathered (Design Council, 2019). The discovery phase of the thesis was done between September – December 2019. The research problem was agreed on together with the commissioner and preliminary research and data gathering was started. Stakeholder map and Business Model Canvas were used to describe the data collected in the beginning.

In the second phase, *Define*, the goal was to develop a clear summary that frames the core design issue (Design Council, 2019). The study was defined done in January – February 2020. The definition included gaining knowledge of virtual teams and customers. This was done through observation of virtual teamwork, interviews with employees and customers, data collection and description of personas and the planning of workshops.

In the Develop phase, solutions and concepts are created, prototyped, tested, and iterated. This stage of trial and error helps to improve ideas (Design Council, 2019). The development phase started in February 2020 and lasted until March 2020. Two online co-creation

workshops were arranged for virtual teams to brainstorm and ideate internal communication. Ideation and brainstorming were visualized with the help of the online tool Miro.

In the last phase, Delivery, service project is finalized (Design Council, 2019). Thesis delivery phase started in March 2020 and was finalized in May 2020. During this phase, a concept for a framework for internal communication was piloted and evaluated. The results of the first iteration were evaluated as a self-evaluation as well as together with the commissioner and internal stakeholders.

3.4 Ethical Aspects

In the beginning it was considered whether working in the Commissioner organization would prevent the author from remaining objective. Remaining objective enough means that the researcher does not try to steer the service design process too much based on personal opinions and assumptions. On the other hand, a service designer must moderate, for example, co-creation sessions to ensure that they generate results that can be further worked on in the process (Stickdorn & Schneider 2017, 198). Stickdorn et al. (2018, 113) suggest using peer review or co-creation workshops to increase the quality of the service design research.

Employees and customers participating in interviews and workshops were being informed beforehand about the topic and the purpose of the study. All the data was treated anonymously so that participants cannot be identified. The data utilized in the research, is confidential, as it contains customer relationship related information. All data is handled with confidentiality and stored in suitable manners. As an employee of the organization the researcher would have had the access to this data in any case.

People and work environments were not photographed during observation, interviews, and workshops. The results of the study were evaluated together with the internal stakeholders and the commissioner. The thesis was published in Theseus database which is a national database for research and theses written at universities of applied sciences in Finland. The recorded interviews were stored only on the researcher's laptop and destroyed after publishing the thesis.

4 Theoretical Framework

From theoretical point of view this thesis is about using service design methodology as the background for co-developing internal communication in virtual teams to facilitate high-quality services for customers. In this chapter the main concepts of the thesis are defined. Theoretical discussion is started by defining service design methodology as the research is done with service design approach utilizing co-creation. Next, different point of views of a team are discussed. Virtual teams are defined in the chapter 4.2, continued with the definition of leadership in virtual teams and communication in virtual teams. The theoretical framework is summarized in the chapter 4.3

4.1 Service Design Methodology

Service Design resembles a new way of thinking instead of a new academic education. Service Design is an evolving approach - it aims to ensure that services are usable and desirable from customer's perspective and effective, and distinctive from supplier's point of view. Service Design helps to innovate and improve services to make them more useful and efficient. After Stickdorn et al. (2017, 2018), service design can be summarized to 6 driving principles. First, services should be human-centered and collaborative. Second, services should be sequenced of interrelated actions. Third, services should be researched and fourth, prototyped in real. Fifth, services should be holistically considered from the entire environment perspective. And last, service design is iterative by its nature as it explores, adapts, and explores towards the execution. (Stickdorn & Schneider 2017, 28 -34; Stickdorn et al. 2018, 24 - 27.)

The importance and the interest towards service design can be explained with the value of services. Services are the biggest global innovation platform which offer competitive advantage for organizations to separate. Service design helps organizations to identify strategic business possibilities, innovate, and develop services. (Tuulaniemi 2011, 19; 24; 76.)

According to Tuulaniemi (2011), service design is a systematic and human centric approach towards service development and innovation both analytically and intuitively. Analytical approach means fact, customer survey and data-based information. Intuitive approach means skills and experience to see what could be possible in the future. Customer is always part of the service experience. Service design is used to optimize service experience. (Tuulaniemi 2011, 10 – 12; 26.)

Service Design can be studied in many ways. It is a mindset, setting users first, favoring user research and prototyping for data gathering. Service design as a process focus on designing innovations with iterative development. As a toolset, service design offers wide catalogue of practical templates and tools to perform service design. A toolset, however, requires a common mindset, process, and language to support the usage of service design toolbox. (Stickdorn et al. 2018, 21 – 22.)

4.1.1 Design Thinking

Service-dominant business logic of organizations means that value is co-created together with humans, resources, and other services. The focus is on how to better serve customer and support customers' value-creation processes. Service-dominant logic joins forces with design thinking and service design to innovate human-oriented services. (Sangiorgi & Prendiville 2017, 4 – 5.)

As Stickdorn et al. (2018) pointed out, service design is an interdisciplinary view combining different tools and methods from various areas. Lockwood (2010) mentions, that one of the roots of service design is in design thinking. Both service design and design thinking are described as a human-centric innovation process (Lockwood 2010; Tuulaniemi 2011). Design thinking underlines methods such as observation, collaboration, visualization, fast concept prototyping and simultaneous business analysis. Design thinking aims to integrate different stakeholders to develop new products, services, or business models. Design thinking process relies on 'fail fast' idea and iterations to accelerate learning. The difference between design thinking and service design lies on the focus of interest. Design thinking is more focused on product development, more static process focusing on object, and service design is like a complex journey changing its form. Service design includes methods of design thinking as well as new methods of design management. (Lockwood 2010, xi – xii; xv.)

4.1.2 Co-creation

In this thesis, the focus of ideating and developing the organization's internal communication is in co-creation. The definition of co-creation depends on the field of study. According to Jaworski and Kohli (2006), co-creation of services includes engaging different parties in the learning effort. Typically, different parties mean customer and the service provider. Parties together agree which parts of the service design and production they will participate in and produce. Co-creation requires open dialog between different parties. Conversation should

happen over many periods of time as the parties learn more about each other's requirements and competences. Co-creation is like journey which is shaped over time based on learning, obstacles, and opportunities. (Jaworski & Kohli 2006, 111.)

Stickdorn and Schneider (2017) definition for co-creation is broader and more pragmatic than Jaworski and Kohli (2006). Stickdorn and Schneider include involving anyone, employees, or users, into the design process and working collaboratively to innovate a certain service experience. The co-creation session's goal is to search possible options and gather a large scale of ideas and perspectives in the service design process. These ideas are further processed and iterated by the service designer(s). Co-creation also facilitates future collaboration by bringing groups together and creating feeling of shared ownership over the innovation developed in the sessions. (Stickdorn & Schneider 2017, 198 – 199.)

Tuulaniemi (2011) supplement the definition of co-creation and name it in the center of service design, communication, and value creation. As a benefit of co-creation Tuulaniemi mentions that it creates strong commitment of all stakeholders into development and service production. Co-creation is used to collect different perspectives and dependencies on a large scale in the phase of data collection and analysis. Service designer will then do the selection of appropriate perspectives and elements into service concept for further development. (Tuulaniemi 2011, 117.)

The usefulness of co-creation is studied in this research in the context of organization's internal development project. How co-creation could be utilized in this research to gather user understanding and designing applicable methods for the research execution with the help of virtual co-creation. In virtual co-creating, engaging activities are performed together with stakeholders over internet. Virtual co-creation is a cost-efficient method and less bound to time and place than traditional co-creation methods. Generating ideas is a creative process and the goal is to produce high quality ideas. Holger et al. (2017) emphasize that ideas generated with co-creation should be evaluated to ensure the quality. (Holger et al. 2017.)

Holger et al. (2017) identify four elements impacting involving stakeholders into virtual co-creation and the quality of ideas. The elements are incentives, seed ideas, task-related information, and scope of topic. Incentives motivate participation, and seed ideas are examples generated by peers in the co-creation process. Providing additional task-related information increases stakeholder knowledge about the topic and may increase the quality of ideas generated. Scoping the topic has significant meaning for idea generation process as it sets boundaries and helps stakeholders to focus on the core issue. These elements

impacting the involvement of stakeholders into virtual co-creation are taken as guidelines in the research execution. (Holger et al. 2017.)

To summarize after Huotari (2019), in the co-creation, the organization does not alone define the value unlike in traditional thinking. Value creation is done as a participatory process together with stakeholders and other organizations, on site or online. Co-creation is a creative and social process based on collaboration and interaction driven by value-creation. (Huotari 2019, 3.)

4.2 Virtual Teams

As the research concentrates on internal communication in virtual customer teams, it is necessary to define what is meant with virtual work, a team, and a *virtual team* in this research. After Wilson (2006) virtual work means being not physical or anchored to a specific location. For instance, work in a team is done flexibly with the help of task related software and tools, involving cooperation and collaboration as a virtual teamwork. Virtual work does not require solid artefacts. Team members and face-to-face meetings can be co-located. (Wilson 2006, 131.)

Definition of a team is started with one of the grounding team models introduced by Katzenbach and Smith in the early 1990's. The model still applies, and it has been directing research since its publishing. Due to this, the model is presented in this thesis as well. Katzenbach and Smith (1994) defined team as a small number of people with complementary skills committed to work for a common purpose. Team members are mutually accountable of their performance goals. (Katzenbach & Smith 1994, 45.)

According to Katzenbach and Smith (1994) working as a team produces higher performance than individuals working separately. Team members are committed to each other and they have collective throughputs. Team supports personal growth and improves performance results. In Figure 9 below, team basics after Katzenbach and Smith is illustrated. The verticals of the triangle show what team delivers. Centre and sides describe the main disciplines to make it happen. (Katzenbach & Smith 1994, 8 – 9.)

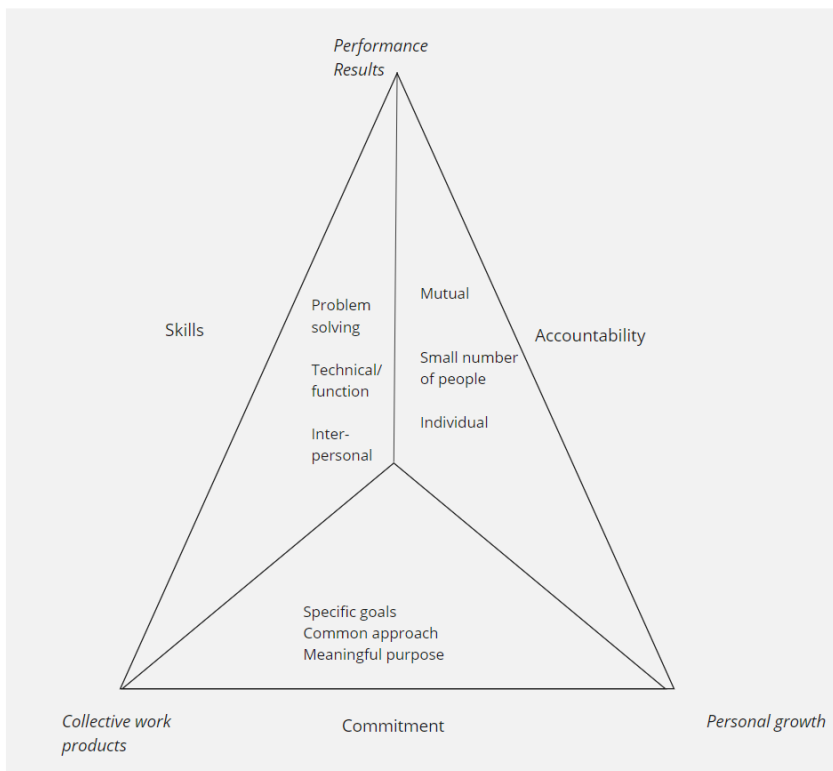


Figure 9. Team Model after Katzenbach and Smith (1994, 8).

In the virtual expert team, team members can have different tasks and areas of expertise. This means that team members need to master several different ways of interaction. Each member of the team brings along his or her skills and in the long run, team develops shared understanding. Team members are committed to a common purpose and hold shared responsibility. According to Cramton and Orvis (2003), virtual teams may result in a more diverse team compared to a team limited by the physical location. (Uusi Kaiku 2015; Dubé & Paré 2004, 3 – 5; Cramton & Orvis 2003, 217.)

Daneshgar et al. (2005) stated that the architecture of a virtual team is built on logical components of awareness, communication, shared data, and coordination. Virtual team needs to share information through different tools and platforms. Team also needs to coordinate its work one way or another, typically through management. Awareness means that team members should be aware of the status of the services provided and activities performed by the team. Virtual team members need to communicate with each other to update the situation and discuss through different mediums. (Daneshgar et al. 2005, 4 - 5.)

In the earlier research literature, there are several definitions for defining factors for a virtual team. Wilson (2006, 133) names the critical success factor for a virtual team or a network the extent which it can collaborate, that is, to coordinate itself to communicate and achieve

common goals. Dubé and Paré (2004) have gathered key characteristics of a virtual team (Figure 10) and divided those into groups. The basic characteristics of a virtual team and characteristics make virtual teamwork more complex. Defining characteristics of virtual team is predominantly working and communicating through Information Communication Technology (later ICT).

Degree of Complexity		
The Characteristics related to the basics of Virtual Teamwork	Degree of reliance on ICT	Low reliance ----- High
	ICT Availability	High variety ----- Low
	Member's ICT Proficiency	High ----- Low
Characteristics that make Virtual Teamwork more complex	Team Size	Small ----- Large
	Geographic Dispersion	Local ----- Global
	Task of Project Duration	Long term ----- Short term
	Prior Shared Work Experience	Extensive ----- No experience
	Members' Assignments	Full-time ----- Part-time
	Membership Stability	Stable ----- Fluid
	Task Interdependence	Low ----- High
	Cultural Diversity	Homogenous ----- Heterogenous

Figure 10. Key Characteristics of Virtual Teams based on Dubé and Paré (2004, 8).

Stagl et al. (2007) define similar best practices for effective teams as Dubé and Paré (2004) as virtual team characteristics. Stagl et al. (2007) identify membership stability, interdependencies, identified responsibilities and designated decision-making authority as best virtues for effective team. Interdependencies include consistent task, goal, and feedback. Team effectiveness and team members' satisfaction tend to go hand in hand. Team performance is evaluated by team members, team leaders, organizational stakeholders, partners, and clientele against objective and subjective standards. Team's effectiveness is evaluated based on criteria such as, does team's service meet or exceed the standards of team's clientele. In addition, does the social dynamic of the team strengthen the team performance and support learning. Based on the literature presented above, communication through different tools and platforms, as well as coordination by management are especially important for virtual teams. If virtual teams succeed in sharing data and coordinating tasks, it is possible to form even more diverse virtual teams than teams working in the same physical space. (Stagl et al. 2007, 175 - 177.)

4.2.1 Leadership in Virtual Teams

In general, team leadership is a continuous process of influence. Team coordination through management or in this case leadership, is a crucial part of team performance. Team leaders can use inspirational attractions to stimulate team members' higher-level needs and values or reward upon effective performance. Team leader is a facilitator of expected outcomes of productivity and team effectiveness. (Stagl et al. 2007, 173.)

Ropo et al. (2005), Uusi Kaiku (2015) and Tyran et al. (2003) introduce shared leadership as an alternative way to lead virtual teams. Shared leadership is discussed together with virtual teams, customer-centricity and the transformation of organizations becoming expert organizations (Ropo et al, 2005, 18 – 20). Shared leadership is a relative process. Shared leadership can be utilized in expert and knowledge work. Team lead can be rotated and shared based on the field of expertise. (Uusi Kaiku 2015.)

Shared leadership challenges and questions traditional ways of defining leadership. Corner stones of the traditional leadership are hierarchy, control, leader, and subordinate roles, and influencing between these actors. Goal orientation and efficiency are the key elements of the traditional leadership. The need for reconsidering leadership rises from the increased complexity of the business environment. In today's business environment the expertise is polarized for several experts. Polarized expertise needs to be united for different purposes and goals. Traditional hierarchy-based and individual-centered leadership vision is insufficient to lead the changing organizations. (Ropo et al. 2005, 69.)

Shared leadership means leading knowledge. Knowledge has become one of the strategic resources of organizations. The way the organization manages information, defines how successful the organization is experienced. The lack of information and problems in sharing the information are the biggest obstacles in organizational operations. To improve information management, companies have invested in technological solutions enabling information sharing and thus organizational learning. Technology can be used to share information as a tool but the sharing process itself is a social and human action. It is crucial to identify relevant actors sharing the information and to discuss what factors are affecting to transfer, exchange, and processing of information. (Ropo et al. 2005, 77 - 78.)

Depending on the nature of virtual teams, leadership can be shared, or a team can be defined as self-managed team. In a self-managed team, team members typically work as peers or in different organizations. Team members are expected to organize and perform their work

with minimal supervision as they all are responsible for achievements. The biggest challenge with leading virtual team arises when some or all the members do not know each other. Other differences such as culture, language and multiple time zones make the virtual team work even more challenging. Challenges of leadership in virtual teams are presented below (Figure 11) after De Paoli (2015). (Tyran et al. 2003, 184; De Paoli 2015, 113 - 115.)

Trust	Difficulties developing trust when participants do not know each other.
Communication	Communication process dysfunction. Traditional social mechanisms lost/distorted. Poorer communication due to lack of facial expressions, verbal cues and gestures. Distinctions among members' social and expert status exchanged.
Process	Hindrance in developing relations can lead to decreased motivation, morale and creativity. Subgroups easily formed with participants spread throughout different facilities.
Culture	Broader range of misinterpretation due to cultural differences.
Physicalities	Multiple time zones make scheduling meetings and travel difficult.
Technology	Need for proficiency across a wide range of technologies.

Figure 11. Challenges of Leadership in Virtual Space after De Paoli (2015, 115).

4.2.2 Communication in Virtual Teams

In the research, theoretical explanations for internal communication are selected based on their estimated usefulness in the execution of the research. Communication in virtual teams is a part of organization's internal communication. In this research, virtual team interaction is included in the concept of virtual team communication. Communication is a process of interaction which has been modeled in various communication theories. For example, Åberg (2004) has pointed out that organization's communication is not only about information transfer. Organization's internal communication is also about making interpretations, creating community, and leading. Communication motivates, sets direction, and gives feedback, in general, it is interaction. Communication is synergy that makes tacit knowledge and know-how visible. Communication can form synergistic groups with high level of commitment and motivation, sparring and team pride (Åberg 2004). The Centre for Occupational Safety (2019) list of strengths of communication in virtual teams seems to be aligned with Åberg's research. The strengths are related to trust, efficient communication, team commitment, sharing and utilizing necessary information, and self-direction (The Centre for Occupational Safety 2019).

Zigurs and Khazanachi (2008) present the process model of organization communication and describe that communication is a process of interaction by which people transfer

meanings through some channel and exchange information to perform activities. Zigurs and Khazanachi (2008) agree that communication can be used to build trust and support commitment among virtual team members. Cultural differences, different interaction styles and sparse communication may cause negative acknowledgements in virtual teams. Periodic face-to-face meetings help to conquer communication problems. Close attention should be paid to communication through the life span of a virtual team. (Zigurs & Khazanachi 2008, 96 – 97.)

Like Dubé and Paré (2004) and Daneshgar et al. (2005) stated earlier, also Cramton and Orvis (2003) define as a characteristic for virtual teams the use of technology-mediated communication. Majority of the cooperation is accomplished through e-mail, telephone, electronic chat, and videoconferencing. Technology influences on the speed and ease of information sharing and opportunity to express cues. There are some technology related information sharing problems. Technology-mediated communication restricts the transmission of hints to the nuances of messages. In virtual teams, silence can be misunderstood. Silence can derive from technical failures, confusion, absence, or conflicts. It can mean agreement, disagreement, or disinterest. (Cramton & Orvis 2003, 220 – 222.)

Hinds and Weisband (2003) describe how the communication goes even beyond in the mature team, it forms a shared understanding. One of the key characteristics presented by Dubé and Paré (2004) was stable team membership, which is a prerequisite for a mature team. Shared understanding is a collective way to organize and communicate appropriate knowledge. Team members with complementary skills collaborate to create a shared understanding which possess more knowledge than individuals have by themselves. Shared understanding is developed by learning together, comprehending each other, and developing collective assumptions. A shared understanding about the goals of a team is a crucial trace for a team and provide base for coherent communication. Shared understanding allows to predict team members' behaviors, facilitates efficient use of resources, increases satisfaction and motivation within the team, and reduces conflicts among team members. (Hinds & Weisband 2003, 21– 23.)

Cramton and Orvis (2003) also highlight that competent teamwork is depending on relevant information sharing. In a virtual team information sharing is even more difficult task. In a team, task, social and contextual information may be unshared or shared. In virtual teams, contextual information is the most relevant form of information and it is more distributed

across locations than the co-located team. There is also more information to be shared among the team as the context varies between locations. (Cramton & Orvis 2003, 216 – 219.)

Björkegren and Rapp emphasize importance of sharing knowledge for individuals' learning. If experience can be shared between individuals at distance, learning will take place. To learn individuals must share their tacit knowledge with each other. Sharing tacit knowledge happens through discussions and face-to-face meetings. Organizations should create and ensure arenas for knowledge interactions to facilitate learning and information sharing. (Björkegren & Rapp 1999, 170 – 171.)

4.3 Summary of the Theoretical Framework

In the beginning of the theoretical framework, service design methodology as an approach in the research was discussed. From the general level approach, the focus was then deepened into the definition of virtual team and reviewed from communication and leadership point of views. Communication within virtual teams constructs team's interaction. Co-creating and developing internal communication in virtual customer teams is about building trust and strong committed teams and enabling employee satisfaction and productivity. These together facilitate consistent and high-quality services with excellent customer satisfaction and customer loyalty. The sum of all these aspects will create growth and profitability for the organization. The best way to differentiate at markets comes from designing and delivering a better service experience. The model of creating excellent customer experiences and profitable growth with the help of service design is visualized in Figure 12. (Bedford & Lee 2009, 200 - 201.)



Figure 12. Service Quality and Growth after Bradford and Lee (2009, 201).

5 Execution of the Research and Results

The execution of the research followed the double diamond model of service design and it included four phases. The research was started with the discovery phase in November 2019, followed by definitions phase in January 2020. Discovery and definition included desk research and preparatory research methods. The research development phase was conducted during February and March 2020 including employee and customer interviews and ideation workshops. The final phase, delivery was done during April and May 2020, including piloting, and concepting communication framework.

5.1 Preliminary Research

In this chapter, the first phase of the research is initiated. Preliminary research is a secondary and preparatory research method (Stickdorn et al. 2018, 107). Preliminary research is done to form a comprehensive picture about the organization providing services (Tuulaniemi 2013, 136). The accuracy and richness of the research can be improved by using different methods to collect data on the phenomenon.

In this research preparatory research methods included planning sessions with the Commissioner, familiarizing in literature, the Commissioner's web sites, the Personnel Survey results and the Commissioner's Project Delivery Framework. The Personnel Survey and the Project Delivery Framework are studied from internal communication point of view. The Personnel Survey is a barometer which reflects personnel's experiences about the internal communication. The Project Delivery Framework sets guidelines and practices for the project team communication. As tools in this phase were used visualization, Stakeholder Map, and Business Model Canvas. Methods and tools are described in more detail in the following chapters.

5.1.1 Personnel Survey

The Commissioner's HR director gave the possibility to familiarize into the Personnel Survey of 2019 results. The Personnel Survey data was studied to form an overall picture of the internal communication status in the Commissioner organization. The Personnel Survey data is treated as a secondary research data in this study. The Commissioner conducts the Personnel Survey on a yearly basis. The goal of the survey is to collect information about how satisfied employees are working in the Commissioner organization. With the help of the survey, development areas are identified to ensure employee satisfaction. The survey

was conducted in November 2019 by the Commissioner's HR department. The response rate of the survey was 79% of the staff.

To summarize the results, employees gave thanks to open and positive atmosphere and culture at work, fluent recruitment process, training possibilities, and induction period. As development areas employees named work resourcing, processes development to ensure well-organized services, internal communication, organizing work and substituting. Motivational factors for employees were good atmosphere, flexible working hours and remote working possibilities, meaningful tasks, competitive wage and benefits, and self-development possibilities. Variation in answers between cities and offices was quite low.

In general, personnel were least satisfied with internal communication in and between teams, and the amount of feedback they received from their job. In the Personnel Survey 2019, 81,2% per cent of the respondents fully or partially agreed that the internal communication is working well (Figure 13). Nearly 20 % of the respondents partially disagreed. The question itself is very generic and does not specify the nature of teams.

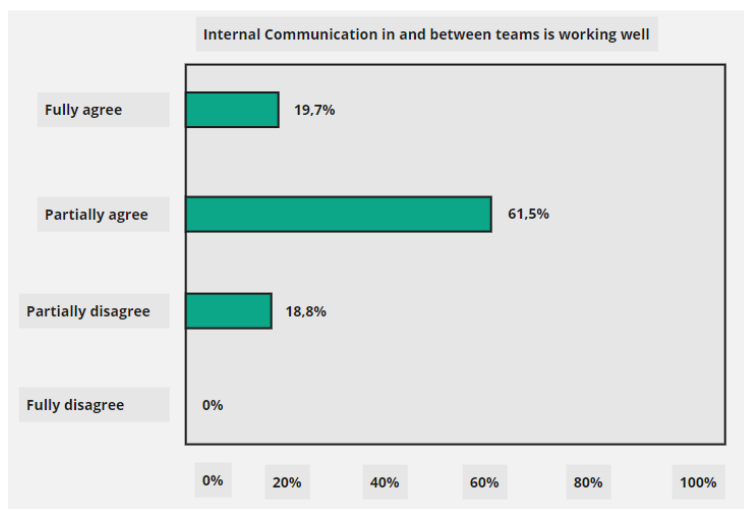


Figure 13. Internal Communication in and between Teams (Personnel Survey 2019).

78,9% per cent of the respondents fully or partially agreed on receiving enough feedback from their job (Figure 14). Approximately 20% of the respondents partially disagreed. The question was specified to include feedback from supervisor, customers, colleagues, and other stakeholders.

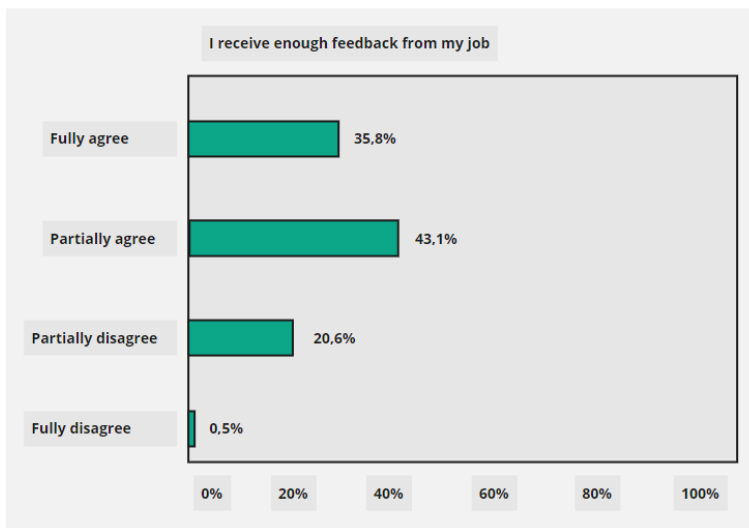


Figure 14. Feedback from Job Performance (Personnel Survey 2019).

On the contrary, personnel felt optimistic about being active in their own communication in and between teams. 95,4% per cent of respondents fully or partially agreed on being active communicators by themselves (Figure 15). Based on these contradictory results, it is justified to study internal communication with different methods to ensure reliability of the research.

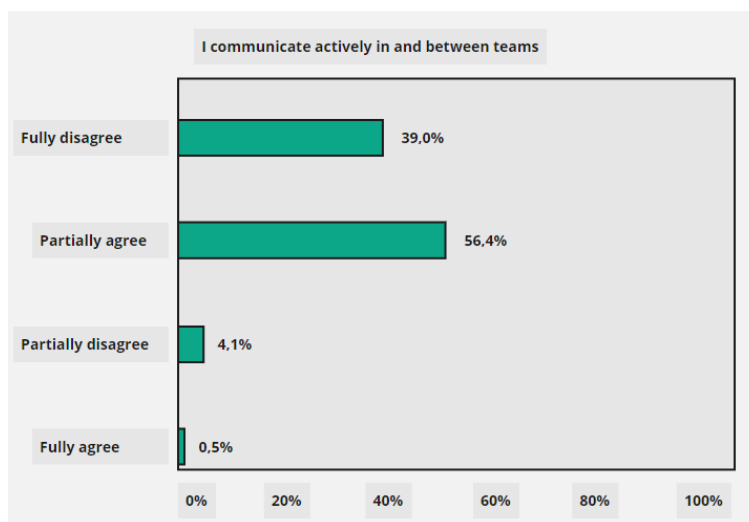


Figure 15. Communication Activity in and between Teams. (Personnel Survey 2019).

According to survey results, internal communication and flexible working possibilities are important aspects in work and it impacts the overall satisfaction and wellbeing at work. Based on the controversy in survey results, evaluation of the adequacy of the internal communication is difficult and subjective only with one method. Survey and triangulation with different methods is well reasoned.

5.1.2 The Commissioner's Project Delivery Framework

During 2019, the Commissioner had developed a project delivery framework to be used in customer projects. The Project Delivery Framework was examined as a secondary research material in this study to familiarize way of working in the organization and communication practices of project teams. In the Commissioner organization, typical projects were new customer onboarding and service initialization, and customers' accounting software implementation and further development projects. Completed projects were handed over to services teams such as accounting team to continue producing services for the customer with the project outcomes.

The Project Delivery Framework includes initial project task list in Jira project management software, project documentation templates, agendas for certain mandatory project meetings, and Microsoft Teams channel structure for the project communication. The Project Delivery Framework sets recommendations on the sequence and methods for communication during the project. Different stakeholders, roles, and responsibilities on both the service provider's and customer's side are taken into account in the project communication plan.

The idea of the Project Delivery Framework is to set standards for project deliveries before the services are moved to service production. The Project Delivery Framework is a collection of best practices of work. Instructions ease the work and ensure that necessary and relevant information is shared with all project team members. The Project Delivery Framework is created to support project team communication and work. The Project Delivery Framework developed in the organization, is based on agile project management principles.

In agile projects, work is done in sprints lasting two to four weeks. At the beginning of the project, project goal is clarified and set. Work is done in iterations and incrementally. This way of working allows teams to adapt faster and effectively to changes. In agile projects, with the help of Scrum, time and cost are fixed with an effort to control requirements. Requirements are handled through backlog prioritization and feedback cycles. This requires deep collaboration with the customer representatives and the project team. (Sliger 2011.)

5.1.3 Stakeholder Map

Stakeholder analysis builds understanding about the most important people and organizations involved in the service or experience. Stakeholder map help in recognizing and understanding relationships and networks between stakeholders (Stickdorn 2018, 59). Stakeholder analysis and map for virtual customer team providing professional services was

formed with the help of desk research and observation in the Commissioner organization. Information for the stakeholder map (Figure 16) was gathered through the Commissioner's web site introducing services, participation in internal meetings of the virtual customer teams, discussions and interviews with the Customer Relationship Manager and the Account Managers.

Virtual customer teams are formed by the employees of the Commissioner. This includes Payroll Specialists, HR Specialists, Accountants, Chief Financial Officers, Systems Specialists, and Account Managers working with the customers to provide services. Internal stakeholders are the Commissioner's management, supervisors, colleagues, and support functions. The support functions are invoicing team, IT support services, and sales. Key contacts at the customer side are typically IT manager, HR manager, Chief Financial Officer, Controller, and Chief Executive Officer (CEO). The Commissioner's external stakeholders are government, tax authorities, monetary institutions, third party solution providers, system integrators, partners, and auditors.

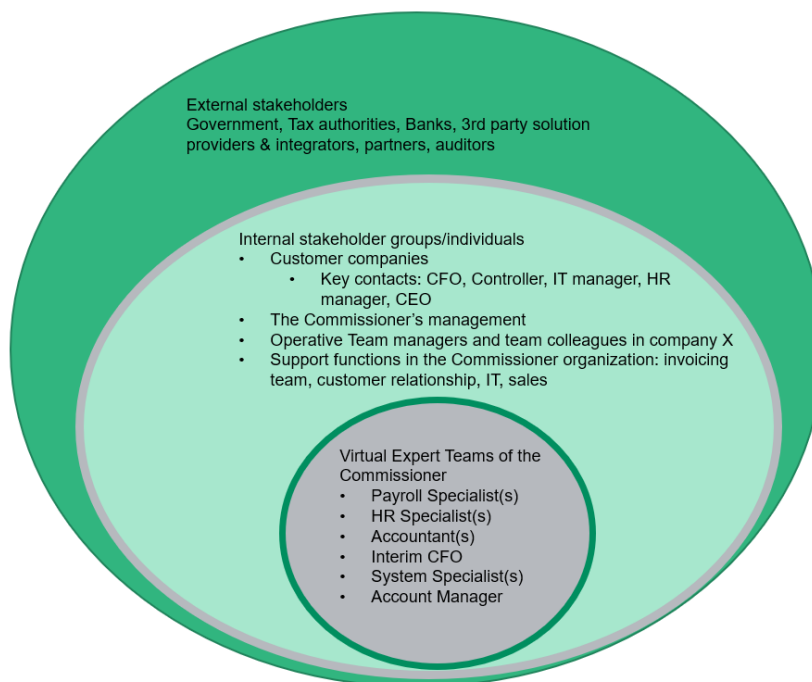


Figure 16. Stakeholder Map of the Commissioner.

5.1.4 Business Model Canvas

Business Model Canvas is a framework for developing and concepting existing or new services or business models. Business Model Canvas consists of nine elements. The elements are value proposition, customer segments, customer relationships, key resources, channels,

key activities, revenue streams, key partners, and cost structure. Business Model Canvas clarifies organization's core goals by identifying its strengths, weaknesses, and priorities. (Stickdorn 2017, 212- 213.)

The Business Model Canvas of the Commissioner identifies the key elements of the Commissioner's business model. Key partners of the Commissioner are governmental authorities steering taxation, financial legislation, and other statutory reporting of companies in Finland. The Commissioner works in a close co-operation with statutory auditors who are responsible of auditing customer companies. Financial Management Association of Finland is a key partner in giving general guidelines about the good bookkeeping practices and setting standards for high quality at the accounting service industry. Financial Management Association authorizes accounting companies, and professional degrees, KLT-accountant (an accountant having Finnish degree called 'kirjanpidon ja laskentatoimen asiantuntijatutkinto') and PHT Payroll Specialist (a Payroll Specialist having Finnish degree called 'palkka- ja henkilöstöhallinnon asiantuntijatutkinto'), for mastering the profession (Financial Management Association of Finland 2020a & 2020b).

Key activities of the Commissioner are providing accounting, financial, HR, system, and business intelligence services for customer companies. Key resources for providing services are professional staff, supported by training activities, and physical resources such as office space and necessary Information Technology (later IT) equipment and software. The Commissioner aims at being modern and agile financial management partner. The Commissioner's value proposition is to provide corporate-level services for small and medium sized companies and growth companies. The Commissioner wants to support its customers so that they get all financial, HR and payroll related services from one partner with scalability.

Customer relationships vary from personal assistance to automated and self-service and co-creation. Customer relationships are taken care of through various channels such as phone, e-mail, chat, face-to-face and teleconference meetings, social media, customer magazine and events. The Commissioner's key customer segment covers approximately 1400 existing customers. Customers are typically small and medium sized businesses, growth companies, start-up firms and non-governmental associations.

The Commissioner's cost structure contains salaries and other staff related costs, taxes, office rent and maintenance costs, IT equipment expenses, marketing costs and donations to charity. Main revenue streams are service invoicing and license fees. The Business Model

Canvas was reviewed together with the Commissioner 14.2.2020. The review was done after the execution of the first phase, the discovery of the research. The Business Model Canvas is visualized in Figure 17 and Appendix 1.

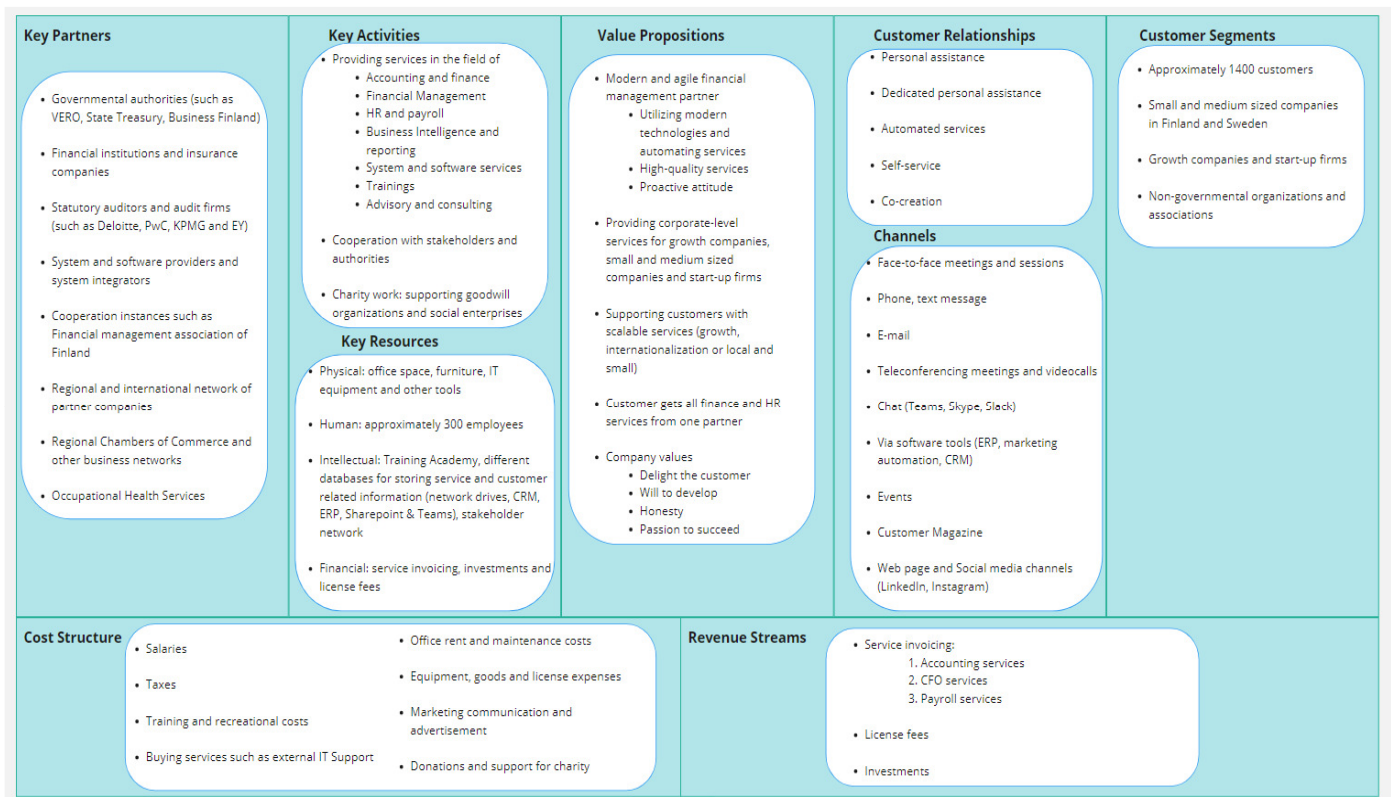


Figure 17. Business Model Canvas of the Commissioner.

5.2 Gathering the User Understanding

Preliminary research was continued with deepening the user understanding among employees and customers. To do this, observation, employee interviews and self-documenting were conducted. As tools were used personas, visualizations, storytelling, and learning diary. Methods and tools are described in detail in following chapters.

5.2.1 Observation

Observation can be conducted in several ways. In this study, participant observation was used. Participant observation is informal observation method, and the observer participates in the group activities. With observation it is possible to get instant real-world information about organization and group behavior. Observation fits well for studying interaction in unexpected situations. Sometimes observation is criticized of not being objective enough

and it may be difficult to document information without delays. (Hirsjärvi et al. 2005, 202 – 205.)

Participant observation in this study was conducted by the researcher herself. Observation took place in two internal online customer team meetings in December 2019 and in two external online customer team meetings during March 2020. The internal customer team meetings were arranged for the first time. The idea of having those meetings was to gather all specialists working with the customer in the joint meeting to get to know one another and to share insights about the status of the services to reveal possible issues. As a summary of observation from internal customer team meetings, there seemed to be unawareness of all the services provided for the customer and who were responsible of delivering those services. In general, the sense of belonging to a certain virtual customer team was vague for some of the service specialists.

The external customer team gathered bi-weekly online to follow-up system services quality and further development needs. The external customer team included three participants from the customer's side and service manager representing the service provider, that is, the Commissioner. The customer in question was categorized as a 'complex' customer, having several different services provided from different offices. As a summary of participant observation, customer frustrations were related to system errors and errors made by Systems Specialists. The customer felt that the service quality did not meet expected standards in situations of a new Systems Specialist joining the team and starting to work with their environment. Similar issues were identified in the accounting services. The customer felt that there was inadequate internal guidance and induction for Finance Specialists and that the customer had to pay for it. The customer felt that the service promise was not fulfilled.

Based on the participant observation, most common ways of virtual team communication in the Commissioner organization were through direct e-mails, customer specific e-mail distribution lists, sharing documentation through Teams channels, utilizing Workplace intranet, Teams/Skype meetings, Teams/Skype chat and phone calls. Virtual team members did not meet each other face-to-face if they were located on different offices. The sequence of communication was on need basis without specific schedules. In case of system related questions, team members contacted Systems Specialists either via Teams/Skype chat, Workplace intranet or Servicedesk. Servicedesk was the official communication channel in system related matters.

5.2.2 Employee Interviews

Interviews are popular data collection method in service design. With interviews it is possible to gain information and understanding about the customer's or stakeholders' thoughts and experiences about both the production of the service as well as the usage of the service. Interviews are an ethnographic mean and used to inspire and guide designing. (Tuulaniemi 2011, 146 - 147.)

Ethnographic methods, such as interviews, give tools to grow customer understanding. Ethnographic is not a specific research method but instead a research style and a collection of qualitative research methods. The aim of these methods is to gain understanding about the human action and its social meanings in a certain environment. In service design ethnographical methods are useful when researching values, needs and wishes. (Tuulaniemi 2011, 146 - 147.)

In theme interview, topics are predefined but exact questionnaire is not necessarily needed. Using theme interviews as a method, it is possible to get a collection of results or answer for the questions asked. Thematization as an analysis method fits well for solving practical problems. In this research, service designing internal communication is considered as a very practical problem and thus thematization and theme interviews are an appropriate analysis method for the topic. (Eskola & Suoranta 2000, 178 - 180.)

The original plan was to conduct three interviews, but it was extended to five after having a Commissioner meeting at 14.2.2020. The Commissioner suggested to also include employees who have worked for the Commissioner company over five years. Altogether five employee interviews were conducted during February 2020 as theme interviews. Interviews were held 3.2.2020, 6.2.2020, 10.2.2020 and 20.2.2020 (two interviews). Each interview lasted approximately 30 minutes. Interviews were done via Skype calls with recordings and field notes. Information sheet about the interview can be found in Appendix 2, and theme questions of the interview can be found in Appendix 3.

The background information included questions about the work experience at the Commissioner company, job role, work location (office) and the approximate number of customers the specialist was working with. Specialists worked in four different offices as Finance and Payroll Specialists. Two of the interviewees had worked less than a year for the Commissioner, one had worked approximately two years and two had worked over five years. The number of customers the specialist was working with, varied between two to 15

customers. The background information of the employee interviews is presented in Figure 18.

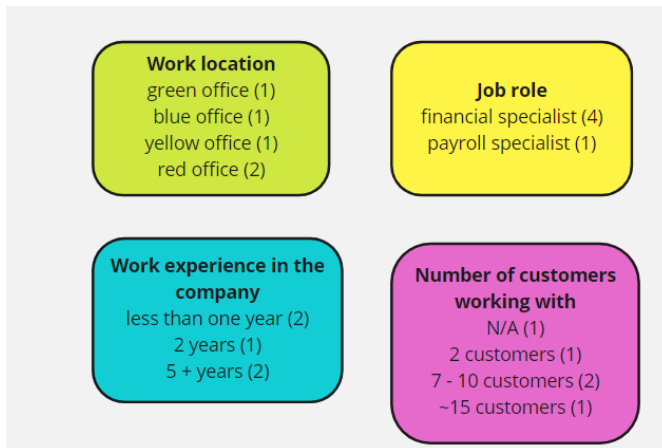


Figure 18. Background Information of the Employee Interviewees.

Pain points, development ideas and experiences were thematized and categorized. Three categories were identified. The categories were Tools and Technology, Trust and Collaboration, and Coordination and Control. Categorization was done based on the theoretical framework and the dimensions of leadership and team communication in virtual spaces (De Paoli et al. 2015; Cramton & Orvis 2003; Zigurs & Khazanchi 2008). Answers are color coded so that each of the colors represents individual employee's answers.

As a first theme in the interview was finding out what is working well in internal customer team communication. Day-to-day communication via e-mails and chat seemed to work well despite the distance. Intranet groups, that is, Workplace groups were found useful forums for asking advice from a wide audience. Interviewees appreciated warm, friendly, and supportive atmosphere of the Commissioner organization. These same cultural aspects arose in the Personnel Survey results which were discussed in chapter 5.1.1. Summary of the answers is presented in Figure 19.

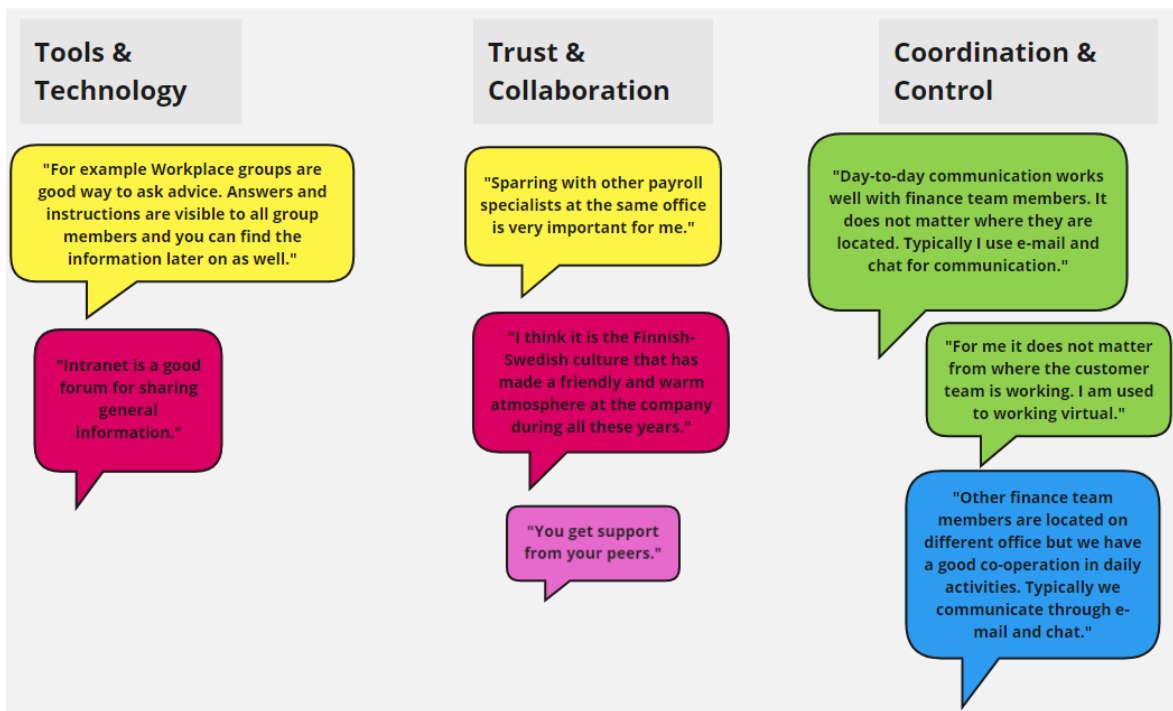


Figure 19. Positive Outcomes of the Current Virtual Customer Team Communication.

As the second theme employees were asked about the challenges and frustrations in the customer team communication. Microsoft Teams as a tool was not yet familiar and interviewees felt that they would need guidance and training for it. Document management operations such as finding the right document and the right version of it were found difficult. One of the biggest challenges was related to project and change management and activities of a new customer. Some of the interviewees named as a challenge that they did not receive enough background information from new customers to start delivering services efficiently. Interviewees identified issues with co-working with different service teams. Some service teams were found difficult to reach out for questions. Systems Specialists were described to work in their own bubble and that service teams did not fully understand one another's work well enough, causing misunderstandings. In Figure 20 and Appendix 4 the identified frustrations and challenges are categorized and summarized.



Figure 20. Frustrations and Challenges of the Virtual Customer Team Communication.

As the third theme interviewees were asked to name development ideas and suggestions, how to improve and enable virtual customer team communication. Clear responsibilities in change and development projects was called for. More thorough background and basic information about the customer should be handed over for service specialists. This way they could start working with the customer faster and efficiently. Specialists also suggested internal kick-offs for new customers with all service specialists of the virtual customer team. This would help sharing the knowledge and information. Some of the service specialists felt that they were not invited nor included in the information sharing sessions. On the other hand, service specialists mentioned that they would not want just more meetings but good instructions and relevant background information. Background information should include previous year's financial reports. This would help to check how things have been done previously. Development ideas are presented in Figure 21.

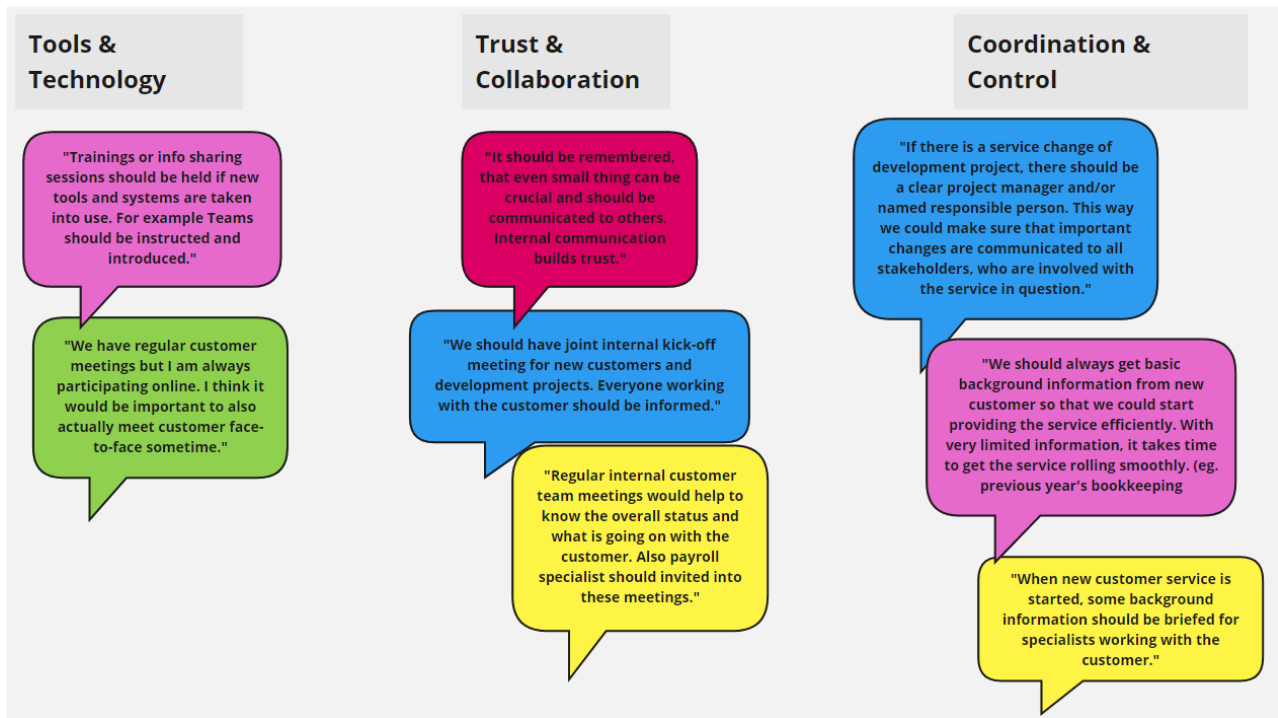


Figure 21. Improvement Suggestions of the Employee Interviewees.

5.2.3 Self-documenting

Self-documenting as a method helps to evaluate service during a long period of time. Typically, self-documenting tools are diaries either in written, photographed, or recorded format (Sivistystoimen työkalupakki 2020a). As a part of one employee interview, a learning diary was given as a research material. The interviewee had documented as a learning experience virtual customer team's service situation, and negative customer experience due to lack and failure of internal communication. The situation and the content of the diary was briefed by the interviewee.

On the high level, the content of the learning diary included the description of the service situation and its background. During the service situation, there were identified issues which escalated as negative consequences in customer experience and service quality. The service specialist had reflected retrospectively what could have been done differently to avoid customer's dissatisfaction.

The service situation in question, was a technical service change and its implementation for several customers in October 2019. The service specialist was responsible for doing financial services for two customers, one small and one complex customer. The service specialist was unaware of the overall situation and the schedule as adequate information was not shared. It seemed, that there was no clear responsibility nor project management in the change project.

Systems Specialists did not reply to direct e-mails and Servicedesk got jammed from service requests from several service specialists asking for status information. Due to this, the service level and quality standards were not met. Service delivery schedules were delayed, and customer felt dissatisfied.

As improvement suggestions, the service specialist suggested that there should be clear ownership and project manager named for further development projects. This way someone would hold the responsibility about open communication towards customer teams and customers. In addition, each service specialist must act proactively and promptly to make sure that they have all necessary information to do their job. The learning diary is visualized in a storytelling format in Figure 22.

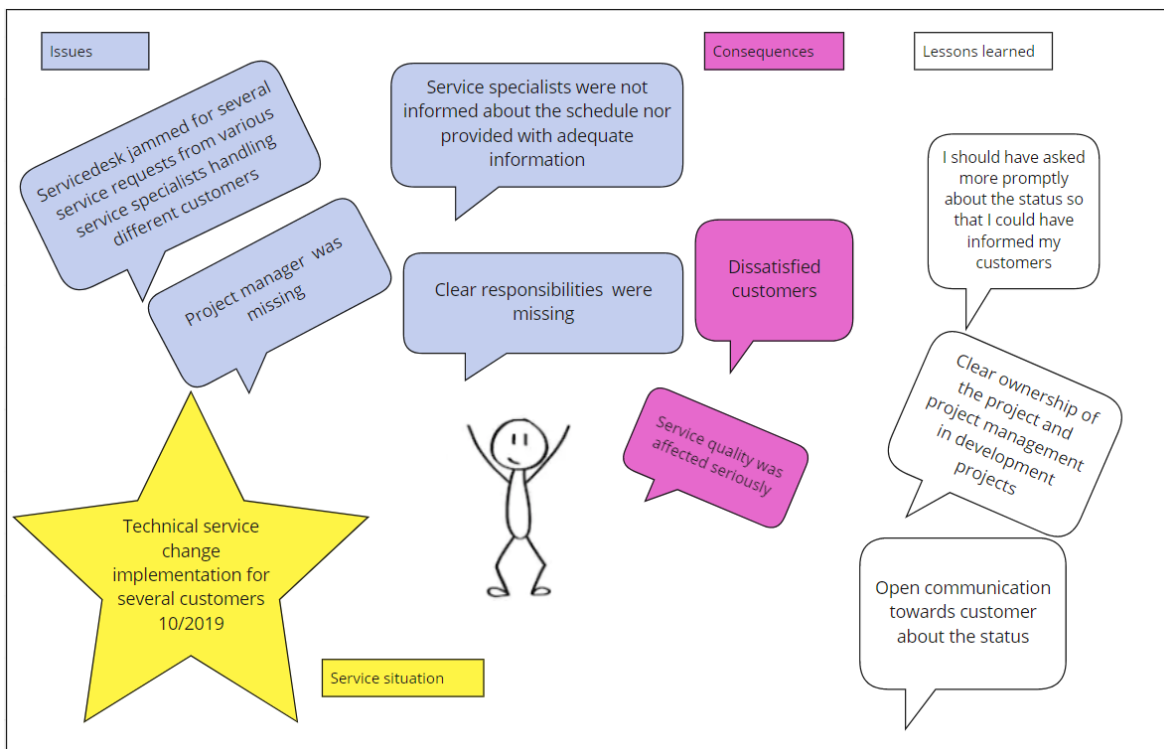


Figure 22. Service Situation in Self-documenting (Learning Diary 2019).

5.3 Co-creation of Internal Communication in Virtual Teams

Co-creation as a method is used to facilitate future collaboration between different stakeholders and creating a feeling of shared ownership over the innovations and concepts that are being developed. Co-creation sessions usually include a mix of people working in small groups, who then present their work for the larger group for feedback and discussion. Materials used in co-creation session can be for example 2D mood boards. The materials should moderate the discussion and be planned on advance. The most important thing is to

make sure people feel free to express their ideas, to keep the atmosphere open and simple. (Stickdorn & Schneider 2017, 198 – 201.)

As co-creation method, workshop was used to develop personas, and online ideation workshops for developing possible improvement ideas for internal communication. Improvement ideas were further developed with the help of piloting. Co-creation methods are described in detail in the following chapters.

5.3.1 Personas

Personas resemble models of potential customers or users based on comprehensive observation and data gathering. Persona is based on a fictional character which combines features of an existing social group or key audience members. Personas represent most important groups as realistically as possible with their needs, interests, social and demographic characters, and habits. Personas should give a clear picture of the customer's expectations. Personas are a service design method and they fulfill the framework which against you can study services and customer experiences. Personas help to focus by adding a layer of real-world thoughts to the dialogue. They also offer a quick and inexpensive way to test and prioritize features throughout the development process. Personas define, for whom do you target your services, and how you communicate to different personas. (Service Design Tools, 2018a; Usability, 2018.)

Employees were invited at one of the offices to co-create personas for virtual customer team members. People were invited to participate with an event invitation in the Commissioner's intranet. The session was organized 17.1.2020. The invitation to the workshop can be found in Appendix 5.

A1 sized persona posters were set to the walls of the coffee lounge. During the coffee break, the idea of filling in information for posters was introduced. This method was inspired by organizational co-storytelling method introduced by Ida Rainio (2014) in her service design master's thesis. The aim was to involve specialists themselves working in virtual customer teams to tell who they are, what are their professional and work-related positive outcomes, and negative issues they are experiencing.

The initial plan was to gather information for three personas of Payroll Specialist, Accountant, and Systems Specialist. The selection and categorization based on the observation, Stakeholder analysis, familiarizing discussions with the employees and the

Personnel Survey. There are some characteristics and guiding principles in each of these roles. First, Accountants are typically occupied by doing financial statements and closing of accounts. Their work is driven by Finnish accounting laws and good practice of the accounting (Kirjanpitolautakunta 2020; Accounting Act 1336/1997 § 3).

Payroll Specialists work in the schedule of preparing payroll payments and reporting payroll related information for authorities. Payroll service in Finland is highly secured by the law and thus all the materials related to employees' payroll must be confidentially and securely handled (Act on the Protection of Privacy in Working Life 759/2004). Systems Specialists, however, are not that attached to these schedules and their work is more bound to software implementation and further development project schedules and service requests of customers.

The approach to define personas was role-based personas. This approach was selected based on the literature reviewed in the theoretical part of the thesis. Role-based personas are goal-directed and focused on the role in the organization (Interaction Design Foundation 2020a). Typically, there are Payroll Specialists, Finance Specialists and Systems Specialists working with the customer tasks in virtual customer teams. During the data collection, the original idea of having three different personas was changed for having only two personas. In co-creation workshop, data gathered for the persona of the Payroll Specialist was poor in quantity and had similarities with the persona of the Finance Specialist. Due to this, only two personas were further developed.

Data collection of the personas was done with employee observation, discussions, Stakeholder analysis, Personnel Survey data and Co-creation Workshop. The persona descriptions and scenarios were done based on these data collection methods. In the following sections the personas are presented and visualized.

Marjo works as a Finance Specialist. She is 43 years old, married and has two children. She likes to spend her spare time with her family and support her children's hobbies. Marjo has over 10 years of experience in the accounting. Currently, she works with seven different customer companies. The first quarter of the year is the most hectic time in her work as it is typically closing the books period for customer companies. Marjo's work is schedule and rule driven.

Marjo is exact, careful, and conscientious, she is afraid of failing. Sometimes she feels that she is too kind and too careful and it causes some stress for her. She puts her customers first

and it is difficult for her to say 'no'. Difficult situations in her work are when the customer sends data too late and her work is very schedule oriented. Marjo feels frustrated as she needs to update and follow-up her work through several different excel sheets. Marjo's work is occasionally delayed as some necessary information is missing and she needs to request it several times. Marjo appreciates her talented and skilled co-workers and the good atmosphere at the office. She feels that she gets support to her job and the Commissioner offers various training opportunities to develop professionally. Marjo's persona is visualized in the canvas below (Figure 23). The original canvas can be found in Appendix 6.

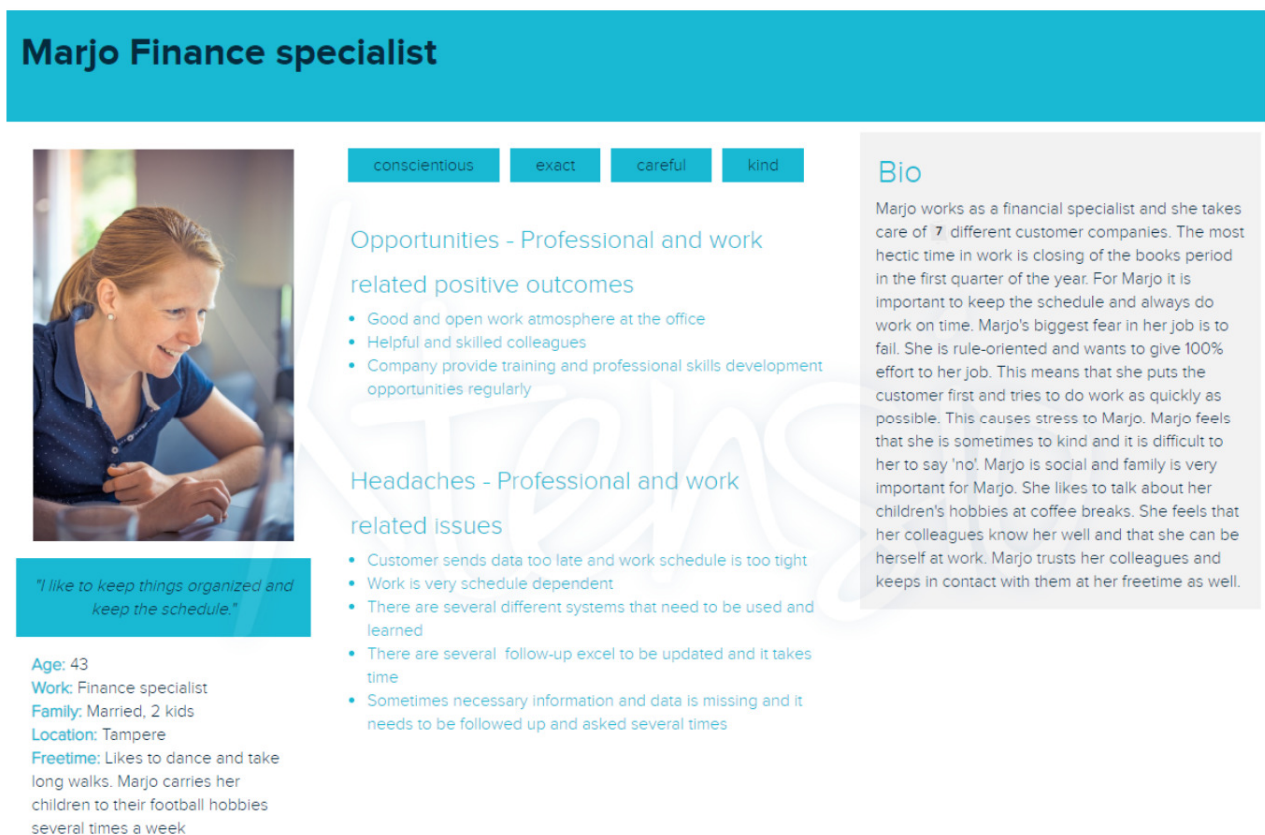


Figure 23. Persona Canvas of Marjo. (Picture: Pixabay. Persona template: Xtensio).

Kari works as a Systems Specialist in the Commissioner organization. He is 37 years old, and his family includes wife, one child under school age, and a dog. He cycles to work, plays guitar in his spare time, and goes to gym. Kari loves to solve problems. He is a logical thinker who feels passion to his work. For Kari, it is important to keep his work life and spare time in balance even though work as Systems Specialist requires flexibility and long work hours. Kari has been working for the Commissioner for two years. He finds it rewarding to work in a growth company with interesting customers. Kari appreciates flexibility and independence in his work. Kari feels that his colleagues are skilled and that they have a good team spirit.

Kari's frustration in work is related to the system integrator's sales strategy as they compete on the same customers. Working with software implementation and further development projects requires balancing between budget, schedule, expectations, and co-operation between different stakeholders. What is the adequate level of cost, time, and quality in the job and how to keep on track of the general status. Prioritizing work tasks is occasionally difficult. Systems Specialist's work requires continuous learning to maintain the professional skills. Overall, Kari is satisfied with his job and projects that he works with. He appreciates his employer and feels positive about the future. Kari's persona canvas is visualized below (Figure 24). The original canvas can be found in Appendix 7.



Figure 24. Persona Canvas of Kari. (Picture: Pixabay. Persona template: Xtensio.)

5.3.2 Online Co-creation Workshops for Ideation

During the studies at Novia University of Applied Sciences, Kaarnaavaara-Puutio, Pippuri, Rustam and Singhte (2019) designed an online workshop concept for IRM Tool project. The online workshop concept was first introduced to maritime industry specialists working in different maritime companies. The idea was to design cost-effective and agile method for

ideation, innovation, and development work without the need to travel. For organizing the workshop online, digital tools like Google Hangouts was used to communicate and instruct workshop participants, and Miro board was used as an innovation platform. The workshop method used in this research is ideated based on IRM Tool project online workshop concept. (Turku Business Region 2019.)

Ideation is a creative process to generate ideas without criticism. The goal of the ideation is to develop and produce as many ideas as possible to a specific problem. Ideation is iterative and it can contain several rounds to develop and define ideas. After ideation it is time to define, find links, patterns within the insights to create a meaningful and workable problem statement or point of view. (Interaction Design Foundation, 2018; Tuulaniemi 2013, 182.)

As the ideation workshop was arranged online and the time was limited, the ideation method of brainstorming, or more specifically, brainwriting was selected as an ideation method. In brainstorming, the idea is to generate lot of ideas quickly and participants can build on each other's ideas. In brainwriting, participants silently and individually write or sketch ideas. As a method, it empowers quiet participants to ideate. (Stickdorn et al. 2018, 180 – 181.)

As the goal of this study was to facilitate and develop virtual teamwork, arranging an online workshop fit for the purpose well. The workshop communication and instructing were done via Microsoft Teams application which offers video conference call and document sharing possibilities. Teams is widely used tool and easy to use. For ideation, Miro board was used to gather and visualize ideas. As discussed earlier in the theory framework, Holger et al. (2017) have identified that providing task-related information and scoping the task helps stakeholders to produce high quality ideas in virtual co-creation. For this reason, the agenda and the structure of the workshop were precisely designed.

First, Miro tool was introduced as well as the topic of the workshop and short rules of brainstorming. For the warm-up, virtual ice-breaker method, 'social question', was used. Ice-breaker method applied well for a compact online workshop. The idea of a virtual ice breaker was to engage participants and help to learn more about one another (MindTools 2020). Participants were asked to search their 'spirit animal' picture from internet and copy paste it to Miro. This helped participants to relax and get familiar working with Miro.

In the first part of the ideation, participants were asked to name pain points in internal communication of virtual customer teams. This part lasted approximately 15 minutes. Next, participants were instructed to give votes, all together three votes per each, for the most

important pain points. On the second part of the ideation, participants focused on ideating development suggestions for the voted pain points. Finally, there was a wrap-up discussion about pain points, development ideas and the workshop in general. Workshops were organized for two different groups. The structure and agenda of the online co-creation workshops is presented in Figure 25.

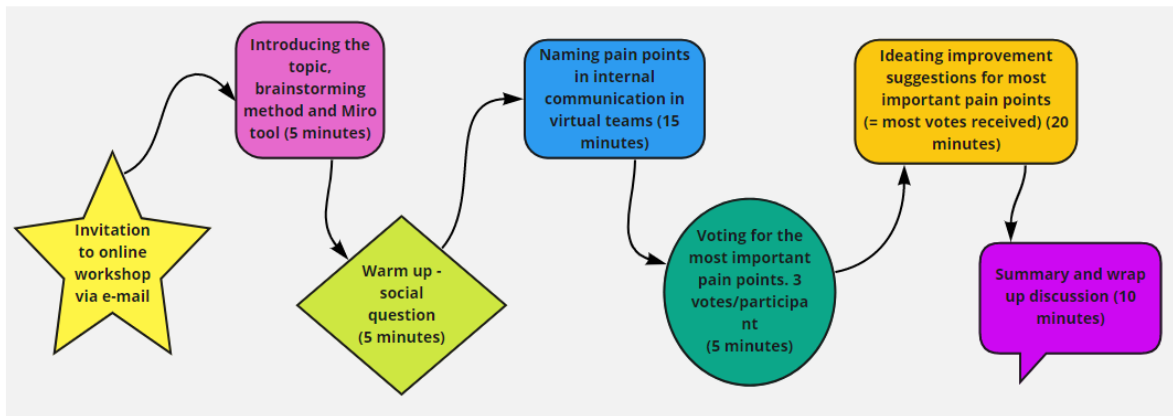


Figure 25. Structure and Agenda of the Online Co-creation Workshops.

Workshop for Systems Specialists

The first workshop was arranged 6.2.2020 for a Systems Specialist team which operates from two office locations. This team provides Enterprise Resourcing Planning system's (later ERP) consulting services for approximately 20 customers. The workshop lasted an hour and eight employees participated for the ideation. The workshop invitation can be found in Appendix 8. Participants in the first workshop represented the persona of Kari (see chapter 5.3.1).

Workshop material was further developed afterwards by categorizing and color-coding pain points based on same thematization as employee interview answers. Categories were Tools and Technology (orange), Trust and Collaboration (green) and Coordination and Control (yellow). In some cases, pain points could be categorized in more than one category. There seemed to be some confusion related to the technology to be used in information sharing and communication. Changes in customer teams, finding the latest information and clear responsibilities were causing headaches. Communication between different teams and departments, and inadequate information about other departments work was seen problematic. Some of the pain points were related to hand-over of development projects to services teams, and insufficient customer documentation. Categorized pain points from the first workshop are presented in Figure 26.



Figure 26. Thematized Pain Points of the First Workshop.

Participants voted for the most important pain points and ideated development suggestions for these pain points. Categorized and color-coded improvement ideas for the most important pain points of the first workshop are presented in Figure 27 and Appendix 9. Tools and Technology related pain points are color-coded with orange and surrounded with improvement ideas in turquoise color notes. Trust and Collaboration pain points are visualized in green and surrounded with improvement ideas in pink. Last, Coordination and Control pain points are visualized in yellow and surrounded with improvement ideas in white notes.

Ideation focused on software deployment project's communication and information sharing, handover of the project to services teams, harmonizing processes, and communication tools.

As the participants represented Systems Specialist Kari's persona, pain points seemed to focus on tools and technology category. The development suggestions included ideas to establish knowledge bank, mutual commitment for maintaining customer documentation, training new communication tools, and designing relevant permission matrix for documentation shared in Microsoft Teams. The Account Manager and the Service Manager were the key roles for sharing information and coordinating services.



Figure 27. Improvement Ideas of the First Workshop.

Workshop for the Virtual Customer Team

The second workshop was arranged 21.2.2020 and six employees participated for the ideation. The second workshop lasted an hour as well. Participants in the second workshop represented the persona of Marjo (see chapter 5.1.3) and the majority worked in the field of financial services for complex and large customers. Participants formed a virtual customer team as they were all providing services to the joint customer. The invitation to the workshop can be found in Appendix 11. Some finetuning on the invitation content, agenda, instructions, and Miro board template were done based on the feedback and experiences from the first workshop. After the workshop, material was thematized and re-organized from the Miro board's raw data. The raw data, the warm-up rehearsal, social question pictures, pain points and development ideas, can be seen in Figure 28 before further analysis for the content.



Figure 29. Thematized Pain Points of the Second Workshop.

The improvement ideas and the development suggestions were ideated for seven pain points in the second workshop. These pain points were voted as the most important by the participants. The majority of the most important further developed pain points were related to coordination and control. In this workshop there was also mentioning as a development idea that 'we should work as a customer team'. There are several individual Service Specialists working with the customer, but the collaboration and unity of the team seems to be vague based on the workshop findings.

Clear roles, instructions and responsibilities were emphasized in development suggestions. It was also highlighted that there are cultural differences between offices due to geographical distance. Cultural differences may cause misinterpretations in communication due to different terminology. There were some very practical development suggestions such as utilization of case management system, a register, for team level and repetitive tasks. On the other hand, some of the development suggestions were general level expectations about commitment and individuals' attitude to do the work.

The categorized pain points and the development suggestions are visualized in Figure 30 and Appendix 12. Tools and Technology related pain points are color-coded with orange and surrounded with development suggestions in turquoise color. Trust and Collaboration pain points are visualized in green and circled with improvement ideas in pink. Coordination and Control related pain points are in yellow and surrounded with improvement ideas in white.

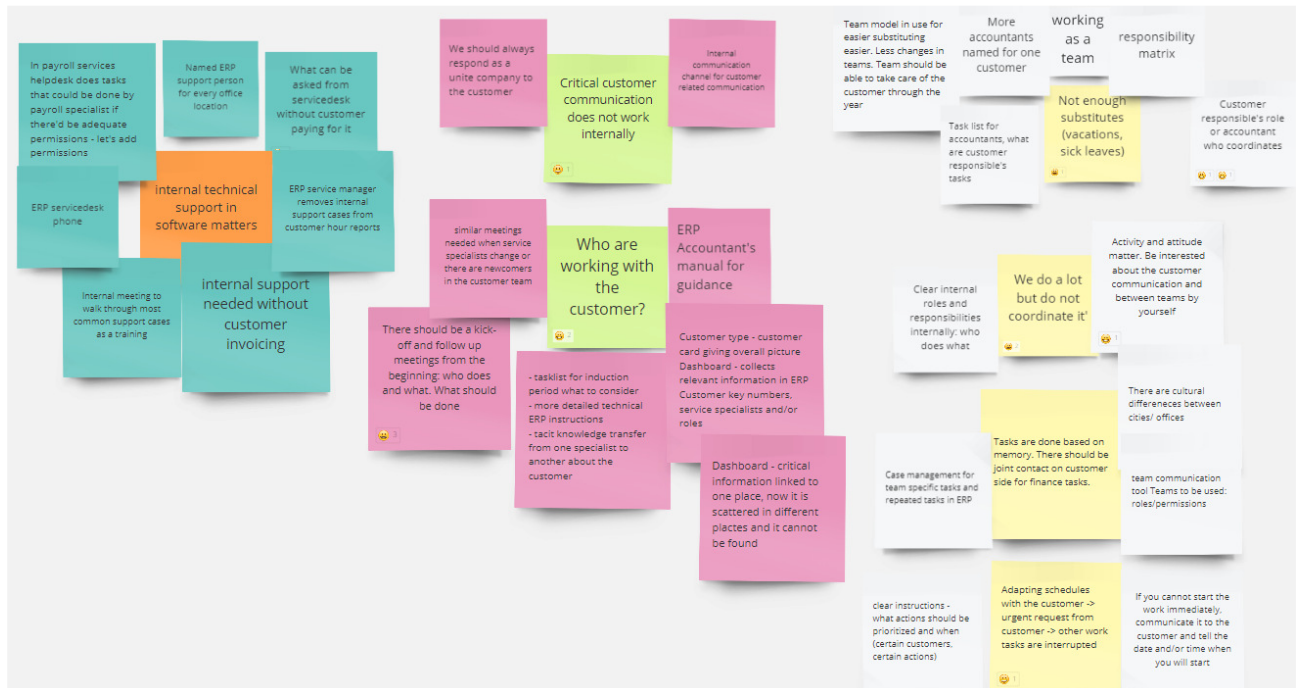


Figure 30. Improvement Ideas of the Second Workshop.

As a summary from the ideation workshops, the social question worked out well and it helped the participants to relax and gave them courage to write down all what came to their mind. Participants were motivated and active during the workshop. The workshops were valuable method. Several pain points and development suggestions were ideated. Clear and well-scheduled structure helped to succeed.

5.4 Customer Interviews

As a part of gaining customer knowledge from service experiences, two interviews with the customers were held. Both interviews were done remotely via Microsoft Teams application. First interview was held at 10.3.2020 and second at 16.3.2020. The information sheet for the interviewees can be found in Appendix 13. Both interviewees worked in financial roles and used different financial and system services of the Commissioner. Both the customers

interviewed, presented large and complex customers when estimating the volume and versatility of the services purchased from the Commissioner.

The interviews with the customers were conducted as theme interviews. The interview theme questions can be found in Appendix 14. The interviewees were asked about reasons why they were using the Commissioner's services. The most important reasons for using the Commissioner's services were having additional resources and expertise into use. The customers considered as the benefit that the Commissioner was a big company with good resources of professional expertise, and the ability to help the customer in different matters and services. The customers felt that there was always someone to ask for help. Both of the customers told that their own time and resources would not be enough to handle all HR and financial services by themselves. Outsourced services saved time. By doing so, the customers ensured that the statutory reporting was done correctly and on schedule. It also gave possibilities to develop systems and processes despite staff changes.

To find out about service experience, the customers were asked about the best and worst service experiences (Sivistystoimen työkalupakki 2020b). This was reflected on how internally identified pain points in virtual customer team communication and collaboration potentially were shown to customers. The summary of the service experience answers (Figure 31) indicated that the lack of coordination, clear responsibilities and sometimes undermanned services were shown as negative service experiences for the customers. These same issues arose as the pain points in the ideation workshops and self-documenting.

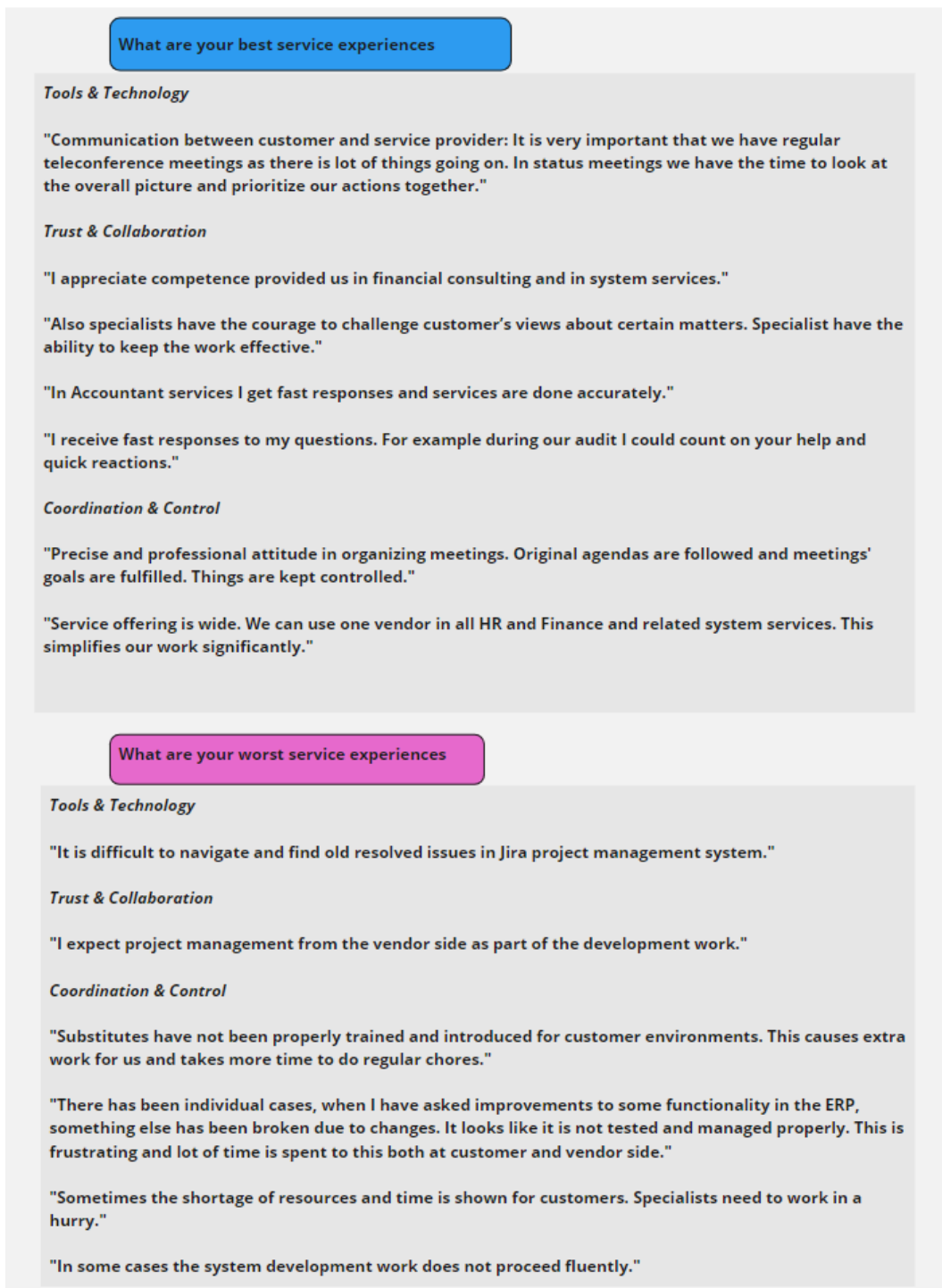


Figure 31. Customers' Service Experience Summary based on the Interviews.

To evaluate customer loyalty indirectly, the customers were asked how the Commissioner stands out from other service providers. The Commissioner's values highlight proactive attitude, willingness to develop and commitment to work. Based on customer interview results, this was shown to them via service experience (Figure 32). The customers felt that their questions were forwarded to right connections quickly and they received fast and accurate responses to their questions. The customers also mentioned that the

Commissioner's service offering was wider than other similar service providers. This was an advantage as the customers could centralize their services for one vendor and simplify their job this way.

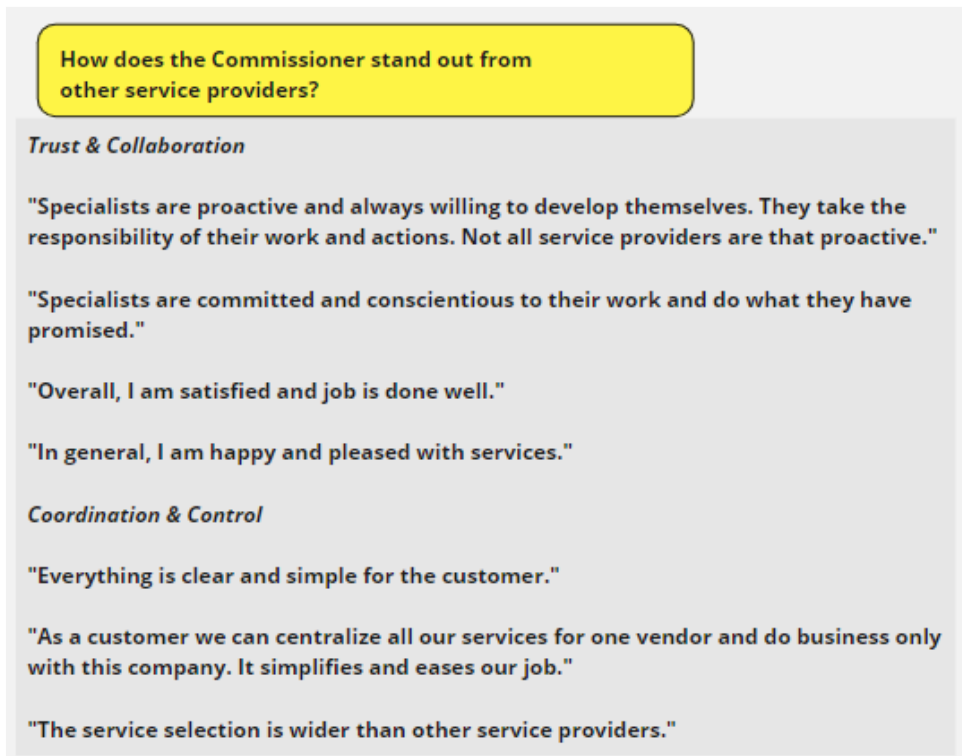


Figure 32. How the Commissioner stands out from Other Service Providers.

5.5 Remote Work during the Spring 2020 Coronavirus Pandemic

In the spring 2020 COVID-19 pandemic enforced a digital leap in many organizations. The Commissioner conducted short weekly pulse surveys for the staff to measure and follow employees' feelings about the remote work during the recommended remote work period (March 2020 – May 2020). At 9.4.2020, after three weeks of remote work and social distancing, a follow-up meeting was organized with the Commissioner's HR Specialist. The HR Specialist was asked about the results of the pulse surveys and measures taken into use.

Based on the HR pulse surveys, during the first three weeks of remote work period, staff feelings about remote work were positive. In general, the staff felt that they managed remote work well. Some of the employees felt that remote work gave more flexibility and wished that they could continue it after the mandatory remote work period. As the negative aspects were seen the lack of social interaction during workdays and disruptions in work due to children.

The Commissioner's HR department was following crisis management strategy in the internal communication. Messages, instructions, and newsletters were repeated and released repeatedly with updates. The supervisors were instructed to reach out subordinates and to arrange more regular meetings. The use of Microsoft Teams as a meeting, chat and videocall tool, and Workplace intranet were emphasized during the remote work period. New ways to socialize were created. New ideas included virtual coffee breaks, virtual all hands sessions, and joint virtual break workouts to name a few.

6 Design of the Communication Framework

In this chapter an overview of the gathered research data is presented. First a summary of the discovered pain points is presented and visualized in chapter 6.1. The pain points are categorized with the help of qualitative research methods. Next piloting as a method and the pilot case are presented in chapter 6.2. In chapter 6.3 development suggestions are summarized and discussed. The communication framework is visualized as a service blueprint and explained in more detail in chapter 6.4. Last, feedback about the communication framework concept is discussed in chapter 6.5.

6.1 Summary of the Discovered Pain Points

In this research, thematization was used as an analysis method for pain points discovered with service design methods. Thematization is a popular analysis method for qualitative research material. With thematization it is possible to identify and compare occurrence of certain themes in the research material. (Eskola & Suoranta 2000, 174.)

Categorization of the pain points was done based on the theoretical framework. Three categories were Tools and Technology, Trust and Collaboration, and Coordination and Control. The pain points were discovered with interviews with employees and customers, observation, self-documenting, ideation workshops.

Some of the pain points were discovered only with one method and some of them with all methods. Findings from several methods are interpreted as the most important pain points and the most reliable findings. Stakeholders found instructions and guidance inadequate, and there was lack of clear responsibilities. The sense of belonging to the virtual customer team was vague. A summary of discovered pain points is visualized in Figure 33.

Category	Tools & Technology	Finding method	☆ Employee interview	☁ Ideation workshop 1
	Trust & Collaboration		➡ Observation	☁ Ideation workshop 2
	Coordination & Control		▲ Self-documenting	💬 Customer interview
	Unawareness of all services provided for customer		➡ ☁	
	Unawareness of all service specialists belonging to virtual customer team		➡ ☁ ☁	
	Inadequate instructions and guidance for service specialists in the virtual customer team		➡ ☆ ▲ ☁ ☁ ☁ 💬	
	Service specialist changes in virtual customer teams		☆ ☁ ☁ 💬	
	Clear roles and responsibilities missing in virtual customer teams		☆ ▲ ☁ ☁ 💬	
	Project hand over to continuing services		☁	
	Difficult to find information		☆ ☁ ☁	
	Frustrating and slow to communicate day-to-day tasks through e-mail		☆	
	Notification settings with Workplace intranet - relevant information hard to notice		☆	
	Hard to get user support for new ERP system		☆ ☁	
	Old and new communication tools and document sharing practises used at the same time		☁ ☁	
	Document versioning is difficult to follow in Microsoft Teams & network folders		☆ ☁ ☁	
	People working remotely do not get to know their co-workers		☆	
	Errors made by service specialists		➡ 💬	
	Sense of belonging to a virtual customer team		➡ ☁	
	Different service teams do not understand one another's work		☆ ☁	
	Payroll specialists are left aside in virtual customer team communication		☆	
	Tacit knowledge sharing practises		☁	

Figure 33. Summary of the Discovered Pain Points.

Many of the discovered pain points are related to the same key characteristics and challenges of virtual teams presented by Dubé and Paré (2004), and Stagl et al. (2007) in the research theory part in chapter 4. Based on the theoretical framework, the Commissioner seems to face certain challenges related to the complexity of members' assignments, geographic dispersion, prior shared work experience, coordination, and common goal. As the Commissioner's business has grown rapidly, the prior shared work experience of employees is still quite short term. There are several different offices, geographically spread in different cities even though not on a global scale. Many of the employees work only part-time in virtual customer teams as they provide services for several customers. Several mentioned pain points relate to the lack of coordination and lack of common goal in the virtual team.

6.2 Piloting

Piloting creates confidence in success. With trial, it is possible to gain real life insights. Pilots can be adjusted and changed in rapid iterations, and this way help the organization learn quickly from the behavior of customers and staff. Pilots breed a culture for continual improvement. (Lovlie, 2016.)

Measurable results are important when piloting. Interviews, observation, and evaluation can be used as measuring methods for piloting. The results show, which part of the service works well and which not. What are the bottle necks in the service and how to improve service environment, employee coaching, and tools. Depending on the nature of the service, it can be piloted as a half-ready service or as a digital beta version. (Tuulaniemi 2013, 232 – 233.)

Microsoft Teams Channel for Communication

As a first stage for creating the concept was piloting. Microsoft Teams Channel was created as a pilot for the complex customer virtual team in February 2020. The idea of the Teams channel was to enable and enhance a joint conversation platform and to inform different service teams about changes in the customer's ERP environment and service catalogue. The pilot was done based on development suggestion from the ideation workshop. There was an identified need to have a joint communication channel for customer teams.

Between January 2020 – May 2020, the pilot customer was expanding his ERP system usage to cover foreign subsidiaries. This meant changes in the system environment, training and enablement, and new services production for the customer. These financial and systems services were produced by three different teams in three different offices, five to ten employees involved in the service production.

In this pilot, the curve of innovation adoption lifecycle (Interaction Design Foundation 2020b) could explain why the new communication forum was not totally adopted during the pilot period. Typically, there are five different types of adopters of new technology, innovations, and products. Innovators (2%) are the first ones trying out new products and services, followed by early adopters (13%). Innovators are willing to take a risk and feel the excitement. Early adapters try to gather more information to their decisions than innovators. The early majority (34%) wants to be sure that they are making the right decision of adopting innovation. The late majority (35%) is a skeptical group and unwilling to take any risk. The last group adopting new innovations is laggards (16%) who appreciate traditional ways of doing things. (Interaction Design Foundation 2020b.)

At the beginning of April 2020, based on the adoption lifecycle, piloting the use of Microsoft Teams channel was in the phase when innovators and early adopters had taken the technology into use. After 1,5 months of piloting, the use of Teams channel was still irregular and only part of the customer team actively followed it. It seemed that some of the service specialists had not yet adapted the new way of communication to their everyday work. Some of the team members were unfamiliar with Microsoft Teams technology and did not receive notifications of new messages in the channel. In some cases, there was also reluctance to communicate jointly about certain customer related matters. It was clear that old communication preferences and habits were deeply rooted.

In late March 2020, the organization trained employees to use Microsoft Teams. In late April 2020, the organization created Microsoft Teams channels for internal communication on company level. With the help of training it is possible to strengthen the use of Microsoft Teams as the internal communication channel. Communication piloting is presented in Figure 34.

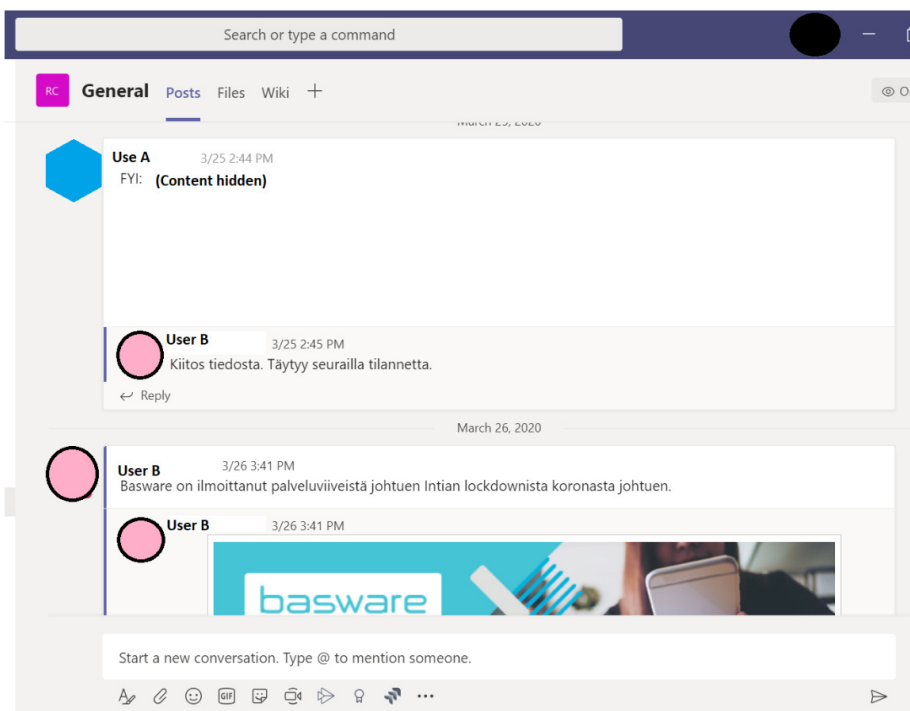


Figure 34. Communication Activity in Microsoft Teams Channel 5.4.2020.

6.3 Summary of the Development Suggestions

Based on discovered pain points, a summary of the development suggestions is presented. Development suggestions are gathered through interviews with employees and customers, observation, self-documenting, and ideation workshops. The improvement ideas grouped under six topics below.

System support and trainings. Improvements in internal ERP support either by having Servicedesk phone or local ERP key users as a support. In addition, trainings and more detailed technical instructions for service specialists are needed. Some tasks done by payroll Servicedesk could be transferred for Payroll Specialists by granting necessary permissions.

Improving documentation practices. Process descriptions, checklists for induction and work tasks should be created and maintained. Utilization of the Case Management on a team level for repeated and team-level tasks should be investigated. Creating and keeping an up-to-date responsibility matrix about customer's services is one of the Account Manager's responsibilities. Development work for information management processes to define permissions and unified ways of storing information should be started on a company level.

Handover process development. Arranging a kick-off and follow-up meetings for virtual customer teams, especially with complex customers. Background data should be available about the customer environment when starting the service production, for example last year's bookkeeping reports and numbers. Pre-defined substitute arrangements should be agreed upon. The role of the Account Manager as a coordinator of services should be highlighted, tracked, and measured - numbers of meetings arranged should be recorded into Customer Relationship Management system (later CRM). A Teams channel for each customer for communication purposes should be created.

In development projects, there should be a clear project team and project manager coordinating the development work and in charge of communication. Data collection and documentation during the project should be taken care of. Throughput of the development project is handed over to the customer service team which will take care of producing services. This is done in a joint meeting of the project team and the customer service team. The project team will support the service team during the transition period.

The meaning of Workplace as intranet should be emphasized. Workplace has a dual meaning. It is a virtual platform for social interaction between different teams and offices. It also serves as intranet and forum for official internal communication. For some reason, part

of the staff considers Workplace only as a social media and thus follow it inactively. Training and emphasizing the meaning of the forum in team meetings would help to understand the meaning of the intranet.

As the last development suggestion is *piloting shorter virtual all-hands sessions* and arranging them more often. Virtual all-hands session once a month would help to build collaboration and unity between offices. It would also allow informing the employees on a more regular basis about the service and business status. Virtual all-hands would be cost efficient to arrange.

Some of the suggested development ideas in this research were simultaneously taken into action during spring 2020 in the commissioner organization. In March 2020, the HR department of the commissioner organization executed a series of Microsoft Teams trainings. The aim of the trainings was to support and strengthen the use of the tool. ERP system trainings were planned for accountants and training subjects were gathered from accountants to formulate relevant training content. A Customer Dashboard was piloted together with the Account Manager. Based on this research, it was suggested that a customer dashboard could be introduced to wider audience as well, including all service specialists working in customer teams. Customer take-over and handover process development for continuing services was initialized by the Customer Relationship Manager. Part of this development project was also expanding the usage of the project delivery framework to all customer projects in the organization. The development suggestions are further elaborated in chapter 6.4.

6.4 Internal Communication Framework Concept

The internal communication framework concept was formulated based on the findings of the research. The framework was visualized as a Service Blueprint. The Service Blueprint was selected for the concept visualization as it fits well when describing service production models and it works as a repair tool for existing services (Tuulaniemi 2013, 212). A Service Blueprint defines every individual step and feature of a service. A Service Blueprint visualizes and identifies the most critical situations as well as repetitive and overlapping areas within a service process. Service Blueprint is typically co-created and redefined in iterations to include all necessary aspects of the service. (Stickdorn & Schneider 2017, 204 – 205.)

On the Employee Journey, there are eight identified touch points, ‘moments of truth’ with customer that require certain internal communication activities. Touch points are formulated based on research results. Customer and the service provider encounters are moments, when the customer evaluates the ability to provide services (Tuulaniemi 2013; 212). Service activities and main actors are described on separate swim lanes as Physical Evidences, Onstage Actions, Backstage Actions and Support Processes. Physical evidences are concrete and documented actions of service performance done in collaboration with the customer and the service provider.

In the Onstage Actions, there are responsible work roles and main tasks described, visible for the customer. The Backstage Actions are communication related activities and service enabling actions which are not shown directly to the customer. In the Support Processes there are support actions on the organization’s metalevel and microlevel. Microlevel actions are detailed necessary supportive actions such as work instructions. Metalevel support processes are related to strengthening the Commissioner’s organization culture and the commitment to the virtual customer team.

The Service Blueprint was introduced to the Commissioner on 3.4.2020. The concept was finetuned and aligned with the ongoing development work related to the Project Delivery Framework, customer relationship development and role definitions. Based on the feedback, the Service Blueprint was updated. The updated Service Blueprint is presented in Figure 35 and Appendix 15.

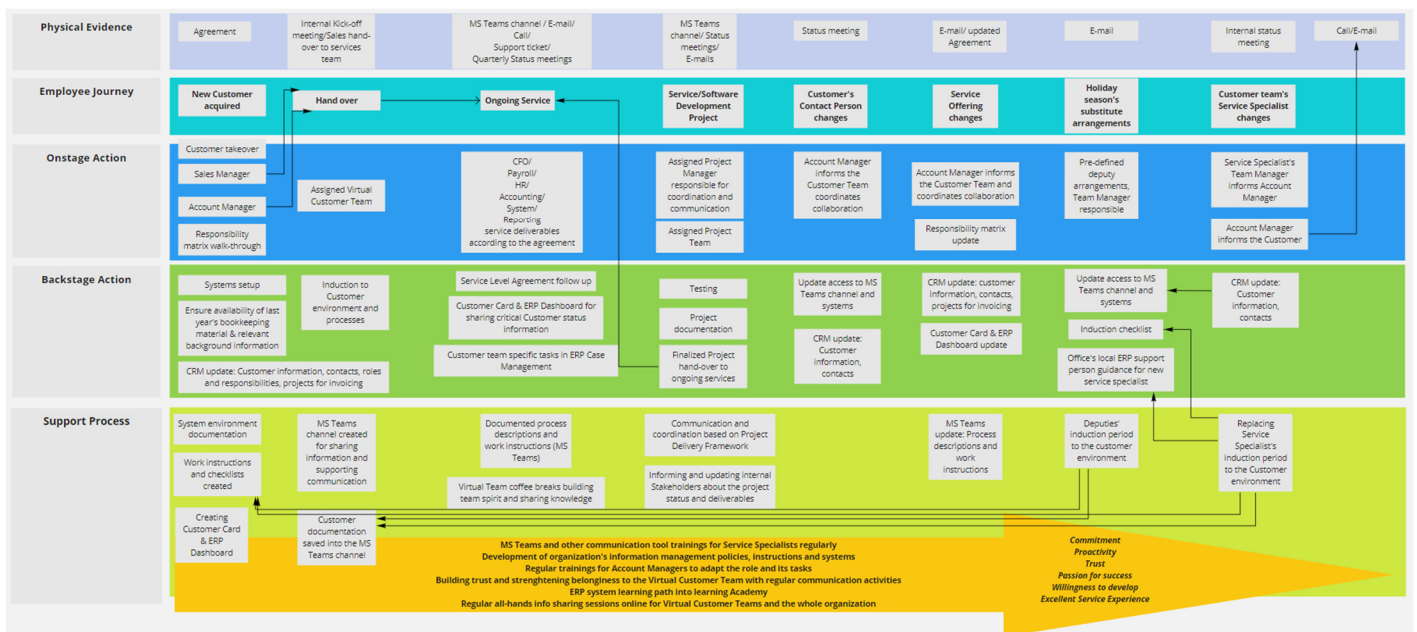


Figure 35. Communication Framework Concept.

6.4.1 New Customer Acquisition

With a new customer, an agreement is signed to agree on the service scope, content, and price. A new customer acquisition is led by the Sales Manager. Service responsibilities between the service provider and the customer is agreed upon. As Backstage Actions, relevant customer information and background data for service production is gathered, and systems are set up. Supporting actions are related to documenting customer's system environment and work instructions, updating customer dashboard, and CRM. A Customer Dashboard includes strategic information such as a customer's service level, invoicing, and contacts. The service touch point of the New Customer Acquisition is presented in Figure 36 in chapter 6.4.4.

6.4.2 Handover to the Customer Team

The Customer Dashboard and CRM are updated with assigned service specialists' information so that contact information is easily accessible for communication purposes. During the handover, an internal meeting is arranged, and the account ownership moved from the Sales Manager to the Account Manager. A Customer Team is introduced to the customer environment and tacit knowledge gained during the sales process is transferred to the customer team. The handover phase (Figure 36) is relevant for getting familiar with the customer. It is suggested to create a Microsoft Teams channel for a virtual team's communication purposes and document sharing.

6.4.3 Ongoing Service

When services are up and running, day-to-day tasks are communicated through e-mail, phone, and chat conversations. Service processes are based on documented work instructions and checklists. Depending on the nature of services, regular status meetings can be held to keep on track of the service status. It is recommended to have quarterly internal customer team meetings for 'complex' customers for status check-up and information sharing purposes.

The Account Manager is responsible for arranging these meetings and invite everyone involved in the customer team. In the ongoing services, service level agreements are followed with the help of customer dashboard and case management in ERP. To support the virtual customer team, virtual coffee breaks could be facilitated once a month to build trust and collaboration. The idea of virtual coffee breaks was adopted during the remote work

period during spring 2020 due to coronavirus pandemic. The Commissioner arranged team specific, and all-hands virtual coffee breaks to gather employees, share information, and to build the sense of community. The Service Blueprint touch point is visualized in Figure 36 in chapter 6.4.4.

6.4.4 Development Project

Services are continuously developed and automatized. Development work should be done as a project to ensure adequate coordination of the work. As some of the identified pain points were related to lack of project management and coordination, it is suggested to follow the project delivery framework model. The Project Manager is responsible to inform stakeholders, coordinate the work of project team members and follow-up the project delivery. Project deliverables should be tested, documented, and handed over to the continuing services. Touch Point of the Development Project is presented in Figure 36.

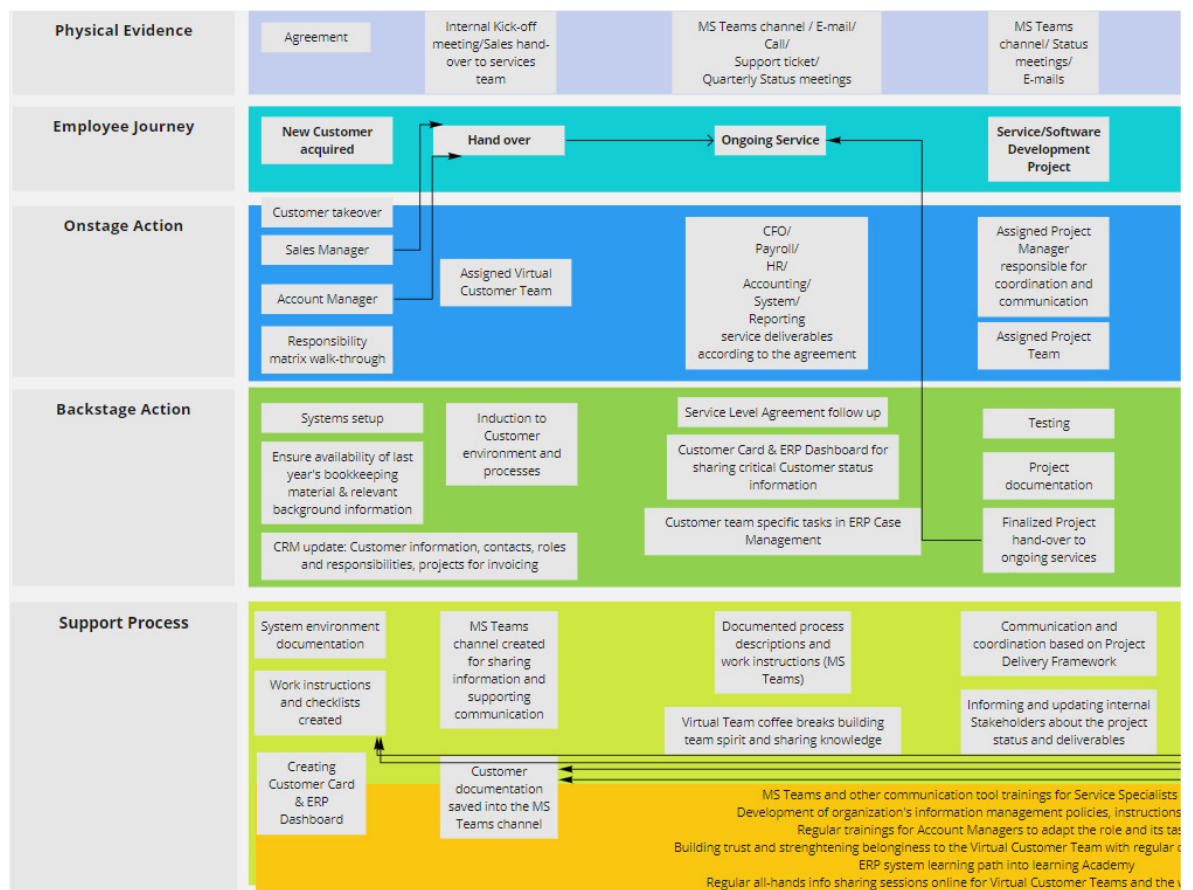


Figure 36. Touch Point Snapshot from the Internal Communication Framework.

6.4.5 Change of the Customer Contact Person

A change of the customer's contact person change may cause lack of information and awareness of service status. In these cases, the service provider supports and informs of a customer's new contact person. In addition, a service provider can offer interim, outsourced services for the customer. The Account Manager on the service provider's side informs and communicates changed circumstances to the virtual customer team, updates the Customer Dashboard, and contact information. It is recommended to arrange a status meeting with the new customer contact person, coordinated by the Account Manager. The actions of the Touch Point are presented in Figure 37 in chapter 6.4.6.

6.4.6 Change of the Service Offering

Scalability of services is one of the competitive advantages and strengths for the organization. Depending on customer needs, service offerings may change. Services can be either reduced or increased in quantity and selection. Changes in service offering (Figure 37) should be communicated formally and written between the customer and the service provider. The Account Manager is responsible for communicating a service offering change internally for the customer team and arranging required resources with the help of Team Managers. The responsibility matrix and customer dashboard should be updated to reflect the new service offering status. Work instructions and process documentations should be created if services are expanded.

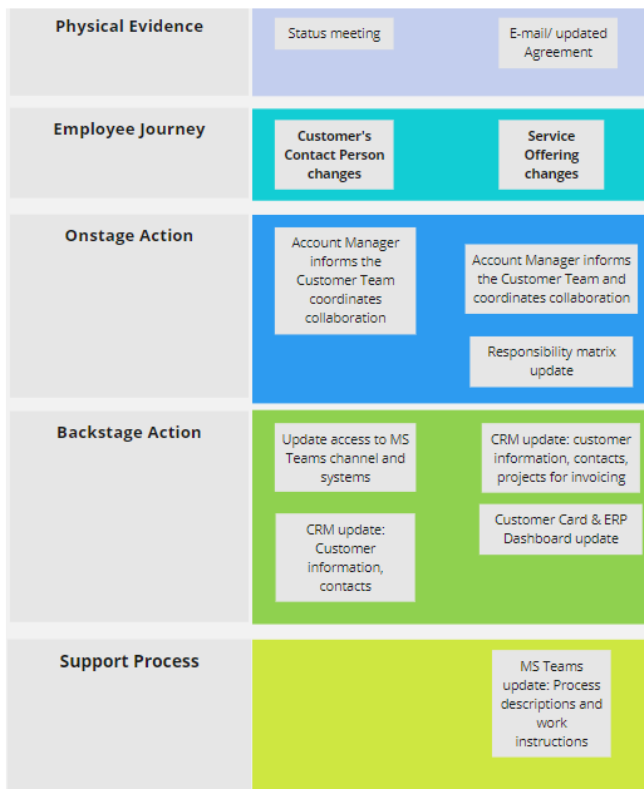


Figure 37. Touch Points of Changes in Service Offering and Customer Contact Persons.

6.4.7 Arrangements of the Holiday Season Substitutes

One of the identified pain points was related to a holiday season's substitute arrangements. It was considered that substitutes were not properly introduced with customer processes and specific requirements. Based on the internal communication framework, it is recommended to have predefined deputy arrangements. An induction period should be reserved for substitutes. Induction period is supported with a checklist to walk through with substitutes and with an introduction to customer related documentation in Microsoft Teams. Substitute arrangements are communicated with e-mail to the customer. The Team Manager is responsible for substitute arrangements to the Customer team as well as ensuring updated access rights to software and Customer's Microsoft Teams Channel. The Touch Point is visualized in Figure 38 in chapter 6.4.8.

6.4.8 Change of the Customer Team Service Specialist

Service specialist changes in the virtual customer team are communicated internally for the customer team and externally for the customer (Figure 38). An announcement is made via e-mail and/or phone to the customer. For a virtual customer team, a short internal status meeting online is arranged for the purpose of getting to know each other when new service

specialist is onboarded to the team. Accesses to systems and Microsoft Teams channel is updated as well as CRM contact information. Replacing service specialist is inducted properly. The same guidelines and instructions are applied as inducting deputies to the customer environment. Customer documentation, work instructions and checklists are available in Microsoft Teams channel. As a development suggestion, local ERP key users could support finance specialists and newcomers.

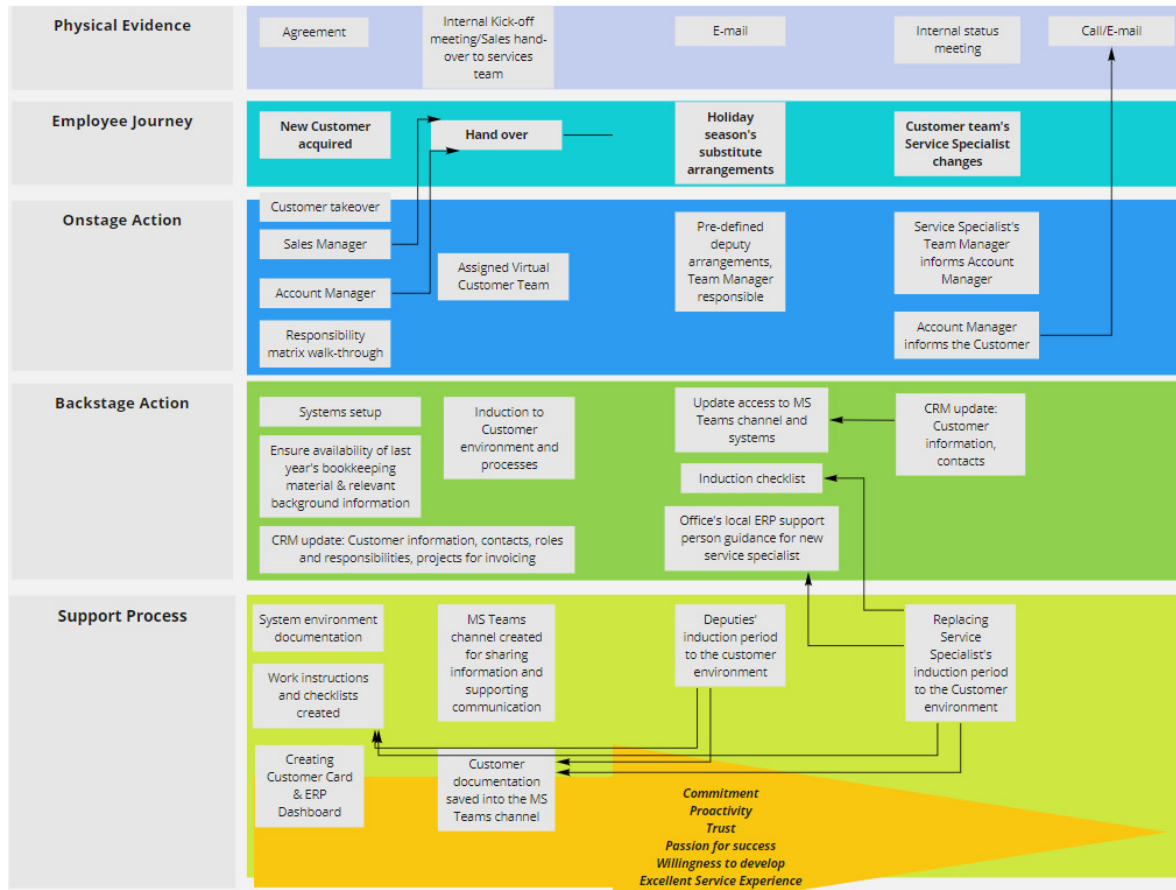


Figure 38. Touch Points of Onboarding New Members of the Virtual Customer Team.

6.4.9 Metalevel Support Processes

Development suggestions covering all service touch points, driving excellent customer experience, and strengthening organization culture are presented as metalevel support processes in the Service Blueprint (Figure 39). Training activities for communication tools, ERP system and Account Managers' tasks are suggested. Development of the Commissioner's information management policies, instructions and systems should be planned and taken into consideration. Building trust and strengthening belongingness to a virtual customer team could be done with regular communication activities. Virtual all-hands information sharing sessions and unformal virtual coffee breaks invented during the

Coronavirus pandemic could be utilized. In general, the commitment of individuals is driving effective internal communication.

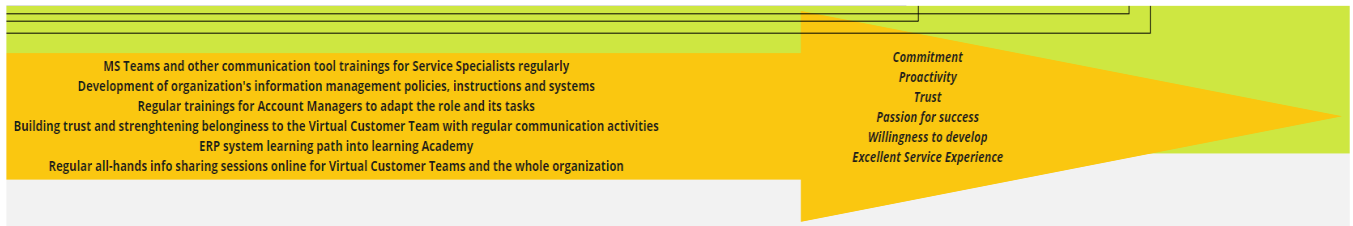


Figure 39. The Metalevel Support Processes of the Internal Communication Framework.

6.5 Feedback

The Service Blueprint of the Internal Communication Framework and initial results of the research were introduced to the Commissioner on 3.4.2020. The concept was finetuned and aligned with the Commissioner's ongoing development work related to the Project Delivery Framework, customer relationship management and role definitions. Based on the feedback the Service Blueprint was updated. Most of the updates were done to the touch points in the beginning of the customer's service journey (chapter 6.4.1 and chapter 6.4.2). Even though the Communication Concept was iterated and further developed together with the Commissioner, the Service Blueprint still needs finetuning together with the Commissioner's stakeholders before implementation.

The Commissioner agreed with the persona descriptions. However, the Commissioner made a point that based on the research data and results, the Commissioner organization was shown as a task-oriented instead of a customer-oriented organization. The value creation was based on fast responses and actions to meet the customer expectations. In the ideation workshop this was identified as a pain point, "we do a lot but coordinate little". Perhaps this is also related to the weak sense of belonging to a virtual customer team.

The Commissioner appreciated that the customer's point of view was taken into consideration. It was also discussed that there is a lot of information already available about customers, but virtual customer teams are either unaware of it, do not find it, or do not know how to use the CRM system. Much time is spent on updating several different Excel sheets about the service statuses. The role and responsibility of Account Managers still needs finetuning and customers should be treated based on the customer profile. Complex customers with several services require more intensive communication and coordination

than simple, one service customers. The Commissioner commented that she found out several interesting conclusions in the research.

The Miro tool was introduced to the Commissioner first time during the research. The tool raised interest among stakeholders. At 8.4.2020 it was further trained with the Commissioner's HR Services Partner, the Learning Academy Partner and the Senior Project Manager. The plan was to adapt the use of Miro as part of online meetings and training sessions to help improve visualizations and participation online. As an unexpected outcome of the research, a new communication and co-creation method was taken into pilot use in the Commissioner Organization. Perhaps this resembles agile organization culture and the spirit of continuous learning.

6.6 Plan for the Concept Implementation

The next phase in the Concept Implementation is to initialize a development project and assign project team members to it. The Project Team should include an assigned Project Manager, a representative from the Commissioner's HR Department, Customer Relationship Manager, Account Managers, and employee representatives. The concept should be detailed and expanded with the project team. As a method to further elaborate the concept, co-creation workshops with the project team are recommended. A roadmap and schedule for the implementation should be created. An implementation plan should be agreed together with each service unit and office to ensure a common understanding about the required actions.

A Communication Framework could be piloted with one or two virtual teams. Based on the feedback, the framework could be again developed and then implemented through the organization. The internal training academy should keep trainings about the common way of working to support the implementation. Virtual teams need to be strengthened to make the Communication Framework legitimate.

As a parallel process, team performance metrics and compensation models should be developed. As discussed in the theory framework of the research, strengthening common goals of customer teams may result in better team performance and thus providing excellent services for customers. To make this visible, it is suggested that virtual customer team performance and customer satisfaction is measured. Based on the feedback, virtual customer teams should be awarded and complemented as a *unite team*. This would lead to stronger commitment to the team. Stabilizing the membership of virtual teams is also crucial. Long-

term shared work experience and building trust within a team is possible only through stabilizing the membership of virtual teams.

Account Managers need to take the coordination responsibility and commit to arrange necessary repetitive meetings and facilitate joint communication platforms for virtual teams. It should be discussed whether there should be more Account Managers sharing customer responsibilities to ensure customer team and customer relationship management among complex customers. The implementation plan is visualized in Figure 40 and Appendix 16.

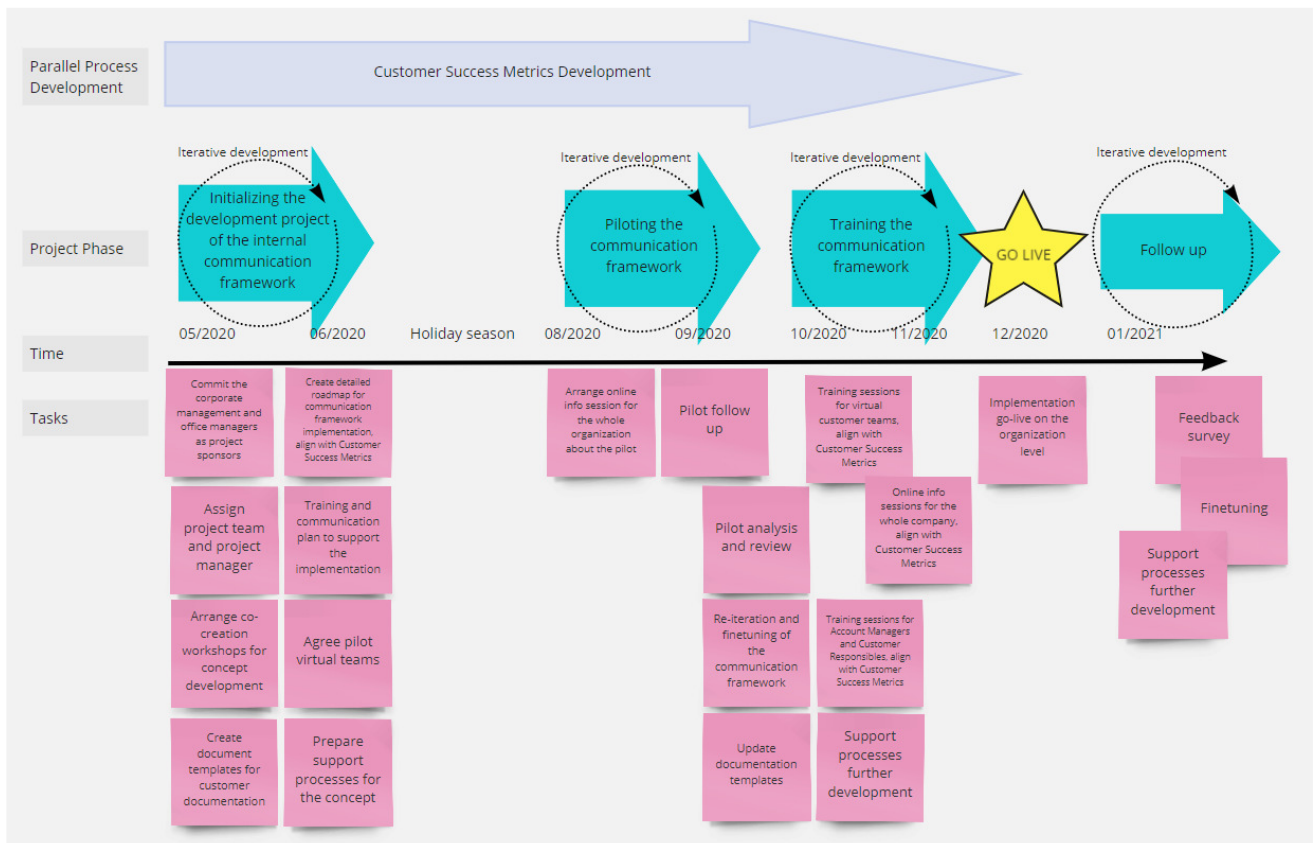


Figure 40. Project Plan for the Concept Implementation.

7 Conclusions

The Master's Thesis focused on service designing and developing co-working possibilities and internal communication in virtual expert teams in the Commissioner organization. Development was done in collaboration with the Commissioner's employees and customers. The thesis goal was to provide a first iteration of a virtual customer team communication framework to be piloted and iterated by the commissioner organization. The internal communication was researched in the framework of service design, co-creation, and customer experience. The theoretical framework of the thesis consisted of a literature review

on leadership in virtual teams, communication in virtual teams, co-creation in virtual teams and the concepts of service design and design thinking. The goal of the thesis was to involve employees and customers to develop services by developing internal communication of virtual customer teams. The fundamental idea in the thesis was produce excellent customer experience by developing co-working possibilities and communication practices in virtual teams. The scope and the focus of the thesis was in the most complex customer segment. To conclude the research, the thesis' research questions are presented below with the synopsis of results.

What are the experiences and expectations for internal communication in a virtual customer team?

Experiences. Certain aspects of internal communication are working well. Everyday communication related to customer work is satisfactory. Employees appreciate an open, warm, and honest atmosphere at the Commissioner organization. They also feel they get support from their peers. The organization culture is highly valued, and it drives the Commissioner's business. Core values are reflected for customers as well. In some cases, service specialists feel that they do not get enough system support and there are several follow-up excels maintained to follow-up services. The sense of belonging to a virtual customer team is vague and employees have difficulties to understanding the nature of work done in other services teams. There are also some cultural differences between offices and even some language barriers due to dialect issues. Coordination issues of work occur.

Expectations. Employees expect adequate basic information about new customers and joint internal kick-off sessions for the whole virtual customer team. More attention should be paid to inducting and documenting customer processes. In development projects, employees would like to see clear project management and coordination of activities to ensure necessary communication. The communication and coordination needs arise together with customer complexity. Regular meetings with the customer team are more important for more complex customers. Employees would like to see clear decisions on which mediums to use in communication. Roles should be clearly defined. Work related systems and software should be properly introduced and trained. Commitment to a virtual team should be emphasized. Avoiding changes in customer teams and agreeing substitute arrangement in advance are important.

How should internal communication be developed so that relevant and necessary information is communicated to all specialists in the virtual customer team?

Technology and Tools. The use of network folders should be terminated, and the use of communication tools should be harmonized. New communication tools need to be trained properly. Checklists, system environment and process descriptions should be included with each customer and development project as a mandatory part.

Coordination and Control. The Commissioner's Project Delivery Framework should be applied throughout the organization in every customer and development project to ensure necessary stakeholder and virtual customer team communication. In continuing services, case management system could be utilized for tracking team level and repetitive tasks. This could release service specialists from updating several follow-up Excels.

The tasks of the Account Manager should be trained and adapted more thoroughly. Regular internal customer team meetings should be arranged for the complex customers. Regular virtual meeting arrangements should be coordinated by the Account Managers. Customer team communication activities should be measured and tracked in CRM to ensure unite way of working.

How to strengthen the sense of belonging to the virtual customer team?

Tools and Technology. Utilizing Microsoft Teams as a virtual customer team communication platform would harmonize information sharing practices. Adding Customer Dashboard visible for all employees in CRM with necessary customer information would be helpful. Using intranet group for communication purposes should be continued and strengthened.

Trust and Collaboration. Monthly virtual all-hands information sharing sessions and coffee breaks could be utilized to build team commitment and trust. These would offer a cost-efficient way to communicate and build unity between different services and offices. Regular online meetings, small employee turnover, clear role definitions and strong customer ownership in the virtual customer team would help to build trust.

As the Commissioner has grown rapidly, it is possible that communication methods and work practices are behind. What has worked well with 50 employees, does not necessarily work with over 300 employees, 2000 customer companies, and 10 office locations. Policies need to adapt to changing organization size, environment, working remotely and virtually in customer teams. Commitment and agreement of common communication practices is needed to align the way of working in virtual customer teams. In addition, measurement practices for customer success should be developed and results should be published inside

the organization. This would allow rewarding best virtual customer teams and showing example in excellence.

During spring 2020 societies and economies globally faced a new situation in the form of Coronavirus pandemic. Social distancing as a method of restricting the spread of the virus was taken into use. Virtual and remote working possibilities were seriously needed in this situation. Virtual work and efficient online communication methods have been available quite a long time already, but in spring 2020 it became even more important than previously. As an outcome of this, it is possible to find out new ideas and concepts how to efficiently communicate and provide services despite the distance.

The Coronavirus pandemic has had disruption effect on markets. As KPMG Finland's CEO Kimmo Anttonen wrote (2017), disruption should be taken as a learning process. We need to forget old customs, adapt, and learn new strategies in knowledge work. This means that there should be a room for willingness to change organization's culture to meet the changing environment. Disruptions are always a possibility. (KPMG 2017.)

8 Evaluation and Analysis

The research schedule and process were followed as planned. Due to the Coronavirus pandemic, some changes to planned methods had to be made. The piloting of the customer team sitting in same office area was cancelled. The idea of piloting was to research if physical closeness would have enabled customer team communication and unity. An additional interview with the Commissioner's HR and the summary of weekly remote work pulse surveys was done to include insights about mandatory remote work due to the disruptive effect.

Different methods were diversely used in the research. Methods used in the research were preliminary research, self-observation, employee interviews, internal stakeholder interviews, customer interviews, self-documentation, co-creation workshops, ideation, and conception. The most suitable and the most important methods in the thesis were co-creation workshops, interviews and concepting. Most of the discovered pain points and development suggestions were gathered with these methods. Experience of using different methods may have impacted on the quality of the data gathered with different methods. Workshop facilitation was familiar method to the researcher who is on the other hand inexperienced on conducting interviews.

Employees, internal stakeholders, customers, and the commissioner were helpful, motivated, and actively participated into the research process. Both employees' and customers' point of views were gathered. However, the number of customer interviews was limited to only two, as the first quarter of the year is typically the busiest period in financial services and thus it was difficult to find time for interviews. The goals of the thesis were well met.

When researching ongoing service production, the research work should be well planned and organized as efficiently as possible. It is about balancing between adequate level of gathering user understanding, keeping the schedule, involving users without delaying their work too much, and delivering high quality research data. To find this balance, some concessions were made during the research process and small changes were made to the original research plan.

With a different schedule, it would have been interesting to arrange more customer interviews. The method of asking 'Five whys' could have been used systematically to gain deeper insights. More predefined and versatile themes could have been used in the interviews. For example, the leadership in virtual teams was not thoroughly handled in the interviews. In addition, to gather employee views, group interviews could have been a fruitful method. As the online workshop concept was working well, it would have been interesting to arrange one more ideation workshop for another virtual customer team. The exceptional spring due to the Coronavirus pandemic impacted on the level of concepting the Internal Communication Framework. It could have been done further with the help of piloting. The Commissioner's key stakeholders, however, were naturally busy and occupied with additional workload caused by the changed working arrangements.

As a follow-up, it is suggested to take the Internal Communication Framework concept into use and based on experiences, iterate it to include all necessary touch points and needed actions and support processes. By iterative co-development work the Communication Framework can be complemented and taken into use as practical guideline. It is suggested that the Commissioner's Customer Relationship Manager takes the ownership of the Internal Communication Framework and develops it in the close co-operation with different stakeholders.

As another follow-up it would be interesting to perform a review research after a year or two. It would be interesting to see which of the remote work methods have been adapted to everyday work after the Coronavirus pandemic and the adaptation of the development

suggestions. It would be interesting to see how attitudes towards remote work and the nature of virtual teamwork may have changed.

The research work got full support and acceptance from the Commissioner. It was a great pleasure to work with active and highly motivated participants in interviews and workshops. The commitment to delight the customer as a driving principle is an excellent starting point to develop internal communication in virtual customer teams.

The research process taught for the researcher online workshop organization and facilitation skills. It was crucial to plan the workshop agenda and appropriate methods carefully. Precise planning made it easy to work online. It was also a learning experience for online workshop participants as the Miro tool was introduced to a wider audience in the Commissioner organization. The research process strengthened the researcher's skills to select and use appropriate service design methods and tools. At last, warmest thanks are extended to all the participants and the stakeholders involved in the research work. Without co-creation, this research would not have been done.

Reference List

Accounting Act 1336/1997 §3. [Online]. Read 20.1.2020. Available from: <https://www.finlex.fi/fi/laki/ajantasa/1997/19971336>

Act on the Protection of Privacy in Working Life 759/2004. [Online]. Read 20.1.2020. Available from: <https://www.finlex.fi/fi/laki/smur/2004/20040759>

Andriessen, J. H. E. & Vartiainen, M. 2006. Emerging Mobile Virtual Work. *In Mobile Virtual Work. A New Paradigm? Edited by Andriessen, J. H. E. & Vartiainen, M. 2006.* Germany: Springer.

Atwater, D. C. & Bass, B. M. 1994. Transformational Leadership. *In Improving organizational effectiveness through transformational leadership. Edited by Bernard M. & Avolio, Bruce J.* New York: Sage Publications.

Björkegren, C. & Rapp, B. 1999. Learning and knowledge management. A theoretical framework for learning in flexible organizations. *In Virtual Working. Social and organisational dynamics. Edited by Jackson, P. 1999.* Great Britain: Routledge.

Bedford, C & Lee, A. 2009. Would You Like Service with That? *In DesignThinking. Integrating Innovation, Customer Experience, and Brand Value. Edited by Lockwood, T. 2009.* New York: Allworth Press.

Collins, K., Cook, M. R. & Choukeir, J. 2017. Designing on the spikes of injustice: Representation and co-design. *In Designing for Service. Key Issues and New Directions. Edited by Sangiorgi, D. and Prendiville, A.* Great Britain: Bloomsbury.

Cramton, C. D. & Orvis, K. L. 2003. Overcoming Barriers to Information Sharing in Virtual Teams. *In Virtual teams that work. Creating Conditions for Virtual Team Effectiveness. Edited by Gibson, C. & Cohen, S. 2003.* United States of America: Jossey Bass.

De Paoli, D. 2015. Virtual Organizations: a call for new leadership. *In Leadership in Spaces and Places. Edited by Ropo, A., Salovaara, P., Sauer, E., De Paoli, D. 2015.* Edward Elgar Publishing Limited. CPI Group, Great Britain.

Design Council, 2019a. The Design Process: What is the Double Diamond? [Online]. Read 1.1.2019. Available from: <https://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond>

Design Council, 2019b. Design methods for developing services. [Online]. Read 1.1.2019. Available from:

https://www.designcouncil.org.uk/sites/default/files/asset/document/DesignCouncil_Design%20methods%20for%20developing%20services.pdf

Dubé, L. & Paré, G. 2004. The Multifaceted Nature of Virtual Teams. *In Virtual Teams. Projects, Protocols and Processes. Edited by Pauleen, D. 2004.* Hershey: Idea Group Publishing.

Eskola, J. & Suoranta, J. 2000. Johdatus laadulliseen tutkimukseen. Jyväskylä: Vastapaino.

Financial Management Association 2020a. KLT-accountant. [Online]. Read 15.2.2020. Available from: <https://taloushallintoliitto.fi/klf>

Financial Management Association 2020b. PHT payroll specialist. [Online]. Read 15.2.2020. Available from: <https://taloushallintoliitto.fi/pht>

Holger, E., Hoyer, W., Krafft, M. & Soll, J-H. 2017. Virtual Co-Creation with Customers in the Early Stages of New Product Development. [Online]. Read 3.4.2020. Available from: <https://ssrn.com/abstract=3053800>

Hinds, P. & Weisband, S. 2003. Knowledge sharing and shared understanding in virtual teams. *In Virtual teams that work. Creating Conditions for Virtual Team Effectiveness. Edited by Gibson, C. & Cohen, S. 2003.* United States of America: Jossey Bass.

Hirsjärvi, S., Remes, P. & Sajavaara, P. 2005. Tutki ja kirjoita. Jyväskylä: Gummerus Kirjapaino Oy. Kustannusosakeyhtiö Tammi.

Huotari, S. 2019. Industryhack White Paper – Yhteistyöstä yhteiskehittämiseen. [Online]. Read 23.4.2020. Industryhack. Available from: [https://industryhack.com/whitepaper-yhteistyosta-yhteiskehittämiseen/](https://industryhack.com/whitepaper-yhteistyosta-yhteiskehittamiseen/)

Interaction Design Foundation, 2018. What is ideation. [Online]. Read 18.03.2019. Available from: <https://www.interaction-design.org/literature/topics/ideation>

Interaction Design Foundation 2020a. Personas. [Online]. Read 16.1.2020. Available from: <https://www.interaction-design.org/literature/article/personas-why-and-how-you-should-use-them>.

Interaction Design Foundation 2020b. Understanding Early Adopters and Customer Adoption Patterns. [Online]. Read 5.4.2020. Available from: <https://www.interaction-design.org/literature/article/understanding-early-adopters-and-customer-adoption-patterns>

Jaworski, B. & Kohli, A. J. 2006. Co-creating the voice of the customer. *In The Service-Dominant Logic of Marketing. Dialog, Debate and Directions. Edited by Lusch, R. F. & Vargo, S. L. 2006.* United States: M.E. Sharpe.

Katzenbach, J. R. & Smith, D. K. 1994. The Wisdom of Teams. Creating the High-Performance Organization. United States: HarperBusiness.

Kirjanpitola-autakunta 2020. Kirjanpitola-autakunnan yleisohje kirjanpidon menetelmistä ja aineistoista 1.2.2011. [Online]. Read 19.1.2020. Available from: https://kirjanpitola-autakunta.fi/yleisohjeet-artikkeli/-/asset_publisher/yleisohje-kirjanpidon-menetelmista-ja-aineistoista

KPMG 2017. Mikä ihmeen disruptio? [Online]. Read 5.4.2020. Available from: <https://suuntakasvuun.kpmg.fi/2017/09/04/mika-ihmeen-disruptio/>

Lockwood, T. 2010. Foreword: The Importance of Integrated Thinking. *In Design Thinking. Integrating Innovation, Customer Experience, and Brand Value. Edited by Lockwood, T. 2010.* New York: Allworth Press.

Lovlie, L. 2016. In service design, it's pilot or perish. [Online]. Read 30.4.2019. Lockwood Resource blog. Available in: <https://lockwoodresource.com/in-service-design-pilot-or-perish-by-lavrans-lovlie/>

MindTools 2020. Virtual ice breakers. [Online]. Read 13.2.2020. Available from: <https://www.mindtools.com/pages/article/virtual-ice-breakers.htm>

Ministry of Economic Affairs and Employment of Finland 2020. Uusi työaikalaki pähkinänkuoressa. [Online]. Read 25.1.2020. Available from: <https://tem.fi/uusi-tyoaikalaki-pahkinankuoressa>

Morath, F. A. & Schmidt, A. P. 1999. Management of knowledge as interface management. From exp-worlds to endo-worlds. *In Virtual Working. Social and organisational dynamics. Edited by Jackson, P. 1999.* Great Britain: Routledge.

Rainio, I., 2014. Co-created Corporate Story – Creating a Concept for engaging Staff into Change Implementation. Degree Programme in Service Innovation and Design Master's Thesis. Laurea ammattikorkeakoulu.

Ropo, A., Eriksson, M., Sauer, E., Lehtimäki, H., Keso, H., Pietiläinen, T. & Koivunen, N. 2005. Jaetun johtajuuden särmät. Jyväskylä: Gummerus Kirjapaino Oy. Talentum.

Salovaara, P. 2015. What can the coworking movement tell us about the future of workplaces? *In Leadership in Spaces and Places. Edited by Ropo, A., Salovaara, P., Sauer, E., De Paoli, D. 2015.* Great Britain: Edward Elgar Publishing Limited.

Sangiorgi, D. & Prendiville, A. 2017. Introduction. *In Designing for Service. Key Issues and New Directions. Edited by Sangiorgi, D. and Prendiville, A.* Great Britain: Bloomsbury.

Service Design Tools, 2018a. Personas. [Online]. Read 29.12.2018. Available from: <http://www.servicedesigntools.org/tools/40>

Sivistystoimen työkalupakki 2020a. Self-documenting. [Online]. Read 13.2.2020. Available from: https://designresearch.aalto.fi/groups/encore/wp-content/uploads/2013/11/Sivistystoimen_tyokalupakki_palvelumuotoiluun2.pdf

Sivistystoimen työkalupakki 2020b. Interviews. [Online]. Read 15.3.2020. Available from: https://designresearch.aalto.fi/groups/encore/wp-content/uploads/2013/11/Sivistystoimen_tyokalupakki_palvelumuotoiluun2.pdf

Sliger, M. 2011. Agile project management with Scrum. [Online]. Read 14.3.2020. Available from: <https://www.pmi.org/learning/library/agile-project-management-scrum-6269>

Stagl, K. C., Salas, E. & Burke, C. S. 2007. Best Practices in Team Leadership. What Team Leaders Do to Facilitate Team Effectiveness. *In The Practice of Leadership. Developing the next generation of leaders. Edited by Conger, J. A. & Riggio, R. 2007.* United States: Jossey-Bass.

Stickdorn, M. & Schneider, J., 2017. This is Service Design Thinking. Amsterdam: BIS Publishers.

Stickdorn, M., Horness, M., Lawrence, A., Schneider, J. 2018. This is Service Design Doing. Sebastopol: O'Reilly Media Inc.

Strategyzer, 2019a. [Online]. Read 29.4.2019.

<https://blog.strategyzer.com/posts/2015/2/9/why-and-how-organizations-around-the-world-apply-the-business-model-canvas>

The Centre for Occupational Safety, 2019. Etäjohtaminen ja virtuaalinen vuorovaikutus työyhteisössä. [Online]. Read 26.12.2019. Available from:

https://ttk.fi/koulutus_ja_kehittaminen/julkaisut/digijulkaisut/etajohtaminen_ja_virtuaalinen_vuorovaikutus_tyoyhteisossa

Turku Business Region, 2019. [Online]. Read 26.12.2019

<https://turkubusinessregion.com/2019/04/15/miten-autonomiset-laiivat-vaikuttavat-liiketoimintaan-yhteiskehittamista-kokeiltiin-onlinetyopajassa/>

Tuulaniemi, J. 2011. Palvelumuotoilu. Talentum Media Oy, Hämeenlinna.

Tyran, K., Tyran, C., Shepherd, M. 2003. Exploring Emerging Leadership in Virtual Teams. *In Virtual teams that work. Creating Conditions for Virtual Team Effectiveness. Edited by Gibson, C. & Cohen, S. 2003.* pp. 184. Unites States of America: Jossey-Bass.

Työelämä 2020, 2019. [Online]. Read 28.11.2019. Available from: https://www.tyoelama2020.fi/tietoa_hankkeesta/tyoelaman_kehittaminen_2020-tyon_ja_tyomarkkinoiden_murros

Usability, 2018. Personas. [Online]. Read 29.12.2018. Available from: <https://www.usability.gov/how-to-and-tools/methods/personas.html>

Uusi Kaiku 2015. Tuloksellista työtä virtuaalitiimissä. [Online]. Read 26.12.2019. Available from: <https://www.jyu.fi/hytk/fi/laitokset/kivi/tutkimus/hankkeet/muut-tutkimushankkeet/invite/tuloksellista-tyota-virtuaalitiimissa-uusi-kaiku-1-2015.pdf>

Wilson, J. R. 2006. Collaboration in Mobile Virtual Work: A Human Factors View. *In Mobile Virtual Work. A New Paradigm? Edited by Andriessen, J. H. E. & Vartiainen, M. 2006.* Germany: Springer.

Working Hours Act 872/2019. [Online]. Read 25.1.2020. Available from: <https://www.finlex.fi/fi/laki/alkup/2019/20190872>

Yle 2020a. Koronavirus synnytti etätyöbuumin, joka saattaa mullistaa työelämän – Asiantuntija: Tässä ollaan aika isojen muutosten äärellä. [Online]. Read 16.3.2020. Available from: <https://yle.fi/uutiset/3-11257808>

Yle 2020b. Korona teki mahdottomasta mahdollisen – musta joutsen voi tutkijan mukaan muuttaa tulevaisuuden suunnan pysyvästi. [Online]. Read 16.3.2020. Available from: <https://yle.fi/uutiset/3-11252317>

Zigurs, I. & Khazanchi, D., 2008. Applying Pattern Theory in The Effective Management in Virtual Teams. In *E-Collaboration in Modern Organizations. Initiating and Managing Distributed Projects*. Edited by Kock, N. United Kingdom: Information Science Reference.

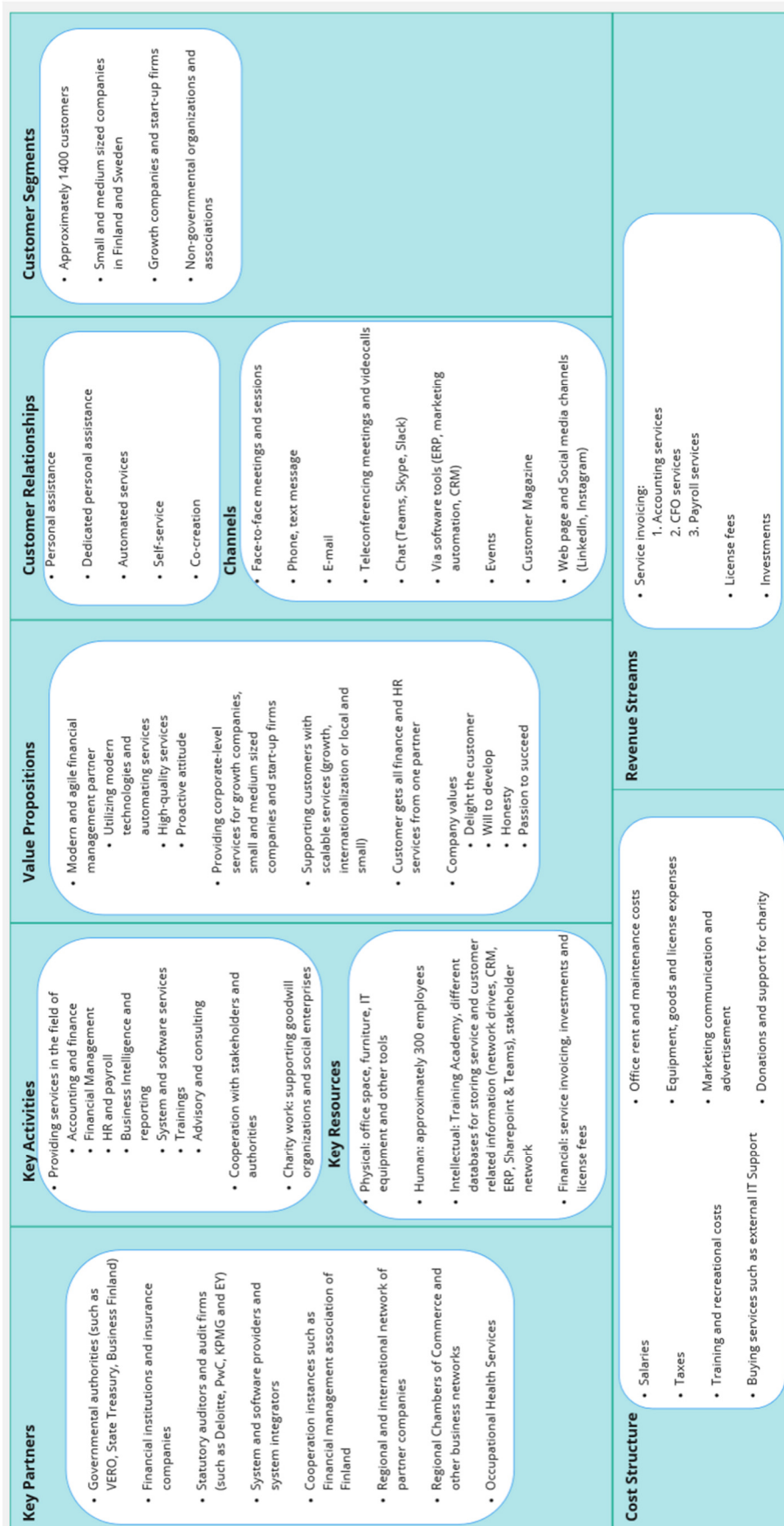
Åberg, L. 2004. Johdatus viestintään, kuudes teema: Organisaatioviestintä. Lecture Material. University of Helsinki. Read 23.4.2020. Available form: <https://slideplayer.fi/slide/5591675/>

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Appendix 1. The Business Model Canvas of the Commissioner



Appendix 2. Information Sheet for the Employee Interview

TIETOLEHTI 2/2020

TUTKIMUKSEN AIHE: Service Designing Co-working Possibilities and Internal Communication in Virtual Expert Teams

Hyvä vastaanottaja,

Olen Noora Raitanen ja opiskelen Novia ammattikorkeakoulussa. Toivon, että voisin haastatella sinua tutkimukseeni, joka käsittelee sisäisen viestinnän ja yhteistyön palvelumuotoilua virtuaalisissa asiakastiimeissä yrityksessä, jossa työskentelet.

Opiskelen YAMK-tutkintoa Novia ammattikorkeakoulussa englanninkielisessä koulutusohjelmassa Degree Programme of Leadership and Service Design. Tutkimus on osa MBA-tutkinnon lopputyötä.

Haastattelu keskittyy odotuksiisi ja kokemuksiisi sisäisestä viestinnästä virtuaalisessa asiakastiimissä sekä ehdotuksiisi, miten asiakastiimin yhteistyötä ja viestintää voitaisiin parantaa.

NOVIA ammattikorkeakoulun eettisten ohjeiden mukaan, haastattelun aineistot ja tiedot ovat täysin luottamuksellisia ja anonyymeja. Nimiä tai identifioivia tietoja osallistujista ei käytetä lopputyössä. Osallistuminen haastatteluun vapaaehtoista ja voit halutessasi kieltäytyä osallistumasta tutkimukseen.

Suostumuksellasi haastattelu nauhoitetaan. Nauhoite on ainoastaan minun käytettävissäni ja nauhoite tuhotaan, kun lopputyö on julkaistu.

Lopputyö julkaistaan web-palvelussa: <https://www.theseus.fi/>. Lopputyön kieli on englanti. Jos sinulla on kysymyksiä, vastaan niihin mielelläni. Kiitos osallistumisestasi!

Noora Raitanen noora.raitanen@gmail.com 045-78814103

Appendix 3. Theme Questions for the Employee Interview

How long have you worked for the company X?

How many customers you are taking care of?

Which service teams do you collaborate with?

What services does your customers buy?

Example customer which services are produced in different offices

In which situations there is communication between different customer teams

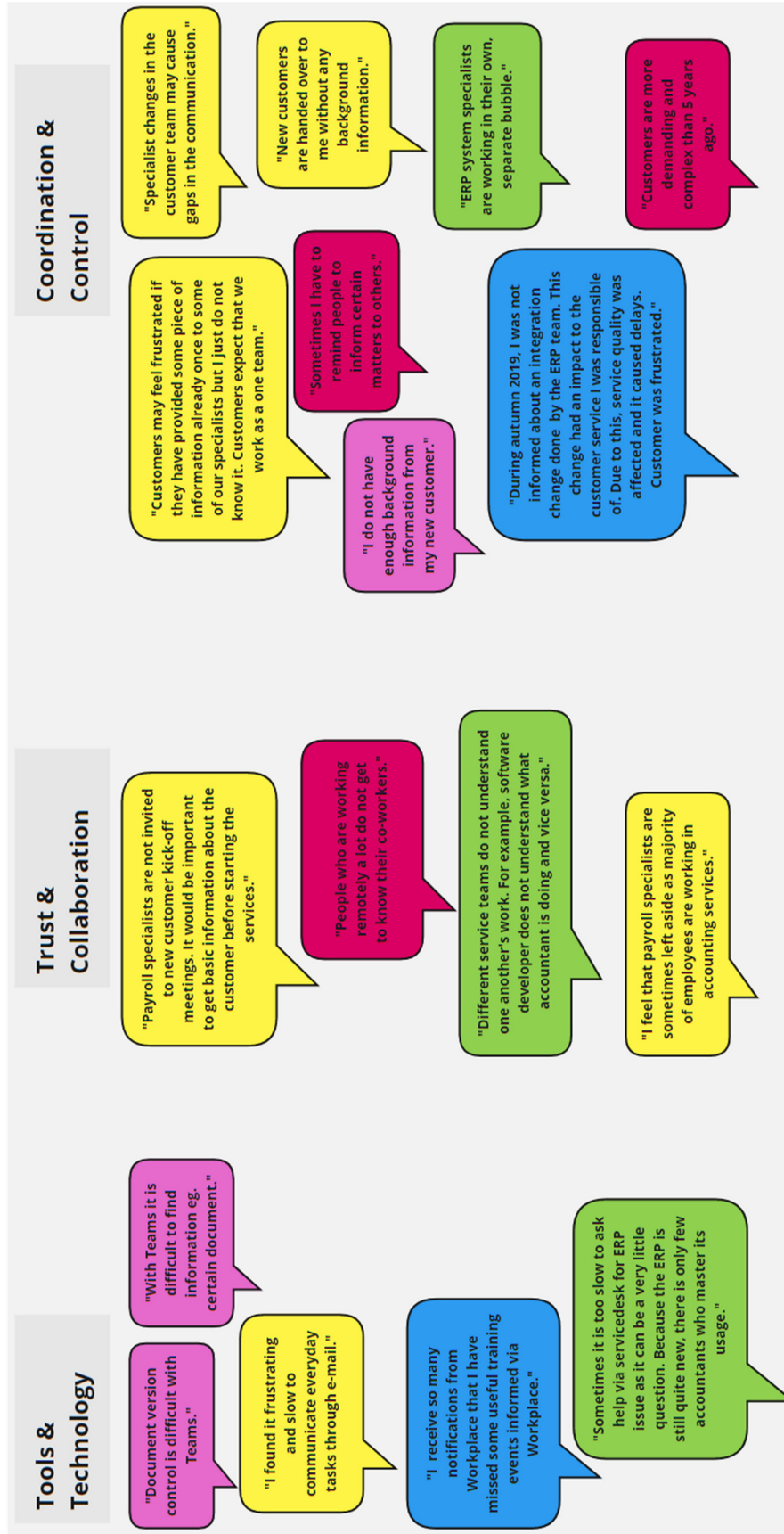
What works well (in the communication)?

What causes issues (in the communication)?


Do you suggestions or development ideas to improve internal communication?

- Processes
- Collaboration
- Tools


Appendix 4. Frustrations and Challenges of the Virtual Customer Team Communication



Appendix 5. Invitation for the Persona Co-creation Workshop

 **Events**


[Upcoming](#) [Calendar](#) [Celebrations](#) [More ▾](#)



JAN 17 Help wanted! Kuvailaan yhdessä GS-asiiantuntijan 'arkkityypit'

Event for [Tampere](#) · Hosted by [Noora Raitanen](#) and [Tampere](#)

[Edit](#) [...](#)

 **Friday, 17 January 2020 from 09:00-14:30**
about 1 week ago

 **Tampere Office**

2 went · 0 maybe · 60 invited
[Invite your colleagues to this event](#)

Teen YAMK-tutkintoon lopputyötä aiheesta Service designing co-working possibilities and communication in virtual expert teams.

Tähän liittyen yhtenä tehtävänä on kerätä informaatiota ja muodostaa asiakastiimissä toimivista asiantuntijoista persoonat. Persoonat ovat ikään kuin arkkityyppjä asiantuntijoistamme.

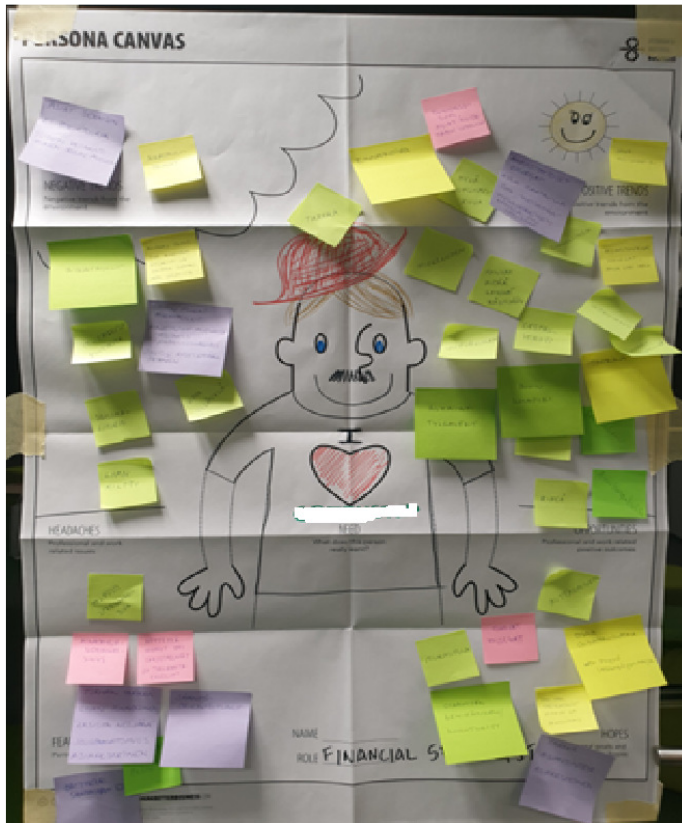
Laitan huomenna 3 kpl postereita kahvihuoneen ympäristöön ja toivon, että voisitte huomenna käydä postereihin kuvailemassa, minkälaisia toiveita, piirteitä, tarpeita ja haastavia asioita liittyy

- kirjanpitäjän tehtäviin
- palkanlaskijan tehtäviin
- järjestelmäasiantuntijan tehtäviin

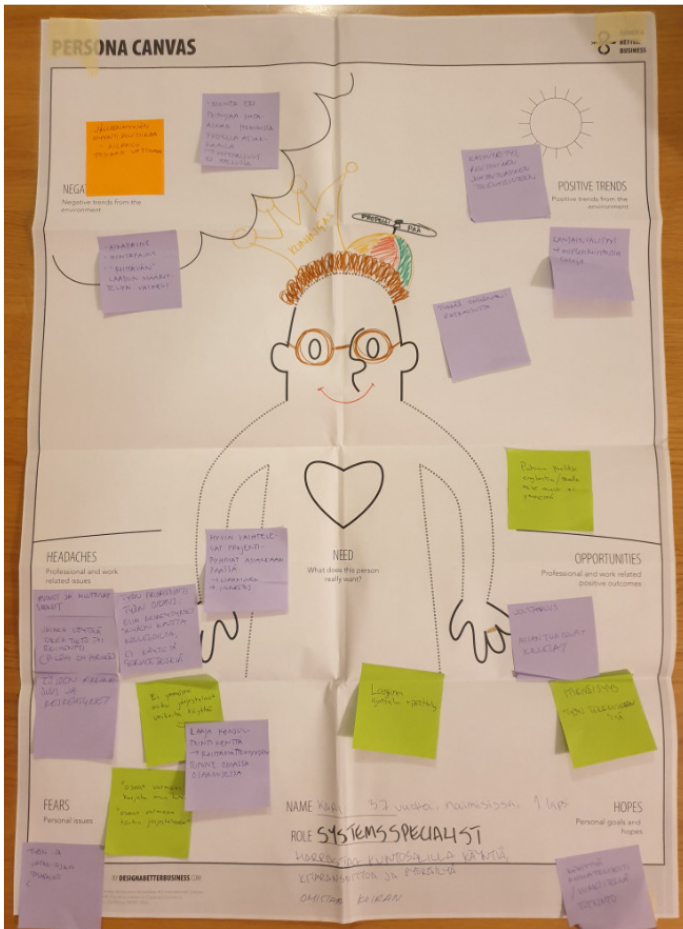
Persoonat/arkkityypit yleensä myös nimetään ja kuvataan taustoja, jotta persoonista tulee mahdollisimman realistiset.

Kerron huomenna kahvitunnilla lisää ja lupaan tarjota suklaata kaikille osallistujille :)

Appendix 6. Original Persona Canvas of 'Marjo'



Appendix 7. Original Persona Canvas of 'Kari'



Appendix 8. Invitation for the Ideation Workshop 6.2.2020

Start time	to 6.2.2020	13.00	<input type="checkbox"/> All day	<input type="checkbox"/> Time zones
End time	to 6.2.2020	14.00	Make Recurring	
Location	Microsoft Teams Meeting			

Hei,

kutsun teidän online ideointityöpajaan, jonka aiheena on sisäisen viestinnän kehittäminen -asiakastiimissä.

Päivitän tähän kutsuun vielä lähempänä ajankohtaa kirjautumisohjeet Miroon, jota hyödynnetään työpajassa ideointialustana.

Miroon pääset kirjautumaan linkistä:

<https://miro.com/welcomeonboard/8RdNrK6CF8abudQQIPVrAJrQKqzC7EQ0Atzpphz1pXy0rvVuZPCLsczv7LNYqJa>

Voit tunnistautua palveluun esimerkiksi O365 tunnuksellasi (etunimi.sukunimi@.fi)

Käydään Miron toiminnallisuuksia vielä työpajan alussa yhdessä läpi.

Työpaja liittyy opintoihini, teen YAMK-tutkintoon lopputyötä aiheesta

Service designing co-working possibilities and internal communication in virtual expert teams

Lopputyössäni etsin vastauksia mm. seuraaviin kysymyksiin

- *What are the adequate level, sequence, methods, and contents for internal communication in order to provide excellent customer experience as a one team?*
- *How to ensure that relevant and necessary information is communicated to all specialists in the virtual team?*
- *How to utilize available online tools?*

ystävällisin terveisin Noora

[Join Microsoft Teams Meeting](#)

Appendix 9. Improvement Ideas of the First Workshop



Appendix 11. Invitation for the Ideation Workshop 21.2.2020

Start time	pe 21.2.2020	12.00	<input type="checkbox"/> All day	<input type="checkbox"/> Time zones
End time	pe 21.2.2020	13.00	Make Recurring	
Location	Microsoft Teams Meeting			

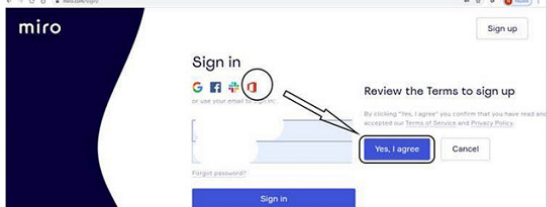
Hei,

kutsun teidät online-ideointityöpajaan, jonka aiheena on sisäisen viestinnän kehittäminen -asiakastilimissä.
Kutsuin tähän työpajaan -asiakkuuden parissa työskenteleviä . Jos huomaat, että joku kollegasi puuttuu tästä kutsusta, niin välitäthän kutsun myös hänelle!

Työpajassa hyödynnetään ideointialustana Miroa. **Huom!** Otathan mukaan oman tietokoneesi.

Miroon pääset kirjautumaan linkistä:
<https://miro.com/welcomeboard/FKRjqrTlqAMJ2NREYBaKKA0JWfYJrWRyVb8vFcF5xim6qARArhASTV0ElyZa>

Voit tunnistautua palveluun esimerkiksi O365-kuvakkeesta tunnuksellasi (etunimi.sukunimi@... fi):



Käydään Miron toiminnallisuuksia vielä työpajan alussa yhdessä läpi.

Työpaja liittyy opintoihini, teen YAMK-tutkintoon lopputyötä aiheesta
Service designing co-working possibilities and internal communication in virtual expert teams

Lopputyössäni etsin vastauksia mm. seuraaviin kysymyksiin

- *What is adequate level, sequence, methods, and contents for internal communication in order to provide excellent customer experience as a one team?*
- *How to ensure that relevant and necessary information is communicated to all specialists in the virtual team?*
- *How to utilize available online tools?*

Lämpimästi tervetuloa ideoimaan!

ystävällisin terveisin Noora Raitanen

[Join Microsoft Teams Meeting](#)

[Learn more about Teams](#) | [Meeting options](#)

Appendix 12. Improvement Ideas of the Second Workshop



Appendix 13. Information Sheet for the Customer Interview

TIETOLEHTI 3/2020

TUTKIMUKSEN AIHE: Service Designing Co-working Possibilities and Internal Communication in Virtual Expert Teams

Hyvä vastaanottaja,

Olen Noora Raitanen ja opiskelen Novia ammattikorkeakoulussa. Toivon, että voisin haastatella sinua tutkimukseeni, joka käsittelee sisäisen viestinnän ja yhteistyön palvelumuotoilua virtuaalisissa asiakastiimeissä yrityksessä, jonka asiakkaana työnantajayrityksesi on.

Opiskelen YAMK-tutkintoa Novia ammattikorkeakoulussa englanninkielisessä koulutusohjelmassa Degree Programme of Leadership and Service Design. Tutkimus on osa MBA-tutkinnon lopputyötä. Työn ohjaajana toimii Elina Vartama Novia ammattikorkeakoulusta ja työn tilaajana Sari Täckman.

Haastattelu keskittyy odotuksiisi ja kokemuksiisi palveluista, joita virtuaalisessa asiakastiimissä teidän yrityksellenne tuotetaan sekä ehdotuksiisi, miten palvelukokemusta ja palveluita voitaisiin kehittää.

NOVIA ammattikorkeakoulun eettisten ohjeiden mukaan, haastattelun aineistot ja tiedot ovat täysin luottamuksellisia ja anonyymeja. Nimiä tai identifioivia tietoja osallistujista ei käytetä lopputyössä. Osallistuminen haastatteluun vapaaehtoista ja voit halutessasi kieltäytyä osallistumasta tutkimukseen.

Suostumuksellasi haastattelu nauhoitetaan. Nauhoite on ainoastaan minun käytettävissäni ja nauhoite tuhotaan, kun lopputyö on julkaistu.

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Jos sinulla on kysymyksiä, vastaan niihin mielelläni. Kiitos osallistumisestasi!

Noora Raitanen noora.raitanen@gmail.com 045-78814103

Appendix 14. Theme Questions for the Customer Interview

Tell me about your role in your organization and when you do business with company X?

What services do you use from company X?

What are your best service experiences from company X?

How does company X services help your company?

How does company X stand out from other service providers?

What is your worst service experience from company X?

How does company X's different services look to you?

- Unified/inconsistence
- Are there differences in service levels, ways of working and communication

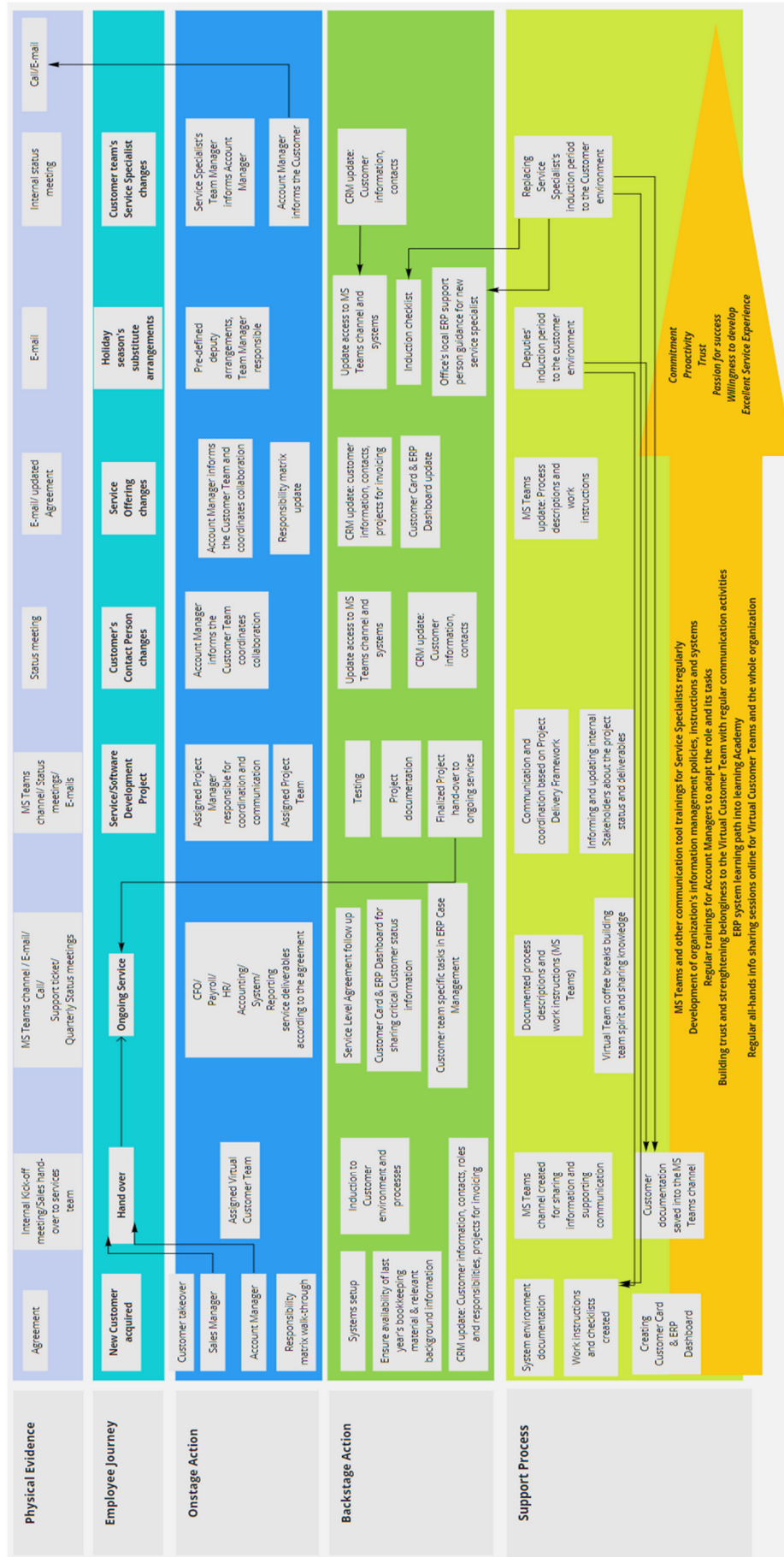
How do you communicate and do business with company X?

- Communication tools, meeting practicalities, information and document sharing, people and roles

What would you like to develop in company X services?

What can be improved?

Appendix 15. The Internal Communication Framework



Appendix 16. Project Plan for the Concept Implementation

