The impact of the new delivery model on customer experience

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Laurea University of Applied Sciences **Abstract**

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Considering the customer perspective is crucial when planning any strategic change. The case organization, a producer and seller of forestry products, is striving towards a new make-to-stock delivery model and is interested in its impact on customer experience. With the new delivery model, products would be available faster and delivery reliability would potentially increase.

The purpose of this thesis was to study how the potential new delivery model impacts customer experience within the business-to-business (B2B) context. Additionally, the aim was to find out the perceived importance of short delivery time and delivery reliability for the B2B customer experience in this industry and to identify the customer segments that regard the new delivery model most valuable. The objective of the study was to create a value proposition for the new delivery model. In addition, the current state of servitization in the case organization was assessed as part of this thesis.

Literature on service-dominant and customer-dominant logics, servitization, business-to-business relationships, and customer experience was examined and utilized in creating a theoretical framework for the development project. The methodological approach was foremost qualitative, benefiting from the fields of case study methodology, design thinking and service design. The research design followed Stanford d.school framework comprising of five phases: Empathize, Define, Ideate, Prototype and Test. Research data was gathered through desk research, interviews, and a co-creation workshop. Tools used included the current-state and future-state service blueprints, ideation, and value proposition brochure creation. Research data was analyzed through content analysis.

The new delivery model can potentially benefit customers of the case organization and facilitate value creation in several ways, although faster delivery per se was not highly valued among the customers interviewed. On the other hand, delivery reliability was regarded as crucial. The new delivery model can potentially have several indirect implications on customer experience and thus, it is fair to assume that customer experience regarding the order-delivery process would improve due to the new delivery model. However, overall customer experience is holistic and dynamic, thus estimating the full impact is challenging.

The development project provided the case organization with understanding of the customers' perceptions regarding the new delivery model. Second, the development project presented new tools and ways to illustrate and communicate customer-related processes in the case organization.

Keywords: B2B, customer experience, interviews, service design, design thinking, service blueprint, value proposition.

Contents

1 Improving customer experience with servitization

Organizations continually seek ways to improve their performance and customer experience. Creating positive customer experiences has been a leading management objective since several years (Lemon & Verhoef 2016, 69). Customer experience has become the central focus area in the business as it is stated to correlate directly with the organization's success by increasing customer value (Lemon & Verhoef 2016, 85; Shah, Rust, Parasuraman, Staelin & Day 2006, 118). By focusing on customer experience and its improvement, organizations can fight against commoditization taking place in many industries and differentiate in the competitive business environment (Shaw & Ivens 2005, xvi).

Improving customer experience can be described as creating more value to the customers and with the customers (Grönroos & Ravald 2010, 11). To achieve this, organizations should proactively embrace customer perspectives by crafting their offering, products and services, according to genuine customer needs (Meyer & Schwager 2007, 3, 5).

Customer experience is a focus area across private and public sectors, business-to-consumer (B2C) and business-to-business (B2B) markets (Zolkiewski et al. 2017, 172). Customer experience has also attracted attention in the commissioner organization of this thesis, a Finland-based seller and producer of engineered wood products. The commissioner, hereby referred to as case organization, serves business-to-business customers globally and continuously monitors and aims at improving their experience (Case organization 2023a). The organization is studying the potential of a new delivery model and is interested in investigating how it may impact the customer experience among its customers.

Another major trend especially in the business-to-business landscape is servitization (Eggert, Ulaga & Gehring 2020, 126). The motivations for applying servitization resemble the motivations to focus on customer experience. Servitization can help to achieve a better market position in the competitive and commoditized business environment. By providing a wider set of offerings, an organization can improve its strategic position and build partnerships with the customer. (Grönroos 2015, 501.) The aim of the servitization process is the creation of mutual value with the customer (Baines, Lightfoot, Benedettini & Kay 2009, 1425; Smith, Maul & Ng 2014, 244).

The purpose of this thesis is to study how a potential new delivery model impacts the customer experience in the case organization, a producer and seller of forestry products. The objective of the study is to create a value proposition for the new delivery model. In

addition, the state of servitization in the case organization is assessed, since the new delivery model is also a way to leverage servitization.

The target of the case organization is to be the most wanted partner for their customers when it comes to utilizing the capabilities of the wood products. The organization supports its customers by providing technical customer service and aims at leveraging other service offerings. The strategic objectives are also directed towards efficient utilization of raw materials and production capacity. (Case organization 2023a.) The principle of the new delivery model is to produce products to stock and store them, thus enabling faster delivery to the customer compared to the current operating model. This thesis is a part of the bigger development program, which is going on in the case organization around the new delivery model.

The subject of this thesis was selected for the following reasons. First, the strategy of the case organization emphasizes placing the customer as well as operational efficiency into the center (Case organization 2023a). The development project at hand contributes to the organization's strategic goals as the new delivery model would potentially improve both customer experience and enable more efficient utilization production capacity. Second, the new delivery model includes warehousing service as a major component of the offering and thus represents the field of servitization, which is one of the leading directions in the business-to-business organizations and topical also in the academic research (Eggert et al. 2020, 126). Third, the case organization has barely utilized any service design methods and tools before, hence the study offered a playground to experiment and apply new tools and ways of working in the case organization.

The theoretical framework for this thesis draws from the service marketing research focusing on concepts of service-dominant and customer-dominant logics on value creation, servitization of manufacturing organizations, business-to-business customer value and most importantly, customer experience.

The methodological approach is foremost qualitative benefiting from the field of case study methodology, design thinking and service design. The research design is following Stanford d.school framework comprising of five phases: Empathize, Define, Ideate, Prototype and Test. Research data was gathered through desk research, thematic interviews, and co-creation workshop. Tools used included the current and future-state service blueprints, ideation, and value proposition brochure creation. Research data was analyzed through content analysis.

This thesis is for the MBA Service Innovation and Design degree programme at Laurea University of Applied Sciences. The thesis represents a research-oriented development

project, where the main target is to contribute to the workplace development and at the same time present a theoretical framework and apply it for the case of the development.

1.1 Central concepts

To simplify the reading of the thesis, the most central and content-specific concepts and terms are defined below. The terms are defined here for the purpose of this thesis, and therefore they might differ from definitions presented in other sources.

In **business-to-business**, the term business is used to refer both to the seller organization and the buyer organization. Business-to-business relationships refer to products or services provided for professional use at the buying organization. These business-to-business transactions are different compared to selling to consumers, private persons, or households, because typically the purchasing process and the decision-making differ compared to consumers (adapted from Investopedia 2023.) In the context of this thesis, industrial marketing is used as a synonym to business-to-business (B2B) although it is acknowledged that business-to-business can also comprise of other than industrial products or services.

Customer Experience (CX) is a subjective interpretation of all interaction between the provider organization and the customer. Customer experience is holistic, and it begins before any direct contact with the provider organization and continues after the contact has ended. (Meyer & Schwager 2007, 4.) Customer experience is also referred as CX later in thesis. This term is commonly used in literature.

Design thinking connects creative a design approach with traditional business thinking (Tschimmel 2012, 2) in order to create new business ideas or even business models (Liedtka, King & Bennett 2013, 2). Design thinking is a human-centered approach to innovation that utilizes designer's toolkit to integrate the needs of people, the technological possibilities, and the requirements for business success (Brown 2008, 86).

Service-dominant logic is a contemporary business logic (Ojasalo & Ojasalo 2015, 310) that regards all business as transaction of service-to-service. In the logic there is no producer or customer, there are only actors who engage in service exchanges. According to service-dominant logic, value is co-created by actors and determined by the beneficiary actor, most often the customer of the process, according to value-in-use. Service provider can only facilitate this value creation by providing resources to customers. (Lusch & Vargo 2004, 7-12; 2008, 7.)

Service design provides tools and techniques that allow organizations to creatively develop new concepts and solutions focusing on users (Foglieni, Villari & Maffei 2018, 21). Service design combines elements from design thinking and service-dominant logic and connects the

use of various practical design and design research methods, and visualization techniques. It helps to concretize abstract, complex processes and ecosystems in order to be more easily shared, prototyped, and evaluated in collaboration (Miettinen 2016, 4-5).

In **make-to-order**, the product is produced based on the received customer order. The finished goods inventory is minimized. In make-to-order production, the delivery time experienced by the customer is typically considerably longer than when products are produced in advance to a warehouse. Make-to-order production typically enables a large product portfolio. (logistiikanmaailma 2023.)

In **make-to-stock** model products are produced in advance to a warehouse. Customer orders are delivered from the warehouse. The organization anticipates the future demand by producing and replenishing products into finished goods inventory based on, for example, sales forecasts. (logistiikanmaailma 2023.)

Servitization is a change process in which manufacturing organization shifts from selling merely products to creation of increased revenue streams from services (Baines & Lightfoot 2013, 46). In this context, services are understood based on four commonly used characteristics of service, which are intangibility, heterogeneity, inseparability, and perishability (Laine, Paranko & Suomala 2012, 1-3). In the context of this thesis, in servitization, the offering can be any combination of products, services, support, self-service and knowhow that benefit customer and adds value to core product (Vandemerwe & Rada 1988, 314).

1.2 The context of the study

This thesis topic represents a fairly popular research area in the marketing research in present-day customer centric and service-oriented business landscape. Improving customer experience and co-creating value with the customers has been studied widely both from theoretical as well as practice-oriented perspective in different contexts. Google scholar (accessed on 25.08.2023) search for “customer experience” returned roughly 5,95 million publications in total and 550 000 review articles. Various aspects of customer experience have also been listed among the priority research topics for The Marketing Science Institute (2022) since the past decade and still for the coming years. Customer experience has been researched by authors such as Jaakkola, Helkkula and Aarikka-Stenroos (2015), Lemon & Verhoef (2016), McColl-Kennedy et al. (2015), Meyer and Schwager (2007) and Shaw and Ivens (2002).

However, as the focus of this thesis is directed towards business-to-business context, also B2B customer experience research is addressed. The B2B customer experience has been less covered both in the academic and management literature (Zolkiewski et al. 2017, 176),

verified also in Google Scholar with 240 000 search hits for all publications in total and close to 9 000 review articles. B2B customer experience studies focus on identifying what kind of differences there are in B2B customer experience compared to consumer customers and how B2B customer experience is formed and measured. Contribution to CX research in the B2B context has been made by scholars such as Lemke, Clark and Wilson (2006, 2011), Maklan and Klaus (2011), Purmonen, Jaakkola and Terho (2023), Witell et al. (2020) and Zolkiewski et al. (2017). B2B relationships and the B2B customer experience are considered to be more complex as they typically involve a longer time horizon as well as more stakeholders and touchpoints and thus leading to several individual experiences (Holma et al. 2021, 33; Hague & Hague 2015, 6). When it comes to defining the factors contributing to B2B customer experience, Lemke et al. (2006, 2011) developed a conceptual framework based on cross-industry empirical research, which is discussed in more detail in Chapter 2.4.

Since the contemporary understanding of customer experience is closely linked to value creation, one should not ignore the service-dominant logic on value creation by Vargo & Lusch (2004, 2014). According to the definition from Vargo & Lusch (2004, 2014), value is co-created in the mutual interaction between actors. The service logic and concept of value creation has also been studied actively by the Nordic school of marketing, scholars such as Gummesson, Grönroos and Voima, who have further developed and criticized the definitions by Vargo & Lusch (Gummesson & Grönroos 2012; Grönroos & Voima 2013). Grönroos & Voima (2013, 134) emphasized the interaction concept and the role of the customer as the main driving force in the value creation. To highlight the central role of customer and value formation, the concept of customer-dominant logic was developed by Heinonen et al. (2010, 537) to distinct the view from service-dominant logic.

Also, servitization of manufacturing organizations is addressed in this thesis. Servitization has been researched from both industrial management and service marketing domains focusing on the definitions and types of servitization as well as motives and outcomes of applying servitization. Scholars contributing to servitization research include for instance, Vandermerwe and Rada (1988), Baines et al. (2009), Baines and Lightfoot (2013), Neely, Benedettini and Visnjic (2011) and Ulaga (2018).

The goal of the theoretical part of this thesis is to shed light on some of the essential concepts and conceptual debates in the academic domain of service marketing from the point of view of this thesis' topic. Consequently, the theoretical framework in this thesis will be based on the concepts of value creation, servitization and customer experience in general and the business-to-business context in particular. These themes are presented more thoroughly in the literature review in Chapter 2.

The context of the study is a new delivery model and warehousing service targeted to business-to-business customers of the case organization, a manufacturing company operating in the forestry industry. The scope for this research is the impact of the new delivery model on the expected customer experience.

1.3 Research approach and research questions

The practical part of the thesis follows to a large extent qualitative research. In qualitative research, the objective is to gain a comprehensive understanding of the chosen phenomenon. Qualitative research can be viewed as a broad category encompassing various types of qualitative studies. According to Miles and Huberman (1994, 1) qualitative research offers well-grounded and rich descriptions and explanations in their specific context. Collecting and analyzing qualitative data in the research enables to preserve chronological flow, see the consequences, and explain the phenomena. One essential aspect is recognizing the inherent subjectivity of qualitative research as an inherent value in itself. (Tuomi & Sarajärvi 2013, 166.)

Also, the methodological approach of design thinking, and service design are utilized in this thesis under the umbrella of qualitative research. Design thinking and service design serve the goal of holistic understanding of the research subject. Application of design thinking, and service design directs towards seeing the world through the eyes of the customer, which could lead to different solutions than if using solely the organizational perspective (Andreassen et al. 2015, 21.) In the study at hand, a mix of design thinking, and service design methods and tools were utilized. These included desk research, thematic semi-structured interviews, content analysis, use of design tools such as service blueprint (current-stage and future-stage) and a co-creation workshop.

This thesis can also be described as a case study as it focuses on investigation of a "contemporary phenomenon within its real-life context" like described by Yin (1994, 13). Case study aims to generate comprehensive and detailed information and understanding about the case being studied. Case can represent one individual, group, organization or a part of it, event or process. Case study can be based on only one of such “case” or several. The outcome of the case study can involve development ideas but usually their implementation in practice is outscoped (Ojasalo, Moilanen & Ritalahti 2015, 52.) In this thesis, the organization and its customers are representing the case being studied. The case study methodology was chosen for this thesis, since the research question requires a deep understanding of a complex context-specific phenomenon. According to Yin (1994, 5-7), case study method is especially suitable particularly for the studies with “how” and “why” research questions.

There is neither one definition of a case study nor any strictly defined research techniques or methodologies. According to Yin (1994, 20, 33), case study research is formed by identifying

research questions, selecting cases, and considering validity and reliability. Yin (2018, 1) divides the case study process into six steps: plan, design, prepare, collect, analyze and share.

Case studies tend to be more often based on qualitative evidence but are by no means limited to qualitative methods (Yin 1994, 14). Examples of data collection methods that can be applied in case studies are desk research, thematic interviews and brainstorming sessions (Ojasalo et al. 2015, 55). Triangulation, studying a phenomenon from different perspectives and using different data sources, collection methods, and even various researchers, increases the reliability of the qualitative research (Ojasalo et al. 2015, 105; Stickdorn, Hormess, Lawrence & Schneider 2018, 7-10). Also, the case study methodology emphasizes the significance of using multiple sources of data to triangulate findings and build a comprehensive understanding of the phenomenon under study (Yin 1994, 13). For the thesis at hand, also simple quantitative methods like counting were used to support the findings (Miles et al. 2014, 283).

Case study methodology (Yin 1994, 27-30) also underlines the importance of using theory in case study research. While case studies are primarily descriptive, they should also be theory-driven, using existing theoretical frameworks to guide the study. This helps to ensure that the findings of the study are relevant and meaningful beyond the specific case under study. However, this does not mean that theory should be strictly followed (Ojasalo et al. 2015, 53-54). In the study at hand, certain factors indicated as important B2B customer experience factors from existing literature tested in this industry context. It can be thus stated that the research approach in this thesis is to most parts following a deductive approach. However, also interesting themes special for this case that emerged from the interviews are considered, so in those parts research also includes inductive aspects. Application of an existing framework, as stated by Patton (2002, 454) can also result in new information, which can make the boundary between inductive and deductive approach somewhat vague yet not necessarily mutually exclusive. The use of both approaches was supported by objective have a holistic approach of the case being studied.

In this thesis case the main question guiding the development work can be defined as follows:

1. How is customer experience affected by shorter delivery lead time and better product availability? With the new delivery model product is produced to stock, thus it is fair to assume that product availability is improved, and the products can be delivered faster to the customers. The thesis aims to find out, how these two expected outcomes of the new delivery model would affect customer’s business and their experience with the case organization.

Additional questions:

2. What is the perceived importance of short delivery time and delivery reliability to the B2B customers in this industry? Delivery time and reliability in terms of punctuality are two attributes most affected by the new delivery model with warehousing service and on the other hand they are factors contributing to overall customer experience. It can be assumed that having products in stock increases delivery reliability. This is due to the following reasons: first, there are fewer changing variables since the products are already produced and available in stock and second, the warehouse location is typically physically closer to the customer than the production facilities.

3. Which customer segments would regard the stock delivery most valuable? If there are significant differences between customer segments in the interest or foreseen benefits of faster delivery, offering could be targeted primarily to this segment.

In order to answer the main research question, the qualitative research and service design methods were utilized. The second and third research question were examined with the help of qualitative research, namely desk study and interviews.

The objective of the study is to create a value proposition for the new delivery model. Based on the answers to the research questions and other data obtained from the qualitative research, customer current pain points and ideal future-state process were mapped, and value proposition visualisation created. The assessment of the servitization status in the case organization was conducted through desk research and an interview.

1.4 Case organization

The case organization is among the leading producers of engineered wood products in Europe. It serves customers mainly in the construction, industrial, and distribution segments. The organization’s turnover in 2022 was 0,7 billion euros and it employs approximately 1500 persons. (Case organization 2023a.)

The goal of the case organization is to be a forerunner in responsible construction. This goal can be achieved through product innovations, renewable raw materials and efficient resource utilization in the entire value chain. Responsibility is crucial for the case organization and it opts for following the sustainability principles in all its operations. (Case organization 2023a.)

Currently the majority of sales is conducted via make-to-order (MTO) model, which means that product is produced based on customer's order and thus order-delivery process can take as long as 4-12 weeks. The organization is interested in applying an alternative supply model, make-to-stock (MTS). Organization has nowadays three smaller warehouses that operate with

MTS model but the aim is to implement the demand forecast-based make-to-stock with larger capacity. The full capabilities of the new delivery model would be enabled with new ERP solution, which is planned to go live in 2024. (Case organization 2022a, 2022d.) The feasibility of MTS model was studied in the Q3-Q4/2022 as an own project and this thesis project was started at the same time in order to provide data for decision making and next steps of the project.

The case organization is interested in applying make-to-stock delivery model to complement the current MTO model for the following reasons: to increase production efficiency, gain better product mix balance, better control production variability, optimize asset utilization and better tolerance for demand and capacity variability. On top of this, the model could improve customer experience due to shorter order-delivery lead time and thus better delivery reliability. Although the primary motivations to apply make-to-stock model are internal, it is crucial to study the implications on the customer and their experience. (Case organization 2022a.)

Customer experience has been actively researched and measured by the case organization in the form of NPS surveys containing both the numeric rating, but more importantly also several open-ended questions. The surveys are conducted via telephone interviews of 50-100 customers throughout the year by an external marketing research company. (Case organization 2022b.)

Services account for a relatively small share of the case organization's business but have recently been conceptualized and grouped into four distinct service categories. These groups are technical support, research and development (R&D), sustainability, and supply chain services. By offering services as a part of the overall value proposition, the organization aims to better serve existing customers as well as attract new customers. The case organization has active collaboration and even close partnerships with some customers especially in the area of product development. (Case organization 2023b.) In the future, with the new delivery model and capabilities offered by the new ERP system, the services around the supply chain are likely to increase.

The author of this thesis is employed by the case organization, however, working in a different function than the scope of the thesis.

1.5 Structure of the thesis

This thesis is divided into five main chapters as presented in Figure 1. The structure of each chapter is described below.

Figure 1: The structure of the thesis.

The first chapter introduces the research topic, main concepts of the study, research questions and approach as well as the case organization of the thesis.

The second chapter consists of the knowledge base; a literature review focusing on customer experience, especially in the B2B context, different logics for value creation and the concept of servitization.

Next, the development setting of the research is presented. The methodological solutions applied in the context of this thesis are described. This chapter also discusses the data collection process and methods as well as how the data was analyzed.

The fourth chapter is dedicated to presenting the outcomes and results of the development project. Both concepts of customer experience and servitization are considered and the research questions are discussed against the findings. Additionally, a summary of the results is presented in the end of this chapter.

In the final chapter, the conclusions as well as assessment of the overall development project are discussed. Validity, reliability and transferability of the research process and results are also taken into consideration in this chapter. Topics identified for further development are discussed and the author's reflections are presented as concluding thoughts.

2 The evolution of service logics and customer experience

This chapter examines the literature relevant for the research topic and builds a theoretical framework for the thesis and the research questions. The theoretical part is derived from the topic and research questions of the thesis, however, offering a wider perspective on the background of the central theories. The literature covers the concepts of business-to-business customer experience, servitization and service and customer logics for value creation since the new delivery model is connected to all these concepts. The knowledge base is non exhaustive but aims at presenting the history and current focus areas in the management literature and academic research as well as the central models and frameworks around these

concepts. The literature reviewed in this chapter comprises the most cited publications around the topics of interest for this thesis and publications from the most acclaimed journals by both groundbreaking authors as well as more recent research and practice directions. The literature selected represents both case studies varying from individual cases to quantitatively representing studies as well as academic concept and theory formation.

Before exploring more deeply the aspects of customer experience, it is important to also present the related concepts and the evolution of customer experience since CX is tightly connected with several other research streams within marketing research (Lemon & Verhoef 2016, 70). The literature is discussed in the sequence presented in Figure 2. The circles in the illustration demonstrate the relative importance of literature for the topic of the thesis.

Figure 2: Literature examined in the thesis.

Chapter 2 is concluded by a theoretical framework on B2B customer experience factors and working hypotheses for the present research.

2.1 Different value creation logics

Traditional, goods-dominant logic is based on the idea of exchange and exchange-value centricity. In the goods-dominant logic the value is attached within the product and its attributes as well as the productivity of the provider organization, while the role of the customer is seen as a passive consumer and receiver of the value. (Vargo & Lusch 2014, 4-5, 9.)

One of the fundamental contributions to describing the shift from traditional goods-dominant view, is by Vargo & Lusch (2004) and their theory of service-dominant logic according to which all exchange is fundamentally about service and not products. The value is not in the tangible or intangible products but instead is co-created in the mutual interaction when people apply their skills and knowledge by exchanging service-for-service. (Vargo & Lusch 2004, 8-10 .) According to a more recent definition by Vargo & Lusch (2014, 6), in service-dominant logic, customers do not seek products but instead solutions and experiences. Prahalad and Ramaswamy (2004) also have suggested that value is created through co-creation where the customer is an active participant. According to them, goods-centric approach is not any longer supporting organizations to satisfy customer needs and achieve both growth and profitability. Instead, the future of competition, as described by Prahalad and Ramaswamy (2004, 12) is based value co-creation between customers and companies.

Value creation and service logic has been studied thoroughly also by the so-called Nordic school of service marketing (Gummesson & Grönroos 2012, 479). Grönroos, a pioneer in the Nordic school of service marketing, used the statement by a less-known researcher Levitt from 1980's to describe that customers do no buy products or services, but the outcomes that these offerings help to achieve (Grönroos 2015, 25). This is very similar to characterization used by Vargo & Lusch (2014, 6). Grönroos (2015, 25) defines service in a broad manner; service from provider to customer comprises of products, services or a combination of these. Nordic school of service has also been utilizing a term service logic as an alternative to service-dominant logic and aimed at abandoning the strict division between physical products and services, B2B and B2C as well as supplier and customer categories (Gummesson & Grönroos 2012, 479). The concepts raised by of another most active contributor in the Nordic school of service marketing, Gummesson, are the co-creation of value and service, and further integration of resources between stakeholders giving an active role to customers (Gummesson & Grönroos 2012, 482).

Despite acclaimed contributions to service marketing, some elements of the service-dominant logic by Vargo & Lusch (2004) have been criticized and the concept has been developed further. According to Grönroos & Ravald (2010, 6), the concept of value co-creation and the marketing implications of the logic needed further development as the descriptions by the Vargo & Lusch were too abstract. Grönroos & Voima (2013, 134) identified further development need of the service logic by emphasizing the interaction concept and the role of the customer as the main driving force in the value creation. The role of organizations, so-called value providers, is reduced to facilitation of value creation by offering resources and processes. The value creation per se, however, cannot be done without the active role of the customer, the value beneficiary. (Grönroos & Voima 2013, 136-137.) Grönroos & Voima (2013, 136) discuss customer and provider spheres as well as a joint value sphere in which provider

and customer directly interact. The joint value sphere is where the value co-creation takes place (Grönroos & Voima 2013, 136; Grönroos & Gummerus 2014, 208-209).

Going still further, the emergence of customer-dominant logic shifted the perspective of service from being provider-focused to being customer-focused. According to Heinonen et al. (2010, 532), both goods-dominant logic and service-dominant logic are provider-centric. The essential difference lies in the fact that customer-dominant logic does not place considerable emphasis on the interaction between the customer and the provider or other actors. Instead, it directs attention to the customer as the central stakeholder in the process and explores how customers incorporate service into their processes. The customer-dominant places customer insight at the forefront, prioritizing it over the specific type of offering, product or service, or the network of providers. (Heinonen et al. 2010, 537; Heinonen & Strandvik, 2015, 473-474.) Heinonen & Strandvik (2015, 480) also emphasize the understanding of customer logic and how organizations can develop into being involved in the customer context. According to the authors, value is being formed and not created. (Heinonen & Strandvik 2015, 478-479.)

As visible in the chapter, there has been academic debate around the terminology, the concept of value, and the exact role of customers and other actors in the contemporary business sphere. What connects different service- and customer-focused logics discussed, is the paradigm shift from provider-focused exchange of goods to the service interaction and power shift from providers to the customers. Hence, Ojasalo and Ojasalo (2015, 310) use the term “service logic” to describe both service- and customer-dominant logics.

Although the terms of value and value creation are central, there is no clear definition of them (Grönroos & Voima 2013, 134-135). This leads them being somewhat ambiguous and prone to different interpretations. Service- and customer-dominant logics are connected to value-in-use, while goods-dominant logic sees value-in-exchange. In value-in-exchange concept, value is simply materialized at one point of time, during purchase, whereas value-in-use evolves during the whole usage process (Grönroos & Gummerus 2014, 209). Shifting from purely monetary perspective, more recently, the concept of value has been addressed more holistically and experientially and could be stated to be something that benefits the customer (Grönroos & Voima 2013, 134). Heinonen & Strandvik (2015, 479) address the complexity of capturing value-in-use, since it always emerges for customers in their context. In order to better understand and contribute to value formation, Heinonen & Strandvik (2015, 480) list the main principles that the provider organizations should focus on. The organizations should strive to understand customer dominance, seek to be involved in customer’s lives and listen to the customers in their own context. (Heinonen & Strandvik 2015, 480.) The topics raised by Heinonen & Strandvik (2015) as well as customer focus,

value-in-use and value co-creation are also closely connected to customer experience, which will be examined in chapter 2.4.

2.2 Servitization

The new delivery model the case organization is studying can be viewed as a service and as a means of leveraging service business. Therefore, the literature around servitization is examined.

According to Ulaga (2018, 80), there are two major shifts ongoing in the B2B landscape. First, there is the transition from a goods-centricity to a customer-centricity, while the second transformation is around organizations moving towards providing customer solutions, instead of solely manufacturing and selling products (Ulaga 2018, 80). Eggert et al. (2020, 126) name servitization of industrial organizations as a major trend in today's B2B landscape. Servitization has been more widely applied in practice and also studied from a broad range of academic research fields since the 1990's but more in the 2000's (Lightfoot et al. 2013, 1408).

The conceptual foundations and definitions of what servitization actually is, are still establishing (Baines et al. 2015, 257) and there no single standardized definition of servitization. One of the earliest, but still widely used, definitions (Ruiz-Alba, Soares, Rodríguez-Molina & Frías-Jamilena 2018, 630) of servitization is by Vandemerwe and Rada (1988, 314) who described it as market packages or bundles of combinations of products, services, support, self-service and knowledge that benefit customer and add value to core product offerings. Servitization can be described to be a process of intended change for manufacturers to create increased revenue streams from services (Baines & Lightfoot 2013, 46). In this context, services are understood based on IHIP characteristics of service, namely intangibility, heterogeneity, inseparability, and perishability (Laine et al. 2012, 1-3).

The manufacturing organization can offer various forms of services. An example named by Grönroos (2015, 512) are just-on-time deliveries provided by the product supplier that help to reduce the customer warehousing needs and costs. Another example are the scheduling and information about the upcoming deliveries (Grönroos 2015, 512). Servitization offerings can broadly be categorized into base offerings such as spare parts, intermediate comprising of helpdesks, training, maintenance and repairs, and advanced services such as customer support agreements and outcome contracts (Baines & Lightfoot 2013, 68). According to Lightfoot et al. (2013, 1412), the organizations delivering advanced services, such as ABB and Rolls-Royce Aerospace, demonstrate how traditionally based manufacturing organization have moved their position in the value-chain from product manufacturers to providing customers with "desired outcomes".

There are several motives to apply servitization. Servitization can help organizations to increase service revenue and profit or the servitisation may result in a rethinking of the business objectives of the manufacturer (Laine et al. 2012, 1). Other potential benefits of servitization are the possibility of achieving better competitive advantage, especially in commoditized or otherwise competitive markets. By providing a broader set of offering organization can improve its strategic position. It can also help build partnerships with the customer. (Grönroos 2015, 501.) According to Lightfoot, Baines and Smart (2012, 1423-1424) the motives behind servitization as well as customer value creation through servitization are among the most researched topics in servitization.

Whether servitization is financially beneficial, has been receiving mixed results in research as indicated by Ruiz-Alba et al. (2019, 632). Also, the implementation of servitization mindset and strategy requires considerable efforts (Grönroos 2015, 501). For example, according to Neely et al. (2011, 11), there is no evidence of better or worse financial performance due to servitization. In their study, Neely et al. (2011, 11) encountered both servitized organizations that are financially very well-performing and those that are unsuccessful.

Smith, Maul & Ng (2014, 260) recognize challenges, based on their study, for companies new to servitizing. According to the authors, due to the change in value proposition to the customer and adjustment of the core offering, organizations need to evaluate the implications for their resources and skill sets to be able to deliver the value propositions. Different competencies and knowledge are required than when being a pure manufacturer. (Smith et al. 2014, 260.)

In their research, Ruiz-Alba et al. (2019, 628) point out that when selling solutions instead of products to B2B customers, the solution should be useful and suitable for the customer and thus it may need to be adjusted depending on the customer. The authors highlight the importance of involving customers in the design and delivery of services and co-creating services based on customer needs (Ruiz-Alba et al. 2019, 638). In order to succeed, Grönroos (2015, 506) emphasizes the offering should support customer's processes in the way it benefits customer's overall business process and creates value-in-use. According to Ulaga (2018, 81), the aim of servitization is to achieve customer-desired business outcomes. An example of this, as stated by Grönroos (2015, 509), is to help customers to serve their customers more efficiently and profitably. There are similar implications also from the study by Robinson et al. (2016a and 2016b in Zolkiewski et al. 2017, 177), who stated that by moving towards measuring outcomes, how customers achieve their goals, a gradual shift towards manufacturers, end-customer and other stakeholders co-creating value took place.

In summary, servitization, either full transformation to a service provider or providing services complementary to the product offering, can be a way to compete and succeed, but is

not granting the success. Applying servitization demands for a new set of skills and foremost, the offering should be valued by the customers.

2.3 Business-to-business customer value

The case organization serves industrial sector business-to-business customers, thus the distinct aspects of B2B context and the industrial sector customers are examined. In this chapter, the B2B relationships as well as the features specific industrial marketing are discussed.

According to Webster (1978, 22-24) industrial marketing differs significantly from consumer marketing due to its inherent complexity. First, the offering itself is typically more complex. Second, in industrial transactions, it is common to have strong interdependence between buyers and sellers. Third distinct characteristic of industrial marketing is the intricate nature of the buying process, which often involves several decision-makers, guidelines as well as technical and economic factors that influence the purchasing process. (Webster 1978, 22-24.)

Definition of business-to-business relationships differ slightly in different studies, but all share the view that the relationships are based on repeated interactions between the counterparts. According to Holmlund (2004, 5), both conceptual and empirical studies emphasize a common challenge; the difficulty of studying complex and dynamic relationships. Relationships transform over time, and sometimes the time span can be very long, even several decades. (Holmlund 2004, 5.) More recently, also the number of touchpoints, channels and media as well as the frequency of contacts has increased in the B2B relationships (Lemon & Verhoef 2016, 69; Hollyoake 2009, 133). Moreover, some of the touchpoints happen outside the provider organization, by the customer or external partners (Witell et al. 2020, 423). The typical aspects of B2B provider-customer relationship are summarized in Table 1.

TYPICAL FOR B2B RELATIONSHIPS	SOURCE LITERATURE
Long-term orientation of business relationships	Holmlund (2004, 5)
Interactions between multiple actors and at different stages of the customer journey (buyer, decision-maker, user)	Lemon and Verhoef (2016, 69), Purmonen et al. (2023, 85), Webster (1978, 22-23), Witell et al. (2020, 422), Zolkiewski et al. (2017, 173-174)
Importance of interpersonal interaction	Zolkiewski et al. (2017, 173), Holmlund (2004, 5)
Complex offerings	Aarikka-Stenroos and Jaakkola (2012, 15-16), Webster (1978, 22-24), Hollyoake (2009, 134)

Table 1: Typical characteristics of the B2B relationships.

According to Webster (1978, 19, 22), in industrial marketing, it is essential to have a thorough understanding of customer needs, identify target segments, and cater to customized product or service requirements. Another pioneer in the field of industrial marketing research, Håkansson (1982) has identified several strategies that decribe the buyer–seller relationships and the competitive strength in the industrial markets with two dimensions; problem solving and transfer. The buyer's need can be characterized in terms of the problem that requires to be solved and how the problem solution can be transferred to it (Håkansson 1982, 392). The marketing strategy of an organization can be described by positioning it in both the problem solving and transfer diagrams. In both diagrams, the dimensions are the level of complexity and customization level (Håkansson 1982, 393) and these two dimensions different kinds of abilities and strategies (Håkansson 1982, 396). One of the moderately specialized transfer strategies focuses on the timing or reliability of deliveries or the amount of technical assistance. These strategies can help to secure the position of the supplier as the customer's preferred supplier. (Håkansson 1982, 395, 403.) The extreme option focuses on the very close partnership between buyer and seller. However, as stated by Håkansson, the strategies will often be mixed in real life, and the seller may adopt one strategy in relation to one group of customers and a different one to others. (Håkansson 1982, 398-399.)

Typically, in the B2B and industrial context, the decision-making processes are complex and involve multiple individuals, wherein preferences of various decision-makers must be collected and considered (Webster 1978, 27). Homburg & Rudolph (1997, 23), as the result of their research on industrial customers, aimed at conceptualizing customer satisfaction across various roles within the customer organizations. The authors observed a notable level of consistency among the three functional groups regarding customer satisfaction levels. In terms of purchasing managers, the findings indicate that satisfaction with order handling and processing ranked highest in significance. For engineering roles, the process of complaint handling ranked the most important. On the other hand, for persons in manufacturing roles, satisfaction with products appeared to be the most critical factor. (Homburg & Rudolph 1997, 22-23.)

Furthermore, the findings from the study by Homburg and Rudolph (1997, 26) showed that industrial customer satisfaction is strongly dependent on interaction between salespersons and customers as well as on the processes related to order handling, processing, and complaint handling. According to the study, the interactions and processes that accompany products present significant opportunities for achieving a high level of customer satisfaction, instead of product being the most important source of customer satisfaction. The authors propose that industrial companies should broaden their focus beyond product optimization and also evaluate the soft factors that contribute to customer satisfaction, for example, the

way supplier manages the processes of order processing and complaint handling (Homburg and Rudolph 1997, 26, 20.)

Since the topic of this thesis is related to delivery speed and reliability, the importance of these factors for industrial customer value was also examined from industrial marketing literature. Several studies raised important attributes for B2B customers. According to Mittal, Frennea and Westbrook (2014, 51-52), arrival on schedule and on-time delivery were among the most important attributes for B2B customers. In the study by Ulaga and Chacour (2001, 534-535), delivery reliability and speed of supply ranked as the 4th and 5th most important attributes when it comes to B2B customer value. Also, older research on the topic by Banting (1976, 141) and Cunnigham and Roberts (1974 in Homburg & Rudolph 1997, 6) found that delivery reliability is of great importance to industrial customers.

2.4 Customer experience

Customer experience has been a focus area in recent years in many organizations. Hence, there is a vast number of practitioner-oriented literature published by the authors like Pine & Gilmore (1999) and Shaw & Ivens (2002) and new literature around the topic is coming out every year (Lemon & Verhoef 2016, 69; McColl-Kennedy et al. 2015, 430). These books claim that creating good customer experiences improve long-term competitive advantage, strengthen the brand and increase revenues.

There is no single definition of customer experience. However, commonly used and cited is a definition by Meyer and Schwager (2007, 4), according to which, customer experience can be described as personal and subjective reaction that customers have when they come into direct or indirect contact with the service provider.

The concept of experience management became a more central term among marketers since the publication of Pine and Gilmore's (1999) book, Experience Economy. The book explains the economic value of creating an experience instead of the provision of services or products and the importance of staging events to create a positive customer experience. (Hwang & Seo 2016, 2219-2221.) However, as early as in the 1950's, marketing researcher Abbott (1955, 4) already stated that "what people really desire are not products but satisfying experiences". In contemporary business practice, customer experience has been broadly defined to include all aspects of an organization's offering. It extends beyond the customer care quality and encompasses advertising, packaging, product and service features, ease of use, and reliability. (Lemon & Verhoef, 2016, 70.)

Customer experience can be viewed from different perspectives, including the company's viewpoint, the customer's individual perspective, or the interaction itself. It can be assessed based on a single interaction or as a compilation of multiple encounters, representing the

comprehensiveness of the customer's journey. (Lemon & Verhoef, 2016, 70-71; McColl-Kennedy et al. 2015, 432.) Predominantly, both scholars and practitioners have reached a consensus that the total customer experience is a multidimensional construct that involves cognitive, emotional, behavioral, sensorial, and social components (Schmitt 1999, 26; Lemon & Verhoef 2016, 71).

Following the ideology of the service-dominant and customer-dominant logics, in contemporary view, customer experiences are not solely delivered by the organizations to customers but are co-created (Jaakkola et al. 2015, 198; McColl-Kennedy et al. 2015, 431). Rather, the experience itself is inexorably linked with the value obtained as perceived by the individuals involved (Helkkula et al. 2012, 66). Helkkula at al. (2012, 66) address that experience is phenomenological and is influenced by interpersonal interaction but is nonetheless specific to each individual.

Customer experience research can be stated to have its roots in theories on marketing and consumer behavior. Over the years, it has evolved and encompassed various research focus areas from customer buying behavior to service quality and customer relationship management (CRM) as summarized by Lemon and Verhoef (2016, 71-74). These different contributions to customer experience research are presented in Table 2.

Research area	Focus of the research	Decade
The Customer buying behavior models	Aimed at understanding customer experience and customer decision making process	1960s-1970s
Customer satisfaction and loyalty	Focus on assessing and evaluating customer perceptions and attitudes about an experience	1970s
Service quality	Aimed at identifying the specific context and components of the customer experience and mapping the customer journeys. SERVQUAL model developed by Zeithaml, Parasuraman and Berry (1990)	1980s
Relationship marketing	Expanding the scope of customer responses considered in the customer experience	1990s
Customer relationship management (CRM)	Identifying the how specific factors of the customer experience influence each other and the business outcomes	2000s
Customer centricity and customer focus	Addressing the interdisciplinary and organizational challenges in designing and managing the customer experience. Tools such as customer personas and jobs-to-be-done	2000s-2010s
Customer engagement	Recognizing the customer’s role in the experience	2010s

Table 2: Other marketing research contributing to the CX research (adapted from Lemon & Verhoef 2016, 71-74).

One topical area around customer marketing research is customer success (CS) that Ulaga, Eggert and Gehring (2020, 123) define as "the customer-perceived achievement of desired outcomes by using the supplier's offering" and further describe CS as a method to deliver superior customer experiences and therefore to increase customer retention and lifetime value. (Ulaga et al. 2020, 126-127).

Both the academic research as well as contemporary management practices literature regard customer experience as a dynamic and evolving phenomenon that manifests itself throughout different stages of the customer journey. The scholars emphasize the importance of maintaining, measuring and studying the customer experience over multiple channels and multiple touch points in which customer and provider interact. (McColl-Kennedy et al. 2015, 431-432; Purmonen et al. 2023, 74.) Ideally, as suggested by Jaakkola & Terho (2021, 20-21), customer journey should be seamless, coherent and personalized across different touchpoints.

Another trend in the CX research addresses the increased amount of customer data available to be analyzed. Scholars also have started to explore the role of big data in the CX research (Zolkiewski et al. 2017, 178) as well as the utilization of text mining in qualitative data analysis (McColl-Kennedy, Zaki, Lemon, Urmetzer & Neely 2018, 9). Also, other technological possibilities are topical in CX research. Tools such as AI, machine learning, blockchain and IoT can enhance the security, efficiency, responsiveness and personalization of the CRM databases and thus marketing strategies and activities. The tools can identify behavioral patterns and preferences, automate and personalize customer responses and communication material, allowing employees to focus on relationship building and engagement activities. According to Kumar V., Ramachandran and Kumar B. (2020, 875) this helps in providing richer customer experiences. (Kumar et al. 2020, 875.)

B2B customer experience

Majority of the customer experience research has focused on the B2C context and industries such as tourism and hospitality (Hwang & Seo 2016, 2224-2225) and retail (Verhoef et al. 2009), but few researchers have also started to examine customer experience in B2B context and explore the differences between B2C and B2B customer experience (Lemke et al. 2006; Zolkiewski et al. 2017).

Moreover, a number of practice-oriented books on business-to-business customer experience have been published, focusing on best practices of delivering and measuring B2B CX. The need to address B2B customer experience in separate publications could be described to be

mainly due to the following reasons. First, to address the difference between B2C and B2B customer experience and second, to emphasize the importance of CX in B2B relationships.

Customer-centric mindset can be stated to be essential also in the B2B context and increased number of organizations have been developing B2B customer experience strategies (Flodin & Norton 2011, 38). Hollyoake (2009, 133) states that within a B2B relationship, the customer experience is an integral part of the overall customer management proposition. According to Wollan (2016, 8), companies that strategically focus on CX in functions such as aftersales and in different channels, outperform their competitors. Pine (2015, 2) argues that industrial companies serving B2B customers can create value and innovate by comprehending, addressing, and revolutionizing the experiences of their customers and their customers' customers. According to Pine (2015, 2), the approach is particularly promising for two reasons: firstly, it aims to develop business in areas where competition has yet to gain a foothold, and secondly, it generates inherent economic value by helping customers achieve their own aspirations.

The customer experience strategy execution in B2B organizations was not yet visible in customer experience index ratings. According to the study by McKinsey (Maechler, Sahni & Oostrum 2016), Customer Experience (CX) index ratings reveal that B2B customers consistently show markedly lower scores compared to retail customers. While organizations in the B2C sector commonly achieve ratings between 65 and 85 percent, B2B organizations, on average, fall below the 50 percent. (Maechler et al. 2016, 1.)

B2B relationships and CX in B2B context are described to be more complex as they typically involve more stakeholders, and thus more individual experiences, and longer time horizon (Holma et al. 2021, 33; Hague & Hague 2015, 6). A more detailed listing of distinct features of B2B relationships was presented in the chapter 2.3. In a B2B context, capturing customer experience can be stated to be more complicated because experience arises from direct and indirect interactions between suppliers, customer and end users, as well as other actors involved (Zolkiewski et al. 2017, 175) and in different touchpoints at different stages of the customer journey (Witell et al. 2020, 422).

These different actors and touchpoints have gained attention also in the recent research in B2B context. According to McColl-Kennedy et al. (2018, 21) CX consists of multiple value creation elements, namely resources, activities, interactions, context, customer’s role, customer discrete emotions and finally of cognitive responses - complaints, compliments, and suggestions - at different touchpoints.

Another fairly recent research topic in the B2B is the outcomes-based measures, where the focus is moving beyond a product-centric metrics like was something delivered on time to a more strategic service-centric metric, e.g. how is the service helping customer to achieve

their goals. The perspective of outcomes-based measures is dynamic and interactive as it takes into account the value creation for all users, end and interim users, in the network. (Zolkiewski et al. 2017, 177-179.) Outcomes-based logic is conceptually very similar as customer success management discussed by Ulaga et al. (2020). According to Ulaga et al. (2020, 126-127), for B2B organizations, CS can be regarded as the next step on the path to implementing customer centricity. (Ulaga et al. 2020, 126-127).

The buying decision process in the B2B sector has traditionally been regarded as more rational compared to the decision-making process in B2C, but contrary to this perception, Witell et al. (2020, 421) make a statement that experiences of business customers are likely to be similar as customer experiences in B2C contexts. Lemke et al. (2006, 2011) asserted there may be a difference between B2B and B2C customer experience based on their research, however, there is no clear consensus on whether there is significant difference between B2B and B2C CX (Zolkiewski et al., 2017, 175-176). In B2B sector, according to Roy et al. (2019, 56), service quality can be perceived from a more rational angle, while service experiences from more experiential perspective. Despite contrasting views, researchers agree that CX can be considered as a key driver of behaviors in the B2B context (Ulaga 2018).

In summary, focusing on B2B customer experience can be stated offer business opportunities, but due to the holistic and complex nature involving many actors and touchpoints, capturing and measuring experiences can be challenging. Next, the attempts to define the components of the experience as well as ways to measure them, are discussed.

Measuring customer experience

Based on which dimensions and factors are customer experiences formed? How can customer experiences be measured? According to Maklan and Klaus (2011, 773), in the year 2011 there were no widely agreed measures of CX. Still today, there is no one established model on CX measurement. However, there have been attempts to portray customer experiences by constructing different models. These models are examined in this chapter. The list of the CX models presented is non exhaustive but covers the most cited research around the topic and models applicable in the context of this thesis.

In order to make customer experience understandable and manageable, an organization should be able to monitor and measure it (Lemon & Verhoef, 2016, 71). The strategic purpose of measuring customer experience is to use the knowledge gained to support positive and desirable customer experiences. As an outcome, this could then result in achieving higher levels of long-term loyalty. (Zolkiewski et al. 2017, 173.) Managing and measuring customer experiences has also drawn attention in the service marketing research community in the recent years (Zolkiewski et al. 2017, 173).

Customer experience has tight connections with customer satisfaction. Customer satisfaction, a standard and well-known performance measure, is an outcome of the quality of the customer experience process and concerns the gap between customer expectations and the actual experience. Namely, a good customer experience leads to higher customer satisfaction, meaning that customer satisfaction is an outcome of series of customer experiences. (Meyer & Schwager 2007, 4-5; Lemon & Verhoef 2016, 81.) According to Maklan and Klaus (2011, 778), it may be beneficial to continue measuring customer satisfaction in the organizations but it is not sufficient as a sole metric.

Another measure, gaining popularity in the past years, is Net Promoter Score (NPS). NPS is stated to indicate customer behavior as well as organization's performance. NPS can considered as a forward-looking metric, whereas customer satisfaction can be seen as a backward-looking metric. (Lemon & Verhoef 2016, 81.) Lemon & Verhoef (2016, 86) argue that customer satisfaction and NPS perform equally well in predicting firm performance and customer behavior.

According to Palmer (2010, 202-203) and Maklan and Klaus (2011, 776), due to intuitively appealing approach to experience makes it challenging to develop a universal measure similar to SERVQUAL, customer satisfaction, or Net Promoter Score. Lemon & Verhoef (2016, 86) state that since there are not yet long-tested approaches on robust measurement approaches to evaluate all aspects of customer experience across the customer journey, it is better to apply several customer feedback metrics. The authors argue that using multiple metrics predict customer behavior better than a single metric. (Lemon & Verhoef 2016, 86.)

Moreover, it has been stated that B2B customer experience cannot be measured in the same way as the B2C customer experience (Zolkiewski et al. 2017, 173; Witel et al. 2020, 422). In B2B contexts, the emphasis is on understanding and delivering value in use (Lemke et al. 2011, 847).

In order to better capture and measure customer experiences, few scholars have taken the lead in developing conceptual frameworks and measures. One of such frameworks is the model by Lemke et al. (2011), which is based on cross-industry empirical research for customer experience quality (Maklan 2011, 776-777). According to Lemke et al. (2011, 847), earlier research on CX was only conceptual nature and scholars had not fully addressed the issue of generalizability.

In the EXQ model by Lemke et al. (2011, 859-862) experience is generated based on factors from three types of encounters: 1. communication, 2. service delivery and 3. usage. Service delivery is assessed on the basis of product, service and network quality. The three encounters are moderated by the context of the experience – namely, involvement, complexity, relationships and the hedonic nature of the experience. The service encounter

includes the factors or attributes such as value for time and reliability. (Lemke et al. 2011, 861-863.) In the research conducted by Lemke et al. (2006, 7; 2011, 854-856), in total 119 mutually exclusive customer experience quality factors were discovered by using repertory grid technique. Some of the factors emerged only from B2C and some only from B2B customers while most factors could be stated to be applicable for both. The factors are examined in more detail in the following chapter.

Concurrently, also Maklan and Klaus (2011, 778) have developed an EXQ model to overcome the limitations of other models, since as argued by the authors, their model captures better the value-in-use of the organization's offer, not solely the attributes of product and service delivery. In the model, customer experience quality is formed based on four dimensions: peace of mind, outcome focus, moments of truth and product experience. These dimensions and attributes related to them are influencing the three output areas of CXQ; satisfaction, loyalty and word of mouth. (Maklan & Klaus 2011, 782-785.)

According to Maklan and Klaus (2011, 785), their findings, which were based on the research conducted in the consumer banking sector, indicate that customers evaluate the customer experience both at an overall level, a dimensional level and at attribute level, and that each level drives perception on the level above. Experience is wider and less bordered than the concept of product or service quality, thus makes it more challenging to measure. However, experience is not all-embracing, and it is the researcher's responsibility to uncover which attributes and dimensions are in or out, and which ones matter most. It is also likely that customer experience needs to be modeled for each unique context and cannot be generalized. Authors argue the EXQ model explains the word of mouth and loyalty better than customer satisfaction indexes. (Maklan & Klaus 2011, 785.) The model has been tested in B2B context by, for example, Roy, Sreejeshb and Sandhya (2019, 65) who also conclude to customers find the service experience to be more important than service quality in value creation and satisfaction measurement. According to the authors, "while service quality has to be provided as per the customer expectations, the service experience provided by the firm would act as the differentiator" (Roy et al. 2019, 66).

The EXQ model by Maklan and Klaus (2011) was further developed by Klaus in 2014 and tested in 2020 by Kuppelwieser and Klaus to be applicable both in B2C and B2B contexts (Kuppelwieser & Klaus 2020, 628). In the revised CXQ model, CX operationalization consists of three dimensions. First, brand experience includes the customers' perceptions of the brand, which influences the customer experience and the pre-purchase decision. Second, service provider experience encompasses experience themes that arise when customers interact with a provider's physical presence, personnel, policies, and practices. Third, post-purchase experience describes the customer's experiences after purchasing, using, and/or consuming the offering in question. (Kuppelwieser & Klaus 2020, 628.) The study by Klaus (2014, 56)

challenges the perception that CX and its measurement being very context-specific or differ between B2C and B2B customers. However, in a more recent study by Kuppelwieser and Klaus (2020, 628), the authors recognize that the model is not yet fully generalizable, and significant EXQ items could change depending on the context to which they are applied.

The three EXQ models, one by Lemke et al. (2011, 859-862), the EXQ model by Maklan and Klaus (2011), and the revised model by Klaus (2014) are compared in Table 3. below. The outcomes presented in the three models are very similar and differ mainly only in the customer satisfaction category. Customer satisfaction as an outcome is captured in the models of Maklan and Klaus (2011) and Klaus (2014), while not directly addressed by the model of Lemke et al. (2011). On the other hand, in the model of Lemke et al. (2011), attributes related to value-in-use are presented separately (Lemke et al. 2011, 859). The dimensions of EXQ differ in the models, since the model by Lemke et al. (2011, 859-862) examines the encounters and context, Maklan and Klaus (2011, 782) have four dimensions such as peace of mind, while in the model by Klaus (2014, 90), experiences are divided in the brand, service provider and post-purchase dimensions. The model by Klaus (2014) can be argued to be most logical and easy to understand from the dimensions' perspective. The concrete attributes vary in the three models both in number and content-wise. Lemke et al. (2011, 854-856) examined in total 119 factors, while in the model by Maklan and Klaus (2011, 779) 19 attributes, and in model by Klaus (2014, 90) 25 attributes are considered. The listing of the attributes by Lemke et al. (2011) can be stated to be very comprehensive, while the attributes of the two other models could not be applicable to all contexts. It could be argued that an organization should analyze first, which are the most significant attributes relevant to its value proposition and to its customers and measure those. The topic and attributes, or factors, related to customer experience are discussed in the next chapter.

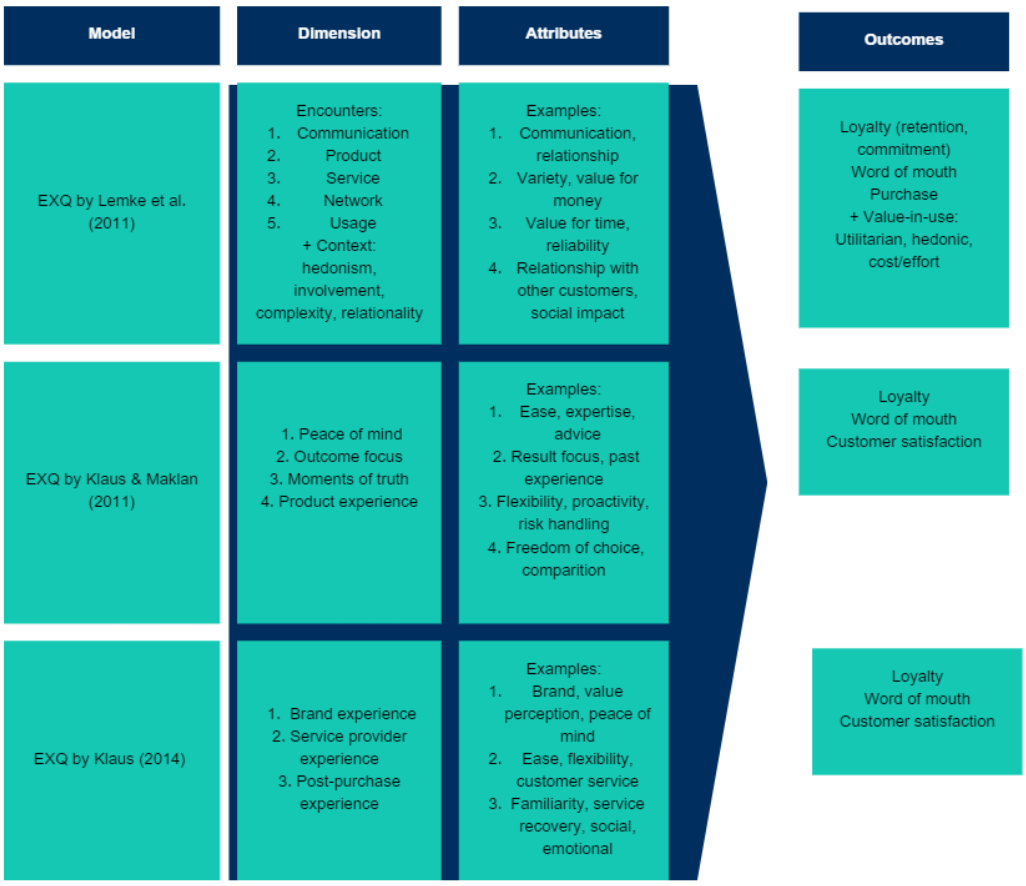

Table 3: Comparison of different ECQ models (adapted from Lemke et al. 2011, 859; Maklan & Klaus 2011, 782; Klaus 2014, 90.).

Customer experience factors modelled

Let us now examine the detailed attributes, hereby referred as factors, of customer experience. According to Mittal et al. (2014, 49), the factors influencing customer experience are specific and unique to each organization and that organizations should allocate resources to focus on the attributes that customers regard as most significant value-creating inputs.

In the research conducted by Lemke et al. (2006, 7; 2011, 854-856), the authors discovered in total 119 mutually exclusive customer experience quality factors. As result of the study, measured by the frequency count and the weighted variability index, key constructs in driving customer experience quality for the B2B customers were personal contact, flexibility, understanding of customer needs, proactive checking that everything is ok, eliciting customer's objectives, promise fulfillment and knowledge (Lemke et al. 2006, 13-16).

The CE Model developed by Lemke et al. (2006, 12) shows three layers of an offering. In the center is the product layer, which presents the core of the offer. Next, the service layer goes beyond the product and represents something that augments the core offering. The layer

around service represents experience, the least tangible side of an offer. These parts are placed together to produce the overall customer experience. (Lemke et al. 2006, 12.) An illustration of the model is presented in Figure 3.

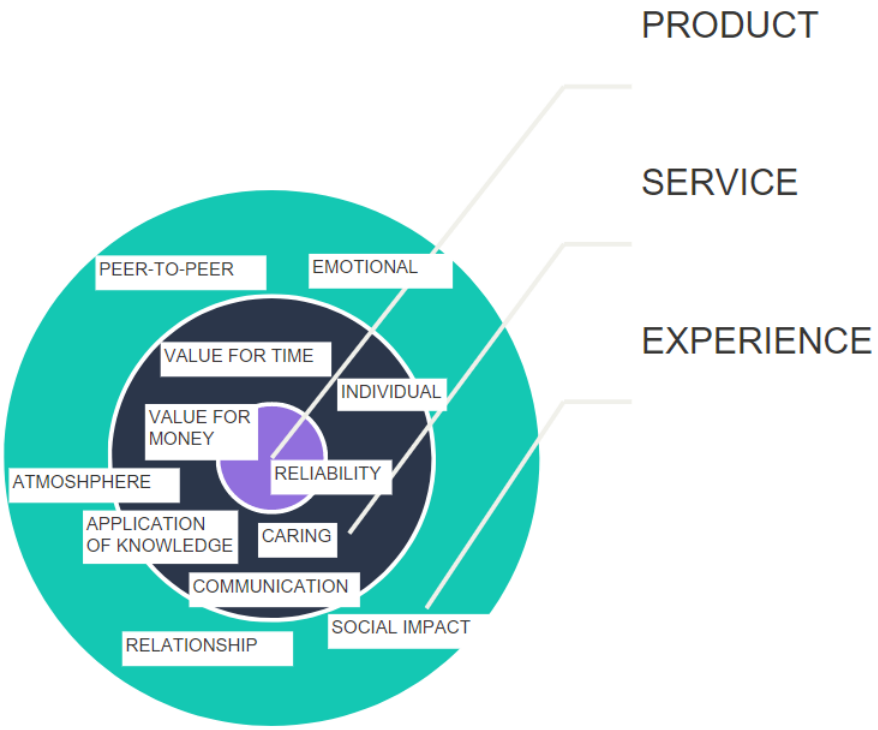

Figure 3: CE Model (adapted from Lemke et al. 2006, 12).

According to Lemke at al. (2011, 864), customer experience quality can be described as contextual. As a starting point towards examination of how customer experience quality differs by context, the authors contrast the key constructs found within B2B and B2C contexts. Notably, the key B2B constructs are focusing on the application of knowledge to understand and contribute to the customer's specific objectives. (Lemke et al. 2011, 864.)

After the first version of the model by Lemke, in 2009 Hollyoake introduced an adjusted version of it in the form the so-called CxP B2B model. According to Hollyoake (2009, 148), the model is dynamic, and can adjust to reflect the changing nature and importance of the elements at each level. The model illustrates key factors influencing customer experience at three levels, which represent also the depth and usually also the length of the business relationship. In the middle is the base level, where the key drivers focus on the buyer's

expectations of possibilities to form a business relationship with the organization. These drivers are connected to reliability, consistency, choice, flexibility, dependability, problem resolution, and appropriate contact. Once an organization has achieved the level of consistent experience that fulfills fundamental expectations, the critical elements that enhance the B2BE are cocreation of value, strategic alignment, and communication throughout all organizational levels in a flexible and proactive manner. Ultimately, this progression leads to the development of what can be termed a 'bonded experience'. Moreover, Hollyoake lists supplementary areas that support trust to develop a bonded experience: communication, interdependence and integrity. (Hollyoake 2009, 132-133). An illustration of the CxP B2B model is presented in Figure 4.

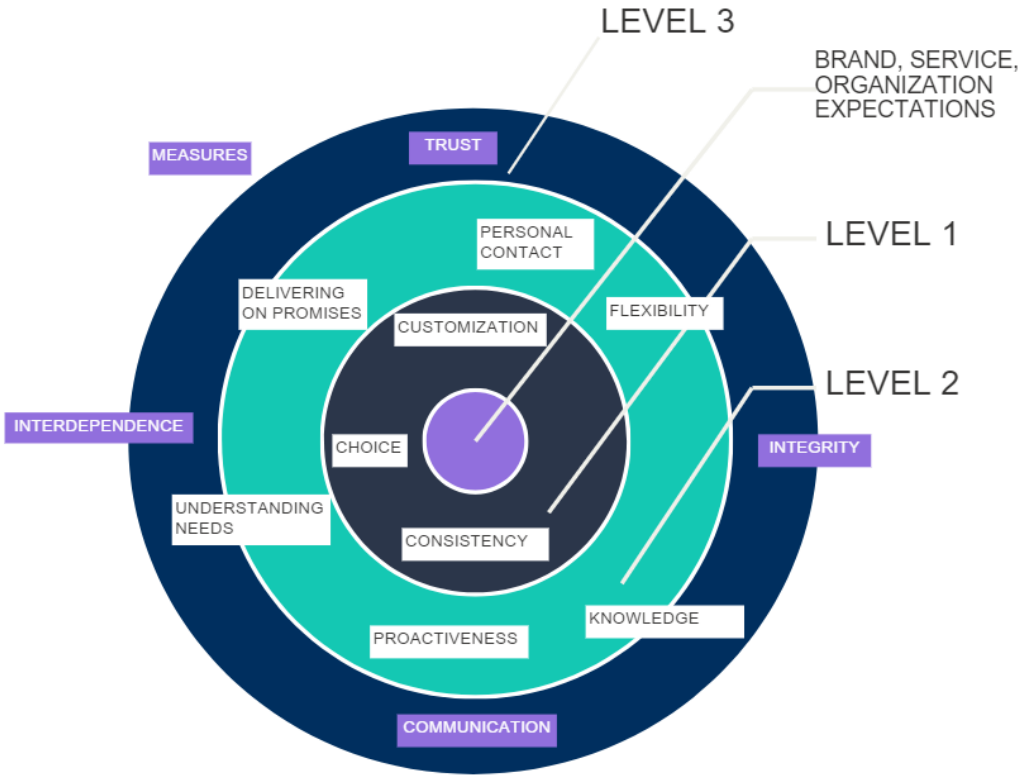

Figure 4: CxP B2B model of customer experience (adapted from Hollyoake 2009, 149).

The model by Hollyoake (2009, 149) can be stated to be extensive in considering the time and other relationship-based dimensions, while not differentiating too much between the product and other part of the offering. On the other hand, the model is only conceptual in nature and trying to illustrate in a rather simple picture a complex multilevel phenomenon. The CE Model by Lemke et al. (2006, 12) is even more simplistic as it focuses on the concrete CX factors and not on the relationship dynamics. On the other hand, the elements of the CE model have been used as a component of a more comprehensive EXQ model developed by the same researchers in 2011.

2.5 Summary of the theoretical framework and working hypothesis

In this thesis, the goal is to investigate the impact of the new delivery model on expected customer experience and the importance of the two customer experience factors, speed of delivery and reliability of delivery, to the customers of the case organization. The working hypothesis (Hirsjärvi, Remes & Sajavaara 2013, 159) used in this research is grounded on the theoretical framework based on earlier academic field studies conducted around the area. The working hypothesis presents the potential anticipated results from present study.

Delivery time and delivery reliability in terms of punctuality are two attributes of customer experience most affected by the new delivery model and on the other hand are factors contributing to overall customer experience. Since the focus of the study and two research questions are limited most directly to these two factors of customer experience and the service encounter part of the customer journey (Lemke et al. 2011, 859), the theoretical framework is formed based on the literature most related to the topic. The CE model developed by Lemke et al. (2006, 11-12) serves best the purpose, since the model encompasses different customer experience factors relevant and important to B2B customers. Although the overall customer experience is holistic and evolving through the whole customer journey, in this research the focus is narrower. However, the results may show that the new delivery model impacts also other CX factors captured by the study by Lemke et al. (2006, 2011) or other CX factors, since the perceptions of CX are also context specific.

Adapted from the CE model by Lemke et al. (2006, 12), Figure 5. presents a visualization of the CX factors in the scope of the present study, delivery reliability and fast delivery, as well as CX factors raised by the study by Lemke et al. that could potentially be affected by the new delivery model. Most of the factors are placed on the second layer, namely the service sphere, but also a more abstract factor, relationship, on the experience layer could be affected.

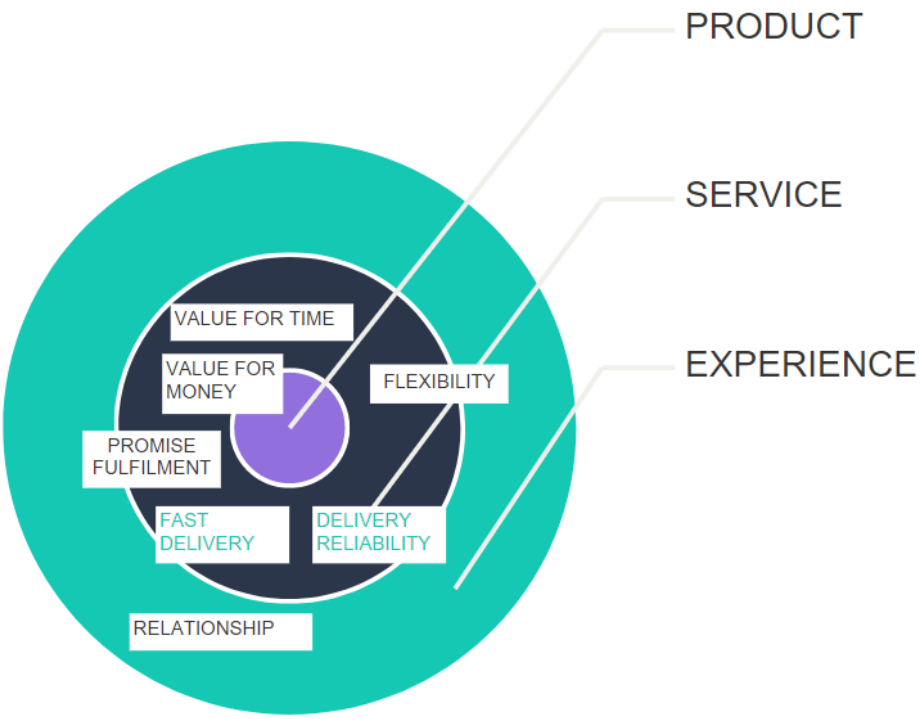

Figure 5: Adapted CE model for the research (adapted from Lemke et al. 2006, 12).

As presented in chapter 2.3, in several studies (Banting 1976; Mittal et al. 2014; Ulaga & Chacour 2001) delivery reliability was ranked among the top important attributes when it comes to customer value. In the research by Ulaga and Chacour (2001, 534-535), also the speed of delivery was valued as fifth most important factor. As a working hypothesis for the research at hand, it can be assumed that reliability is significant also the customers of the case company. Also, it can be presumed that customer experience is affected positively by the option of having shorter delivery lead time and better product availability.

Regarding the third research question, which customer segments would regard the stock delivery most valuable, there is no working hypothesis as such, and this can be stated to be context-specific and study results will show the outcome.

The other theory discussed in chapter 2, value-in-use, servitization and outcomes-focused customer experience, can be utilized in the further phases of thesis development work, when forming the value proposition for the new delivery model.

3 Exploring the new delivery model's influence on customer experience

The research design of the thesis adopts the theory discussed in the previous chapter in practice by studying the case organization and its customers. The aim of the development process is resulting directly from the objective of the thesis and from the research questions. Hence, the development process has two main aims. The first aim is to find out the impact of the new delivery model on customers and customer experience. Second, based on the research, the aim is to create a value proposition for the new delivery model. Additionally, the state of servitization in the case organization is evaluated as part of the development project.

The development setting in this thesis builds on the design thinking and service design, therefore the concepts of design thinking and service design as well as the related processes are introduced in this section, in chapter 3.1. For the practical research activities, the Stanford d.school Design Thinking process framework was chosen to be utilized. This chapter also explains why this model was chosen. The rest of chapter 3 follows the steps of the Stanford d.school framework starting from defining the research setting and first data collection activities and concluding with deliverables in the form of blueprints and brochures created in the last phase of the process.

3.1 Design thinking and service design

In this chapter, design thinking and service design are discussed. Both are human-centered practices and aim at solving problems and developing solutions in a creative and collaborative manner (Foglieni et al. 2018, 31-32).

Design thinking and service design started to develop and gained more attention since the shift from manufacturing economies to service economies (Brown 2009, 86). Design thinking and service design can be stated to offer methods and tools to implement service-dominant logic in practice (Wetter-Edman 2009, 209), and facilitate the transition in focus from aesthetics and product orientation to value creation and to understanding why customers look for a particular service solution (Andreassen et al. 2015, 22).

Design thinking and service design tools can help to improve customer experiences, since they offer ways to visually represent complex phenomena (Andreassen et al. 2015, 23; Reason, Løvlie & Flu 2016, 133). By applying design thinking and service design, an organization can help to ensure that customer needs are well-integrated into the process of developing the service offering (Andreassen et al. 2015, 25).

Design thinking

Design thinking has its roots in scholarly disciplines such as anthropology, ethnography, and psychology. Based on these disciplines, methods that enable better understanding of the customer experiences have been developed. (Plattner et al., 2010 in Andreassen et al. 2015, 23.)

There is no one definition of design thinking. Although the term has become popular and commonly used, due to various definitions, there is more confusion instead of clarity around the term. (Kimbell 2009, 22.) However, Lockwood and Papke (2017, 17-18) point out that is spite of the several definitions of design thinking, the essence of the concept is nevertheless rather consistent among different definitions. At IDEO, one of the pioneering and leading global design organizations, the dilemma of many definitions of designing thinking is acknowledged. According to their own definition, design thinking is a combination of both mindsets and design-based activities that foster the collaboration required to solve problems in human-centered ways (IDEO Design Thinking 2023a.). Design thinking can result in new objects, ideas, narratives, or systems (Goldman & Kabayadondo, 2023). As an ideal outcome of DT process, balanced solutions that are feasible, viable and desirable for people, emerge (IDEO Design Thinking 2023b).

According to Brown (2008, 86), in design thinking the designer's sensibility and methods are used to find a match for people's needs with what is technologically feasible and viable. As a result, customer value and market opportunity are created. (Brown 2008, 86.) Applying design thinking has been stated to result in more innovations (Liedtka, Hold & Eldridge 2021, 4) and better financial or otherwise successful, performance of the organization (Rae 2016). According to Miettinen (2014, 10), for an organization, design thinking means the ability to work creatively and proactively and giving the tools for change management.

Central elements of design thinking are human-centricity and empathy. Empathy is a natural human skill and, growingly, also an important leadership skill. To be able to create better products and services, the organization should be capable of stepping into the position of others (Maula & Maula 2019, 41.) According to Andreassen et al. (2015, 23), design thinking places the customer first and the organization second.

Service design

If there is no single definition of design thinking, there neither is single definition of service design that would be accepted within the design or research community. Out of the several definitions, Clatworthy (2013, 19) has highlighted four key characteristics of service design that are common in different definitions. Firstly, service design is practice oriented. Second, service design is inherently customer centric. Generally, SD aims at understanding and

influencing a customer's experience of a service. Third, SD works at the strategic, tactical and operational levels within an organization, and utilizes a collaborative and cross-functional approach. Fourth, service design is significantly visual, collaborative and enactive. (Clatworthy 2013, 19.)

The goal of service design is to create customer- or human-centered solutions that result in service experiences that are logical, desired, competitive, and unique for the user. Another goal is to promote innovation and engagement in organizations' service development and delivery. (Miettinen 2016, 4.)

Service design is an academic discipline having its roots in design research, especially in the areas of empathic and participatory design. The other side of service design is practice-oriented with service design consultancies such as Løvlie and Stickdorn and Schneider and their how-to guides on application of service design in practice. (Miettinen 2016, 5.)

In the past two decades, service design research has included research topics and integrated practices from interaction design (Sangiori 2009, 416), participatory design, design for social innovation, and transformational change (Andreassen et al. 2015, 25). Service design research has also tight connections with service-logic and value co-creation (Andreassen et al. 2015, 25; Wetter-Edman et al. 2014, 117; Mattelmäki & Sleeswijk Visser 2011, 6). Moreover, the term design for service has gained attention as "a perspective on value creation" (Wetter-Edman et al. 2014, 109). According to Kimbell (2011, 49), in designing for service, the purpose is to create and develop proposals for new kinds of value relations. Recently, research has also been conducted on new service development (Clatworthy 2013; Yu & Sangiorgi 2018) and research has also emerged related to service innovation (Foglieni et al. 2018, 14-15; Sangiorgi 2009, 417). Also, research on the evaluation of services and service design process has been addressed (Foglieni et al. 2018).

Service design practice is cross-disciplinary and combines various competencies in design, management, and process engineering (The Copenhagen Institute of Interaction Design, 2008 in Stickdorn & Schneider 2012, 23). In SD practice, competencies, approaches, tools, and methods are applied in order to understand and envision customers' experiences and activities (Wetter-Edman et al. 2014, 107). Application of service design is not limited to service businesses but has become practiced in the public sector (Penin 2018, 100; Meroni & Sangiorgi 2011, 36; Szebeko 2011, 68) and in industrial organizations (Miettinen 2016; Liedtka et al. 2013, 57).

Although service design and design thinking have much in common and often go hand in hand, there are certain distinctions between these two concepts. Foglieni et al. (2018, 32) list two differences. Namely, design thinking is focusing more on creative ideas, while service design is a system-oriented approach aiming at producing solutions that are valued both by the user

and the provider organization. Another distinction is that design thinking is a broader concept, whereas service design focuses on services and the processes, experiences, and interactions related to them. Thus, the design tools used in service design are specific to services. (Foglieni et al. 2018, 32.)

The service design process

Next, an overview of the methodologies applicable for the process of designing services well and the methods and tools attached to it.

There are several methodological models that can be applied in service design process. The list is non exhaustive but presenting few models used within the service design community. Such models are Double-Diamond process model by the British Design Council (2004), service design process by Moritz (2005), IDEO's Human-Centered Design (HCD) process by Brown (2008), Institute of Design at Stanford d.school process (2010) and Evolution 6^2 model by Tschimmel (2013). The three last models listed are originally developed for design thinking process, but since the two concepts are very much interrelated, there is no clear boundary on the practical application of these different models, if otherwise suitable for the context of development.

One of the most acknowledged and widely used model is Double-Diamond (Foglieni et al. 2018, 31), which involves the phases called Discover, Define in the first part of the diamond, while third and fourth phases, Develop and Deliver, lay in the second diamond. Stanford d.school model has five phases named Empathize, Define, Ideate, Prototype and Test, whereas the model by Moritz (2005, 123) is divided into six phases, namely understanding, thinking, generating, filtering, explaining and realizing. IDEO design thinking process has three steps; inspiration, ideation and implementation, but it is regarded as a structure of three overlaying spaces, rather than sequential process steps (Brown 2009, 22). Evolution 6^2 model has six following phases: Emergence, Empathy, Experimentation, Elaboration, Exposition and Extension. Despite different naming and number of the steps, overall, these models share a common objective. The models describe the service design process, starting from comprehending the phenomenon and empathizing with the customer or user, moving on to defining the problem and generating ideas for solutions, and finally progressing to prototyping, testing, and assessment. (Ojasalo et al. 2015, 74.)

At the core of the design process lies a cyclical pattern of generating and reducing options, divergent and convergent thinking (Stickdorn et al. 2018, 84). This movement between divergent and convergent thinking is best visualized in the Double-diamond model. During the first steps, a diverse range of research methods is employed to accumulate a substantial amount of knowledge, which is then refined through organization and the extraction of key insights. In ideation phase, numerous options are generated and later refined through

decision-making processes, leading to a selection of the most promising ideas. In the prototyping and implementation stages, exploration and the creation of potential solutions occur, followed by a renewed concentration through evaluation and decision-making processes. (Stickdorn et al. 2018, 84.)

Service design provides the methods and tools for analyzing and developing the service experience in a holistic and human-centered manner (Miettinen 2016, 5). The visualization methods and tool used in service design help to visualize the intangible elements of a service (Foglieni et al. 2018, 21) and concretize complex processes and ecosystems occurring in multiple channels (Miettinen 2016, 5).

Tools used in service design are concrete structured models and templates, such as personas, journey maps, and storyboard templates. Methods, on the other hand, are particular procedures to accomplish or approach something, for example conducting thematic interviews or user observations as a research method or doing desktop walkthroughs as a prototyping method (Stickdorn et al. 2018, 36; Foglieni et al. 2018, 35.)

Stanford d.school design thinking process framework

The Stanford d.school design thinking process model was selected for the research at hand out of the models presented above. The Stanford d.school model it was considered most applicable for the nature of the study, where the goal was to learn the problem, analyzing it, and drafting the solutions while the actual implementation of the value proposition as part of the new delivery model was outscoped. Moreover, the author considered the steps and their descriptions best comprehensible to the audience of the case organization.

The five phases of d.school model, namely Empathize, Define, Ideate, Prototype and Test, are described as follows.

In Empathize phase the aim is to gather understanding of the case at hand by engaging with customers or users and trying to step into their shoes. This can be performed, for example, through interviews or observations. Empathize can be also divided into two separate phases, namely understand and observe (Stanford d.school 2023, 1; Tschimmel, 2012 8.)

In Define phase, convergent thinking is applied, and the focus is on reframing the challenge based on the insights gained through the empathy work. As a result, reframed point of view, or problem statement is formed and shared. (Stanford d.school 2023, 2; Tschimmel 2012, 8.)

Ideate phase can be described as making sense of what was learned, identifying opportunities and proposing ideas (Penin 2018, 187). At this phase, it is recommended to be open-minded and have a wide perspective in terms of concepts and outcomes. The aim of ideation is to explore a wide solution space—both in terms of quantity and diversity of ideas. (Stanford

d.school 2023, 3.) Ideas are then further developed, parked or abandoned. The real value often lies not in the ideas themselves but in the outcome(s) that stem from them. (Stickdorn et al. 2018, 90.)

Prototype is used to develop ideas into a physical form, it can be a paper or digital illustration or even role-playing activity (Stanford d.school 2023, 4). Prototypes can be cheap and simple and should be invested only the effort and time that is required to generate useful feedback in order to evolve the idea (Brown 2008, 87).

In Test phase the goal is to gather feedback of the prototype in an iterative manner. In testing, low-resolution prototypes are placed in use context in order to refine solutions, to learn and adapt. Based on insights gathered during testing, adjustments to the solution and protype can be made. Testing phase is also an opportunity to learn about the users and build empathy towards them (Stanford d.school 2023, 5.) Testing is conducted in order to reduce the risk of pursuing ideas that look good in theory, but do not work in reality in terms of desirability, feasibility and viability (Bland & Osterwalder 2020, IX).

The five steps of d.school model, Empathize, Define, Ideate, Prototype and Test, are not strictly linear. Thus, it is allowed to work in an iterative manner and may loop back to earlier phases, if required. (Tschimmel 2012, 8.)

The practical application and deliverables in each of the five steps of the Stanford d.school model are presented in Figure 6.

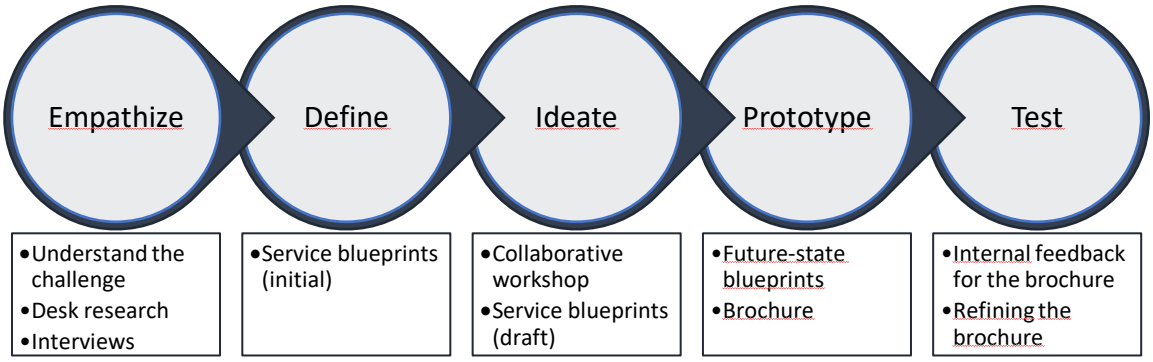

Figure 6: The Stanford d.school model phases as applied in the thesis.

3.2 Empathize

The Empathize phase of Stanford d.school model encourages researcher to engage customers or users by interacting, interviewing and observing them. The goal is to discover deeper insights and immerse oneself into their experience in order to understand, who the design is for (Stanford d.school 2023, 3-4.)

The Empathize phase resembles the research strategy phase of the case study approach. Both consist of a comprehensive analysis of the phenomenon and the use of different types of data and data collection techniques. Case study methodology emphasizes the importance of using multiple sources of data to triangulate findings and build a comprehensive understanding of the subject being studied (Yin 1994, 13). Combination of various data sources, methods and possibly also involvement of several researchers is recommended also by CX researchers and service design practice (McColl-Kennedy et al. 2018, 20; Stickdorn et al. 2018, 106). As stated by McColl-Kennedy et al. (2018, 20): "Practitioners should collect both qualitative and quantitative data from various sources -- Numeric scores are rather easy to obtain, compare, and turn into graphs, but they offer only limited insight into underlying concerns or suggestions for improvements."

In the development project at hand the mix of methods were used. First, desk research was conducted containing both the earlier surveys of the case organization's customer as well as studies conducted in different industries. Next, the semi-structured interviews of customers as well as personnel of the case organization were conducted. Around 40% of the interviews were conducted by a marketing research company's personnel, while most were conducted by the author, thus also the researcher triangulation was partly fulfilled. In addition, co-creation workshop was organized with selected set of case company's internal participants, which brought also different perspectives into research.

3.2.1 Desk research

Desk research can also be described as secondary research and it refers to collecting information from existing research conducted for other projects or purposes around same or similar topic. It is recommended to start the research process with desk research, since it is usually the most efficient way to gather basic knowledge on the subject. (Stickdorn et al. 2018, 118.)

Thus, also in this research, desk research of the existing data was conducted. Text data was gathered by collecting various material from the case organization, namely, organization's strategy, ongoing MTS delivery model study, annual NPS survey results, other working documents and reports of the lead times and KPIs like OTIF. Organization's website, intracompany portal, internal documents and reports were used as data sources. Working for

the case organization, the access to the documents was partly available by default and partly received on request from internal stakeholders.

Also, the earlier research of customer experience and satisfaction in B2B sector was used as secondary research data. As discussed in chapter 2, delivery reliability was raised to be a key attribute for customers satisfaction and experience in several B2B studies. Also, in Finnish CX practice oriented literature, Korkiakoski and Gerdt (2016) recommend that delivery process and logistics are the focus area for customer experience and create competitive advantage. These influence the ease of doing business, a concept that consists of the process fluency, speed and accessibility (Korkiakoski & Gerdt 2016, 216-217). Hague & Hague (2018, 1) also try to shake the B2B companies with the following statement on product availability and speed of delivery: “If one can order and receive something from Amazon within 24 hours, we can start to question, why it takes a month to deliver the products.”

The case organization has been conducting annual Net Promoter Score (NPS) surveys since 2016 with a help of external partner, who has been in charge of the annual interviews. These interviews are conducted throughout the year and each year, around 60 customers are interviewed. The survey includes both the actual NPS score and open questions around the themes such as order handling and tracking, customer service, brand, marketing, product availability, product range and quality. Themes have slightly changed over the years but overall, the scope of the survey has remained the same. (Case organization 2022b.)

Key source of secondary data were the open comments from the NPS surveys concerning the delivery lead times from the customers participated in the survey during the years 2019-2022. Years 2020-2022 were exceptional in the macroeconomic context due to covid-19 pandemic leading on one hand to logistical challenges and to increased product demand on the other, while the war in Ukraine changed the competitive landscape, hence data was studied for a longer period. The feedback from customers increased the knowledge on what kind of challenges customers are facing with the current delivery model. In addition, this data helped in planning the interview themes, selecting potential informants for the interviews and also creating the current-state service blueprint. NPS survey data was already collected into excels and categorized in a structured format by the market. Especially the answers in the categories of order handling and tracking, customer service and product availability were studied carefully. Utilization of already existing customer research data also enabled the triangulation in data collection.

In addition, the NPS survey scores gave an understanding of the current level of customer experience at the case organization. Although the usage of NPS as a sole metric of customer experience has been criticized by several scholars (Zolkiewski et al. 2017, 176; McColl-Kennedy et al. 2018, 21), it is one of the most widely used external metric to measure CX

(Hague & Hague 2018, 50). The case organization recognizes the challenge of the metric itself but values the open-ended feedback that is systematically collected from the customers as it offers valuable insights (Case organization 2022c). Open ended feedback given by customers as part of the surveys, gave useful input for the thesis project at hand.

Also, a commonly used internal metric, OTIF (delivered on time in full) was studied to gain information on current delivery performance. According to Hague & Hague (2018, 48), OTIF is measure of a well-performing company is likely to correlate with customer experience. In addition, PowerBI reports based on ERP data on lead time over the years 2021-2022 were studied.

Internal meetings and discussions with two persons from supply chain management, two from sales and key customer manager were held during autumn 2022 and notes from these meetings also served as a material and source of information. These discussions helped to clarify the current state of the customer experience, delivery performance and aims for the customer interviews.

During the October-December 2022, in parallel with this customer experience study related to the new delivery model, an overall MTS study was ongoing, and the working materials and final deliverables from that study were utilized also when selecting the informants to obtain the product group and geographical scope coverage. For that study, also four sales managers responded to a small survey in which one of the questions was around business and customer factors to be considered when setting up a warehouse. Answers from this survey were utilized as part of the Ideate phase.

In addition, the status of service offering and the servitization of the case organization was studied both via organization's internal material and customer-targeted brochures before interviewing director responsible for the service offering in the case organization.

3.2.2 Semi-structured interviews

The central part of the thesis data collection was performed as primary research by conducting semi-structured, thematic interviews. Interview as the data collection method is extensively used in qualitative research (Ojasalo et al. 2015, 106) and can be stated to be an effective way of soliciting and documenting, in their own words, an individual's perspectives, opinions, values and beliefs about their personal experiences (Saldana 2011, 32).

Types of interviews range from structured survey and semi-structured to fully open-ended interviews. Types of interviews are thematic interviews, in-depth interviews and focus groups. (Ojasalo et al. 2015, 106.) Thematic interview is semi-structured since the themes are the same for all interviewees. (Hirsjärvi & Hurme 2014, 47-48.)

Completely structured, standardized survey interviews often face criticism for their lack of flexibility, as they don't allow for any spontaneous exploration. This is because the questions are pre-formulated and arranged in a predefined sequence. According to Brinkmann (2013, 18-20), there is no such thing as a completely unstructured interview, as interviews always have a specific purpose. Interviewers seek to gather information about a particular subject. The key distinction lies in the interviewer's ability to leverage the dialogical potential within the interview. (Brinkmann 2013, 18-20.) Semi-structured interviews, for instance, involve pre-defined questions, but the order and exact phrasing can adapt based on the interview's progress. Moreover, some questions can be left unasked or additional questions asked judged by the interviewer in a particular context (Ojasalo et al. 2015, 108).

Interviewing creates a shared experience for the development team. In addition to the information obtained from the participant, interview has an empathetic aspect and helps to understand the experience and emotions of the customer (Portigal 2013, 27). For the interviewer it is important to embrace the worldview of the participant. (Portigal 2013, 34)

In qualitative research sampling is often purposive and theory-driven rather than random. The same typically applies also to interviewee selection. (Miles et al. 31-32.) Using interviews as a means of collecting data inherently carries a degree of bias, and this subjectivity makes interviews, as well as qualitative research in general subject to criticism. However, instead of staying in the debate whether interviews represent true or false interpretation of reality, they can be taken as expressions of perspectives and ethical constructs that draw upon the cultural resources at hand. Therefore, interviews are frequently justified as an approach that goes beyond the categorization of true or false. (Silverman 2006, 145.)

Application of interviews

Interviews were conducted in two main streams. The first and more extensive stream were the customer interviews. In order to obtain additional information stemming from customer interviews, another smaller interview stream was conducted.

The informants for the first interview stream were the existing customers of the case company and the aim was to have a sample representing the two different main customer segments (distributors and industrial customers), customers in different geographical regions globally (Finland, Nordics, Central Europe, North America and Australia) and customers buying one or several of the three main product groups. While key customers of the case organization were emphasized, the sample also included some basic customers. The informants also had to be those listed in the organization’s CRM database contact list. The list had contact details of those customers, who had previously agreed to be interviewed and spoke either Finnish, English, German or Swedish. None of the informants were previously familiar to the interviewer. The aim was to interview 20-23 customer companies, which

represents approximately 10% of active customers of the case organization. In total 28 customers were contacted and as an outcome in total 21 customer companies were interviewed (23 individual interviewees).The organizational position of the respondents varied from purchasing / category manager to CEO level. The aim was to interview more senior level representatives of the customer organization. Anonymized list of interviewees is presented in Table 4.

Main Product Group	Segment	Market	Interview Language
A	Construction Industry	Central Europe (CE)	German
	Distributor	Central Europe (CE)	German
A+B	Distributor	Finland (FI)	Finnish
	Distributor	Finland (FI)	Finnish
	Distributor	Northern Europe (NE)	English
B	Construction Industry	Central Europe (CE)	German
	Construction Industry	Central Europe (CE)	English
	Construction Industry	Central Europe (CE)	English
	Construction Industry	Finland (FI)	Finnish
	Distributor	Northern Europe (NE)	English
	Distributor	Central Europe (CE)	German
	Distributor	Central Europe (CE)	German
	Distributor	Central Europe (CE)	German
	Distributor	USA	English
	Distributor	USA	English
	Distributor	Australia (AU)	English
	Distributor	Australia (AU)	English
C	Construction Industry	Northern Europe (NE)	English
	Distributor	Central Europe (CE)	English
	Distributor	Central Europe (CE)	English
	Distributor	Central Europe (CE)	English

Table 4: The list of the interviewees.

Potential informants were first contacted by an introductory email message with their sales representative as cc of the email. Cultural aspects, such as more formal message towards German customers were considered (Solomon & Schell, 2009, 68-69). If no response was received by email to schedule the interview time, the informants were contacted by telephone and interview time was booked (or in few cases the potential informants declined). There was also a listing of additional customers and buffer in the timeline if more interviews were considered to be required in order to reach the saturation point.

According to Polaine, Løvlie and Reason (2013, 53), one-to-one in-depth interviews are best used in B2B situations or when interviewing customer stakeholders. In a one-to-one context, persons are more likely to tell things about their company that they might not say in front of

their colleagues or superiors. Also, in practical terms, conflicting schedules may place a challenge for B2B interviews with more than one person is involved. (Polaine et al. 2013, 53.)

The interview method used in this thesis falls between the structured and the semi-structured interviews. The interviews followed thematic questions and the main questions were equal to all interviewees. However, the order of the questions was adapted according to the situation which allowed to utilize the dialogical potential of the interview. The interview consisted of ten main questions, including additional questions of how and why. Few additional questions were prepared and posed if there was extra time, and the context was suitable. The interview questions were drafted by the author of the thesis and then iterated and prioritized with the thesis supervisor at commissioner organization who represented supply chain management as well as with sales executive, customer experience manager and key customer manager of the case organization.

Interview question setting was to most parts deductive; certain hypotheses from existing literature tested in this industry context. The interview questions were built around the themes of customer experiences regarding the current delivery process, the importance of specific factors on customer experience and customer views on the new operating model. The questions on the importance of specific factors on customer were based on the existing literature discussed in chapter 2 (e.g. Lemke et al. 2006; Homburg & Rudolph 1997). According to Lemke (2011, 868) customers are able to articulate the constructs by which they assess customer experience quality, if not asked an excessively narrow question about service quality or the value they get. The questions used served well to obtain the information on the research themes and objectives. The questionnaire of the first interview stream is included as Appendix 1.

Before approaching customers, the questions were tested with two sales managers (Finnish and English question set) and evaluated after first customer interview. Majority of the interviews were conducted by the author of the thesis, either in English or Finnish. All German language and three English interviews were conducted by a marketing research partner, who also conducts the annual NPS survey interviews to the case organization's customers and has experience of similar type of research. The two interviewees representing the partner were introduced with the research aims and the author walked through with them the detailed field guide prepared for the interviews. The same ten main questions and a detailed field guide with possible additional and support questions were utilized in the interviews conducted by the partner.

Interviews were conducted between November 2022 and January 2023. Customers were interviewed by Teams or telephone in their own location. The average interview time was scheduled and also fulfilled to be 30 minutes per interview – time limitation was due to the

perceived limited time allowed by the typical customer and also aim to have certain number of informants in a limited timeframe. Moreover, maintaining the focus during a semi-structured interview is challenging (Eriksson & Kovalainen 2008, 77-95), so shorter, but focused interviews can be justified also from this perspective.

Interviews were conducted by Teams video call and some via telephone, most of the interviews were recorded and comprehensive notes were typed already during the interviews. Notes were completed into written memos in Word document right after the interviews.

During the interviews useful interview techniques were applied, such as nodding and stating "mm-hmm" sounds as well as deliberately pausing and allowing silence before going to the next question in order for the interviewee to continue answering and telling more (Portigal, 2013, 25, 85-95).

To gain more understanding on the certain topics emerged from customer interviews, additional data collection via internal interviews were utilized in this research. Such flexibility and possibility for iteration is possible of the case study process (Eriksson & Kovalainen 2008, 127) and was advantageous for the research at hand.

The second interview stream not originally in the scope of the development project. In order to fill in the gaps and to gain more understanding on the certain topics emerged from customer interview stream and desk research, additional data collection via internal interviews were utilized (Miles & Huberman 1994; 9, 92). Refining the research design, if required, is acceptable and supported both by the d.school framework (Tschimmel 2012, 8) as well as case study principles (Eriksson & Kovalainen 2008, 127; Yin 1994, 52). Such flexibility and possibility for iteration was advantageous for the research at hand.

Hence, in addition to customer interviews, two persons working in the customer service, one in Finland and another in Germany, were interviewed to gain understanding of the as-is situation from persons working closely with customers on the operational level. Both interviewees have experience from small-scale make-to-stock operations that already exist today as well as from make-to-order deliveries. In general, customer service personnel can offer valuable information on pains and gains in current-state product or service (Bland & Osterwalder 2020, 142-144).

The themes of this second interview stream focused on the current order-delivery process, lead times, deviations, communication between different parties involved in the process, current customer experience pains and gains and factors that would improve the customer experience and the overall process. The questionnaire of the second interview stream is included as Appendix 2. The interviews were conducted in March 2023, and both lasted for

approximately 45 minutes. The interviews were recorded with the permission of the interviewees and notes typed into Word document.

In addition, to assess the current state and directions of servitization in the case organization, one interview was conducted by the author. The director responsible for services in the case organization acted as the interviewee. This interview was less structured than the other interviews but nevertheless, contained themes and few predefined questions. This interview was documented in Word document.

Analysis of the interviews

The content analysis of the interviews progressed with the following steps, described in the below Figure 7. The process begins with listening and transcribing the interviews into comprehensive written notes, which are then read through (Miles & Huberman 1994, 92). After this, data is coded, or in other words, labeled in order to retrieve and categorize similar, interesting or otherwise relevant data (Miles at al. 2014, 72). Next, the aim is to identify relationships, similarities or differences and patterns in the data and form categories out of them. Categories are further grouped into more general themes. (Miles & Huberman 1994; 9, 92.)

Figure 7: Stages of data analysis (adapted from Miles & Huberman 1994 and Lester, Cho & Lochmiller 2020, 98-101).

The full customer interviews were transcribed first into in Word documents. Next, the interview data with questions, answers and basic information of each interview session were collected into excel in a so-called data accounting log (Miles et al. 2014, 122). Data was read through twice before systematic coding started. Some well worded, surprising or very insightful statements were highlighted with different color codes already at an early stage.

Coding of qualitative data can broadly be divided into two main practices. One is called emergent coding, where themes emerge while analyzing the data content. While the other, theory-based framework analysis is following structured coding, where the codes are decided beforehand. (Tuomi & Sarajärvi 2009, 108-115.)

Although the data collection, i.e., interview question setting, was to most parts deductive, the data analysis was emergent since no predefined code or category names were used and also interesting themes special for this case that stem from the interviews were considered.

Interview data was coded by using a mix of descriptive coding and in vivo coding. In descriptive coding data is indexed with phrases or nouns that describe the content and is a stated to be a suitable method for many types of qualitative research, especially for junior researchers (Saldana 2013, 88-91). In some codes, when the informant had used a particularly suitable wording, also in vivo coding was used. In vivo coding means labeling the data with the words used by the participant (Saldana 2013, 91) and is one of the most applied and widely suitable qualitative coding method (Miles et al. 2014, 74).

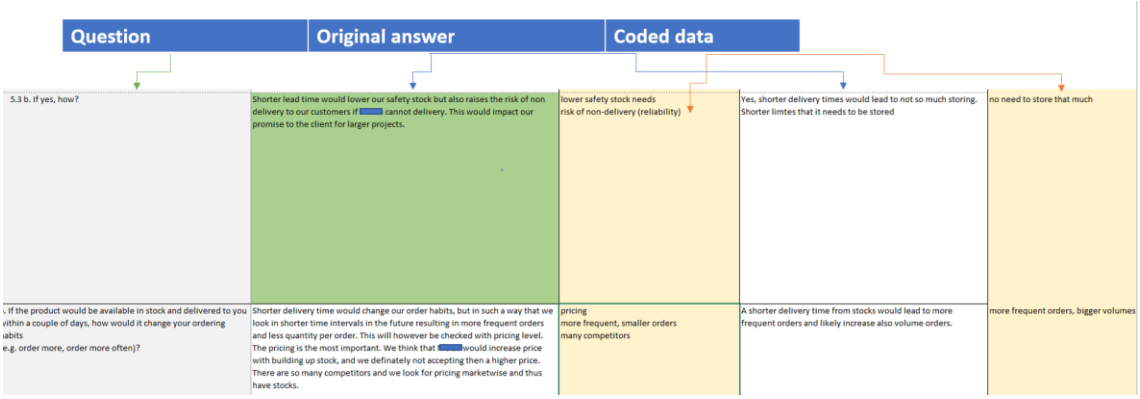

Figure 8: Extract of coded interview data.

After the first coding cycle, the coded data was analyzed further by clustering similar codes into themes / categories by using the pattern coding method (Saldana 2013, 209-212). For example, first-cycle codes such as “delivery problems”, “less ordering” and “lost projects” were categorized under a category called CURRENT CHALLENGES. This category was further placed in a hierarchy under a more general theme called CHALLENGES (Löfgren 2013; Saldana 2011, 108-110). The final themes and the hierarchies are presented in Figure 9.

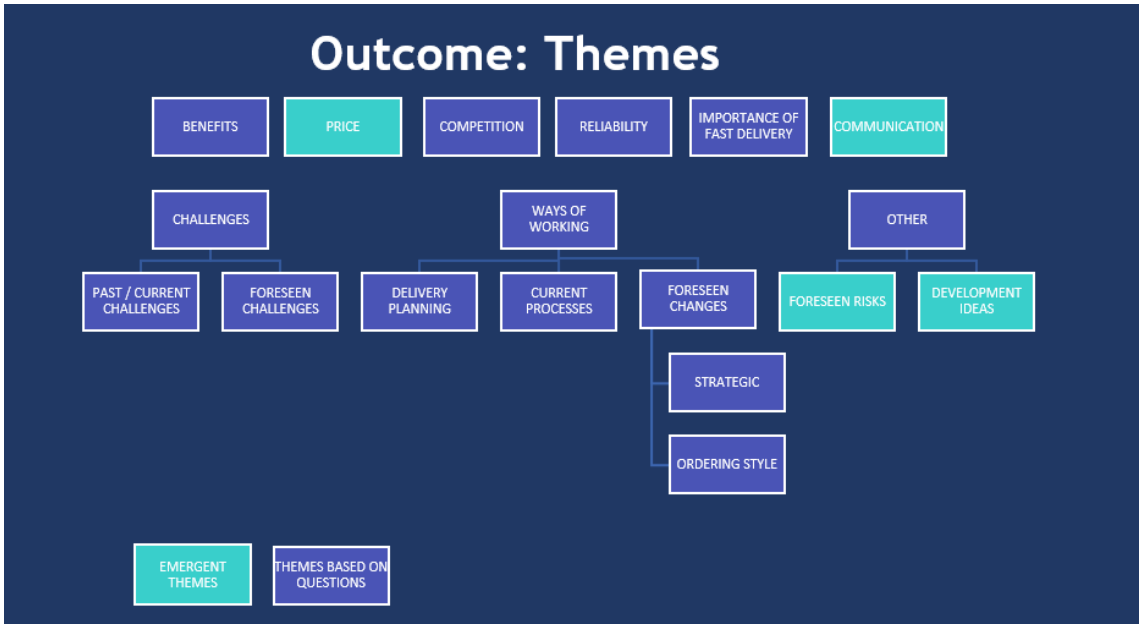

Figure 9: Final themes and categories based on analyzed interview data.

In total, eight highest level themes were identified. Most of them were following the themes from the thematic interviews as also stated to be typical by Tuomi & Sarajärvi (2009, 89). However, additionally two completely new, emergent themes that were not included in the interview themes but nevertheless insightful for the study, were discovered. Yin (1994, 52) encourages case study researchers to engage in an iterative process of data analysis, revisiting and refining their findings as new data emerges. In this thesis, the last stage of data analysis was the creation of general and compiling themes instead of truly abstractive concepts. This was considered appropriate as the further use of the data from the content analysis was more practice oriented.

To support qualitative analysis, also counting was used to show how many times certain topics were mentioned. Also, in two interview questions the informants were asked to rate the importance in a scale 1-4. Counting can be stated to be a useful tactic to verify a hypothesis and get a view on the most frequent or significant items (Miles et al. 2014, 283) to support qualitative analysis and interpretations made (Tuomi & Sarajärvi 2009, 121). In the study count of mentions method was used as well as charts build based on the number of responses by segment. The general problem with quantifying qualitative data is often the small amount of data (Tuomi & Sarajärvi 2009, 121), however, in the study at hand, the sample size can be stated to be relatively representative.

The outcomes from the customer interviews were gathered into PowerPoint presentation with a summary and highlights as well as more detailed analysis per different themes. In addition, the excel database with all interview questions and answers was shared with the case

organization management team, key account manager, customer experience manager and customer account managers responsible for the interviewees.

The answers from the second smaller stream of interviews, two interviews of the customer service representatives, were transcribed into Word and then further into Miro board. The data collected from the second stream of interviews was utilizing themes emergent from the customer interviews to fill in the gaps (Miles & Huberman 1994; 9, 92). Hence, data analysis of this interview stream was following deductive approach with predefined categories and themes. Extract of the Miro board with key insights collected from the interviews is presented in Figure 9.

Figure 10: Extract of the Miro board with key insights from the interviews.

3.3 Define: Initial mapping of customer experiences

At the Define phase, researcher should attempt to make sense of the information gathered in the previous phase through desk research and interviews. The goal of the Define phase is to form a meaningful and actionable problem statement, a point-of-view. This should be a guiding statement that focuses on insights and needs of a particular user. (Stanford d.school 2023, 5.)

In order to build and share the understanding of the problem statement, the type of customer or user and the needs that require to be fulfilled, different visualizations can be used. Commonly used service design tools to express such points-of-views are customer personas (Ojasalo et al. 2015, 77; Miettinen 2016, 7), customer journey maps and service blueprints (Jylkäs, Tikkanen & Jeminen 2016, 21; Andreassen et al. 2015, 23). These tools help to concretize and visualize complex processes and ecosystems occurring in multiple channels (Miettinen 2016, 5). Next, these different tools are described in more detail.

The primary goal of using personas is to enhance the awareness of service requirements and facilitate the understanding of customer groups that exhibit similar service needs or shared

behavioral patterns (Stickdorn et al. 2018, 41). The personas do not rigidly comply with the conventional customer segments used in marketing. Instead, they serve as a means to share research findings and insights across various teams and departments within the organization. By embodying the needs, motivations, and experiences of a specific customer group through the personas, they can foster empathy and understanding, and ultimately inspire teams to collaborate on addressing the unique challenges presented by a particular persona. (Stickdorn et al 2018, 41-43.)

Customer journey map is common and popular tool in service design, demonstrated by approximately 325 million results in Google search (executed on 27 August 2023). The tool is also widely discussed both in academic and practice-oriented literature. Customer journey maps are useful in the whole design thinking process but are especially valuable in describing the customer's current reality (Liedtka et al. 2013, 54) in the Define phase. In marketing research, the scholars regard journey maps usable for different purposes; to help in understanding customer behaviors from customer perspective (Edelman & Singer 2015), steer the sales in a customer-oriented ways (Witell et al. 2020, 422; Zolkiewski et al. 2017, 174) and describe different touchpoints before, during and after the purchase (Lemon & Verhoef 2016, 4; Jaakkola & Terho 2021, 19-20). Journey maps are not limited to customers only; thus journey maps can be utilized also to describe the journey of another actor like user or employee.

Journey maps can be described as visual representations of timelines that create a graphical illustration of a sequence of service interactions and engagements. These maps typically integrate components like photographs, emotional visual cues, and list involved stakeholders and communication channels throughout the journey. (Penin 2018, 216.) The journey is typically illustrated in a flowchart (Liedtka et al. 2013, 54) in which journey is divided into stages (Pennington 2016, 89). The journey map is recommended to be built on the views, needs and experiences of one main actor, a particular persona (Penin 2018, 216; Stickdorn et al. 2018, 45-46.) Like personas, also journey maps aim at transforming intangible experiences into tangible representations, fostering a shared understanding among various stakeholders. Their purpose is to visually present data in an empathic and simplified manner, rather than capturing the full complexity of a service with all its options. In general, a journey map portrays a typical or notable occurrence within a service, emphasizing its essential components. (Stickdorn et al. 2018, 43-47.)

Often, the primary goal of the customer is not using a particular service but to attach the use of the service in the overall situational context which then makes the overall customer experience (Heinonen et al. 2010, 4). The challenge is to emphasize on what customers really want to achieve instead of simply viewing the customer interaction with the service provider.

Stickdorn et al. (2018, 50-51) list five key factors to be considered in relation to customer journey maps, which are presented in Table 5.

KEY FACTORS	CONSIDERATIONS
1. Reliability	Based on assumptions or on research
2. State of the journey map	Representing current-state or future-state journey
3. Main actor/perspective	Customer, end-user or employee
4. Scope and scale	High-level or detailed
5. Focus	Product-centered or experience-centered

Table 5: Key considerations in customer journey mapping (adapted from Stickdorn et al. 2018, 50-51).

Service blueprints could be described as extensions of journey maps (Stickdorn et al. 2018, 53). While customer journey maps focus on customer's actions and experiences, service blueprinting maps out the entire service delivery process from back-office internal processes to front-facing customer interactions (Lemon & Verhoef 2016, 79) in addition to customer's processes. Service blueprint aims to present service as fully as possible in one view by including the actions, methods and tools used to deliver the service (Reason et al. 2016, 18; Miettinen 2016, 21). Both customer journey maps and service blueprints are not limited to illustrate current-state processes and experiences, but both can used as tools to envision future experiences and services in the form of future-state customer journey maps and blueprints. (Stickdorn et al. 2018, 45-46; Penin 2018, 58.)

According to Penin (2018, 58), the benefit of the service blueprint is its ability to capture information about both customers and service providers at the same time. It is stated to be the best analytical tool for design work that aims to maintain the balance between standardization and customization (Penin 2018, 58). The blueprint can be stated to assist in seeing the bigger picture, which can be insightful to the management of the service provider and help to plan required actions and resources (Miettinen 2016, 21).

Similarly to a journey map, a service blueprint is a time-based matrix that visually represents the various components of a service. It horizontally displays a timeline indicating the

sequential actions involved in the service, while vertically illustrating the interactions between customers and the different aspects of the service. These aspects include both frontstage interactions, involving customer-facing individuals and processes, and backstage elements, representing the processes and individuals behind the scenes and not visible to the customer. The line of interaction divides the customer actions from the frontstage interactions. Additionally, backstage processes are separated from the frontstage actors by a line of visibility, signifying their invisibility to the customer. Furthermore, support processes encompass activities performed by the rest of the organization or external partners. (Stickdorn et al. 2018, 53; Penin 2018, 58.)

Application of the current-state service blueprint

After the desk research and interview data were analyzed, the author gained more understanding on the customers, current process and pain points related to it. To be able to better illustrate and communicate current order-delivery process and form a problem statement, service blueprint tool was utilized.

In this research project, the aim was to see a holistic picture with relationship between actions and their consequences affecting customer experience. Moreover, the aim was to capture information about both customer and service provider activities at the same time. In order to achieve this, elements from both customer journey map and service blueprint were utilized and combined into one flowchart. As an outcome, it could be stated that a service blueprint with additional layer of customer experience illustrating customer emotions at different stages of the journey was created.

When creating the service blueprint, also the five factors for customer journey maps defined in Stickdorn et al. (2018, 50-51), namely the state of the journey map, scope and scale and focus, reliability as well as main actor/perspective, were considered. At this stage, the blueprints drawn were illustrating the current state as the aim was to map the current pains and gains with the as-is delivery model, make-to-order. The current-state service blueprint was created based on the insights gathered from the Empathize phase research consisting of interviews of customers and customer service team. Also, the desk research data including open comments on product availability and order-delivery lead times from the NPS surveys was utilized. The blueprints were drafted by the author and jointly refined with experts of the case organization over Teams and in a face-to-face meeting. Hence, what comes to the reliability of the blueprint, it presents a research-based service blueprint.

In this thesis, it was decided not to create separate persona templates but focus on the journeys and blueprints. Customer persona illustrations did not exist in the case organization, and they were also outscoped from this project. Separate effort could be taken to study

customers more holistically and create personas that are then commonly utilized and deployed into everyday processes across the organization.

Nonetheless, in order to illustrate customer focus and build empathy towards the current pain points of different customers, two customers personas were drafted to be utilized in the service blueprint. The decision to select those customer groups derived from both the existing customer segmentation used by the case organization as well as interviews conducted by the author. Hence, blueprints were drawn separately for the two main customer segments, distributors and industrial customers, who also have more distinctive motives and ways of working. In the blueprints created, the main actors were the customers from these two customer segments and other actors were the case organization's representatives.

As for the scope and scale the blueprint was decided to be made more on a high-level however focusing on the single purchase journey, not the full customer lifecycle since in the B2B sector it typically lasts for years and consists of several purchases and other touchpoints (Holmlund 2004, 5; Witell et al. 2020, 422). Focus of the service blueprint was on the overall purchase experience, however, as the customer experience consists also of the service and product offerings, they were also considered.

In this thesis, also a future-state service blueprint was created but since it resulted from the collaborative activities at the co-creation workshop, it is reported in the chapter 3.4 as part of the Ideate phase following the Stanford d.school service design process model.

The current-state service blueprint of which the extract is presented in Figure x. presents the overview of the customer experience from requirement for product until receiving the product. The blueprint presents customer actions as well as case organization's frontstage employees in the customer service, who interact with the customer. In addition, the chart illustrates also backstage employees of the case organization, such as production and logistic departments, who are typically are not visible to the customer but nevertheless play a role in the process. The customer emotions fluctuate from positive to neutral and in the distributor blueprint, even negative when delay in product delivery takes place. The pain points relate to the make-to-order process having impact on delivery lead times and even more on delivery reliability and imposes challenges to fluent communication. These issues also represent possibilities; providing warehousing services and better informing customers on relevant matters concerning the order and delivery status. An example of the current-state service blueprint is presented in Figure 11.

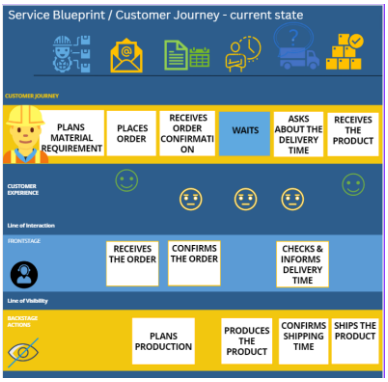

Figure 11: Example of the current-state service blueprint.

3.4 Ideate

According to the Stanford d.school design process, in Ideate phase the aim is idea generation. At this stage it is allowed to widen the perspective in terms of concepts and outcomes. (Stanford d.school 2023, 4.)

Ideation consists of idea generating, diversifying, developing, sorting and selecting (Stickdorn et al. 2018, 158). During ideation activities both convergent and divergent thinking apply, since first the aim is to create many opportunities that are then filtered through decision-making processes to arrive back at a few ideas with best development potential (Stickdorn et al. 2018, 84).

Collaboration, conversations and co-designing with customers and other stakeholders are of utmost importance (Meroni & Sangiorgi 2011, 248). In ideating in a group, the main point is to develop the shared ownership of ideas and not to get too attached to one's own ideas. Also, the decision of which ideas to take forward should be made in group. In design process, the aim is neither to choose the best nor the perfect idea, but instead choose an idea which is good enough to enable to start and proceed with the process. (Stickdorn et al. 2018, 157-158.)

There are several ideation techniques such as brainwriting, mindmapping, and sketching (Brown 2008, 88; Tschimmel 2012, 14-15). Co-creative workshops offer an efficient and viable means to execute these techniques and perform ideation (Brown 2008, 86; Stickdorn et al. 2018, 258).

Application of Ideate via co-creation workshop

In Ideate phase of this development project, an ideation workshop was arranged. Workshops are a widely used tool in service design for bringing people to work together on a task in a collaborative and creative manner (Reason et al. 2016, 143). The main objectives of the co-

creation workshop conducted were to ideate the value propositions as well as future-state ideal service blueprint utilizing the new delivery model. Also the improvement ideas regarding communication were brought up in the workshop.

The co-creation workshop was held April 1st, 2023, via Teams and it was set out to last for one hour. There were three participants, who all represented case organization in their expert role in the supply chain function. Miro platform was utilized for the exercises.

After welcoming the participants, they were first given the context of why they were invited to the workshop by introducing the service design project related to customer experience and the new delivery model. All participants were already familiar with the project and each other, so it was possible to quickly dive to the deep end without need for extensive warm-up exercises. The participants were granted access to Miro board in advance and in the beginning of the workshop they were asked whether they had earlier used the tool or would like to have a walkthrough of the basics. The tool happened to be somewhat familiar to all, even though it is used very little in the case organization in general.

The author had prepared two Miro boards for the workshop. For the first exercise author had prepared a 2x2 matrix for customer and internal opportunities as well as customer and internal risks concerning the new delivery model. 2x2 matrix a way to visually group and communicate relationships of different attributes (Stanford d.school 2018, 9-10). As a prework, the themes and individual attributes raised by the customer and customer service representative interviews as well as insights from four sales managers taking part in the survey as a part of the overall MTS study were collected as so-called sticky notes in Miro. The workshop participants were asked to move the notes to the 2x2 matrix to the suitable position. Participants were also encouraged to add new topics on the post-its (with different colors) and place them in the matrix. Although the work was individual, it was allowed to discuss and ask opinions from others during the exercise as the team was small. This sort of discussion can be stated to be fruitful and even as useful as filling in the matrix itself (Stanford d.school 2018, 10). As the final activity from this exercise was to list for the most important factors that could also be used in the value proposition. An snapshot from the exercise conducted in the workshop is presented in Figure 12.

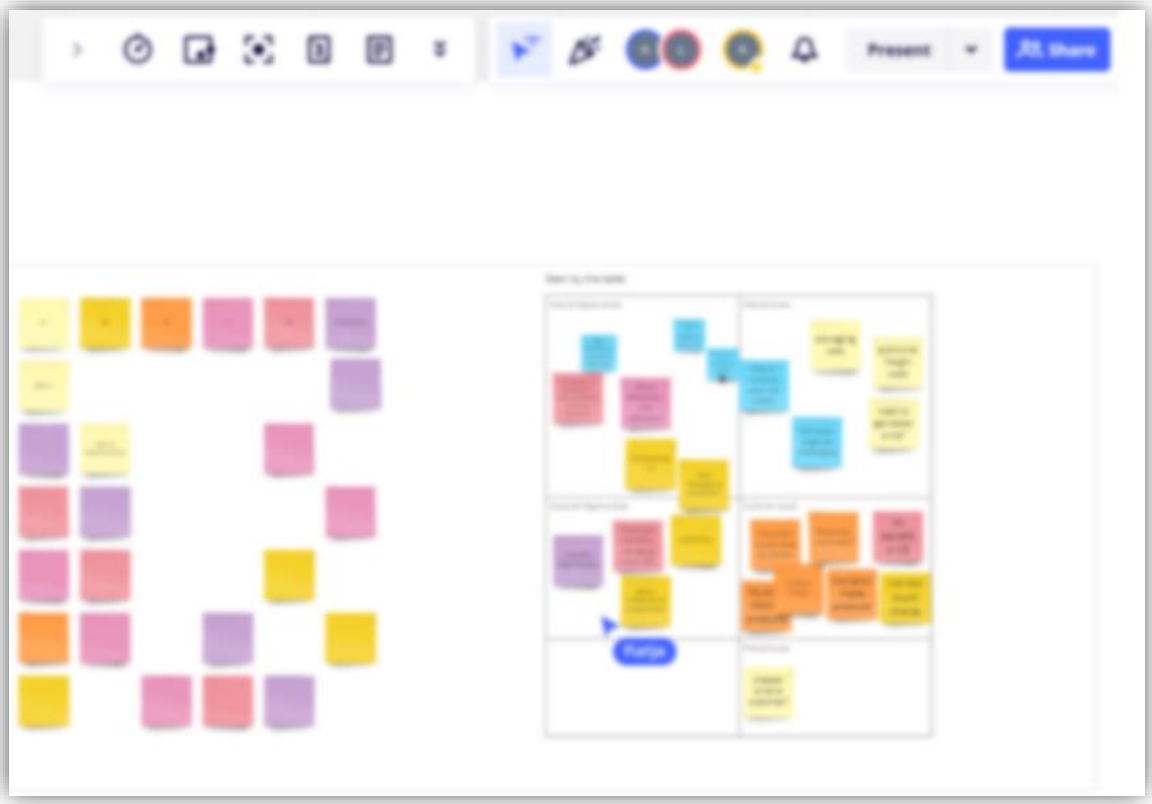

Figure 12: Mapping exercise conducted at the workshop.

Another exercise was to draft the to-be ideal service blueprint. As a basis there were the current, small-scale make-to-stock offerings as well as improvement ideas from customers and customer service representatives interviewed. This activity was conducted by placing the post it notes in an empty service blueprint template.

Ideate phase provided content for the next phase, prototyping, where the abstract ideas were formed into something more tangible.

3.5 Prototype

The next phase in the Stanford d.school model is prototyping. Prototype can take place in many forms and shapes, and it can be anything that a user can interact with (Stanford d.school 2023, 5). Liedtka et al. (2013, 30) describe prototyping as the creation of visual, and sometimes experiential, manifestations of concepts. Prototyping is an iterative set of activities, which aim at transforming the concepts generated in the Ideate phase into tangible, feasible and testable models (Liedtka et al. 2013, 30; Meroni & Sangiorigi 2011, 19). Prototypes offer a possibility to explore possible future experiences (Meroni & Sangiorigi 2011, 19) and value creation strategies (Fraser 2009, 61).

Prototyping in design thinking and service design is often also referred to as rapid prototyping, where term rapid refers to fast creation of the prototype that can also failed fast and be rebuild (Liedtka & Ogilvie 2011, 124). Protype should only commit as little time, effort and investment as it needed to generate useful feedback and evolve the idea (Brown 2008, 87). The first purpose of a prototype is to assist in determining what should be constructed. Subsequently, once users have iterated numerous versions of the "what to build" prototype, new prototypes are generated to help in understanding how to construct it. (Liedtka et al. 2013, 30.) According to Brown (2008, 87), it is even beneficial to have a less finished prototype in order to listen and learn from the feedback received. The goal of prototyping is not to finish but to learn about the strengths and weaknesses of the idea (Brown 2008, 87).

There are several benefits connected to prototyping (d.school 2021, 4). First, prototyping can be used for ideation and problem-solving. It can also be utilized to communicate and start a conversation. Prototyping allows to test different possibilities and to fail quickly and cheaply. Furthermore, prototyping enables management of the solution-building process and provides an opportunity to break the large problem into smaller testable pieces. (d.school 2021, 4.)

Prototyping can save a considerable amount of time and money, when developing a service. The aim of the prototyping is that the experience is designed and tested before resources are spent on designing the processes and technology needed to eventually run the service. Therefore, it is important to create an environment in which real people can be involved with experiencing the service as early as possible. (Polaine et al. 2013, 139.) In prototyping it should become clearer what the service is for and what value it brings to the customers. Prototyping can also crystallize, to whom the service is for and how different customers are reacting to the service proposition. (Meroni & Sangiorgi 2011, 136-137.)

For service development, there are numerous different prototyping methods and most suitable ones depend on the type of service being designed, which service elements are in scope of the prototype and the target audience. Prototype can be a for example a storyboard, paper, cardboard or online prototype, landing page, brochure, data sheet, online ad, explainer video or desktop walkthrough of the service delivery to simulate customer experience. (Bland & Osterwalder 2020, 104, 234; Stickdorn et al. 2018, 230-233.) At least a few methods should be considered to account for method triangulation (Stickdorn et al. 2018, 230).

Application of prototype

In this thesis, there were two practical applications of prototyping: 1) two future-state service blueprints and 2) value proposition brochure.

1) The future-state ideal service blueprints

The future-state ideal service blueprints followed similar considerations as the current-stage blueprints presented earlier in the chapter 3.3. The scope, scale, focus and the main actor/perspective as well as the visual format of the final blueprints were same as in the current-stage service blueprints. The blueprints were created for the two main customer segments, distributors and industrial customers.

The state of the blueprint changed from current state to illustrate future-state ideal buying experience. The main benefit of the two future-state blueprints were to illustrate the process changes occurring due to the new delivery model, make-to-stock, compared to the current delivery model, make-to-order. The main changes were related to the streamlining of the ordering process and the possibility for the customer to check the product availability online. Product is shipped to customer in a few days and as the product is already available in the stock, the deviations in the delivery are less likely than in current-state blueprint describing make-to-order delivery model.

As one area of improvement, the blueprint could still more clearly state the timeline, how many weeks the process takes, since that is changing significantly when comparing current state to the make-to-stock model.

The blueprints were drafted in the co-creation workshop in Miro template and later collected in the Canva format by the author. The blueprints were jointly refined with experts of the case organization over Teams or face-to-face. The elements for future-state service blueprints were created based on the insights gathered from the Empathize phase research consisting of interviews of customers and customer service team on their experience with few make-to-stock offerings that already exist. Also the final report from overall MTS study finalized in the end of 2022 was utilized as an input for the blueprint creation.

Although it can be stated that the creation of the future-state ideal service blueprints was mainly research-based as it was founded on the previous research and exercises where informants were experts in their own field, there were assumption-based features included in it (Stickdorn et al. 2018, 39). Assumptions are merely related to sharing information on the product delivery to the customer, since the solution is still in progress.

2) Brochure

The second prototype created is something that aims to illustrate the value proposition of the new delivery model. The brochure was selected as a prototyping method from different options, since in the format of brochure information on the new delivery models and its benefits to customer can be well summarized in a clear and appealing manner. Other possible

options would have been online ad or data sheet, but for the first the feasibility seemed complex and for data sheet more factual information on the warehouses and products available as well as on delivery lead times would have been needed in order to provide value compared to brochure. Moreover, brochure is one of the prototyping methods recommended by Bland & Osterwalder (2020, 98) for B2B services providers. Bland & Osterwalder (2020, 98) recommend to start testing value propositions by interviewing stakeholders and further customer support personnel and collect customer support data to research the problem areas in the current processes and services. Afterward, the organization could create a brochure to communicate the service improvements and further test the value proposition by delivering the service manually to a handful of customers before scaling it up. (Bland & Osterwalder 2020, 98.)

The brochure was created with Canva tool by the author. The style of the brochure was intentionally not using the case organization's graphical design styles and templates but giving more possibility to explore different formats of presenting the value proposition. The brochure aimed at illustrating the value proposition of the new make-to-stock delivery model by listing the products and services the proposition is built around as well as the gains and pain relievers to the customers (Bland & Osterwalder 2020, 22). Brochure content was based on the topics collected from the co-creation workshop in 2x2 matrix for customer opportunities and future communication methods in the order-delivery process. It also contains examples of the products available in stock as that information is very important to the customers. Canva prototype was intentionally not finalized before it was tested with case organization's experts to get feedback. Figure 13 is showing a draft version of the brochure that was also utilized to collect feedback in the testing phase.

Figure 13: A draft value proposition blueprint.

3.6 Testing

The Test mode is when feedback regarding the prototypes created is requested from the stakeholders like customers or users. It is another opportunity to gain empathy for the people the solutions are designed for (Stanford d.school 2023, 6). Standford d.school (2023, 6) advice

not to just ask whether or not users like the solution visualized in the prototype but also ask why in order to learn more on the problems and potential solutions.

The purpose of testing experiments is to reduce risk and uncertainty (Bland & Osterwalder 2020, 44). According to Liedtka et al. (2021, 127), the reasons to collect test data and evidence of the new service proposition are to verify that the interpretations made and insights collected at earlier stages are valid. For example, interviews achieved the goal set towards them, the proposed solution addresses customer needs and also appeals to a bigger group of customers (Liedtka et al. 2021, 127). Testing gives input on how to improve the solution and refine the prototype (Brown 2008, 88).

Polaine et al. (2013, 140) have listed seven useful questions to ask when prototype is being tested. The first question is, whether people do understand the service and what the new service is or does. Second, do people see the value of the service for them. Third, is there an understanding on how to use the service? Fourth, which touchpoints are central to providing the service? Fifth, are the visual elements of the service working and sixth, does the language and terminology work? Lastly, which improvement ideas do the testers have? Similarly, as the listing by Polaine et al. (2013, 140) above, also Standford d.school (2023, 6) recommend showing the prototype to the testers rather than explaining it. Testers should first experience and interpret it themselves. If possible, also several versions of the prototype could be presented and requested testers to compare them. (Standford d.school 2023, 6.)

Bland and Osterwalder (2020, 93) divide testing methods into two main phases: discovery experiments and validation experiments. When starting the testing, it is recommended to start fast and cheap, and even weaker evidence is sufficient to discover whether the general direction is right. Later on, strong evidence is required in order to validate the direction taken. (Bland & Osterwalder 2020, 93.) While Bland and Osterwalder introduce a number of different experiments and ways to collect feedback, Polaine et al. (2013, 141) present a more simplistic approach that results in four types of prototyping: 1) an inexpensive, semi-structured discussion; 2) a walkthrough participation; 3) a more elaborate simulation; and 4) a full-scale pilot. Usually, a mix of elements from the four types creates an effective level of prototype testing. The amount of effort, time and money invested typically varies between these, where the first option is most small in scale and the opposite is full-scale pilot that requires a considerable investment of resources.

Test evidence can be categorized to vary from weak to strong based on the level of facts versus beliefs, whether the evidence is gathered from a real world or from laboratory-like setting, what is being done instead of just being said and the amount of investment required from the customer to be involved in testing (Bland & Osterwalder 2020, 52). For example, the

evidence from customer interviews as a testing method cannot be regarded to be very strong (Bland & Osterwalder 2020, 106-108).

Application of testing

The value proposition brochure prototype was tested by requesting feedback from case organization's experts. The version was intentionally not finalized before it was sent for review and commenting. The ideology of "show, don't tell" was applied, thus the content and purpose of the brochure was not explained when given to tester's evaluation. Feedback was received both face-to-face as well as over Teams in one-to-one sessions. The feedback requested and provided was concerning certain wordings used in the brochure, overall appeal of the brochure and any development ideas to crystallize the value proposition message. In general, the feedback about the visuals and the message on the brochure was positive. Based on the well-reasoned feedback, the author iterated some wordings as well as applied the idea of adding online ordering link in the brochure.

Testing of the brochure with actual customers as well any further prototype creation and testing was outscoped from this service design project. The reason was that the MTS delivery model piloting was just about to start, when the thesis project was finalized. However, the author proposes to test the brochure with around ten customers from different segments and from the geographical locations which the pilot warehouse(s) would primarily serve. The test audience should evaluate the brochure, or any other prototype, based on the important questions listed by Polaine et al. (2013, 140); is the service understandable, do customers see the value of the service for them, do they know how the service works, which are the central touchpoints, do the visual elements and terminology work?

4 Outcomes and results

This chapter presents the outcomes and the results of this thesis in relation to the topic of this thesis; the impact of new delivery model on customer experience. The results from the customer interviews as well as current-state service blueprints, the future-state ideal customer service blueprints and the brochure of MTS delivery model value proposition represent the main outcomes. In addition, insights from the research phase regarding delivery related communication and the assessment of the state of the servitization in the case organization are presented in this chapter.

Next, the outcomes and the results are described in relation to the objectives and research questions posed in this thesis. To conclude this chapter, a summary of the results is presented.

4.1 Customer interviews

The results from customer interviews are presented in this chapter. The outcomes were presented to the management team of the case organization in the internal project day in the end of January 2023 with a title “MTS from customer perspective” and the audience was eager to know how customers regard the planned new delivery model.

Like described in chapter 3.2.2, in total eight highest level themes were identified as presented in Figure 9. In this chapter, the outcomes are discussed mainly focusing on three themes: delivery reliability, fast delivery and foreseen changes in the ways of working. Also, the potential benefits identified by the customers regarding the new delivery model are presented. Moreover, communication, an emergent theme stemming from interviews, is discussed later in this chapter. To conclude the chapter, the results are reflected against the theoretical framework, working hypothesis and research questions.

First of all, fast delivery is not regarded a fundamental benefit for the B2B customers of the case organization. It may feel surprising when comparing B2C sales, but in B2B sector customers typically plan their operations well in advance and have accustomed to lead time being several weeks. Delivery lead time of several weeks is accepted especially by the customers who have own warehouses, and views of optimal delivery times varied from 2-3 days (Finland) up to 10 weeks. The response distribution regarding fast delivery is presented in Figure 14.

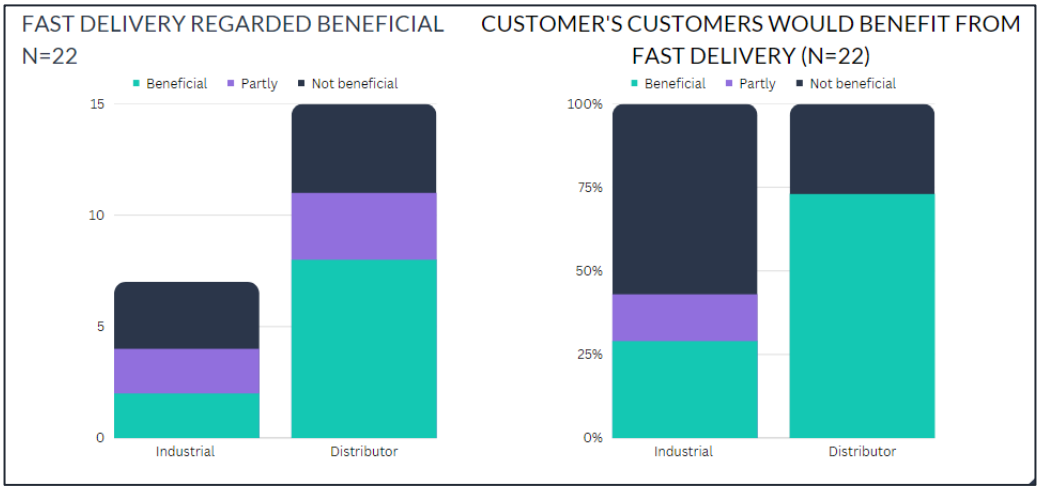

Figure 14: Customer response distribution regarding the value of fast delivery.

Nevertheless, customers recognized several benefits and situations in which fast delivery is creating value for them or their own customers. The raised benefits were grouped into four

main categories presented in Figure 15 below. Overall, customers in the distributor sector regarded fast product availability more positively and also identified benefits to their own customers further in the value chain. These customer groups are also presented in Figure 15.

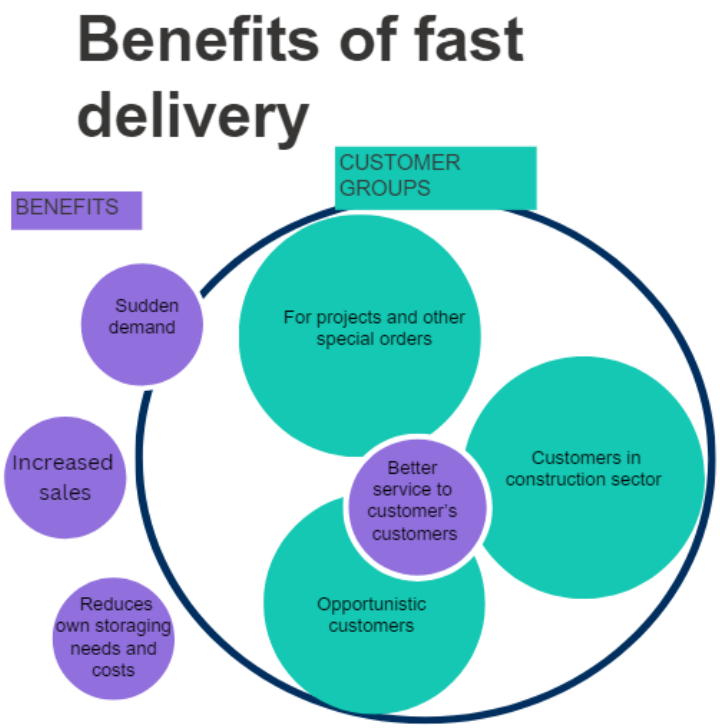

Figure 15: The benefits of fast delivery.

The following citations manifest the findings from customer interviews:

> We maintain a warehouse. But for add-hoc orders from customers based on projects or special specifications a delivery time within days would be however beneficial. (Interviewee 1, German Distributor.)

> The availability of materials is most important to us; in fact more important than brand name or anything else. Higher availability or shorter delivery time would result in larger volume orders. (Interviewee 2, US distributor.)

Informants regarded that delivery reliability is more important than shorter lead time as such and delivery reliability is among the most important purchasing experience factors to 90% respondents. The summary of responses is presented in Figure 16.

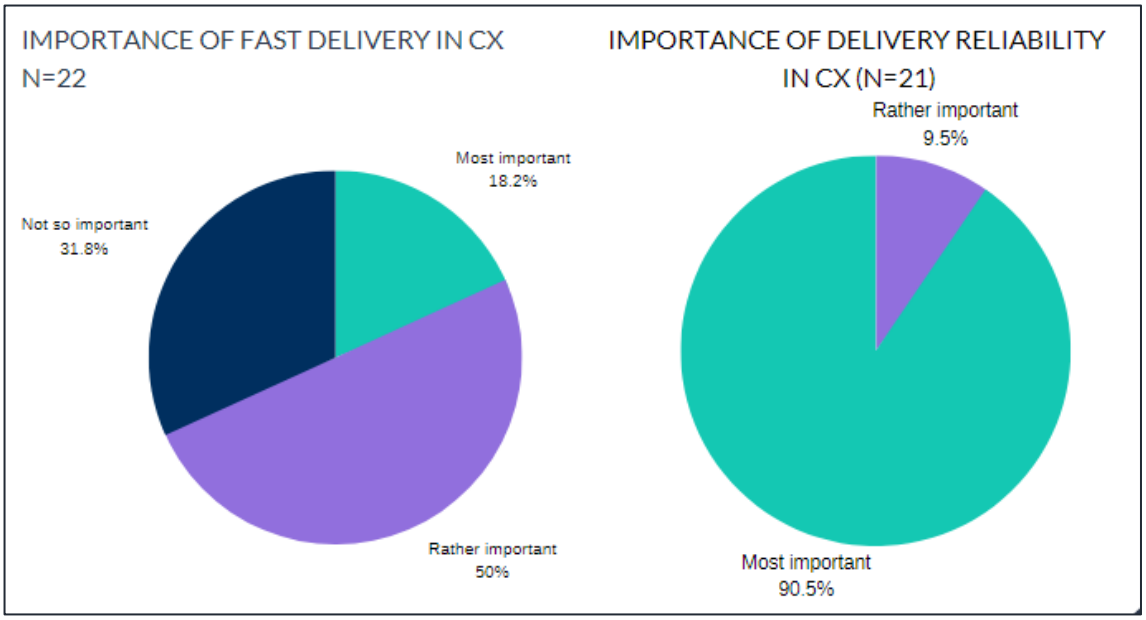

Figure 16: The importance of fast delivery and delivery reliability.

It was stated by several informants that if the delivery times become shorter, the reliability becomes even more critical. It can be, however, assumed that having products in stock, increases reliability as there are less variables since the products are already produced and typically located closer to the customer.

The following customer statement highlight the importance of the delivery reliability:

> It [delivery reliability] means everything; right product, right time, right place (Interviewee 3, Swedish Distributor).

Reducing own warehousing volumes or otherwise completely changing the order-delivery process was regarded as a strategic change that requires more comprehensive considerations and discussions between customer and case organization. There were also some critical remarks from customers but also development ideas how warehousing and further processing of products could be organized.

Customer views on the impact of fast delivery on ordering habits and ways of working distributed evenly. Many informants stated that their ordering habits would not change even if products would be readily available. However, another half estimated that they would order more often but smaller quantities per order.

As a conclusion, the new delivery model (MTS), from customer's perspective it can be regarded as a service to support additional demand and urgent needs for the product. It can also increase the delivery reliability and overall experience of the customers.

Insights from customer interviews gave case organization valuable information on customer's perceptions on the planned new delivery model. Moreover, also information on the competition as well as pricing was regarded useful. The results gave confidence on the new delivery model solution.

One additional topic, communication between customer and the case organization related to delivery situations, was raised by several respondents in the interviews. Consequently, it was added as an emergent theme in the results and is discussed next.

Communication

Communication was added as an emergent theme from the customer interviews and the topic was also further studied when interviewing customer service representatives. Few interviewees mentioned separately that they were very pleased with the communication with the case organization, but several interviewees also mentioned issues in the communication regarding the delivery process. In particular, customers raised the inconsistency in informing the deviations between the planned delivery and actual delivery date and time. The following citation from the interviews reveals customer emotions around the topic:

> Communication is a real issue. We don't use digital tools for tracking and communicate only with contact person for delivery situation. (Interviewee 4, German distributor.)

It was stated in the interviews that the case organization was not alone with such problems but nevertheless, the author saw a need investigate the issue deeper and seek improvement possibilities. With MTS delivery model, the delivery reliability and thus also communication regarding the delivery becomes even more crucial and affecting customer experience and also the outcome of the customer's own process.

Internal interviews with the customer service persons provided valuable information on the current ways of working both in MTS and MTO order-delivery process and customer pain points. It was not clear for the customer service representatives how exact delivery time and possible deviations are communicated, since these tasks are performed by other parties; dispatching personnel et the site, warehousing partner and the driver.

Improvement needs in delivery related communication have been raised also in NPS surveys and management of the case organization is aware of the challenges. According to OTIF metric delivery exceptions are not very common, but there is place for development, if experienced so by the customers (Case organization 2023c). It is a starting point that the topic is measured and visible also in the survey results. The next step, as stated by Hollyoake (2009, 134-135), in case of raised dissatisfaction or opportunities for improvement, organization should be working actively to resolve the issues.

The communication regarding the delivery is expected to improve due to implementation of the new ERP system. The information will be better available in one place both to case organization's own personnel and also toward customers. One example of the improvement enabled by the new system is the automatic system notification in case of change in estimated time of delivery arrival. Customers would receive email notifications in case of expected deviations in the delivery times. Delivery tracking is also possible via online portal.

However, more importantly, both in short and longer term, sharing and clarifying the roles and responsibilities in the order-delivery process could be developed. It is essential to understand the responsibilities, different stakeholders and communication channels in case of exceptions. From customer perspective, the seamless and consistent experience across touchpoints is something to be aimed at (Jaakkola & Terho 2021, 2).

Reflection towards literature and research questions

The CE model developed by Lemke et al. (2006, 11-12) encompassing different customer experience factors relevant and important to B2B customers was adapted for the study and presented in the working hypothesis in the chapter 2.5. Figure 17 presents a visualization of the CX factors in scope of the present study, namely delivery reliability and fast delivery, as well as CX factors raised by the study by Lemke et al. that could potentially be affected by the new delivery model. The results support that all the listed factors, namely value for time, value for money, flexibility, promise fulfillment and relationship, are likely to be affected by the new delivery model. Additionally, communication was added as a factor that is likely to be affected and actions would need to be taken in order to improve the customer experience around this area not solely in relation to the new MTS delivery model but also for all deliveries.

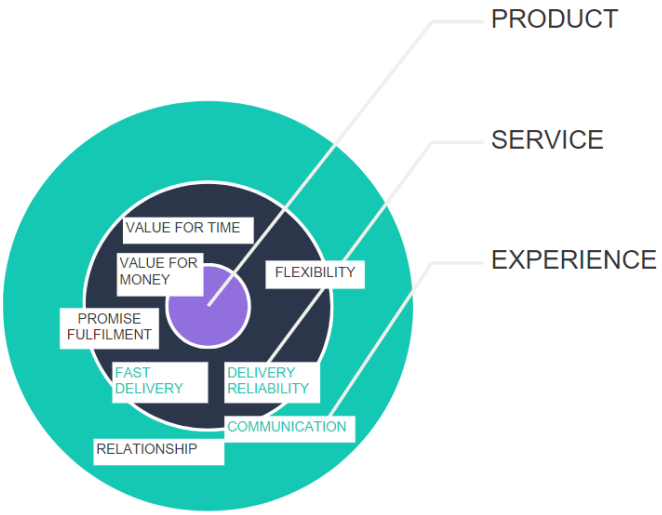

Figure 17: CX factors related to the new delivery model.

Regarding the research question on, how customer experience is affected by shorter delivery lead time and better product availability, in the working hypothesis it was presumed that customer experience is affected positively by the option of having shorter delivery lead time and better product availability. The results were not unconditionally supporting that short delivery time per se would improve customer experience. However, customers identified several use cases and advantages of shorter delivery time. Moreover, offering a selection of products readily available could improve customer perception of the case organization being more flexible and offering more choice in the order-delivery process. At the same time, the case organization could still continue to provide tailor-made products, which is an important competitive factor of the case organization.

Regarding the perceived importance of short delivery time and delivery reliability, the informants regarded fast delivery only rather important or not so important in regards of customer experience. This is partly contradicting to the B2B study by Ulaga and Chacour (2001, 534-535), where the speed of supply rank as fifth most important attributes when it comes to customer value. On the other hand, delivery reliability was regarded as a highly important factor for the customer experience and is also supporting the findings from literature (Banting 1976, 141; Mittal et al. 2014, 51-52; Ulaga & Chacour 2001, 534-535).

Overall, customers in the distribution segment regarded make-to-stock delivery model resulting in faster product delivery and potentially increased delivery reliability more positively than customers in the industrial segment. This could be due to 1) cost of building own stocks compared to the possibility to serve customers better with faster delivery of more standard products and 2) more direct touchpoint to their own customers and their needs.

As a result, only part of the hypotheses were supported by the interview results. This may be due to the following reasons. Firstly, there was no exactly similar research conducted in the literate used as reference. Secondly, definitions of some of the attributes are not very detailed and can be understood in different ways in different studies. More importantly, customer experience is context specific, even unique to each organization, hence it is natural that there can be difference in the factors important for CX in different contexts (Lemke et al. 2006, 23; Mittal et al. 2014, 49).

Delivery related communication was raised as a development area by several customers. It could be that the topic has not yet gained enough attention in the case organization although it contributes to customer experience. As stated by Homburg and Rudolph (1997, 26, 20), also industrial organizations should focus on soft factors such as processes of order processing and complaint handling (Homburg & Rudolph 1997, 26, 20).

As an ideal outcome of the future developments regarding the new delivery model and the delivery related communication, the whole future customer journey will be seamless, coherent and personalized as proposed by Jaakkola and Terho (2021, 2). The three factors are stated to determine the service journey quality. In seamless journey the touchpoints along the service process are integrated and aligned, no matter whether they are provided by the case organization itself or outsourced. Journey coherence can be achieved by integrating all touchpoints thematically to provide a consistent impression of the organization and its brand in different service encounters. Journey personalization stresses the adaptation of touchpoints to fit the customer's service delivery preferences. (Jaakkola & Terho 2021, 20-21.)

4.2 The state of the new delivery model and servitization

The current state of the new delivery model

The MTS delivery model study project was conducted parallel with the thesis interviews in the end of 2022. The project included the analysis of the products best suitable to be produced in make-to-stock model, production process related factors as well as costs and working capital implications of the warehousing. As an outcome of the delivery model study, in the end of 2022, no barriers to apply the model were found and the products most suitable for the model were recognized and proposed certain products to be piloted with. However, due to market uncertainty the scope was changed and pilot is progressing more slowly than anticipated and the product group to be used in pilot was changed due to market situation. (Case organization 2022d.)

Pilot arrangements were started in Q3/2023. The selected products have large volumes enabling benefit realization during pilot and also several customers per product. The pilot

products give possibility to run production optimally and prepare for demand peaks. The case organization has decided to pilot the model with one product group and utilize the existing operating locations and premises by arranging extra space to store the products in scope of the pilot. (Case organization 2023d.)

All pilot customers are in located within one geographical market area and have been contacted by their account managers regarding the pilot. The arguments presented in the value proposition brochure were utilized but communicated in different format. So far, the feedback regarding the availability of the new delivery model has been positive. The first orders and deliveries are yet to take place; thus it is too early to evaluate the fluency of the process. There may be some challenges ahead with logistics and communication regarding the upcoming deliveries, since the delivery times from the warehouse to customer can vary several days and the process is just evolving. (Case organization 2023d.)

The new delivery model and the product-service offering it represents, is estimated to give better competitive position compared to other, local players in a market area that has a vast potential. The aim has been to get customers to order both stocked materials and other materials, which could lead to more total sales. For some customers the case organization has earlier been the supplier only for customized products, while with shorter delivery times of more standard products, there is potential to respond better to customer needs more holistically. (Case organization 2023d.) As described by (Håkansson 1982, 395, 403), the delivery strategy focusing on the timing and the reliability of deliveries can help to position of the case organization as a customer's preferred supplier (Håkansson 1982, 403).

Normally, there is a minimum order quantity. However, when introducing new products or in this case, piloting the MTS model, also smaller orders are accepted without extra fee. (Case organization 2023d.)

The MTS model has offered benefits to the production process of the case organization and so far it has been running without problems. With current tools and pilot volumes, there may some challenges in the overall supply chain planning and execution and it is not decided whether pilot will be expanded or before new ERP implementation that offers better capabilities both for forecasting, MTS production handling as well as order-delivery related customer service and communication. (Case organization 2023d.)

As a whole, implementing MTS delivery model requires developing the process, policies and instructions to organization's personnel on how to process the stock orders. The principles and practices for production, warehousing and order handling have now been established for the pilot scope (Case organization 2023d).

After implementation of the pilot, it would be recommended to collect customer feedback and measure the impact of the new delivery model on the customer experience. This could give insights on the success and any further development areas.

The state of the servitization

The case organization has been providing customer support and technical customer service for over 15 years, but initially the service offered were more emergent and not conceptualized. Few years ago, services become more conceptualized, especially around research and development (R&D) and technical customer service. In 2022, another change took place and various service offerings were categorized into four groups; sustainability, R&D, technical customer service and services around supply chain to better cater needs of different customers. In addition to continuous services and self-service tools, customers can also reach out to technical specialists of the case organization. When the service request is completed, customers have a chance to provide feedback. However, feedback is given quite seldom. The request resolution time and possible feedback received are the ways to measure success in the service delivery. (Case organization 2023f.)

In some areas like technical support and recently around sustainability, customers have sometimes contacted the case organization and proposed additional service offerings. Otherwise the service offerings have either emerged from specific use cases or been developed and proactively offered by the case organization. (Case organization 2023f.)

Awareness of the service offering was assessed by a small study conducted by the case organization and involving few internal stakeholders and customers in 2023. As a result of the study, the awareness in the organization and among customers was not very strong. As an improvement proposition, few case organization's representatives taking part in the study proposed an internal training on the service offering, content and how to tell customers about those (Case organization 2023g). According to business development director interviewed by the author (Case organization 2023f), services could have been marketed more actively, through regular sales channels and processes and by the persons familiar to customers.

R&D services provided have also enabled to build partnerships with some of the customers. While jointly designing with customers the end products and technologies, product development cycle has been faster (Case organization 2023e.)As a result, strong, long-term customer relationships have been achieved where value is co-created.

Services around supply chain include digital ordering platform, support in supply chain planning, planned production capacities and very recently also make-to-stock offering was added to this offering (Case organization 2023f). After leveraging of the MTS delivery model and potential improvements in the delivery tracking process, the supply chain services

offering would be updated and become more comprehensive. The MTS component of the supply chain service package is consistent with the just-on-time deliveries named by Grönroos (2015, 512) as an example of supply chain services. These services help to reduce the customer warehousing needs and costs (Grönroos 2015, 512) and enable more reliable deliveries. Also, the scheduling and information about the upcoming deliveries can be seen as a service as also stated by Grönroos (2015, 512).

In general, in the case organization, the motives to leverage servitization are the ability to differentiate, get income from services and win new customers. It is also seen as a way to gain customer commitment. Most of the services are currently not separately subscribed or ordered but typically part of the overall customer offering. (Case organization 2023f.)

The reasons to apply servitization in the case organization are aligned with the literature around the topic (Grönroos 2015, 501; Laine 2012, 1). Like stated by Håkansson (1982, 395, 403), providing services such as the timing or reliability of deliveries or the amount of technical assistance are moderately specialized delivery strategies that can help to position of the supplier as customer's preferred supplier.

Moreover, especially valuable are partnerships (Grönroos 2015, 506), which represent a very specialized delivery strategy with tight integration with the customer (Håkansson (1982, 403). Like described by Ulaga (2018, 81), the aim of servitization should be the achievement of customer-desired business outcomes. Partnerships with customers and other offering that support customer's overall process, creates value-in-use (Grönroos 2015, 506).

When leveraging the services, case organization would need to pay attention that the resources and competencies to deliver the value propositions are in place (Smith et al. 2014, 260). Moreover, in order to develop services based on customer needs, customers should be involved in the design of services and co-creating them (Ruiz-Alba et al. 2019, 638).

4.3 Current-state and future-state service blueprints

Current-state service blueprints

The current-state service blueprints presented the pains and gains in the current customer experience as well as processes of the case organization. The blueprints were based on the insights gathered in the research process consisting of desk research insights such as NPS survey results, customer and customer service interviews conducted for this thesis, ideation workshop as well as statistics from OTIF measure.

Current-state service blueprint presented the order-delivery process and were created for two main customer segments to present few common scenarios. The service blueprint

emphasized the pain points in the current customer experience: waiting time, exceptions and deviations in the delivery as well as communication regarding the planned delivery.

Service blueprinting represented a new way to compile information and describe and visualize the customer experience as a whole in the case organization. Instead of focusing solely on customer journey and separately on the internal processes within the case organization, service blueprint captured information about both customer and service provider activities in one view. Like the literature suggests, also in practice, the blueprint enabled to see the holistic picture and relationship between customer and other actors, actions involved and their consequences in one view (Liedtka et al. 2013, 54; Jylkäs et al. 2016, 21). Also, it was seen as insightful to view the current reality of the process and customer's experience in the blueprint (Liedtka et al. 2013, 54).

The blueprint was created based on visual style differing from the organization's official visual guidelines for the thesis purpose and to illustrate the process in an eye-catching, simple and sympathetic manner. The two service blueprints created, one for each main customer segment, are illustrated in Figure 18.

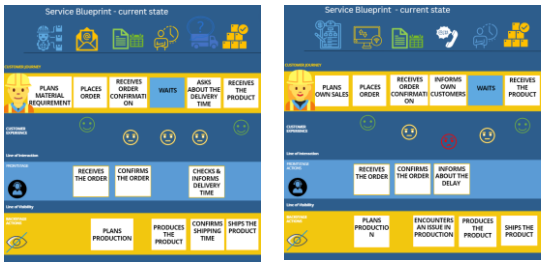

Figure 18: The current-state service blueprints.

Three main insights were drawn from the current-state service blueprints. First, service blueprinting acted as a facilitator for the cross-functional communication. Service blueprinting helped to portray the overall process that includes different steps and functions to serve the customer. Secondly, the blueprints visualized current services and service levels as well as the pain points of the current process. The pain points include long lead time between order and delivery, waiting, increased possibility for delivery deviations and issues with communication. Thirdly, the current-state service blueprints crystalized the thought that customer experience should be fluent and uniform among process steps and channels. The components such as order confirmation, communication of expected delivery time and possible deviations in the delivery time should be reaching the customers through the selected communication channels. To summarize, blueprints that showed in a nutshell the current process and the insights they provided were found useful in the case organization for the new delivery model project but also on a more general level.

Future-state ideal service blueprints

In the future-state ideal service blueprint the objective was to illustrate, how the order-delivery process would change in the new delivery model. Another objective was to also illustrate the communication between customer and case organization and tackle the communication challenges that sometimes take place in the current process.

Future-state service blueprints created helped to transform new delivery model into tangible representations and helped to build shared understanding (Stickdorn et al. 2018, 43-47). With the service blueprint, the discussions were more grounded and focused on the customer needs and goals but also on the fluency of the process.

As a result two future-state service blueprints were created and presented in Figure 19.

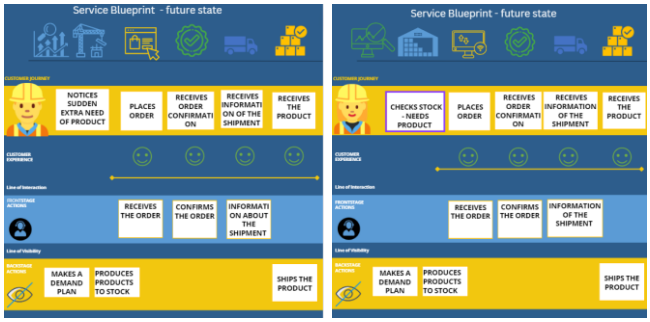

Figure 19: The future-state service blueprints.

With the help of the blueprints created in this service design project in the context of this thesis, the three main benefits and results were identified. First, the blueprints underlined the customer focus in service development and communicating the customer centric development needs across the organization. When keeping the blueprint on a higher level and not listing the detailed products or services, the focus can be kept in the customer needs and human interaction. Second, the blueprints helped to visualize the ideal customer journey in relation to order-delivery process. The interviews and the current-state service blueprint illustrated customer problems and gaps in the current process. With the help of empathy, the right problems for the customers were addressed and solutions were ideated based on that. Third, blueprints as a tangible tool helped to envision the target state of the order-delivery process and possibility to compare the differences to the current-state service blueprint. The blueprint can be stated to assist in seeing the bigger picture, which can be insightful to the management of the service provider and help to plan required actions and resources (Jylkäs et al. 2016, 21).

The future-state service blueprints were regarded valuable in the case organization in relation to the future when leveraging the use of MTS delivery model and the capabilities of

the new ERP system for delivery-related communication. Moreover, the blueprint attracted interest in the case organization and potential further application areas in other development projects were identified.

Limitation

Concerning the scope and scale of the service blueprints created, they were limited to order-delivery process and were chosen to be on not very detailed level, but visually present data in an empathic and simplified manner and showing a typical instance of a service related to the development project scope (Stickdorn et al. 2018, 43-47).

For overall customer experience capturing this kind of blueprint is inadequate, since journey comprises of various stages like pre-purchase and usage stages (Lemon & Verhoef 2016, 79; Purmonen et al. 2023, 85) and can develop over time (McColl-Kennedy et al. 2015, 432). Moreover, particularly in B2B context, several stakeholders are involved in the customer organization and thus experiences of these stakeholders may vary and even conflict and illustration of sub-journeys or blueprints is required in order to capture holistic view (McColl-Kennedy et al. 2015, 431-432; Zolkiewski 2017, 173; Purmonen et al. 2023, 85). In many cases, the end goal of the customer is not the interaction with the provider or using the product or service itself but to embed it in the overall context, which creates the overall customer experience (Heinonen et al. 2010, 4).

4.4 Value proposition brochure

As an outcome, the value proposition of the new delivery model was presented in the form of a value proposition brochure. The brochure illustrates the value proposition of the new make-to-stock delivery model by listing the benefits to the customers as well as products and services included in the offering. The value proposition is built around the gains and pain relievers to the customers.

Keeping in mind the target audience, the brochure aimed at keeping the balance between presenting the potential benefits to the customer and more factual information regarding the products and warehousing. Also the style is kept rather simple but professional. Value proposition brochure is presented in Figure 20.

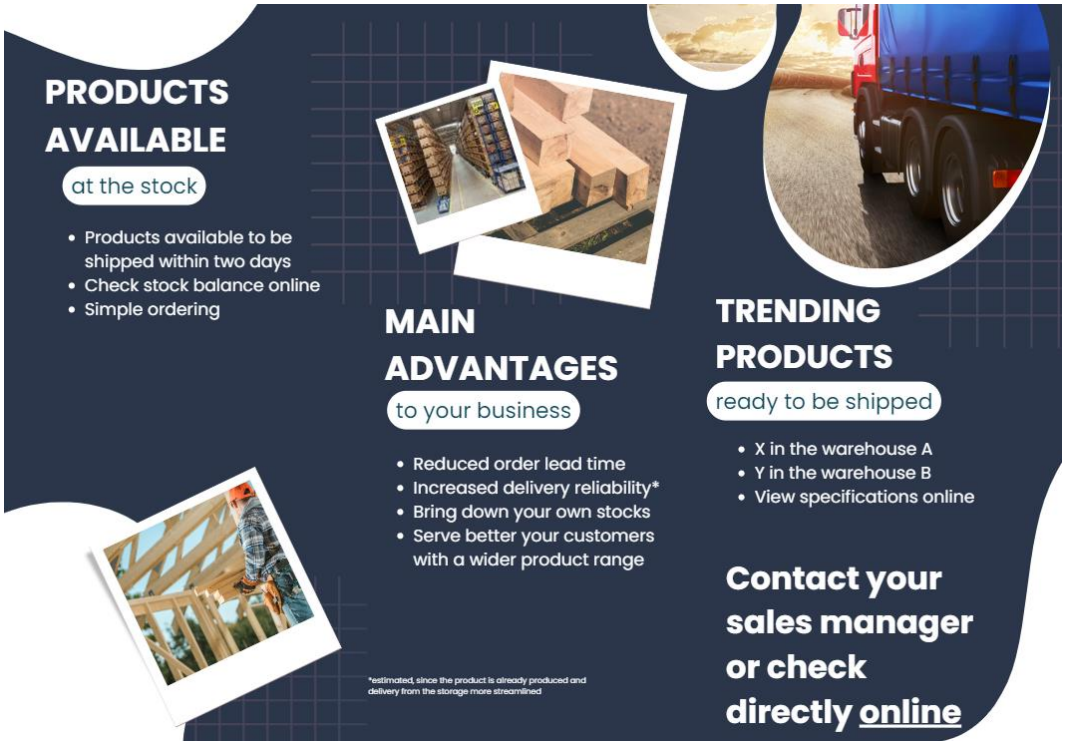

Figure 20: Value proposition brochure.

Value proposition brochure achieved the main aims set for it. It helped to transform the insights gained from the research and the ideas generated in the Ideate phase into a concrete model. Further, the brochure helped to concretize the value proposition, benefits connected to the new delivery model to be used as a base for marketing the service. Value proposition brochure was shared with the marketing and communications team of the case organization and elements from it are planned to be included in the marketing communication material of the case organization. Later, when the MTS delivery model project proceeds, the brochure could be tested with customers as suggested by Bland and Osterwalder (2020, 98) and further developed to be aligned with the case organization's branded marketing material. Moreover, after MTS pilot implementation, the organization could present reference cases of the monetary and other benefits that customers involved in the pilot have experienced and further develop the value proposition (Aarikka-Stenroos & Jaakkola 2012, 24). Furthermore, the value proposition brochure acted as a means to communicate the new delivery model and the value proposition to internal stakeholders within the case organization. The main benefits of the value proposition brochure are summarized in Figure 21.

Figure 21: The main benefits of the value proposition brochure.

4.5 Summary of the outcomes and results

The insights from the interviews helped to understand the customer views on the planned new delivery model and current gaps. The new delivery model can potentially benefit customers of the case organization and facilitate value creation in several ways, although faster delivery per se is not highly valued by many of the customers. Outcomes from the analyzed interview data were utilized when creating the service blueprints and the value proposition brochure.

The current-state blueprint brought forth challenges and possibilities for improvement in a new compiled way. In the future-state service blueprint the development ideas as well as expected changes in the order-delivery process were presented in a visual and compiled manner. Moreover, the value proposition in the form of a brochure illustrated the essence of the new offering and its benefits to the customers.

The following main advantages for the case organization gained from the development project can be identified:

First, the information obtained from the interviews helped to increase understanding on customer views on the planned new delivery model, potential benefits to customers, but provided also other valuable points-of-view, attitudes and even concerns. Moreover, the interviews helped to understand the current customer journey around the order-delivery process and experienced challenges related to it. Overall, the customer interviews gave confidence to the case organization regarding the new delivery model. For the customers, the new delivery model can be regarded as a service to support additional demand and urgent needs for the product. Also keeping the tailor-made products in the portfolio, with the new delivery model, the case organization can provide wider offering to its customers, faster delivery service for more standard, high volume products while still serving also more customized needs with longer lead time. New delivery model can also be assumed to increase

the delivery reliability. Thus, it is fair to assume that customer experience regarding the order-delivery process would improve due to the new delivery model.

Second, the development project presented new tools and ways to illustrate customer-related processes in the organization. Utilization of service blueprints or customer journey maps was earlier considered in the organization but never before implemented. Although the blueprints created in this thesis did not present all the details and possible variations of the process, the current-state service blueprint brought forth the process and its challenges in a compiled way. The opportunities offered by the new delivery model as well as other solutions to solve the current challenges with deliveries and delivery-related communication, were illustrated in the future-state blueprint. It gave a compiled visualization of the ideal future state and highlighted the changes in the process compared to the current delivery model. Value proposition brochure also helped to summarize the changes and benefits in relation to the new delivery model for internal and customer-facing communication.

What comes to the state of servitization in the case organization, the following main findings were made. Services provided by the case organization have been recently conceptualized. However, there are still actions to be made to increase the awareness both internally and among the customers and to commercialize the offering. The role of supply chain services is likely to increase in the future due to the new delivery model and anticipated improvements in the delivery-related communication.

The application of design thinking principles and the utilization of design tools and methodologies can facilitate collaborative work for the benefit of the customer. This approach transcended the boundaries of various organizational functions, and hence generated openness and understanding of the customer and their experience more holistically. The benefits actualized in providing new ways of gathering as well as presenting and visualizing the data with tools less familiar in the case organization. However, due to the scope of the thesis and limited resources, adaptation of the methods into regular work in the case organization did not yet take place and requires additional promotion and practices.

5 Conclusions and reflection

The starting point of this thesis was to execute a research-oriented development project which would contribute to workplace development and at the same time provide a theoretical framework for the case of the development. The main goal was to study, by applying service design and design thinking methods and tools, how new delivery model planned to be implemented in the case organization would affect customer experience. Moreover, case study approach was applied in this thesis.

The case organization and the new delivery model was chosen as the topic of this thesis because of the organization's aims to continuously monitor and improve customer experience and customer focus and the attempts to develop the service offerings. Moreover, another motivation was the possibility to experiment service design methods and tools as greenfield, since those had barely been utilized in the case organization.

The purpose of the research in this thesis was to investigate how a potential new delivery model impacts the expected customer experience of existing customers of the case organization. The main research question was aiming to find out, how customer experience is affected by shorter delivery lead time and better product availability. The new delivery model is based on producing products to stock, and therefore it was estimated to shorten the delivery lead times and improve product availability. Additionally, the aim was to find out the perceived importance of short delivery time and delivery reliability for the B2B customer experience in this industry and to identify the customer segments that see new delivery model most valuable for them. These two were stated as additional research questions. The objective of the thesis was to create a value proposition for the new delivery model.

In response to the research questions, the essential concepts of holistic, overall customer experience and value creation were examined. On the other hand, literature recognized customer experience factors that contribute to overall customer experience but nonetheless, are more specific to order-delivery process and influenced by the new delivery model planned to be implemented by the case organization. The perceived importance of these particular factors, speed of delivery and delivery reliability, and their direct and indirect impact on overall customer experience was studied. In addition, in the theoretical part of the thesis the concepts of servitization of organizations and special characteristics of business-to-business relationships presented. With the help of design thinking and service design, these theoretical constructs can be applied in practice, as has been done in this development project.

As research design, the Stanford d.school design process model was followed. The model utilized guided the holistic, human-centric and iterative way of working. Since the guiding principle was the focus on the customer, problem-solving and solution development, hence, the Stanford d.school process offered a well justifiable research design framework for this thesis. The model comprises of five steps. During the first two steps, Empathize and Define, the desk research and interviews were conducted, data analyzed and current-state service blueprints created. In the next phase, Ideation, future-state service blueprints and value-proposition brochure were drafted based on joint ideation. When ideating the ideal future-state service blueprints and the value proposition brochure, the data obtained from the desk research and interviews, the factors perceived to create value for customers and improving customer experience were highlighted. In protype phase, the future-state service blueprints and value-proposition brochure were created and feedback for those was collected and

reflected in the testing phase. Testing phase was limited to case organization internal stakeholders, not customers. The Stanford d.school model process steps and the main actions performed are presented in Figure 22.

Outcomes and results in this thesis were formed from the insights of development process by utilizing the service design methods and tools (Stickdorn et al. 2018, 36) to create current- and future-state service blueprints, co-creation workshop and value proposition brochure. In Figure 22, these are presented under the heading Deliverables.

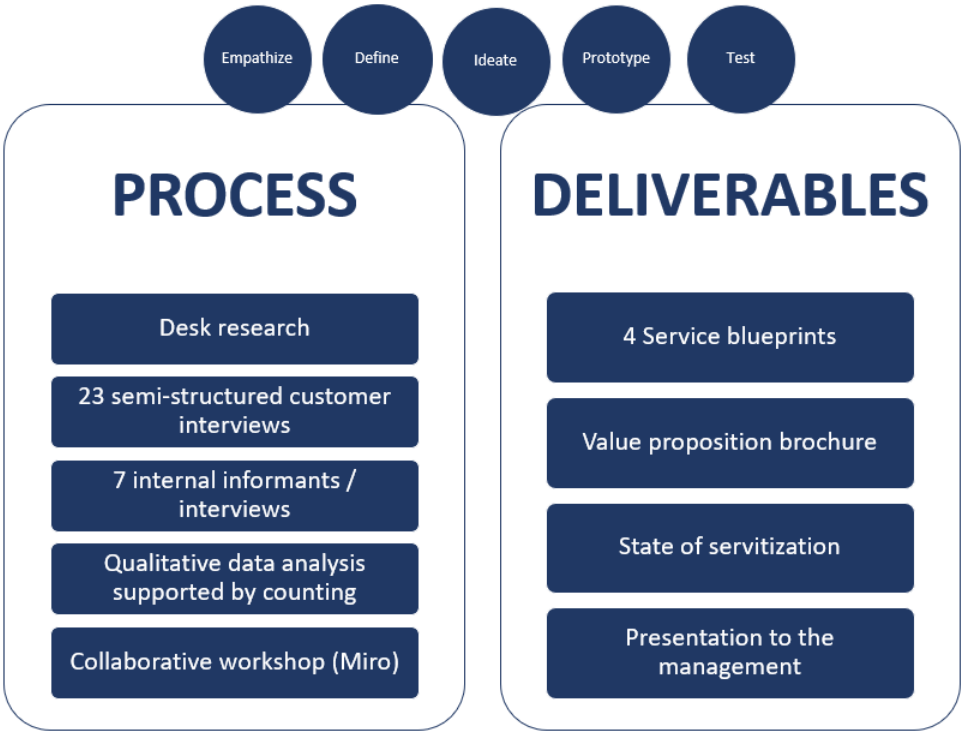

Figure 22: The research process and deliverables.

In addition, the current state of servitization in the case organization was assessed and future development areas presented. The analysis was conducted though desk study and interview and reflected towards literature.

The worklife purpose and case organization's objectives were achieved within this thesis project and the project was completed within the agreed timeline. The development project provided case organization understanding of the customers' perceptions regarding the new delivery model as well as an opportunity to case organization representatives to share their expertise and views on the current customer experience and input for improvements. These insights were collected into the main deliverables of the project, namely service blueprints and value proposition of the new delivery model.

5.1 Discussion of the results and the knowledge basis

The CE model by Lemke et al. (2006, 11-12) encompassing different customer experience factors relevant and important to B2B customers was adapted for the study and presented in the working hypothesis in the chapter 2.5. Based on the results of the study, speed of delivery, delivery reliability as well as communication are the main CX factors likely to be affected by the new delivery model.

Potentially also other CX factors, namely value for time, value for money, flexibility, promise fulfillment and relationship, can be affected by the new delivery model. In the literature studied in this thesis, some of the listed CX factors were vaguely defined. For instance, delivery reliability, which was a highly valued factor among the customers of the case organization, could be regarded as a part of a broader category of the promise fulfillment. On the other hand, customer experience is holistic and dynamic, and occurs in different touch points and over a period, even very long, of time (McColl-Kennedy et al. 2015, 431-432), while the focus of the study has been on anticipated experience and a specific part of the customer journey. Moreover, in B2B context, different functions in the customer organization working with the case organization, can value different things, varying from pragmatic and standardized experiences to more informational experiences (Witell et al. 2020, 428; Webster 1978, 28).

It must also be kept in mind that customer experiences are not something just delivered by organizations to customers but are co-created (Jaakkola et al. 2015, 198). Like concluded in the chapter 4.5, case organization can facilitate value creation with the new delivery model and it can be assumed that customer experience regarding the order-delivery process would improve as a result of the new delivery model, increased delivery reliability and actions taken to develop communication. As stated by Meyer & Schwager (2007, 6), in B2B context, a good customer experience does not need to be a thrilling one, but trouble-free and reassuring. However, it is challenging to estimate, how overall customer experience and value-in-use of all customers and overall customer journeys are affected by the new delivery model.

Regarding the perceived importance of short delivery time and delivery reliability, fast delivery was not regarded significantly important. This is partly contradicting to the B2B study by Ulaga and Chacour (2001, 534-535). Delivery reliability, on the other hand, was regarded as the top important factor in the customer experience and these results are aligned with earlier research on B2B customers presented in the literature (Banting 1976; Mittal et al. 2014; Ulaga & Chacour 2001).

Regarding servitization, the motives to apply servitization in the case organization are aligned with the literature around the topic (Grönroos 2015, 501; Laine 2012, 1). Especially valuable are partnerships and other offering that support customer's overall process and create value-

in-use (Grönroos 2015, 506). Like stated by Ulaga (2018, 81), the aim of servitization should be the achievement of customer-desired business outcomes. By conceptualizing and grouping the services, the case organization has aimed to better respond to customer needs.

5.2 Assessment of the research process

In this chapter the ethical research practices as well as reliability, validity and transferability of the thesis project and results are assessed.

In this development work, ethical recommendations for the thesis writing at universities of applied sciences (Arene recommendations 2020) have been considered and applied. The actions included management of personal information, notifying research participants on the subject and obtaining their consent as well as the anonymization of research data (Arene 2020, 7, 20). The research process and results on a general level have been described as transparently as possible aiming to be transferrable to other situations. Also more detailed results were discussed, whenever they did not include confidential information for the case organization. Moreover, the responsible supervisor and other representatives of the commissioner organization had the possibility to ensure that no confidential information regarding the case organization or its customers was mentioned. Hence, the research process can be stated to have followed the responsible conduct of research, which is reliable and ethically sustainable and its results being credible (RCR guidelines 2012, 30-31).

Traditionally, the research process and the methods used are evaluated based on two main concepts: research reliability and validity. These concepts have originally been created for quantitative research and thus their suitability for qualitative research has been questioned. (Tuomi & Sarajärvi 2012, 136.) However, also the qualitative research needs to be evaluated from the perspective of reliability and validity, either by using these exact terms or another choice of words.

Reliability refers to the repeatability of the study and results. In case the research would be repeated or conducted by different persons, the outcome would still be similar (Hirsjärvi et al. 2013, 231). In reliable study the research process has been consistent and stable over time and across researchers and methods (Miles et al. 2014, 312).

This thesis followed both the design thinking (Stanford d.school 2023) and case study (Yin 1994, 2018) approaches and the research questions guided the research design. The research was conducted, documented and reported carefully and systematically, encompassing stages from research planning, data collection, analysis, documentation of raw and processed data to final stages of visualization of the entire process, outcomes, and results.

The data collection process could be replicated using the same interview questions, workshop exercises, and templates, making it technically repeatable. However, the responses from individuals as respondents may not be consistent and could potentially change even over a short period of time. The answers were subjective and describe the customer's perspective and experience that could sometimes not be same as factual situation or behavior in the past or future. As a result, the outcomes might vary depending on the specific occasion.

In addition to reliability, another main concept when evaluation the research is validity. The validity of the research refers to the ability of the study to research what it is supposed to. (Hirsjärvi et al. 2013, 231). In qualitative research, Miles et al. (2014, 321) also refer to internal validity or credibility of the study when speaking about validity.

In this thesis, the methods have been selected based on their ability to provide the type of information that is required to study the phenomena of customer experience from certain viewpoint; a change in the delivery model. The methods chosen such as desk research and interviews follow the well-established methods in the qualitative research tradition (Ojasalo et al. 2015, 105). The design tools used such as the journey maps, co-creation workshop and value proposition brochure represent the established methods within the design research community. Using different data collection methods offered a multifaceted approach to understand the concepts as well as identify the most significant development areas, which improved the validity of the case study (Yin 1994, 33-37). Different data collection methods also enabled triangulation, which can also be said to refine the validity of the research (Hirsjärvi et al. 2013, 233; Yin 1994, 13).

The research questions as well as interview themes and questions were reviewed with the case organization representatives to evaluate they served the purpose. Although for most parts of the thesis work the researcher worked alone, the market research partner using the questions and providing the transcribed interview results in similar table format as the researcher used.

When analyzing and interpreting the interview data, analysis process is documented and the data presented is linked to categories and themes mostly following the interview themes. Also negative evidence and rival explanations have been considered as suggested by Miles et al. (2014, 313). The findings and conclusions were shared with the sales and supply chain representatives of the case organization and were resonating with their own experiences of the organization's customers.

Yet another measure of the quality of the research, is its transferability to other contexts and generalization of the results. Transferability can be also referred to as external validity. (Miles at al. 2014, 314.) In this thesis, the sample of interviewees and the segments they represent is described and can be stated to be broad and diverse enough to be

representative, even though the scope of the study was one particular industry setting. Also, fast product availability and delivery reliability are universal concepts part of B2B as well as B2C trade, whenever also physical products are involved. The research could be well repeated in other industry setting and the process is scalable to other environments and contexts.

The findings were partially supported by theory. Delivery reliability is stated to be highly important by the interviewees, which was supported also by the literature. On the other hand, the speed of the delivery was regarded only moderately important by the interviewees. Also, the results were not unconditionally supporting that short delivery time per se would improve customer experience. However, the perceptions of CX are often context specific and even unique to each organization, hence it is natural that there can be difference in the factors important for CX in different settings. (Lemke et al. 2006, 23; Mittal et al. 2014, 49).

5.3 Future research and development areas

Since this development project had a limited scope and time, the author sees several areas around the topic and case organization, where further development and research could be beneficial.

As one development area for the future within the case organization, its customers and other stakeholders, further development and promotion of various design methods and tools can be suggested. Service design could be used to develop products and services in a customer-centric manner and thus resulting in improved customer experience. Although the case organization already has close partnerships with its key customers, partnership and collaboration could also enhanced and manifested with service design methods and tools.

Service blueprints created for this thesis were focusing on the order-delivery process and having only one persona from each main customer segment. Blueprinting could be developed to cover also different parts of the customer relationship; pre-purchase, product usage and possibly claim situations and also from different roles from the customer organization such as buyer and production engineer. Differentiation is required, since the journeys and experiences of different stakeholders may be conflicting. (Zolkiewski 2017, 173; Purmonen et al. 2023, 85.)

Another interesting future research topic is directly linked to the topic of the thesis. There are two ongoing developments, namely the new delivery model piloted and further rolled out in a broader scale as well as new the ERP system enabling more automated and punctual communication on the delivery related matters. When these supply chain developments would be launched for customer use, the value to customers and impact on customer

experience is recommended to be evaluated (McColl-Kennedy et al. 2015, 432-433; Hollyoake, 2009, 136).

In a broader sense, in the future, customer experience studies could be directed to measure the effects of the offerings on customer's business performance, so-called outcomes-based measures. In this view, the value creation would be considered for all customers and users, both end and interim, in the network. (Zolkiewski et al. 2017, 178-179.)

5.4 Reflection

Design thinking and service-design approach with its various methods and tools have gained a lot of popularity during their existence in the last two decades. The mindset to design for and with the customer or other end user of the service is appealing. In one sense it sounds obvious to keep the target group of the product or service in the center and involve in the development. However, the service design methods and tools are still not mainstream in many organizations and even in the case organization their use is in its infancy. It is insightful to see the wide possibilities to apply them both for organization’s internal development and co-creation with customers what comes not only to product development but enhancing servitization and different touchpoints in the customer journey.

Customer experience and service design link well together. Service design offers a way to apply in practice the theoretical constructs of customer experience as well as the concepts of customer-dominant logic and value creation. Improvement of customer experiences is more likely to succeed when customer’s perspective is understood and customer involved in the product and service development. Like stated by Heinonen & Strandvik (2015, 481), the organizations should become involved in customers’ lives, instead of figuring out how to involve customers in the organizations’ business. Service design community, working with different organizations and functions, has an important role in achieving this goal.

References

Printed

Brinkmann, S. 2013. Qualitative Interviewing. Cary: Oxford University Press, Incorporated.

Brown, T. 2009. Change by design: How design thinking transforms organizations and inspires innovation. New York: HarperCollins.

Eriksson, P., and Kovalainen, A. 2008. Qualitative Methods in Business Research. London: SAGE Publications Ltd.

Foglieni, F., Villari, B., & Maffei, S. 2018. From service to service design. In Designing Better Services. Cham, Switzerland: Springer Nature.

Grönroos, C. 2015. Palvelujen johtaminen ja markkinointi. 5th ed. Helsinki: Talentum.

Hague, N., & Hague, P. N. 2018. B2B Customer Experience: A Practical Guide to Delivering Exceptional CX. 1st ed. London, United Kingdom: Kogan Page Limited.

Hirsjärvi, S., Remes, P., Sajavaara, P., & Sinivuori, E. 2013. Tutki ja kirjoita. 18th ed. Helsinki: Tammi.

Hirsjärvi, S., & Hurme, H. 2004. Tutkimushaastattelu: Teemahaastattelun teoria ja käytäntö. 4th ed. Helsinki: Yliopistopaino.

Holma, L., Laasio, K., Ruusuvuori, M., Seppä, S., Tanner, R., & Kiukas, A. 2021. Menestys syntyy asiakaskokemuksesta: B2B-johtajan opas. Helsinki: Alma Talent.

Korkiakoski, K. & Gerdt, B. 2016. Ylivoimainen asiakaskokemus. Helsinki: Alma Talent.

Lusch, R. F., & Vargo, S. L. 2014. Service-Dominant Logic: Premises, Perspectives, Possibilities. Cambridge: Cambridge University Press.

Maula, H., & Maula, J. 2019. Design ja Johtaminen. Helsinki: Alma Talent.

Miettinen, S. 2014. In Miettinen S. (ed.). Muotoiluajattelu. Teknologiateollisuus ry. 1st ed. Helsinki: Teknologiainfo Teknova Oy.

Miles, M. B., and Huberman, A. M. 1994. Qualitative Data Analysis: An Expanded Sourcebook. 2nd ed. Sage Publications, Inc.

Ojasalo, K., Moilanen, T., & Ritalahti, J. 2015. Kehittämistyön Menetelmät: Uudenlaista Osaamista Liiketoimintaan. 3rd ed. Helsinki: Sanoma Pro.

Patton, M. 2002. Qualitative Research & Evaluation Methods. 3rd ed. Thousand Oaks, CA: Sage.

Pennington, A. 2016. The Customer Experience Manual. United Kingdom: Pearson Education.

Portigal, S. 2013. Interviewing users: how to uncover compelling insights. Brooklyn, NY: Rosenfeld Media.

Prahalad, C. K., & Ramaswamy, V. 2004. The Future of Competition: Co-creating Unique Value with Customers. Boston, Mass.: Harvard Business School Publishing.

Saldaña, J. 2013. The Coding Manual for Qualitative Researchers. 2nd ed. London: Sage.

Shaw, C., Dibeehi, Q., & Walden, S. 2010. Customer Experience: Future Trends and Insights. Basingstoke: Palgrave Macmillan.

Shaw, C. & Ivens, J. 2002. Building Great Customer Experiences. New York: Palgrave.

Silverman, D. 2006. Interpreting Qualitative Data: Methods for Analyzing Talk, Text and Interaction. 3rd ed. London: Sage.

Tuomi, J., & Sarajärvi, A. 2009. Laadullinen Tutkimus ja Sisällönanalyysi. 6th ed. Helsinki: Tammi.

Yin, R. 1994. Case Study Research: Design and Methods. 2nd ed. Beverly Hills, CA: Sage Publishing.

Yin, R. 2018. Case Study Research: Design and Methods. 4th ed. Thousand Oaks, CA: Sage Publications.

Electronic

Aarikka-Stenroos, L. & Jaakkola, E. 2012. Value co-creation in knowledge intensive business services: A dyadic perspective on the joint problem solving process. Industrial Marketing Management, 41(1), pp. 15-26. https://doi.org/10.1016/j.indmarman.2011.11.008

Abbott, L. 1955. Quality and Competition. New York: Columbia University Press. https://doi.org/10.7312/abbo92492

Andreassen, T. W., Kristensson, P., Lervik-Olsen, L., Parasuraman, A., McColl-Kennedy, J. R., Edvardsson, B. & Colurcio, M. 2016. Linking service design to value creation and service research. Journal of Service Management, 27(1), 21-29. doi: 10.1108/JOSM-04-2015-0123

Arene. 2020. Ethical recommendations for thesis writing at universities of applied sciences. Ethical recommendations for thesis writing at universities of applied sciences (pdf) Ammattikorkeakoulujen maisterikoulutus osaamisen uudistajana ja kansallisena koulutusinnovaationa (arene.fi)

Baines, T. S., Lightfoot, H. W., Benedettini, O. & Kay, J. M. 2009. The servitisation of manufacturing: A review of literature and reflection on future challenges. Journal of Manufacturing Technology Management, 20(5): pp.547–567. https://doi.org/10.1108/17410380910960984

Baines, T. & Lightfoot, H. 2013. Made to Serve: How Manufacturers Can Compete through Servitization and Product Service Systems. John Wiley and Sons, Chichester.

Baines, T., Ziaee Bigdeli, A., Bustinza, O. F., Shi, V.G., Baldwin, J. & Ridgway, K. 2017. Servitization: revisiting the state-of-the-art and research priorities. International Journal of Operations & Production Management, Vol. 37 No. 2, pp. 256-278. https://doi.org/10.1108/IJOPM-06-2015-0312

Banting, P. 1976. Customer service in industrial marketing: a Comparative Study. European Journal of Marketing, 10, pp. 136-145.

Bland, J.D. & Osterwalder, A. 2020. Testing Business Ideas. New Jersey: Wiley.

British Design Council. 2004. From humble beginnings to a cornerstone of design language. Accessed 15 October 2022. https://www.designcouncil.org.uk/our-work/the-double-diamond/

Brown, T. 2008. Design Thinking. Harvard Business Review, June 2008. Accessed 15 October 2022. https://hbr.org/2008/06/design-thinking

Case organizationb. About XX website. Accessed 10 February 2023.

Case organization 2023b. Products and services website. Assessed 12 October 2023.

Clatworthy, S. 2013. Design support at the front end of the New Service Development (NSD) process. Doctoral thesis, Oslo, Norway: The Oslo School of Architecture and Design.

Edelman, D.C. & Singer, M. 2015. Competing on customer journeys. Harvard Business Review, Vol. 93 No. 11, pp. 88-100. https://hbr.org/2015/11/competing-on-customer-journeys

Fraser H. 2009. Designing Business: New Models for Success. Design Management Review Vol. 20 No. 2, Spring 2009.

Goldman S., Kabayadondo Z. in IDEO Design Thinking. No date a. FAQ. How do people define design thinking? Accessed 28 June 2023. https://designthinking.ideo.com/faq/how-do-people-define-design-thinking

Gummesson, E. & Grönroos, C. 2012. The emergence of the new service marketing: Nordic School perspectives. Journal of Service Management, 23(4), pp. 479-497. doi:10.1108/09564231211260387

Grönroos, C. and Gummerus, J. (2014), "The service revolution and its marketing implications: service logic vs service-dominant logic", Managing Service Quality: An International Journal, Vol. 24 No. 3, pp. 206-229. https://doi.org/10.1108/MSQ-03-2014-0042

Grönroos, C. & Ravald, A. 2011. Service as business logic. Implications for value creation and marketing. Journal of Service Management, 22(1), pp. 5-22. doi:10.1108/09564231111106893

Grönroos C. & Voima P. 2013. Critical service logic: Making Sense of Value and Value Co-Creation. Journal of the Academy of Marketing Science, 41(2), pp. 133-150. doi:10.1007/s11747-012-0308-3

Heinonen, K., Strandvik, T., Mickelsson, K., Edvardsson, B., Sundström, E. & Andersson, P. 2010. A customer-dominant logic of service. Journal of Service Management, 21(4), pp. 531-548. doi:10.1108/09564231011066088

Heinonen, K. & Strandvik, T. 2015. Customer-dominant logic: foundations and implications. Journal of Services Marketing, vol 29, nr 6/7, pp. 472-484. doi:10.1108/JSM-02-2015-0096

Helkkula, A. 2011. Characterising the concept of service experience, Journal of Service Management, Vol. 22 No. 3, pp. 367-389. doi:10.1108/09564231111136872

Helkkula, A., Kelleher, C. and Pihlström, M. 2012. Characterizing value as an experience, Journal of Service Research, Vol. 15 No. 1, pp. 59-75. doi:10.1177/1094670511426897

Hollyoake, M., 2009. The four pillars: Developing a ‘bonded’ business-to-business customer experience. Journal of Database Marketing & Customer Strategy Management, 16: 132–158. Accessed 12 February 2023. https://link.springer.com/article/10.1057/dbm.2009.14

Holmlund, M. 2004, 'Analyzing Business Relationships and Distinguishing Different Interaction Levels' Industrial Marketing Management , vol 33, no. 4, pp. 279-287. doi:10.1016/S0019-8501(03)00057-9.

Hwang, J. & Seo, S. 2016. A critical review of research on customer experience management: Theoretical, methodological and cultural perspectives. International Journal of Contemporary Hospitality Management, Vol. 28 No. 10, pp. 2218-2246. https://doi.org/10.1108/IJCHM-04-2015-0192

IDEO Design Thinking. No date a. FAQ. How do people define design thinking? Accessed 28 June 2023. https://designthinking.ideo.com/faq/how-do-people-define-design-thinking

IDEO Design Thinking. No date b. FAQ. What's the difference between human-centered design and design thinking? Accessed 28 June 2023. https://designthinking.ideo.com/faq/whats-the-difference-between-human-centered-design-and-design-thinking

Investopedia 2023. Business-to-business: What It Is and How It's Used. Accessed 16 September 2023.
https://www.investopedia.com/terms/b/btob.asp#:~:text=Business%2Dto%2Dbusiness%20(B2B)%2C%20also%20called%20B,a%20company%20and%20individual%20consumer

Jaakkola, E., Helkkula, A. & Aarikka-Stenroos, L. 2015. Service experience co-creation: conceptualization, implications, and future research directions. Journal of Service Management. Vol. 26, no. 2, pp. 182-205. https://doi.org/10.1108/JOSM-12-2014-0323

Jaakkola, E. and Terho, H. 2021. Service journey quality: conceptualization, measurement and customer outcomes. Journal of Service Management, Vol. 32 No. 6, pp. 1-27. https://doi.org/10.1108/JOSM-06-2020-0233

Jylkäs T., Jeminen J. & Tikkanen H. 2016 in Rytilahti, P. & Miettinen, S. (ed.). For Profit, for Good: Developing Organizations through Service Design. Taiteiden tiedekunnan julkaisuja. B. Tutkimusraportteja, Nro 11, Lapin yliopisto, Rovaniemi. Accessed 28 June 2023. http://sinco.fi/xyz/wp-content/uploads/2016/12/FOR_PROFIT_FOR_GOOD_FINAL_PDF.pdf

Kimbell, L. 2009. Beyond design thinking: Design-as-practice and designs-in-practice. In: Centre for Research on Socio-Cultural Change (CRESC), Manchester. Accessed 19 September 2023. http://www.lucykimbell.com/stuff/CRESC_Kimbell_v3.pdf

Kimbell, L. 2011. Rethinking Design Thinking: Part I, Design and Culture, 3:3, 285-306, DOI: 10.2752/175470811X13071166525216

Klaus, P. 2014. Measuring Customer Experience: How to Develop and Execute the Most Profitable Customer Experience Strategies. London: Palgrave Macmillan UK.

Kumar, V., Ramachandran, D. & Kumar, B. 2020. Influence of new-age technologies on marketing: a research agenda. Journal of Business Research, Vol. 125, pp. 864-877. Accessed 19 September 2023. https://www.studocu.com/ko/document/dong-a-university/marketing-management/influence-of-new-age-technologies-on-marketing/52290509

Laine, T., Paranko, J., & Suomala, P. 2012. Management accounting roles in supporting servitisation. Managing Service Quality: An International Journal. Accessed 15 March 2023. https://tutcris.tut.fi/portal/files/1025738/laine_management_accounting_roles_in_supporting.pdf

Lemke, F., Clark, M. & Wilson, H. 2011. Customer Experience Quality: An Exploration in Business and Consumer Contexts Using Repertory Grid Technique. Journal of the Academic and Marketing Science, 39, 864-869. https://doi.org/10.1007/s11747-010-0219-0

Lemke, F., Clark, M. and Wilson, H. 2011. Customer Experience Quality: An Exploration in Business and Consumer Contexts Using Repertory Grid Technique. Journal of the Academic and Marketing Science, 39, 864-869.
https://doi.org/10.1007/s11747-010-0219-0

Lemon, K. N., & Verhoef, P. C. 2016. Understanding Customer Experience Throughout the Customer Journey. Journal of Marketing, 80(6), pp. 69–96.
https://doi.org/10.1509/jm.15.0420

Lester, J. N., Cho, Y. & Lochmiller, C. R. 2020. Learning to Do Qualitative Data Analysis: A Starting Point. Human Resource Development Review, 19(1), 94-106.
https://doi.org/10.1177/1534484320903890

Liedtka, J., King, A. & Bennett, K. 2013. Solving Problems with Design Thinking: Ten Stories of What Works. New York: Columbia University Press.

Liedtka, J. & Ogilvie, T. 2011. Designing for Growth: A Design Thinking Toolkit for Managers. Columbia University Press. http://www.jstor.org/stable/10.7312/lied15838

Liedtka, J., Hold, K. & Eldridge, J. 2021. Experiencing Design: The Innovator's Journey, New York Chichester, West Sussex: Columbia University Press. https://doi.org/10.7312/lied19426

Lightfoot, H., Baines, T. & Smart, P. 2013. The servitization of manufacturing: A systematic literature review of interdependent trends. International Journal of Operations & Production Management, Vol. 33 No. 11/12, pp. 1408-1434. https://doi.org/10.1108/IJOPM-07-2010-0196

Lockwood, T. & Papke, E. 2017. Innovation by Design: How Any Organization Can Leverage Design Thinking to Produce Change, Drive New Ideas, and Deliver Meaningful Solutions. Red Wheel/Weiser, Franklin Lakes.

Maechler N., Sahni S. & van Oostrum M. 2016. Improving the business-to-business customer experience. Accessed 19 September 2023. https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/improving-the-business-to-business-customer-experience#/

Marketing Science Institute. 2022. Research Priorities 2022–2024. Cambridge, MA: Marketing Science Institute. Accessed 10 August 2023. MSI-2022-24-Research-Priorities-Final.pdf

Mattelmäki, T. & Sleeswijk Visser, F. 2011. Lost in CO-X - Interpretations of Co-Design and Co-Creation. in L-LC Norbert Roozenburg (ed.), Proceedings of IASDR'11, 4th World Conference on Design Research, Delft University. International Association of Societies of Design Research (IASDR).

McColl-Kennedy, J.R., Gustafsson, A., Jaakkola, E., Klaus, P., Radnor, Z.J., Perks, H. & Friman, M. 2015. Fresh perspectives on customer experience. Journal of Services Marketing, 29(6/7), pp. 430-435. https://doi.org/10.1108/JSM-01-2015-0054

McColl-Kennedy, J. R., Zaki, M., Lemon, K. N., Urmetzer, F. & Neely, A. 2018. Gaining Customer Experience Insights That Matter. Journal of Service Research, 22(1), 8-26.
https://doi.org/10.1177/1094670518812182

Meroni, A. & Sangiorgi, D. (ed.). 2011. Design for Services. Burlington, VT: Gower.

Meyer, C. & Schwager, A. 2007. Understanding Customer Experience. Harvard Business Review, 85(2), pp. 116-126. https://hbr.org/2007/02/understanding-customer-experience

Miettinen, S. 2016 in Miettinen, S. (ed.). An introduction to industrial service design. Routledge, Abingdon. https://doi.org/10.4324/9781315566863

Moritz, S. 2005. Service Design. Practical Access to Evolving Field, Köln International School of Design.

Lockwood, T. & Papke, E. 2017. Innovation by Design: How Any Organization Can Leverage Design Thinking to Produce Change, Drive New Ideas, and Deliver Meaningful Solutions. Red Wheel/Weiser, Franklin Lakes.

Logistiikanmaailma. 2023. Accessed 16 September 2023. https://www.logistiikanmaailma.fi/en/production/order-penetration-point-opp/

Löfgren K. 2013. Qualitative analysis of interview data: A step-by-step guide for coding/indexing. Accessed 12 January 2023. https://www.youtube.com/watch?v=DRL4PF2u9XA

Neely A., Benedettini O., Visnjic I. 2011. The servitization of manufacturing: Further evidence. http://www.cambridgeservicealliance.org/uploads/downloadfiles/2011-The%20servitization%20of%20manufacturing.pdf

Ojasalo, K. & Ojasalo, J. 2015. Adapting Business Model Thinking to Service Logic: An Empirical Study on Developing a Service Design Tool. In Johanna Gummerus & Catharina von Koskull (Eds.) The Nordic School - Service Marketing and Management for the Future. Helsinki: Hanken School of Economics, 309-333. https://www.theseus.fi/handle/10024/511152

Penin, L. 2018. An Introduction to Service Design: Designing the Invisible. London: Bloomsbury Publishing USA.

Polaine, A., Løvlie, L. and Reason, B. 2013. Service Design – From insight to implementation, Sebastopol: Rosenfeld Media.

Purmonen, A., Jaakkola, E. & Terho, H. 2023. B2B customer journeys: Conceptualization and an integrative framework. Industrial Marketing Management, vol. 113, pp. 74-87. https://doi.org/10.1016/j.indmarman.2023.05.020

RCR guidelines. 2012. Responsible conduct of research and procedures for handling allegations of misconduct in Finland. HTK_ohje_2012.pdf (tenk.fi)

Rae, J. 2016. Design value index exemplars outperform the S&P 500 index (again) and a new crop of design leaders emerge. Design Management Review. https://doi.org/10.1111/drev.12040.

Reason, B., Løvlie, L. & Flu, M.B. 2016. Service Design for Business: A Practical Guide to Optimizing the Customer Experience. Newark: John Wiley & Sons, Incorporated.

Roy S., Sreejeshb S. & Bhatia S. 2019. Service quality versus service experience: An empirical examination of the consequential effects in B2B services. Industrial Marketing Management. Volume 82, October 2019, Pages 52-69. /doi.org/10.1016/j.indmarman.2019.02.017

Ruiz-Alba, J.L., Soares, A., Rodríguez-Molina, M.A. & Frías-Jamilena, D.M. 2019. Servitization strategies from customers' perspective: the moderating role of co-creation. Journal of Business & Industrial Marketing, Vol. 34 No. 3, pp. 628-642. https://doi.org/10.1108/JBIM-02-2017-0028

Saldaña, J., Beretvas, N. & Leavy, P. 2011. Fundamentals of Qualitative Research. Cary: Oxford University Press, Incorporated.

Sangiorgi, D. 2009. Building a framework for service design research.

Schmitt, B. 1999. Experiential Marketing: How to Get Customers to Sense, Feel, Think, Act and Relate to Your Company and Brands, Free Press, New York, NY.

Shah, D., Rust R. T., Parasuraman A., Staelin R, and Day G. S. (2006), "The Path to Customer Centricity," Journal of Service Research, 9 (2), 113-124. doi:10.1177/1094670506294666

Smith, L., Maull, R.S. & Ng, I.C. 2014. Servitization and operations management: a service dominant-logic approach. International Journal of Operations & Production Management, 34, 242-269. doi:10.1108/IJOPM-02-2011-0053

Solomon, C. & Michael S. Schell. 2009. Managing Across Cultures: the 7 Keys to Doing Business with a Global Mindset. New York: McGraw-Hill Education

Standford d.school - Hasso Plattner Institute of Design at Stanford. No date. An Introduction to Design Thinking: PROCESS GUIDE. Accessed 13 February 2023. https://web.stanford.edu/~mshanks/MichaelShanks/files/509554.pdf

Standford d.school - Hasso Plattner Institute of Design at Stanford. 2018. Design Thinking Bootleg. Accessed 15 October 2022. https://dschool.stanford.edu/s/9wuqfxx68fy8xu67khdiliueusae4i

Stickdorn, M. & Schneider, J. 2011. This is service design thinking: Basics, tools, cases. Amsterdam: BIS Publishers

Stickdorn, M., Hormess, M., Lawrence, A. & Schneider, J. 2018. This is service design doing. Sebastopol, California: O'Reilly Media.

Szebeko D. in Meroni, A. & Sangiorgi, D. (ed.). 2011. Design for Services. Burlington, VT: Gower.

Tschimmel, K. 2012. Design Thinking as an effective Toolkit for Innovation. In: Proceedings of the XXIII ISPIM Conference: Action for Innovation: Innovating from Experience. Barcelona. Accessed 10 February 2023.

Tschimmel K. 2013. Mindshake Design Thinking Model Evolution 6^2 developed by Katja Tschimmel in 2012/13 and since 2015 registered under Creative Commons. Accessed 15 February 2023. https://mindshake.pt/design_thinking

Ulaga, W. 2018. The journey towards customer centricity and service growth in B2B: A commentary and research directions, AMS Review, 8 (1), 80–83. doi:10.1007/s13162-018-0119-x

Ulaga, W. & Chacour, S. 2001. Measuring customer perceived value in business markets: a prerequisite for marketing strategy development and implementation. Industrial Marketing Management. Vol. 30, pp. 525-540. https://doi.org/10.1016/S0019-8501(99)00122-4

Vandermerwe, S. & Rada, J. 1988. Servitization of Business: Adding Value by Adding Services. European Management Journal, 6, pp. 314-324. https://doi.org/10.1016/0263-2373(88)90033-3

Vargo, S. & Lusch, R. 2004. Evolving to a new dominant logic in marketing. Journal of Marketing, 68, 1-17. https://doi.org/10.1509/jmkg.68.1.1.240

Vargo, S. L. & Lusch, R. F. 2008. Service-dominant logic: continuing the evolution. Journal of the Academy of Marketing Science, Vol. 36 No. 1, pp. 1-10. https://doi.org/10.1007/s11747-007-0069-6

Verhoef, P.C., Lemon, K.N., Parasuraman, A., Roggeveen, A., Tsiros, M. & Schlesinger, L.A. 2009. Customer experience creation: determinants, dynamics and management strategies, Journal of Retailing, Vol. 85 No. 1, pp. 31-41. https://doi.org/10.1016/j.jretai.2008.11.001

Wetter-Edman K. 2009. Exploring Overlaps and Differences in Service Dominant Logic and Design Thinking. Conference Proceedings ServDes.2009; DeThinking Service; ReThinking Design; Oslo Norway 24-26 November 2009.

Wetter-Edman, K., Sangiorgi, D., Edvardsson, B., Holmlid, S., Grönroos, C. & Mattelmäki, T. 2014. Design for Value Co-Creation: Exploring Synergies Between Design for Service and Service Logic, Service Science, vol. 6, no. 2, pp. 106-121. https://doi.org/10.1287/serv.2014.0068

Witell L., Kowalkowski C., Perks H., Raddats C., Schwabe M., Benedettini O. & Burton J. 2020. Characterizing customer experience management in business markets, Journal of Business Research, Volume 116, Pages 420-430, https://doi.org/10.1016/j.jbusres.2019.08.050

Yu, E. & Sangiorgi, D. 2018. Service design as an approach to implement the value cocreation perspective in new service development. Journal of Service Research, 21(1), 40-58. https://doi.org/10.1177/10946705177093

Zeithaml, V., Parasuraman, A. & Berry, L. 1990. Delivering quality service: Balancing customer perceptions and expectations. New York: The Free Press.

Zolkiewski, J., Story, V., Burton, J., Chan, P., Gomes, A., Hunter-Jones, P., O'Malley, L., Peters, L.D., Raddats, C. & Robinson, W. 2017. Strategic B2B customer experience management: the importance of outcomes-based measures. Journal of Services Marketing, 31(2), pp. 172-184. https://doi.org/10.1108/JSM-10-2016-0350

Unpublished

Case organization 2022a. MTS- MTO supply model study - project plan 30.8.2022

Case organization 2022b. CX Research / answers 2019-2022

Case organization 2022c. Internal interview with vice president, supply chain development. 3 October 2022.

Case organization 2022d. MTS-MTO final report.

Case organization 2023c. OTIF reports 1-10/2022.

Case organization 2023d. Internal interview with vice president, supply chain regarding the MTS pilot. 9 October 2023.

Case organization 2023e. Internal material on the new service concept.

Case organization 2023f. Internal interview with director, business development on services offering. 9 November 2023.

Case organization 2023g. Internal study on service offering awareness.

Figures

Tables

Appendices

Appendix 1: Interview guide for customer interviews

Introduction / covering note (for email)

X is conducting a study on make-to-stock delivery model. In short, the study focuses on analysis, whether some of our products could be produced in advance and stored in warehouses in various locations. This could potentially shorten the delivery lead time and delivery reliability. One important part of the study is customer view and therefore we are highly interested in hearing the thoughts from our customers, including you, during the year-end 2022.

The interview will be conducted over the phone and lasts approximately 30 minutes. We will call you soon to agree on the interview time.

In addition to X internal purpose, anonymized answers are also utilized as part of Master's Thesis in Business Administration degree programme in Service Innovation and Design (Laurea University of Applied Sciences, Finland).

Interview guide

- Have you currently faced challenge with the delivery times (too long delivery time or deviations compared to similar products from other suppliers)?
    - [If yes] Please describe what kind of challenges you have had? Do you have a concrete example to tell?
- Have you cancelled your order or "left unordered" from X because the delivery time has been too long?
    - [If yes] How often have you faced this kind of situation? [aim is to find out is it regular or not]
    - [if yes] How did you solve the situation?
- What would be the optimal delivery lead time from your business perspective? [number is good, days or weeks]
- How do you see the current X product portfolio suitable for your needs? [wide enough, flexible enough]
- If the product would be available within a few days,
    - Would that be beneficial for you? If yes, how? If not, why?
    - Would that be beneficial for your customers? If yes, how? If not, why?
    - Would it change your ways of doing business? If yes, how? If not, why?
- If the product would be available in stock and delivered to you within a couple of days, how would it change your ordering habits (e.g. order more, order more often)?
- How important short delivery time is to you, in scale 1-4? (1=most critical criteria in purchasing experience) Why is that?
- Most critical criteria in purchasing experience (1), important (2), not very important (3), not at all important (4) criteria in purchasing experience)
- How important the reliability of the delivery (arrival on promised time) is to you, in scale 1-4? (1=most critical criteria in purchasing experience)

- In the market, do other producers of similar products provide fast delivery options or storage capacity?
- To summarize, how valuable faster delivery is to you?
- Do you have any other comments or questions regarding the topic?

Appendix 2: Interview guide for customer service

Current make-to-stock deliveries

- For the warehouse x, how are customers ordering MTS products? Which tools do they use?
- Can customers see the product availability / stock volumes somewhere before/when ordering?
- How much before the delivery the orders are placed? Minumum, maximum, typical
- Does customer first inform the rough estimate about the upcoming order?
- Is there a minimum order quantity?
- If the seller is arranging the delivery, when and how the delivery is booked?
- How and when does customer get the order confirmation?
- How the estimated/more precise delivery time is communicated to the customer?
- How do you feel the order-delivery process works a) from your perspective? B) from customer perspective?
- Are the any challenges or improvement areas in the current MTS storages a) from your perspective? Or b) from customer perspective? Have customers provided feedback?

Current make-to-order deliveries

- How are customers ordering MTS products? Which tools do they use?
- How doe the ordring process differ from MTS orders?
- What is the typical order lead time
- Does customer first inform the rough estimate or forecast about the upcoming order? When does this happen?
- If the seller is arranging the delivery, when and how the delivery is booked?
- When do customers confirm the final order quantity and specifications?
- How is the final order confiemed to customer?
- When and How is the order progress and delivery time communicated to customer?
- Have customers given feedback on the order-delivery process and communication regarding it? What is working and what could be improved?