# Unveiling managerial perceptions of the customer's lived experience in digital B2B service innovations: An ethnographic case study

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# ABSTRACT

The digital revolution has transformed business environments, resulting in the need for companies to constantly innovate and adapt their service in a digital context to remain competitive. However, while digital service innovations have become important, little is known about how customers experience these innovations, especially in the business-to-business (B2B) sector. This study aims to explore the alignment and misalignment between managers' perceptions and customers' perceptions of the customers' lived experience with digital B2B service innovations. Using an ethnographic method, this study conducts a multi-case study that involves B2B firms to investigate these perspectives. Interviewing and observing both managers and customers within these B2B firms, as well as applying the Gioia method to find patterns within the data, a framework was developed that highlights the alignments and misalignments between the managers' perspectives and customers' perspectives. Furthermore, this study proposes implementations for managers to enhance alignment between customers' perspectives and managers' perspectives on digital B2B service innovations in the future.

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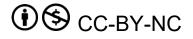
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#### Keywords

Digital Service Innovations, Business-to-Business (B2B), Customers' Lived Experience, Ethnography.

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#### **1. INTRODUCTION**

The digital revolution has impacted various business environments (Harahap et al., 2023). It changed business operations and altered the way customers are assisted (Shiva and Khatri, 2023). While companies need to alter their existing practices, digitalization can simultaneously act as a source of competitive advantage (BinSaeed et al., 2023). In this light, businesses increasingly innovate and transform their services to remain relevant in an increasingly digital and connected world (Crozet and Milet, 2017). They do so through service innovation in a digital context.

Digital service innovation is not only an organization's endeavor. Instead, digital service innovation involves customers and impacts their experience. Even more so, the role of digital technologies in shaping customer experiences has increased in the last few years (Hoyer et al., 2020). Within these digital technologies, different customer touchpoints can shape the customer experience (Larivière et al., 2017; Burton et al., 2023). A combination of these customer touchpoints can create a customer experience in various stages of the customer's decision process, which is the customer journey (Verhoef et al., 2009). Modern customer journeys are progressively incorporating digital touchpoints (Hallikainen et al., 2019).

While we currently know that digital technologies and digital touchpoints are being increasingly used within customer journeys and in shaping customer experience, little is known about how customers experience digital service innovations. More specifically, scholars call for further scrutinizing how customers evaluate service (innovation) in the digital age (Ostrom et al., 2021). Analyzing this customer experience should be more focused on the customer's perspective since research is mainly focused on the firm's perspectives on customer experience (McColl-Kennedy et al., 2019). Focusing on the firm's perspective, managers typically struggle to accurately understand both the opinions customers have regarding their company's products and services, as well as the underlying reasons behind these perceptions. Future research is needed into managers' perspectives concerning customers' thoughts and experiences (Hult et al., 2017). Insights into this are especially relevant for successful service innovation (Heinonen et al., 2015).

In response, the purpose of this paper is to explore the alignment and misalignment between the managers' perspective of the customer's lived experience with digital B2B service innovations and the customers' perspectives on this matter. Resolving this issue is vital because research is needed on these two perspectives regarding customer experience in B2B situations (Witell et al., 2020) and how customers experience a digital service innovation (Ciuchita et al., 2019). To guide our research efforts the following research question is formulated:

"To what extent are managers' perceptions of the customers' lived experience with digital B2B service innovations aligned or misaligned with the customers' perspectives on this matter?"

In addressing this research question, we focus on both the customers' perspectives, the managers' perspectives, and the alignments or misalignments between them. To find the answer to this question we adopt an ethnographic viewpoint to understand both perspectives of managers and customers. Ethnography primarily focuses on the 'lived experience' of humans in their everyday situations (Van Maanen, 2011; Visconti, 2010).

This study deploys a multiple case study on Dutch business-to-business (B2B) firms to investigate in further detail the managers' perspectives and customers' perspectives on customer experience in digital B2B service innovations. Involving B2B firms in this research is valuable because most research on customer journeys and customer experience is focused on B2C (Witell et al., 2020), which means there is an opportunity to explore new insights focusing on B2B firms. This study investigates various viewpoints within the Dutch B2B sector through a multi-case study encompassing a diverse range of Dutch B2B companies across different markets. The reason why this specific case is used is that the B2B companies that participated are interested in being part of research that is focused on servitization and digital service innovations. Furthermore, B2B companies are in the process of collecting new insights into the customer's lived experience of their digital service innovations from both managers' and customers' perspectives. This study found that there are both alignments and misalignments between managers' and customers' perspectives regarding the customer's lived experience with digital B2B service innovations.

This study contributes to the literature on customer experience in digital B2B service innovation and to the literature on alignment/misalignment on managerial and customer perspectives by offering theoretical and practical contributions. First, we add knowledge to customer experience in digital service innovations by combining these two topics, which may yield new insights to foster digital service innovation strategies. Research suggests that combining digitalization with customer experience brings new possibilities, but it also increases complexity (Lemon & Verhoef, 2016). Furthermore, modern B2B customer journeys are progressively incorporating digital touchpoints (Hallikainen et al., 2019), which could mean that digital service innovations are increasingly used within the customer experience. Second, this study contributes to the alignment/misalignment of managers' perspectives and customers' perspectives by uncovering insights about potential misalignment between managers' perspectives and customers' perspectives (Nasution and Mavondo, 2008). Moreover, the link between managers' perspectives and customers' perspectives remains unexplored (Hult et al., 2017). Exploring this link could find new insights on this potential alignment or misalignment for both literature and B2B firms.

This study is structured into five main chapters: the theoretical background, methodology, findings, conclusion, and discussion. Within the theoretical framework, relevant literature will be explored. The methodology section will explain the methods used to collect the data in this study. The findings section will present and analyze the results obtained from the data analysis. Finally, the concluding section will include the implications, limitations, suggestions for future research, and overall conclusions.

# 2. THEORETICAL BACKGROUND

In this chapter, the theoretical framework of the main concepts will be explored. In the first two subsections, we will define service innovations and digital service innovations. Subsequently, we will explore the concept of the customer experience in B2B. Finally, we will discuss the combination of digital service innovation and customer experience. These concepts will be integrated into the theoretical framework that outlines the main concepts for this study.

# **2.1 Digital Service Innovation**

#### 2.1.1 Service Innovation in General

Innovation is a never-ending business practice. Companies include innovation within their company mission, vision, and goals (Kahn, 2018). Innovation can be defined as a term that means making a lot of changes in how a company does things to make it work better. These changes result in enhanced overall performance of the firm. Different companies will use diverse ways to innovate, and a single company may adjust and enhance its innovative methods as time goes on (Rogers, 1998).

These innovative methods can be applied to service innovations or product innovations. Innovations defined in products are termed 'product innovations' (Kanagal, 2015). Defining service innovation is still a struggle within research (Snyder et al., 2016). Ostrom et al. (2010) propose that service innovation generates value for customers, employees, alliance partners, business owners, and communities by introducing new or enhanced service offerings, service processes, and service business models. Service innovation can be created by the influences of customers. Service innovation should not be described as a type of product innovation. It has qualities that include innovation concepts, models, and processes that are different from those needed in manufacturing (Song et al., 2009). The research argues that the value of service innovation is not defined by what a company produces or manufactures as output but by how companies can better serve their customers (Skålén et al., 2015), improving performance in product-service systems (Tao et al., 2018), creating new business opportunities and models (Frey et al., 2019) and generating value and obtaining a competitive advantage (Raddats et al., 2022).

Research on service innovation has experienced significant transformation, transitioning away from a traditional view of internal innovation resources and capabilities towards a more network ecosystem-oriented perspective (Häikiö et al., 2016). This transformation is based on three perspectives on service innovation: assimilation, demarcation, and synthesis (Vargo et al., 2024). The assimilation perspective views service innovation as a similar innovation in manufacturing, driven by the emergence of new (often radical)

technologies that enable the development of original service offerings (Coombs et al., 2000). Demarcation argues that service innovation is different from manufacturing innovation because in this case service innovation involves an invention that is new to a company but is not necessarily new to the market (Hertog et al., 2011). It often involves a smaller adaption within the process. The synthesis perspective suggests that service innovation encompasses not only products but also processes, which both need to contribute to the overall value proposition provided to customers (Witell et al., 2016). Research has shifted from an assimilation and demarcation perspective towards a synthesis perspective (Frey et al., 2019). This study will involve a synthesis perspective and will include both new processes and outcome technologies that are new to a firm, which creates value for stakeholders involved in a service innovation.

Within synthesis perspectives, a typology for service innovation emerges, reflecting an integration of experiential and systematic archetypes besides established output- and process-based archetypes (Helkkula et al., 2018; Vargo et al., 2024). The increasing recognition of customer experiences, resource integration, and service ecosystems emphasizes the importance of these new archetypes for understanding value co-creation in service innovation (Vargo et al., 2015). Value co-creation is the collaborative process between customers and service providers in together generating value, highlighting the relational aspects of creating value in a service ecosystem (Vargo & Lusch, 2008). To understand the importance of both established archetypes and experiential- and systematic archetypes for value co-creation, they are shortly elaborated on. The output-based archetype, which is similar to the assimilation and demarcation perspectives, traditionally focuses on measurable achievements, treating service innovation as an economic perspective mainly focused on companies and their operations. In contrast, the process-based archetype, which is more similar to synthesis-based perspectives, focuses on how services are made over time, including the steps involved and how the steps affect the value-in-use. Even though these archetypes are different, both focus on value creation through service innovation. The experiential archetype, which is based on an individual experience, highlights customer perceptions and sensemaking. Similarly, the systemic archetype focuses on the complete picture of service ecosystems, bringing multiple actors, resources, and institutional arrangements together in value co-creation. Both archetypes broaden the view of service innovation beyond traditional perspectives based on firms, recognizing the complex relations of actors and resources within dynamic social settings. Combining these four archetypes provides a thorough perspective of examining the different aspects of service innovation, recognizing the relations between firms, customers, and societal influence in creating value co-creation. Focusing on value creation, service innovation cannot be solely defined by output, process, experience, or system archetypes. However, value cocreation in service innovation arises from a combination of these different archetypes (Helkkula et al., 2018). To understand service innovation, incorporating the combination of diverse archetypes and emphasizing value co-creation lays a foundation for exploring the role of technology in shaping service innovation.

#### 2.1.2 Service Innovation in a Digital World

Research has shown that technology is a fundamental facilitator of service innovation (Troilo et al., 2017). There is a perspective on service innovation which is particularly helpful for understanding the impact of digital technologies. Firstly, this perspective shifts its attention from what the service provider delivers to the value it creates for the user, which aligns with the new ways that society and technology interact in the digital age (Lusch & Nambisan, 2015). Secondly, it acknowledges the user as an active participant in the innovation process and emphasizes how digital technologies play a crucial role in connecting different people in a service ecosystem (Smedlund, 2012).

These perspectives together can be named a digital service innovation, which involves using digital technologies to redesign how services are designed, delivered, and personalized. This results in the creation of innovative service offerings, better operational processes, and services increased in value (Opazo Basáez et al., 2024). Digital service innovation includes three phases for servitization: strategic, design, and implementation. The strategic phase is based on terms of the solution proposed, the design phase is based on terms of designed processes, and the implementation phase is based on terms of improving touchpoints (Burton et al., 2023). Besides different phases of digital service innovation, it is also possible to divide them into three sorts of digital service innovations, which are business enabling, service enhancement, and digital service offerings. Business enabling combines remote logistics and monitoring management to enhance core operations, which could lead to internal improvements in service. An example could be a new technology that tracks certain products and can see when they will be returned. Service enhancement combines remote monitoring with other digital service innovations (like AI applications) to further optimize existing service offerings. An example of a service enhancement is an engineer who can already see what is wrong with the service or product before the engineer is on the site. Digital service offerings combine remote monitoring with process improvement or predictive maintenance, this occurs for example when an engineer can predict with the help of AI what the system or product will do in the future (Raddats et al., 2022). This study is focused on digital service innovations that are in the implementation phase. The digital service innovations that are used within this research have already been developed and used for customers, which is necessary to see how customers experience the innovation.

The studies stated above already provide valuable insights into understanding and evaluating digital service innovation. However, the studies often follow a productoriented perspective rather than a service-oriented perspective, which may limit the understanding of the full potential of digital service innovations (Vargo et al., 2024). This is also seen in the literature on service innovation in general (Skålén et al., 2015). This serviceoriented perspective highlights the collaborative aspect of digital service innovation and sees innovation as a process of value co-creation (Lusch & Nambisan, 2015). This viewpoint suggests that value is together created with both the service provider (i.e. a company) and the service user (i.e. a customer) during the innovation process. To achieve this, the actions of both sides need to be effectively combined (Iden et al., 2020). A large part of the digital service innovation literature often focuses on only one main actor or a specific group of actors, who lead the digital service innovation processes. However, research that is focused on one actor tends to overlook the complexity of the innovation processes that involve a wider network of actors, such as external stakeholders, including suppliers, partners, and customers (Vargo et al., 2024). This study focuses not on only one actor of the company, but also the customers' perspective on digital service innovations.

# 2.2 Customer Experience in Business Settings

# 2.2.1 Conceptualizations of Customer *Experience*

Customer experience has become a major focus for business leaders around the world, and it's seen as a key factor for a company's long-term success (De Keyser et al., 2015). Customer experience defines how customers react to their interactions with a company before, during, or after buying or using its products or services. It happens across various channels and over time, and it's become a lasting way for companies to stand out from their competition. (Lemon & Verhoef, 2016;). There are multiple definitions of customer experience in the literature (Lemon & Verhoef, 2016). Generally, scholars and practitioners agree that the total customer experience consists of different parts involving cognitive, emotional, behavioural, sensorial, and social parts (Verhoef et al., 2009; Schmitt, 1999). However, an experience could be related to other aspects, like technology or a brand (Lemon & Verhoef, 2016). It also consists of different contacts between the customer and the firm at different points in time during the experience, which are called touch points (Homburg et al., 2017). An experience is also created by a combination of these touch points in various stages of a customer's decision process or purchase journey (Verhoef et al., 2009). Customer experience can be seen as the customer's journey with a company over time, from considering a purchase to completing it, involving various points of contact along the way. There are three stages: pre-purchase, purchase, and post-purchase (Lemon & Verhoef, 2016). The goal of these stages in the customer's journey is to create a more advanced relationship between companies and their customers. To better understand this relationship numerous concepts need to be considered: the customer's steps and actions, the customer's expectations, the customer's perceptions, the customer's satisfaction, and the customer's demographic information (Canfield & Basso, 2017). These concepts are all part of the customer journey and include also external factors and past experiences. Within this customer journey, there are various touchpoints in which customers may encounter the company during the service process. These touchpoints could be for example seeing advertisements online or listening to an advertisement on the radio, which would be the pre-purchase stage. Other examples of touchpoints could be, entering a store or engaging with employees, which would be an example of the purchase stage. In the post-purchase stage, a touchpoint could be returning a product or writing a review online (Lemon & Verhoef, 2016). By understanding these customer touchpoints in the different stages a company can improve certain strategies or tactics that would benefit the company (Rosenbaum, 2017). Within these different stages, there are also types of touchpoints in the customer journey: brand-owned, partner-owned, customer-owned, and social/external. Brand-owned touchpoints represent customer interactions throughout the experience and are managed by the firm and their control. This type of touchpoint also includes all brand-owned media, for example, advertising or websites. Partner-owned touchpoints refer to customer interactions during the experience that are collaboratively designed, managed, or controlled by the firm and one or more of its partners. These partners could for example be marketing agencies or communication partners. Customer-owned touch points are more focused on customer actions that are part of the overall customer experience but are not influenced or controlled by, its partners, or others involved. Social/external touch points acknowledge the significant roles played by others in the customer experience. During the experience, customers are exposed to external factors (like other customers, environments, and other stakeholders) that might impact their journey. All these types of touch points can be in each stage of the customer journey. It could be beneficial to identify the most critical touch points at each stage for a customer, so a company can then figure out how to influence important touch points within the customer journey (Lemon & Verhoef, 2016). Customer experience measurement is needed for companies to have insights into effective operations. Developing consistent measurement methods for every phase of the customer journey and touchpoints remains a challenge, despite efforts to use different metrics to assess the customer experience. There is scarce literature on customer experience management. One definition of customer experience management is: "the cultural mindset toward customer experiences, strategic directions for designing customer experiences, and firm capabilities for continually renewing customer experiences, with the goals of achieving and sustaining long-term customer loyalty" (Homburg et al., 2017). The authors argue that an experience-oriented mindset is necessary across different touch points in a customer journey.

To better understand this experience-oriented mindset, this study implements the "lived experience" of customers, which is the experience as we live through it (Van Manen, 2016b). This suggests that reality is not just a concept we perceive intellectually, but rather something we directly experience in our lives. The "lived experience" serves as both the initial foundation of understanding and the end destination for any investigation, reflection, and analysis (Van Manen, 2007). To better understand the customer experience we directly encounter in our lives, this study delves into the "lived experience" of customers. The next section will help us understand how customers experience interaction in the business world, particularly between businesses.

# 2.2.2 Understanding Customer Experience in B2B

Research on customer journeys is often used in businessto-consumer (B2C) context. However business-tobusiness (B2B) companies are facing new challenges in controlling, managing, and designing valuable customer journeys (Witell et al., 2020; De Keyser et al., 2020). It is difficult to measure B2B customer experience in the same way as the B2C customer experience, which could result in certain difficulties (Zolkiewski et al., 2017). B2C customer journey models often focus on the product or brand, outlining stages such as pre-purchase, purchase, and post-purchase (Lemon & Verhoef, 2016). In contrast, the B2B customer journey is often seen as a series of relational steps aimed at fulfilling the customer's business requirements. In B2B journeys, there are three primary actors: suppliers, customers, and third-party actors within the broader business ecosystem, such as competing suppliers, or other customers. These actors fulfill various roles, but they can also adopt new ones as circumstances change. These actors can assume various roles at different points throughout the customer journey. (Witell et al., 2020).

Customer journey touchpoints in the B2B context can be defined as all verbal and nonverbal interactions encountered by a business customer, whether consciously or subconsciously, in connection with a supplier firm (Witell et al., 2020). Understanding B2B customer journeys can be done by collecting detailed information on the various stages of B2B customer journeys (Purmonen et al., 2023).

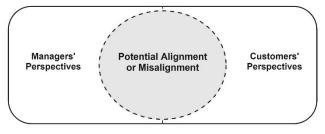
# **2.3 Digital Service Innovation and Customer Experience**

While traditional face-to-face interactions like project meetings or consultative sessions still hold significance in many B2B settings, modern B2B customer journeys are progressively incorporating digital touchpoints. These digital touchpoints now happen in diverse ways, such as search engines, social media, or digital service platforms (Hallikainen et al., 2019). Interactions are not only limited to digital platforms; existing touch points can also be influenced or facilitated by digital innovations (Larivière et al., 2017). Research indicated that customer experience relates to the implementation phase of digital service innovations with a focus on enhancing customer touchpoints (Burton et al., 2023). Previous studies have indicated that customer touchpoints hold the potential for advancing service innovation (Rosenbaum, 2017). Nonetheless, limited research has been done on customer experience regarding digital service innovation (Ciuchita et al., 2019).

# 2.4 Customer and Manager Perspectives

Customer experience is studied from both a customer perspective as well as an organizational perspective (Kranzbühler et al., 2018). The organizational perspective is often represented by managers. Managers often have confidence that they understand the values and experiences of those around them. Managers are more focused on others, like customers or other stakeholders, instead of themselves (Posner, 2010). Research suggests that managers oftentimes overstate the level of (promised) customer value compared to what is delivered (Nasution and Mavondo, 2008). The research concluded that in general managers overstate the level of customer value that is delivered by their hotels. In this sense, managers often fail to understand what customers think of their firm's products and services and why the customer has these perceptions. While this observation is made in the B2C context, B2B sectors face similar challenges as customers also experience (Witell et al., 2020). There is still an unexplored gap between what managers believe customers are thinking and what customers think (Hult et al., 2017). Future research is needed that compares these two perspectives (managers and customers) which is not only focused on large international firms within the US but also mid-size and small firms in other countries (Hult et al., 2016). Witell et al. (2020) also suggest future research to better understand these two perspectives on customer experience in B2B situations. In Figure 1 there is an overview of these two perspectives.

Figure 1: Managers' and Customers' Perspectives on Customer Experience of Digital B2B Service Innovations



# **3. METHODOLOGY**

The methodology section will outline the research approach employed in this study. It includes the following subsections: research design, ethnographic study, data collection, and data analysis.

## 3.1 Ethnographic Research Design

This study aims to explore potential alignment or misalignment between managerial perceptions and customer perceptions of the customer's lived experience in digital B2B service innovations. To answer the research question that is stated in the introduction section, a qualitative case study is chosen involving ethnographic research.

Ethnography focuses on understanding people's 'lived experience' by creating detailed and rich descriptions (Visconti, 2010; Van Maanen 2011). The goal of an ethnographic study is to understand and explain the behaviours and the attached meaning systems of those who are part of the social system being studied. Ethnography, as a result, primarily involves the process of making sense, translating actions from one context to another (about their meaning), and understanding the meaning in the context of action (Rosen, 1991). This definition of ethnography relates more to organizational ethnography, which has more interest in the meaning of behaviours than in the behaviours itself. Organizational ethnography is more focused on unraveling organizational symbolic meanings that are significant aspects of everyday business practices. 'Vhen combining organizational ethnography and case study research a new method is developed: Ethnographic Case study method (ECS). An Ethnographic Case Study (ECS) can be defined as the utilization of the fundamental principles of ontology (i.e., what is reality), epistemology (i.e., how do we know reality), and methodology (i.e., what are the systematic approaches or techniques used to collect and analyze data) of ethnography, applied to a carefully chosen group of business cases with theoretical significance (Visconti, 2010). The research identified the main phases of the fieldwork activities in ECS research: (1) goal setting, (2) sampling, (3) ethnographic immersion, (4) data collection, (5) data interpretation, and (6) reporting and implementation. In the first phase, it is important to set relevant goals, which can be done by desk research and by having meetings with the firms. In the second phase, respondents need to be identified by granting variety and contrast in theoretical sampling. In the third phase observation of the participant is the key activity, because linguistic skills, sensitivity, and behaviours are important to observing culture. During the fourth phase, the core data will be collected by observing, interviewing, and networking. The fifth phase uses all the data that is collected to interpret relevant patterns, which can be done by negotiation of different points of few (participant and researcher). In the last phase, the researcher is bridging the relevant gap by writing everything down (Visconti, 2010). The phases stated

Figure 2. Main Dhagon	of Fieldwork Activities in	n Ethnoonamhio Caac	Stude Degeneral	(Inspired on Visconti (2010))
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Phase	Goal Setting	Sampling	Ethnographic Immersion	Data Collection	Data Interpretation	Reporting & Implementation
Discription	Set relevant goals for the research	ldentify the participants for the research	Observation of the participants	The primary data will be collected through interviews and observations	Interpret relevant patterns within the data set	Bridging the relevant gap and discuss the goals that were set
Operationalization	Familiarising with concepts and business challenges through desk research	Identify relevant managers and customers who are involved in digital service innovations	Observe behaviors, linguistic skills,and sensitivity of the managers and customers	Conduct interviews and make field notes during these interviews with the managers and customers	Negotiation between participants and researcher about different points of few	Writing the results down by finding the gap between the managers' perspectives and customers' perspectives

above will be followed during this study. Figure 2 includes an overview of these phases.

### **3.2 Data Collection**

#### 3.2.1 Participating Companies

The companies selected for gathering empirical data share a common thread, they are all B2B companies. This means that transactions are between two businesses and not between a business and an individual end consumer. All the participating B2B companies are companies based in the Netherlands. However, some of them operate internationally, which means that the firm has departments in other countries. Despite their diverse core activities and presence in various markets, these firms are united by the implementation of digital service innovations. The shared focus on B2B transactions highlights how the companies together influence digital service innovation in their

industries. Because of confidentiality, this paper refer to these companies as "Shipyard Inc.", "Training Inc.", "Packaging Inc.", "Bakery Inc.", and "Technology Inc.". In Table 1 there is an overview of the participating companies and the digital service innovations this research is focusing on. semi-interviews. Semi-interviews include follow-up questions, which can be beneficial regarding more detailed

information. The interviews will be helpful together with the observations to uncover the full customer "lived experience" from the customers of the participating companies and to discover if the manager's perceptions align or misalign with the customer "lived experience". For this study, there are a few selection criteria for conducting the interviews with customers and managers. For every participating company this study will focus on one single digital service innovation. This study will not focus on a specific type of digital service innovation, which is mentioned in section 2. All types of digital service innovations are included in this study. However, digital service innovations already need to be developed and used for customers to obtain a picture of the customer's lived experience. The customers who are interviewed and observed need to be related to the specific digital service innovation, which means that the customer is currently using or has used the digital service innovation. This study will not focus on a specific type of customer, such as an internal, external, or end customer. All types of customers of the B2B companies are included in this study. By including all these different types of customers (see Table 3) the study could find insights between the different types

Company	Core business	Digital service innovation						
Shipyard Inc. (International)	International shipyard group that offers maritime solutions through design, shipbuilding, ship repair, and related services.	A mobile app that enables seamless reporting, inspections, and issue flagging during maintenance tasks. It provides easy and direct communication between teams, delivering maintenance insights.						
Training Inc. (National)	IT trainer specialized in Microsoft products, apps, and services.	This tool helps create and maintain simple instructions, training materials, and manuals, which makes it easier to train and support colleagues.						
Packaging Inc. (International)	Pooling partner for reusable packaging.	It manages the control of the customers' return flow quickly and sufficiently, eliminating potential errors with manual processing.						
Bakery Inc. (International)	Offer bakery technologies.	Remote service, support, and data management.						
Technology Inc. (International)	Offer innovative technologies and pharmaceutical services.	Provides a range of programs designed to streamline the collection of data by integrating for example with check weighers, metal detectors, and x-ray machines.						

#### 3.2.2 Collection Method

To answer the research question, the data will be collected through an ethnographic research approach as mentioned above in section 3.2. The researcher gathers first-order

data, which means that the collected information is gathered through observing and interviewing individuals (Visconti, 2010). Different methods can be used to collect data like listening, recording, observing, and interpreting behaviour (Schensul et al., 1999). These methods also contain field notes, which are a detailed description of what the researcher observes (Van Maanen, 2011). Besides field notes, the data will be collected through observation and semi-interviews with customers and managers of the companies listed in Table 1. Observation will be done by observing in meetings, company visits, and of customers. The participating managers in the interviews and observations need to have a leading role within a team of employees that are related to a specific digital service innovation. It does not matter in which specific department a manager works as long as the manager works with the specific digital service innovation. In Table 2, there is an overview of the managers and customers that participated in this study and also an overview of the secondary data that was collected.

#### 3.3 Data Analysis

The data will be analyzed using a back-and-forth method, between the first-order data we collected and the existing literature. This approach helps us transform detailed descriptions into meaningful patterns (Visconti, 2010). To be able to find these patterns, interviews are recorded, transcribed, and coded. Observations are written down and

Primary data	Managers	Customers	Total amount of data		
	Development Manager - Shipyard Inc 50 min	Internal Customer – Shipyard Inc. – 19 min	231 pages of		
	Digital Tooling Manager – Shipyard Inc. – 50 min	External Customer - Training Inc 10 min	transcripts and notes		
	Account Manager - Shipyard Inc 23 min	External Customer - Training Inc 13 min			
	Development Manager - Training Inc 29 min	External Customer - Training Inc 15 min			
	Sales Manager – Training Inc. – 70 min	External Customer - Packaging Inc Survey			
	Group Managing Director - Training Inc 68 min	External Customer - Bakery Inc 14 min			
	Development Manager - Packaging Inc 37 min	External Customer – Bakery Inc. – 11 min			
	Digital Development Manager - Packaging Inc 38 min	External Customer - Technology Inc Survey			
	Development Manager - Bakery Inc 62 min	External Customer – Technology Inc. – Survey			
	Sales Manager – Bakery Inc. – 31 min				
	Service Manager – Bakery Inc. – 54 min				
	Digital Service Manager – Technology Inc. – 62 min				
Secondary	Company visits (7)	Congress (1)	13 pages of		
data	Congress (1)	Theater session (1)	fieldnotes		
	Lunches (4)	Small talk			

interpreted. The interviews are recorded and transcribed with Microsoft Teams. The researcher read the transcriptions for reliability and made sure that there were no errors or mistakes within the transcript.

Company documents (i.e. powerpoints)

Small talk

After the first-order data was collected, a second-order analysis was performed. Five steps assist researchers in conducting a second-order analysis: (1) conduct qualitative content analysis to identify explanations for different activities and events, (2) assess whether there is consistency or change over time, (3) analyze data of different participants to identify patterns, (4) extract theoretical explanations from the data, (5) Integrate these patterns into a theoretical framework (Gioia & Chittipeddi, 1991). This research will be done with the help of these first four steps.

### 4. FINDINGS

This section includes the findings that are collected by qualitative research. The findings include semi-structured interviews and ethnographic elements conducted with various managers and customers of five B2B companies. The collected data from the interviews was first transcribed, followed by coding together with the ethnographic elements using an inductive approach. This involved identifying various concepts and themes that are related to the theory, which were then organized into five overarching dimensions that were discovered through analysing the data. The dimensions for the managers' perceptions are customer journey phases, feedback adaptation, success measurement, and future opportunities. For the customers' perceptions, the following dimensions were found based on the data: customer journey phases, feedback adaptation, and future opportunities. In Figure 3 there is an overview of all the 1st order concepts and 2nd order concepts that lead to these overarching dimensions.

#### 4.1 Managers' Perceptions

This section delves into the various perspectives of managers, highlighting their opinions on customer

experiences, feedback adaptation, success management, and suggestions for improvements in the future.

#### 4.1.1 Customer Journey Phases

Within the interviews, we observed that there were differences in opinions in the different phases of the

customer journey. Managers who participated in this study think that the experiences of the customers are different in the three phases. Managers think that customers often do not know what digital service innovation entails before purchasing it. After the purchase customers are using the product and learning how to work with it. The more the customers use the product the better the experience is with the digital service innovation according to managers. A manager of Training Inc. mentioned:

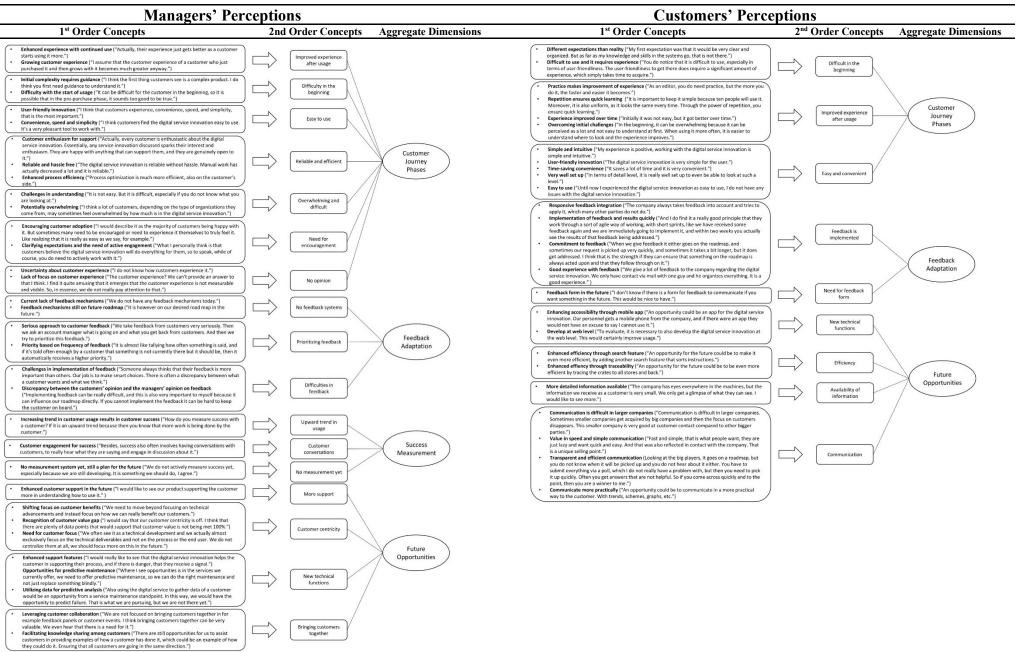
"Actually, their experience just gets better as a customer starts using it more. I assume that the customer experience of a customer who just purchased it and then grows with it becomes much greater anyway." (Group Managing Director, Training Inc.)

We observed that other managers within this study have a similar opinion about this topic. Although this customer experience is positively increasing as soon as the customer is using the digital service innovation more, managers also state that the digital service innovation can be complex in the beginning or difficult to understand. Managers of Shipyard Inc. and Packaging Inc. mentioned the following:

"I think the first thing customers see is a complex product. I do think you first need guidance to understand it." (Digital Tooling Manager, Shipyard Inc.)

"It can be difficult for the customer in the beginning, so it is possible that in the pre-purchase phase, it sounds too good to be true." (Development manager, Packaging Inc.)

We also observed during a causal conversation with a manager of Bakery Inc. that the company tested the digital service innovation on employees to see if the employees



understood how to use it. However, the manager said that employees had difficulties finding the right buttons and it was experienced as complex as first. Managers of Bakery Inc. and Technology Inc. also showed us the digital service innovations and how you can use them. We experienced it as complex while using it for the first time. However, after some explanations and guidance, it became easier to find the right buttons.

After have using it for a while, one recurring opinion among managers is that customers perceive digital service innovations as accessible, user-friendly, and uniform. This opinion reflects on the ease with which customers can navigate these innovations, which makes them valuable in their daily operations. Managers of Training Inc. and Technology Inc. mentioned the following:

"I think that customers experience, convenience, speed, and simplicity, that is the most important." (Sales Manager, Training Inc.)

"I think customers find the digital service innovation easy to use. It's a very pleasant tool to work with." (Development Manager, Training Inc.)

"I would say that customers experience it as valuable and unified." (Digital Service Manager, Technology Inc.)

We observed that managers of Training Inc. also used this as a selling point during a congress. The managers were attracting potential customers by explaining how easy the tool is and how it keeps your instructions unified and sorted.

Another recurring sentiment among managers is that customers show interest and enthusiasm for digital service innovations. These innovations help customers to run their daily operations efficiently and make them often more reliable. Managers of Bakery Inc. and Packaging Inc. stated the following:

"Actually, every customer is enthusiastic about the digital service innovation. Essentially, any service innovation discussed sparks their interest and enthusiasm. They are happy with anything that can support them, and they are genuinely open to it." (Service Manager, Bakery Inc.)

"The digital service innovation is reliable without hassle. Manual work has actually decreased a lot and it is reliable." (Digital Development Manager, Packaging Inc.)

"Process optimization is much more efficient, also on the customer's side." (Development Manager, Packaging Inc.)

Managers of Bakery Inc., Training Inc., and Technology Inc. also showed us how efficient the digital service innovations are, including charts or graphs in which you for example could see the waste, the finished time or the successful tasks.

However, there were also some negative aspects of how managers think customers experience digital service

innovations. For example, it can be hard to understand digital service innovations. Managers of Training Inc. and Shipyard Inc. mentioned the following:

"It is not easy. But it is difficult, especially if you do not know what you are looking at." (Development Manager, Training Inc.)

"I think a lot of customers, depending on the type of organizations they come from, may sometimes feel overwhelmed by how much is in the digital service innovation." (Digital Tooling Manager, Shipyard Inc.)

This is also what we experienced when we saw the digital service innovations for the first time. It was overwhelming especially if you did not know where to look. Managers of Training Inc. and Bakery Inc. stated that customers also needed help in the beginning. It can be hard to use because of the lack of experience with the digital service innovation. Customers need to be motivated to start using the tool to see the ease of usage. According to a manager of Shipyard Inc. customers sometimes think digital service innovation will do everything for them, but this is often not the case. Managers of Instruction Inc. and Shipyard Inc. also said the following:

"I would describe it as the majority of customers being happy with it. But sometimes many need to be encouraged or need to experience it themselves to truly feel it. Like realizing that it is really as easy as we say, for example." (Development Manager, Training Inc.)

"What I personally think is that customers believe the digital service innovation will do everything for them, so to speak, while of course, you do need to actively work with it." (Account Manager, Shipyard Inc.)

We also observed during a congress that managers of Instruction Inc. showed the potential customers how to use the digital service innovation to encourage them to purchase or use it. They did this by showing demonstrations of the digital service innovation and the potential customers reacted enthusiastically. They also mentioned during these demonstrations that you need to work with it actively to make sure everyone in the company will use the digital service innovation.

There are many different opinions of managers on the overall customer experience as stated above. There were even managers of Shipyard Inc. who did not have a clue about how customers experience their digital service innovation. These managers of Shipyard Inc. stated:

"I do not know how customers experience it."(Development Manager, Shipyard Inc.)

"The customer experience? We can't provide an answer to that I think. I find it quite amusing that it emerges that the customer experience is not measurable and visible. So, in essence, we do not really pay attention to that." (Digital Tooling Manager, Shipyard Inc.) During the interviews with these managers, we observed that some of the managers had not thought about this topic before. By asking these questions about customer experience we got them thinking about this topic, which is important for improving their future digital service innovations.

In summary, the managers that participated in this research overall think that the experience for customers, in the beginning, can be complex or difficult because they do not know what digital service innovation entails yet. After their first interactions with the digital service innovation customers' experiences increase positively because customers are starting to understand how to use it. While there is a recurring opinion among managers that after having used digital service innovations for a while customers perceive digital service innovation as accessible, user-friendly, and efficient, there are also some challenges. According to managers, some customers find it difficult to understand, requiring motivation and support to use the digital service innovation. Besides, some managers did not know what the experience would be for customers. The opinions of managers on how customers experience digital service innovations are diverged. Despite varying perspectives among managers, the overarching opinion addresses the importance of addressing customer experience to drive customer satisfaction with digital service innovations.

#### 4.1.2 Feedback Adaptation

Training Inc. and Packaging Inc. implemented a feedback form to get feedback from the customers. However, the other three international companies that participated did not have a feedback form yet that customers can fill in, because the digital service innovation is often new and there are just a few customers that are already using it. The managers of these companies do want to implement some kind of feedback form in the future. A manager of Technology Inc. stated the following:

"We do not have any feedback mechanisms today. It is however on our desired road map in the future." (Digital Service Manager, Technology Inc.)

We observed that the digital service innovations of Training Inc. and Packaging Inc. have been relatively longer on the market than the digital service innovations of the other companies that participated. However, we observed that managers of Bakery Inc., Technology Inc., and Shipyard Inc. do think it is important to implement a feedback form in the future.

Another approach managers take to get feedback is to just ask the customers verbally. Managers often use different strategies to implement their feedback effectively, by improving the digital service innovation and enhancing customer satisfaction. This involves getting input from customers and reviewing this feedback by prioritizing it compared to the feedback of other customers. Managers of Training Inc. stated the following:

"We take feedback from customers very seriously. Then we ask an account manager what is going on and what you get back from customers. And then we try to prioritize this feedback." (Group Managing Director, Training Inc.)

"It is almost like tallying how often something is said, and if it's told often enough by a customer that something is not currently there but it should be, then it automatically receives a higher priority." (Sales Manager, Training Inc.) A manager of Packaging Inc. also showed us their system for feedback in which they can prioritize the feedback as well. This system showed us that they are taking the feedback seriously.

Prioritizing this feedback can be very difficult since a customer often sees his feedback as the most important one. For the managers, it can be challenging to make smart choices in which feedback should be implemented. Managers of Training Inc. and Bakery Inc. stated the following:

"Someone always thinks that their feedback is more important than others. Our job is to make smart choices. There is often a discrepancy between what a customer wants and what we think." (Development Manager, Training Inc.)

"Implementing feedback can be really difficult, and this is also very important to myself because it can influence our roadmap directly. If you cannot implement the feedback it can be hard to keep the customer on board." (Development Manager, Bakery Inc.)

Implementation and prioritization of feedback can be difficult for managers. Managers of Bakery Inc. and Instructions Inc. also told us during casual conversations about some experiences with customers regarding feedback implementation that were difficult to tackle. For example, customers who cannot see a certain point of view or problem or customers who cannot see anything but their own opinion.

In summary, managers often collect customer feedback through direct communication, followed by prioritizing based on feedback frequency and balancing these customer requests with strategic plans for the digital service innovation. Maintaining continuous improvement and customer engagement can be a challenge. However, these efforts are essential for aligning digital service innovations with customer needs and the customer experience.

#### 4.1.3 Success Measurement

Managers are looking at different aspects to figure out if a digital service innovation is successful among customers. This includes quantitative analysis on usage frequency, editor engagement, and qualitative indicators like customer feedback and satisfaction.

For some managers, success is based on observable trends, such as how much a customer is using the digital service innovation over time. This trend often increases over time. A rising trend is seen as successful. A manager of Training Inc. stated: "How do you measure success with a customer? If it is an upward trend because then you know that more work is being done by the customer." (Sales Manager, Training Inc.)

We also saw the trends of some customers of Training Inc. These customers had a line going upwards in using the digital service innovation, which could be a measure of success. Other managers argue that surveys and feedback mechanisms, together with interactions with the customer are of importance while indicating success. This approach is needed to know how customers feel about digital service innovation. A manager of Technology Inc. mentioned the following:

"Besides, success also often involves having conversations with customers, to really hear what they are saying and engage in discussion about it." (Digital Service Manager, Technology Inc.)

During a conversations in lunch breaks at Training Inc. and Shipyard Inc. we noticed that managers mostly have contact with customers via online or physical conversations. They mentioned that in this way they get feedback as well and that could be a measure of success.

It can be hard to measure success when the digital service innovation is new and just implemented on a few customers. However, managers agree that success measurement is important and should be used. A manager of Bakery Inc. mentioned the following:

"We do not actively measure success yet, especially because we are still developing. It is something we should do, I agree." (Development Manager, Bakery Inc.)

During the interviews and casual conversations we noticed that success measurement is an important topic for the participating companies. However, managers mention that it is often not yet used, because the digital service innovation is still very new.

Overall, managers implement different methods to measure success, including quantitative and qualitative methods for digital service innovations. However, managers do agree that it is important and should be implemented in digital service innovations, which is not always yet the case.

#### *4.1.4 Future Opportunities*

In exploring the perspectives of managers on how customers perceive a digital service innovation, multiple themes came up. The last theme is the future opportunities to enhance the customer experience. Some managers mentioned that an opportunity could be to provide customers with the necessary tools and guidance to maximize the customer's value from the digital service innovation since a digital service innovation can sometimes be hard to understand.

"I would like to see our product supporting the customer more in understanding how to use it." (Sales Manager, Training Inc.) As mentioned before according to managers digital service innovations can be overwhelming in the beginning. However, managers want to improve this in the future. They mentioned that the digital service innovations should be there for the customer to make their daily operations easier and unified. At the congress managers also used this opinion to convince potential customers to buy the digital service innovation.

Managers of Bakery Inc., Technology Inc., Packaging Inc., and Shipyard Inc. also highlighted the need for a more customer-centric mindset, instead of focusing purely on the technical aspects of digital service innovation. If managers prioritize the customer journey and focus on meeting customers' needs instead of product features, companies can differentiate themselves and create value for customers. Managers of Shipyard Inc. and Technology Inc. mentioned the following:

"We need to move beyond focusing on technical advancements and instead focus on how we can really benefit our customers." (Account Manager, Shipyard Inc.)

"I would say that our customer centricity is off. I think that there are plenty of data points that would support that customer value is not being met 100%." (Digital Service Manager, Technology Inc.)

"We often see it as a technical development and we actually almost exclusively focus on the technical deliverables and not on the process or the end user. We do not centralize them at all, we should focus more on this in the future." (Digital Tooling Manager, Shipyard Inc.)

During the congress we visited, we saw that the managers of Training Inc. are focused on their customers. They also mentioned that it is still possible because it is still a national operating company. However, managers mentioned at the congress that this could be difficult within the future when the company grows. It is a difficulty more companies face when expanding to a wider range of customers.

Another opportunity that some managers mentioned is the ability to support the customer with predictive maintenance. With certain capabilities with data analytics, companies will understand the needs of customers and predict potential future issues within their systems. This will not only increase the reliability of the service but also reinforce the trust of the customers. Managers of Bakery Inc. and Technology Inc. mentioned the following:

"I would really like to see that the digital service innovation helps the customer in supporting their process, and if there is danger, that they receive a signal." (Service Manager, Bakery Inc.)

"Where I see opportunities is in the services we currently offer, we need to offer predictive maintenance, so we can do the right maintenance and not just replace something blindly." (Development Manager, Bakery Inc.) "Also using the digital service to gather data of a customer would be an opportunity from a service maintenance standpoint. In this way, we would have the opportunity to predict failure. That is what we are pursuing, but we are not there yet." (Digital Service Manager, Technology Inc.)

We noticed that if you ask managers what could be improved in the future regarding customer experience with the digital service innovation that all managers first focus on the technical improvements instead of the improvements like communication or feedback that also involve customer experience. Especially predictive maintenance is an opportunity that was mentioned often.

Besides this technical opportunity to improve customer experience, there is also an opportunity to improve the customer experience by bringing customers together. Training Inc. is already referring customers to other customers to show them how they experience digital service innovation. By showing a customer how other customers are using and experiencing the digital service innovation, the company can get customers aligned in their approach, which minimizes the risk of miscommunication. Companies could also for example organize feedback panels and customer events to connect customers and share feedback. This could bring value to all the customers that are involved. Managers of Training Inc. mentioned the following:

"We are not focused on bringing customers together in for example feedback panels or customer events. I think bringing customers together can be very valuable. We even hear that there is a need for it." (Development Manager, Training Inc.)

"There are still opportunities for us to assist customers in providing examples of how a customer has done it, which could be an example of how they could do it. Ensuring that all customers are going in the same direction." (Sales manager, Training Inc.)

We observed that Training Inc. do focus on a customercentric mindset and bringing customers together during an annual congress. At this congress, we saw that a company used a customer to enthusiasm potential customers by organizing a theater season. In this session, the customer talked about her experience with the digital service innovation in an interactive way in which the potential customers could participate and could exchange knowledge and their experiences. Managers at this congress mentioned that it builds trust and it engages customers to another level. We also asked the participating international companies if they organize something like this for customers and managers mentioned that they do not have something like this. A manager of Bakery Inc. said that customers are often really competitive and they do not want to exchange knowledge on their products or way of working. However, it could be an option for them as well in the future. This manager also showed the researcher that they do have screens in their work environment on which employees can observe failures or errors of the digital service innovation at every customer (Appendix 1 and 2). In this way, employees can see what

needs to be done and prevent the failure of a certain machine. These employees however did not look at these screens as much as they should according to the manager, because it is new and employees need to get used to it. However, in the future, it could be a great opportunity to enhance service by implementing these screens within the work environment and daily operations.

In summary, managers generally agree that customers' experiences improve with familiarity, but challenges such as complexity exist. Despite these challenges, managers think that customers experience digital service innovations accessible and user-friendly. Managers as also acknowledge negative aspects like confusion. Adaption of customer feedback is recognized as essential to address these, with strategies varying from feedback mechanisms to conversations with customers. Measuring success varies with quantitative metrics like usage frequency or qualitative methods such as customer feedback. Looking ahead, opportunities to further improve the customer experience with better tools and guidance, adopting a more customer-centric mindset, and using predictive maintenance capabilities. While manager's perspectives on customer experience differ, there is a shared commitment to address customer needs and improve the overall customer experience.

### 4.2 Customers' Perceptions

Understanding how customers perceive and interact with digital service innovations is essential for companies to enhance their innovations. This section delves into the various perspectives of customers, highlighting their experiences and suggestions for improvements in the future.

### 4.2.1 Customer Journey Phases

A customer of Shipyard Inc. mentioned that their initial expectations were different than what they experienced. The customer thought it would be clear and organized beforehand, but this digital service innovation is difficult to use, it is not clear to understand because some buttons appear multiple times. The internal customer of Shipyard Inc. stated:

"My first expectation was that it would be very clear and organized. But as far as my knowledge and skills in the systems go, that is not there. You do notice that it is difficult to use, especially in terms of user-friendliness. The user-friendliness to get there does require a significant amount of experience, which simply takes time to acquire." (Internal Customer, Shipyard Inc.)

We also observed during the congress we visited that potential customers of Training Inc. have a lot of questions in the beginning about which buttons does what. After a demonstration, it gets easier and it takes time to get used to the digital service innovation. Despite the initial challenges, all customers note that familiarity and practice improve their experience over time. Access to learning materials helps with understanding, although some customers find them too general. As users get more involved with digital service innovations, they appreciate the efficiency and simplicity of digital service innovations. Managers of Training Inc., Technology Inc., and Shipyard Inc. mentioned the following:

"It is important to keep it simple because ten people will use it. Moreover, it is also uniform, as it looks the same every time. Through the power of repetition, you ensure quick learning." (External Customer, Training Inc.)

"Initially it was not easy, but it got better over time." (External Customer, Technology Inc.)

"In the beginning, it can be overwhelming because it can be perceived as a lot and not easy to understand at first. When using it more often, it is easier to understand where to look and the experience improves." (Internal Customer, Shipyard Inc.)

During a theatre session of a customer of Training Inc., which was given to potential customers at a congress, we observed that potential customers were curious about the digital service innovation and what it was like to use. The customer who gave the theatre session also mentioned during this session that it gets easier every time you make something new within the digital service innovation.

As mentioned above after a while of using the digital service innovation, customers experience digital service innovations as easy and convenient. Also, the details are no longer difficult but are seen as something positive. All customers of the participating companies agree with this statement and mention:

"The digital service innovation is very simple for the user." (External Customer, Packaging Inc.)

"My experience is positive, working with the digital service innovation is simple and intuitive." (External Customer, Technology Inc.)

"Until now I experienced the digital service innovation as easy to use, I do not have any issues with the digital service innovation." (External Customer, Bakery Inc.)

"It saves a lot of time and it is very convenient." (External Customer, Training Inc.)

"In terms of detail level, it is really well set up to even be able to look at such a level." (Internal Customer, Shipyard Inc.)

During the congress we visited, we also saw that the main opinion of the customer, who was giving the theatre session, was that it is easy to use and simple. This was also one of the first reactions potential customers had during the short demonstrations managers gave at this congress.

Despite the initial challenges with digital service innovations, familiarity and practice are important in improving their customers' experience over time. As users become more involved with the innovation, they appreciate its efficiency and simplicity. Overall, customers perceive digital service innovations as user-friendly and an innovation that saves time.

#### 4.2.2 Feedback Adaptation

Customers value companies that prioritize feedback and companies that actively use this feedback to enhance digital service innovations and the customer experience. Customers appreciate quick responses and transparency while giving feedback. It is important to keep the customer up-to-date and use a customer-centric approach. This is something other companies often do not do. Customers of Training Inc., Shipyard Inc., and Bakery Inc. mentioned the following:

"The company always takes feedback into account and tries to apply it, which many other parties do not do." (External Customer, Training Inc.)

"And I do find it a really good principle that they work through a sort of agile way of working, with short sprints, like we have received some feedback again and we are immediately going to implement it, and within two weeks you actually see the results of that feedback being addressed." (Internal Customer, Shipyard Inc.)

"When we give feedback it either goes on the roadmap, and sometimes our request is picked up very quickly, and sometimes it takes a bit longer, but it does get addressed. I think that is the strength if they can ensure that something on the roadmap is always acted upon and that they follow through on it." (External Customer, Training Inc.)

"We give a lot of feedback to the company regarding the digital service innovation. We only have contact via mail with one guy and he organizes everything. It is a good experience." (External Customer, Bakery Inc.)

We also observed during the interviews and at the congress that customers are overall happy with the way their feedback is implemented. However, one customer of Bakery Inc. mentioned that it would be nice to have a feedback form in the future which can be filled in instead of sending emails. The customer of Bakery Inc. stated:

"I don't know if there is a form for feedback to communicate if you want something in the future. This would be nice to have." (External Customer, Bakery Inc.)

We observed that this customer did not know if there is a feedback form at all. If there was a feedback form, than it would be difficult to find according to this customer.

In summary, customers experience feedback implementation positively and say that the companies act upon the feedback. However, in the future companies could implement a feedback form which is easy to find for the customers, so they can give feedback in a different way.

#### 4.2.3 Future Opportunities

Looking into the future, customers see opportunities to enhance their experience with digital service innovations. Some suggest technical opportunities like developing a mobile app for better efficiency and access. Customers of Training Inc., Technology Inc., and Packaging Inc. stated:

"An opportunity could be an app for the digital service innovation. Our personnel gets a mobile phone from the company, and if there were an app they would not have an excuse to say I cannot use it." (External Customer, Training Inc.)

"To evaluate, it is necessary to also develop the digital service innovation at the web level. This would certainly improve usage." (External Customer, Technology Inc.)

"An opportunity for the future could be to make it even more efficient, by adding another search feature that sorts instructions." (External Customer, Training Inc.)

"An opportunity for the future could be to be even more efficient by tracing the crates to all stores and back." (External Customer, Packaging Inc.)

Another technical improvement that a customer mentioned of Bakery Inc. is that they would like to have more detailed information. They can just see a small part of the data that Bakery Inc. is collecting. The customer of Bakery Inc. mentioned:

"The company has eyes everywhere in the machines, but the information we receive as a customer is very small. We only get a glimpse of what they can see. I would like to see more." (External Customer, Bakery Inc.)

At the congress we visited, we noticed that the customers of Training Inc. all saw technical developments as future opportunities. Some potential customers we talked to said that the digital service innovation could be interesting for them as well, but that there were still some missing features that they were looking for.

Besides technical opportunities in the future customers mention the importance of effective communication, particularly in larger organizations. Customers of Training Inc. and Bakery Inc. mentioned the following:

"Communication is difficult in larger companies. Sometimes smaller companies get acquired by big companies and then the focus on customers disappears. This smaller company is very good at customer contact compared to other bigger parties." (External Customer, Training Inc.)

"Fast and simple, that is what people want, they are just lazy and want quick and easy. And that was also reflected in contact with the company. That is a unique selling point."(External Customer, Training Inc.)

"An opportunity could be to communicate in a more practical way to the customer. With trends, schemes, graphs, etc." (External Customer, Bakery Inc.)

We also observed during an annual congress that customers value customer-centricity. At this congress the company let potential customers be convinced by their customers, which was interesting to see. In this way, they could ask all their questions to other customers who experience something similar. Customers and potential customers said during informal conversations that they valued this way of working. We also watched a theatre session of a customer in which this customer convinced potential customers to use a certain digital service innovation, which resulted in many positive reactions from participants of this theatre session. This fast informal contact with customers and customer-centricity is a unique selling point according to the customers. Customers of Training Inc. at this congress mentioned that this is something unique compared to bigger companies and they hope that the company will not lose this in the future as they grow bigger.

In summary, customers initially face some challenges while using digital service innovations. However, after practicing and using it more the experience improves. Customers experience digital service innovations as simple and convenient after have used it for a while. Customers value companies that prioritize customer feedback and suggestions for future opportunities for improvement, including technical improvements and better communication. Aligning digital service innovations with customer needs requires ongoing adaptation and responsiveness.

### 4.3 Interpretation of the Perspectives

After exploring the managers' perspectives and customers' perspectives it is important to interpret these perspectives together. Three dimensions were found within both the managers' perspectives and customers' perspectives. These dimensions are customer journey phases, feedback adaptation, and future opportunities.

The managers' perspectives included various opinions within the dimension of customer journey phases. These various opinions about the customer experience were different from the opinions of the customers within the dimension of customer journey phases. Although there also were some similarities between the two perspectives, customers mostly mention that the digital service innovation is easy and convenient. However, managers mention it is easy to use, reliable and efficient, overwhelming and difficult, and need of encouragement. Some even say they do not even have an opinion at all. The managers' perspectives are divergent compared to the customers' perspectives on customer journey phases. This has an immediate impact on digital service innovations because it highlights a potential disconnect between the managers and the customers, which is already happening within the company and their relationships with the customers. It could have an high impact on digital service innovations if customers have other perspectives than managers on this dimension.

The customers' perspectives on feedback adaptation are overall positive and customers are satisfied with the way their feedback is implemented. However, one manager mentioned the need for a feedback form. Managers agree that there should be a feedback system or form in the future and mention that they do take feedback seriously. Managers also acknowledge that there are some challenges with feedback implementation because of a discrepancy between the customers' opinions and the managers' opinions on feedback. Overall, the managers' perspectives are convergent with the customers' perspectives on feedback adaptation since both sides mention feedback implementation positively. Feedback adaptation has a future impact on digital service innovation if the managers' would for example implement a feedback system or form. However, it would have a lower impact on digital service innovations, since customers react overall positively and are satisfied with the way their feedback is implemented today.

Managers and customers both acknowledge future opportunities for digital service innovations. A new technical function is a future opportunity that customers and managers mention. However, managers also mention future opportunities like more support to improve the customer experience. They also mention that customer centricity and bringing their customers together is an opportunity for the future. Customers mention other opportunities like communication, efficiency, and the availability of information. These are different opportunities compared to the managers' perspectives. Therefore, managers' perspectives can be seen as divergent compared to the customers' perspectives on future opportunities. This divergence could have a future impact on digital service innovations. This impact on digital service innovation can be considered high since there is a discrepancy in priorities in the future regarding digital service innovations.

With the interpretations of the perspectives, a framework has been developed, in which the three dimensions are placed. The framework can be found in Figure 4.

# **5. DISCUSSION**

The findings of the research explore the managers' perspective of the customer's lived experience with digital B2B service innovations and the customers' perspectives on this matter. This paper aims to answer the following question: "To what extent are managers' perceptions of the customers' lived experience with digital B2B service innovations aligned or misaligned with the customers' perspectives on this matter?". Based on the findings there are both alignments and misalignments between the two perspectives. Both managers and customers acknowledge the initial challenges regarding digital service innovations while using them for the first time. Customers say that it takes time and practice to understand digital service innovations, which aligns with managers' opinions that customer experiences improve with more usage. Customers also experience digital service innovations as convenient and simple when they have used them for a longer period. However, managers have various opinions about the customer experience in general. Some say digital service innovations are easy and simple, others say they can be overwhelming and some even say that they have no clue what customers experience. These various opinions about customer experience among managers cause some misalignments with customers' perspectives. Focusing on feedback implementation both managers and customers acknowledge the challenges involved in prioritizing and implementing feedback effectively. While managers must balance customer expectations with the company's objectives, customers may feel frustrated if they see no progress or responsiveness from companies in implementing their feedback. Finally, managers see future opportunities with customer needs through tools and guidance for digital service innovations suggesting a shift towards customer-centricity and predictive maintenance

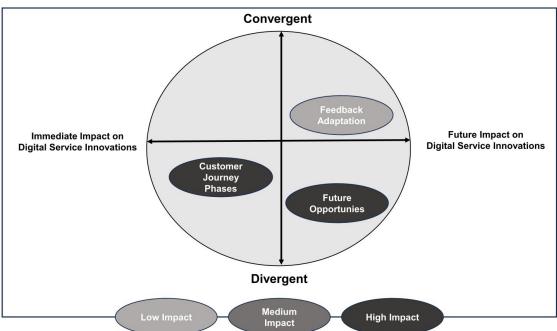


Figure 4: Framework of aggregate dimensions between managers' perspectives and customers' perspectives

Intensity of Impact on Digital Service Innovations

options. However, customers focus on practical improvements that improve efficiency and effective communications, which reveals a potential misalignment in priorities for the future. With these findings, a framework is developed (Figure 4).

# **5.1 Theoretical Contributions**

In today's world technology is increasingly important. Technology is a fundamental facilitator of service innovation as well (Troilo et al., 2017). This results in an increase in the implementation of digital service innovations within organizations. This study investigates the gap between managers' and customers' perspectives on customer experience in digital B2B service innovations. Previous research suggests that managers often misjudge customers' views on products and services (Nasution and Movando, 2008; Hult et al., 2017), especially in customer experience in B2B situations (Witell et al., 2020). This study suggests that there are misalignments between the customers' perspectives and managers' perspectives on customer experience, which aligns with Nasution and Movando (2008). However, this study also suggests some alignments, such as the improvement in customer experience when the customer has used the digital service innovation over a longer time.

The results contribute to existing literature in multiple ways. First, this research contributes to the literature gap between B2C and B2B literature. There is scarce research on digital service innovations and customer experience in B2B compared to B2C. Future research is needed on customer experience in a B2B context (Witell et al., 2020). By focusing on digital B2B service innovations and customer experiences, this study narrows that gap. It reveals that customers in B2B often perceive these innovations as simple and convenient, while managers have different opinions about this topic. These findings add depth to the existing literature by detailing how digital service innovations are experienced differently in B2B environments compared to B2C.

Second, this study contributes to customer experience in digital service innovations by combining these two topics, which may yield new insights to foster digital service innovation strategies. In today's world, the growing presence of digitalization has led to an increase in touchpoints (Hallikainen et al., 2019). While this growing presence of digitalization brings new possibilities, it also increases complexity (Lemon & Verhoef, 2016). This study provides valuable insights into navigating this complexity by identifying specific dimensions of customer experience: customer journey phases, feedback adaptation, and future opportunities. For instance, this study identifies specific future opportunities for technical improvement that enhance customer experience, such as an app and predictive maintenance. These insights are valuable for developing new strategies that can effectively implement digital service innovations while reducing complexity.

Finally, this study contributes to alignment or misalignment between managers' perspectives and customers' perspectives with digital service innovations. By focusing on this topic, this study uncovers valuable insights regarding potential misalignment between managers' perspectives and customers' perspectives (Nasution and Mavondo, 2008). Furthermore, the connection between managers' viewpoints and those of the customers remains largely unexplored in the existing literature (Hult et al., 2017). This study study identifies key areas of misalignments, such as differing perceptions of the customer experience and future opportunities of digital service innovations. It also highlights areas of alignment, such as improved customer experience with extended use of digital service innovations and the difficulty in the beginning while using digital service innovations. This focus on misalignments and alignments provides an understanding of managerial challenges in digital service innovation. Moreover, it offers practical implications by recognizing this gap in perceptions. Understanding this alignment or misalignment between managerial perceptions and customer experiences can offer strategic advantages for companies to enhance their digital service innovations.

By interpreting the perspectives of both managers and customers and developing a framework based on the dimensions of customer journey phases, future opportunities, and feedback adaptation, this study offers a comprehensive understanding of the gaps and convergences in customer experience in digital B2B service innovations. This framework, presented in Figure 4, serves as a tool that highlights the critical areas where managerial perceptions diverge from customer experiences, providing a roadmap for more aligned and effective digital service innovations.

# **5.2 Managerial Implications**

The findings of this research include multiple managerial implications for companies' operations with digital B2B service innovations. Firstly, it emphasizes that is necessary for managers to recognize and address the gap between their perceptions and the actual experiences of customers. While there are some alignments, this study has found misalignments, particularly in the overall customer experience and future opportunities. This suggests a need for managers to adopt a more customer-centric approach, actively trying to understand what customers experience to address these misalignments. To implement this, managers can develop mechanisms for continuous customer feedback, such as feedback forms or surveys and ensure that this feedback is implemented. Some managers also mentioned that they want to implement a feedback system in the future, but that it is not there yet. Another way to implement customer-centricity within the companies could be by organizing training sessions or workshops for employees to better understand the importance of customer-centricity and how their roles contribute to it.

Secondly, the results highlight the importance of prioritizing feedback. Both managers and customers see challenges with this process, resulting in the need for companies to develop an efficient system to collect, prioritize, and act upon customer feedback. If companies fail to do this, it may result in frustration on the customer side, which could lead to decreasing success of digital service innovations. To prioritize feedback management, managers can invest in feedback management systems that collect and adjust feedback efficiently. Managers could also assign employees or teams that are responsible for monitoring and responding to customer feedback, ensuring that customer voices are heard and acted upon promptly. Regular analysis of feedback to get valuable insights and communication of these insights to relevant departments can ensure continuous improvement.

Furthermore, the research found that managers see future opportunities to enhance customer experience with predictive maintenance options and tools. This study sees potential misalignments in priorities on future opportunities for enhancing customer experience. Customers suggest practical improvements that enhance efficiency and communication. Managers should try to balance these two perspectives, by offering predictive maintenance options while also addressing customers' needs to ensure improvements in effectiveness and communication. To balance future opportunities, managers can organize collaboration meetings between departments such as marketing, sales, product development, and customer service to align priorities and strategies for future opportunities. Managers could also communicate more transparently with customers about future changes and opportunities, collecting their input and feedback through the development process to ensure alignment with customers' needs and expectations. Launching pilot programs for new features, such as predictive maintenance tools, and gathering customer feedback can ensure that new innovations meet customer expectations and address practical concerns.

By implementing these strategies, managers can bridge the gap between their perceptions and customers' actual experiences, prioritize feedback effectively, and balance future opportunities to enhance the overall success of digital B2B service innovations.

#### **5.3 Limitations and Future Research**

This study explores the alignments and misalignments between managerial perceptions and customer perceptions of the customer's lived experience in digital B2B service innovations. While the goal of this research is to discover insights into this topic, it's important to recognize the potential limitations that could impact the results of this research.

First, this research is focused on five different B2B companies. Because these specific companies contributed to this study, the findings of this multi-case study can only be applied to a certain extent within similar organizations or markets.

Secondly, companies might select the customers first with whom the company has the best relationship. The involvement of companies with already existing strong relationships with some customers might introduce selection bias, potentially limiting the representation of a diverse range of experiences within the B2B sector.

Thirdly, the study includes the challenge of dealing with diverse contact persons at the customer end. This

variability in customer contact persons may lead to inconsistencies or variations in the perspectives of customers.

Finally, despite our efforts to explore the "lived experience" of customers, our data set is relatively small, which means that it was necessary to rely mostly on interviews and conversations to capture the "lived experience" of customers.

These limitations could lead to future research that could consider different areas of further exploration. For example, research could be done across a larger sample of B2B companies. This could extend the findings of this study. Additionally, tracking managerial perceptions and customer perceptions over a longer period could offer deeper insights into potential alignment or misalignment in the customer's lived experience with digital B2B service innovations. Also focusing on underlying factors such as communication strategies, customer segmentation or types of markets could provide additional valuable insights into customer experience in the B2B context.

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# 9. APPENDIX

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Appendix 1: Example of screen with customer information of Bakery Inc.

Appendix 2: Example of screen with customer information of Bakery Inc.

