Entrepreneurship and Innovation Management:

"How may online retail companies use multiexperience to deliver better customer experience?"

From the perspective of marketing and strategy theory facing new technologies

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Topic	**Building competitive advantage through improved customer experience using theoretical frameworks from marketing, strategy and experience design theory.**
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1 Abstract

To stay competitive in a rapidly moving and increasingly competitive online retail market, any competitive edge is valuable. Customer experience (CX) is essential to building relationships that keep customers coming back and build a competitive edge for online retailers (Rose et al., 2011).

The aim of this study was to address the question of how retail companies may use multiexperience (MX), a new holistic view of cross-device, and cross-modality experience (Borges, 2021; Gnewuch et al., 2022), to deliver better customer experience in their online stores. Through this the goal was to contribute to the marketing and strategy literature in the intersection with customer experience design and the use of MX design while also providing practical insights for entrepreneurs and management of firms seeking to improve their delivered customer experience.

The study was performed in the shape of a case study of a leading firm in the highly competitive Norwegian sports and outdoors retail sector, to learn from their business perspective and how they think of, and work with customer experience, and to see specifically how multiexperience (MX) (Borges, 2021; Gnewuch et al., 2022) design can help improve customer experience for online retail businesses. Semi-structured interviews were applied to map the management views of value creation, customer experience and new technologies using Service-Dominant Logic (SDL) and Resource-Based View as a framework for analysis.

The results reveal the case company's orientation to a service-oriented value creation logic and reflects focused efforts on delivering excellent customer experience through their online store and related service structure. The study underlines the dynamic nature of competitive advantage in the online retail sector and the need for continual improvements and implementations to thrive, but not necessarily to do well. The study concludes that the case company applies much of the literature on the topic of customer experience and MX, and offers valuable insights into the role of MX in improving customer experience and its potential in generating sustainable competitive advantage.

2 Acknowledgements

This thesis marks the conclusion of my master's degree in Innovation and Entrepreneurship at the University of Oslo. The program has been demanding, but also very inspiring and rewarding. The studies have given me insight, knowledge and experience in the world of entrepreneurship and innovation management that will generate valuable returns in my future endeavors. This thesis has provided me with a deeper understanding of entrepreneurship and experience design in competitive online retail, specifically how online retail startups approach building competitive advantage through providing value to customers with experience design.

I extend great thanks to the case company Milrab AS and the representatives from its management, Lars A. G. Aglen, Marius Anthonisen and Vegard Sunde, who were willing to dedicate time to participate in this study through interviews despite their busy schedules. Without their generous contributions this would not have been possible.

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3 Introduction

The introduction chapter will cover the background for the topic ofstudy, the reasons why you, and others, should care about the study, its implications, as well as my personal motivation and the research question itself.

3.1 Background

Online retail is a fiercely competitive business that has developed and grown rapidly over the past decades. Clunky interfaces and systems that were hard to use, in addition to increased focus on the customer necessitated the study of Human Computer Interaction and User Experience Design (Rust, 1998). Today, consumers can use their favorite devices in a variety of ways to shop online thanks to advances in customer experience (CX) design based on the application, research and evolutionary selection through, for instance, AB testing (Bhat et al., 2020), but consumers continue to demand further convenience and ease. Over the past decades, delivering CX has become an essential part of building the crucial relationships with customers that keep them coming back (Rose et al., 2011).

For entrepreneurs selling products or services in modern digital markets, it is essential to understand the impact of strategic and operational decisions that create competitive advantage. For retail businesses, the experience factor of the business is the number one source of competitive advantage (Artusi et al., 2020). In this study, I aimed to explore value creation and the building of competitive advantage through experience design.

3.2 Reasons to care: Managers

With growth of over a hundred percent since 2015 alone in Europe, consumers have increasingly been shifting their shopping from physical stores to online, and the growth has been even greater in Norway than in Europe (Eurostat 2023, Appendix 10.1). This development has sparked a flurry of online stores from both new entrants and incumbents, with sporting and outdoors being the segment with the most online stores registered (Ehandel, 2014; Evensmo, 2014). The high amount of players in the market, many of whom are selling the same products to the same customers, leads to high competitive forces between rival retailers. Because of this, management of each of these must be acutely aware of how to deliver extra value for the customers in order to differentiate and stay competitive, drive loyalty and keep customers coming back (Afsar et al., 2013; Miranda Veloso et al., 2020; Shehata & Montash, 2020; Teresa et al., 2020).

There are many areas in which online retailers can obtain competitive advantages, but the point where they have the greatest power is direct interaction with the consumer. Most of this interaction happens through the digital platform which is their online store front. There has been much research into the design of these online stores and CX within it, but recently a new term has been coined and named a top

technology trend (*Gartner Top 10 Strategic Technology Trends for 2020*, n.d.). The trend is called multiexperience (MX), and forms the basis of seamless and native experiences across devices and ways of interacting with your brand. This new technology and strategic viewpoint offers opportunities of differentiating from competitors that are potentially too valuable to let be, and this study aims to investigate these claims.

3.3 Reasons to care: Academia

As competition continues to drive innovation in the online retail sector, new firms and incumbents must both implement new technology and knowledge to deliver the best possible experience as a means of gaining or maintaining a competitive edge. Academia must follow the frontiers of innovation. There is a transition underway from the well known omni-channel view, which focuses on a series of channels where businesses appear coherent, to a more holistic and comprehensive multiexperience view that emphasizes a seamless flow between channels, devices and ways of interacting (see Chapter 4.1 Multiexperience (MX)). MX is found within a larger more holistic framework of Total Experience, a term that encompasses all elements of experience and refers to its four components. User experience (UX), customer experience (CX), multiexperience (MX) and employee experience (EX). According to professor and total experience designer Ole Goethe, the framework of Total Experience and particularly the sub-topic of MX is currently emerging (Gnewuch et al., 2022; Pornpongtechavanich et al., 2023; Смирнова, 2022) and is expected to continue to be a hot topic for academia from 2023 onwards. As a consequence, the academic field of MX is under-researched and contains gaps in knowledge. Hence, the topic is one that requires more study.

As a consequence of its recent introduction there is limited scientific debate on the topic yet and only a few articles handle the topic. Secondly, the combination of MX and the tried and tested framework of Service-Dominant Logic (SDL) (Vargo & Lusch, 2004), with its more recent additions (Vargo & Lusch, 2017), has not been done before and shows that the study can contribute to cover gaps in knowledge.

This all emphasizes the academic relevance of studying these concepts and their intersections, and this work will serve as both a theoretical advancement in the literature of SDL, customer experience and particularly contributions to MX.

3.4 Personal motivation

While the topic of online retail, value creation and CX design are widely discussed and important topics both in academia and the companies themselves, the motivation for this study stems from my personal desire and aspiration to provide value to customers and clients. One of the ways this is done is by designing and implementing exceptional CX, for instance through smooth and well functioning shopping and service delivery experiences. In order to learn and adapt I found it intriguing to use this

study to dive into the theory of a relatively unfamiliar topic (MX, sporting goods) within this familiar realm (ecommerce, CX), and to study and understand its applications and potential in a new setting.

Exceptional service delivery is a tremendous competitive advantage and for customers and companies alike it is often difficult to explain what exactly makes the experience so good, and often we are left with the words “well.. It just works...”. A major part of achieving this in the current digital, multi-device, multichannel marketplace is to design experiences with the customer’s needs and wants in mind to ensure that everything “just works”. Through this study, we can apply an academic lens onto how the managers of one leader of their industry approach making their online sales channels “just work” and how they may improve.

3.5 Research question

We are trying to find what role MX plays in the online retail sector in the present and future, and how it can help retail companies develop better CX.

"How may online retail companies use multiexperience to deliver better customer experience?”

Sub-questions:

- How does the company see the creation of value?
- How does the company measure their customer experience success?
- How is the company using MX elements today?
- How can MX elements add value to the customer’ experience?

4 Literature review

To build an understanding of the topic of muliexperience and the related theories, it was necessary to perform a literature review. This chapter will describe this process and the findings. The first phase was an unstructured literature review, then came a structured literature review, which was followed by the literature analysis, but throughout the study additional literature searches and reviews were made to build understanding of related topics as well.

Unstructured literature review: The initial phases of investigating the topic of online CX in a broad setting in order to establish an overview of the popular opinion as well as academic literature reviews on the topic. The phase included broad searches through various search engines (i.e. Google search, Google Scholar, Oria etc.). A part of discovering vocabulary and popular opinion was looking at opinion providers in the field such as Gartner, McKinsey and several others. Always making sure to gauge the sources as information was collected, however the main interest was to gather keywords and get an overview of the topics at hand. Through this analysis a selection of topics and keywords were identified (see table 1) and I was able to source a broad selection of published texts from popular and academic sources within each of the topics of interest within my initial desired topic of CX design.

Table 1: Overview of Topics and Keywords from unstructured literature review

Topic	Keywords
Design and Marketing	Omnichannel retailing Customer Journey Mapping Mobile Shopping Experience Augmented Reality in Retail User Experience Design Customer Centric Design Design thinking Multiexperience Cross-Platform Integration Multiexperience Development Platforms Ease of Use / Joy of Use
Entrepreneurship and innovation	Lean startup Design thinking Business model canvas Disruptive Innovation Recombinant innovation Resource-Based View
Marketing	Sales Funnel Customer Journey

	Customer Loyalty Customer Relationship Management Customer Retention
Theoretical frameworks	Technology Acceptance Model Service Dominant Logic Resource-Based View / VRIO Game theory Innovation diffusion theory

Source: Own work.

Structured literature review: Based on the topics and keywords listed in Table 1, a more detailed review was carried out, where they were cross-checked with each other across databases and journals such as HCI, ACM, Harvard Business Review, International Journal of Research in Marketing and many more. Countless searches through Oria were made. Experts in the fields of MX and Entrepreneurship were also consulted, and backward reference search was naturally also performed to find further pieces of relevant literature.

Literature analysis: Relevant pieces of literature were collected, analyzed with the purpose of shedding light on the research topic and developing a framework of theory on which to build the qualitative research plan. Literature was systematized in a literature and reference management software (Paperpile).

4.1 Multiexperience (MX)

MX is a concept that is currently taking shape, but at its core refers to the idea of creating immersive and engaging experiences for users that go beyond the traditional boundaries of a single device or platform. In the context of online sales of products and services, MX can be used to create a seamless and enjoyable shopping experience for customers across a wide range of devices and platforms, including smartphones, tablets, desktop computers, and even virtual and augmented reality systems (Gnewuch et al., 2022). This can involve things like providing a consistent and intuitive user interface across all devices, using high-quality visuals and other multimedia content to showcase products, and incorporating features such as real-time customer support and personalized recommendations to help customers find the products they're looking for. Ultimately, the goal of MX in the context of online retail is to make the shopping experience as smooth, engaging, and enjoyable as possible, which can contribute to improved customer experience, customer satisfaction and drive sales.

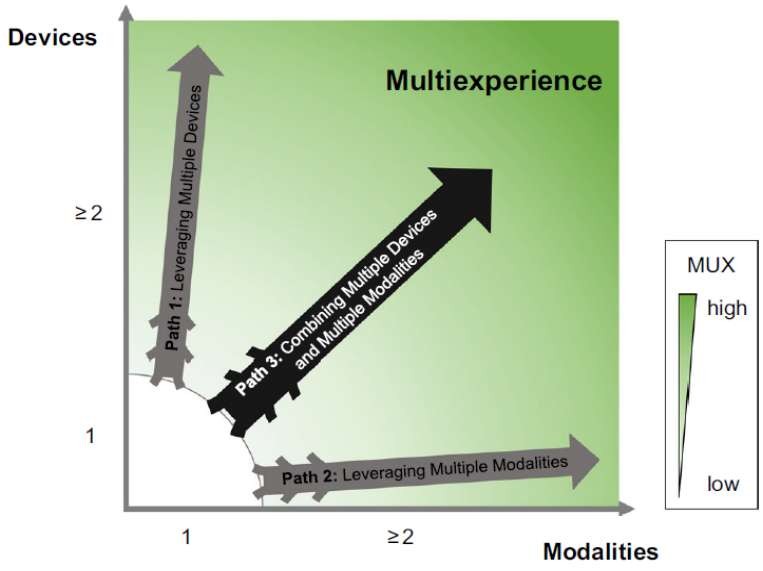
MX was named one of the trends of the year for 2020, (*Top 10 Strategic Technology Trends for 2020: Multiexperience*, n.d.) and encompasses the transition from the traditional inside-out, channel-focused mentality towards a congruent and optimal CX across all touchpoints (Borges, 2021). This includes how customers interact with the business across channels like brick-and-mortar (physical) locations, apps or websites as well as devices such as TV, PCs, smartphones and tablets. In essence, a good MX design

awards the customer a natural and native experience where the customer can interact with the business through the touchpoint or modality that is the most convenient to them at any given moment (Borges, 2021).

MX has not yet academically been placed within a framework of understanding in context with other disciplines of experience, but according to design professor and Total Experience design expert Ole Goethe, the research in progress due for publishing in 2023 onwards place MX within the realm of Total Experience (TX). This is also further supported by the observed consensus of popular professional writings on the topic (Marsh, 2022; *The Total Experience Strategy for Better Retail Digital Interactions*, n.d., *Total Experience*, 2021, *What Is Total Experience*, 2022). TX is, according to these sources, a term for the comprehensive and holistic experience, and can further be divided into four topics. The topics of user experience (UX), customer experience (CX), multiexperience (MX) and employee experience (EX).

While the concept of UX and CX to a large extent have become household terms, fewer are familiar with MX and employee experience. In today's society, interaction happens on a large variety of devices (e.g. phone, computer, watch, tv), in a variety of ways of interacting through inputs and outputs known as modalities (e.g. keyboard, touch, sound, speech), and this is the core of MX design (Gnewuch et al., 2022). Gnewuch et al (Gnewuch et al., 2022) propose a framework of 3 paths for MX that explores leveraging multiple devices, multiple modalities or a combination of both (See Figure 1).

Figure 1: Conceptual framework of guiding paths toward MX



Source: (Gnewuch et al., 2022)

4.1.1 Multiexperience vs Omnichannel

Over the past century businesses have transitioned from a traditional single channel business model where customers interact with the business in a single way or channel, for instance through a brick-and-mortar location to a multi channel model (Cao, 2014) where customer interact through several channels. Multichannel models opened for customers to interact through various channels like websites, social media and a physical store. Initially, these channels were often managed independently, resulting in poor CX (Zhang et al., 2010). Cue the Omnichannel strategy, coming in as the next evolution where all these new channels were connected so that the customer could switch between them and keep their information from one to the next (Mishra et al., 2021). This unified the sales and marketing experience and has by many been seen as the holy grail of digital customer journey design, particularly in popular literature. However, the concept of omnichannel has not quite revolutionized the experience as much as previously assumed. Most organizations have not yet delivered on its promise of a unified CX (Wong et al., 2020), and there is a need for a new step in the direction of customer-centered experience design. See figure below symbolizing the development from single channel, through multichannel and omnichannel until the current paradigm of MX.

Figure 2: Graphical representation of the evolution from single channel to Multiexperience.

Source: Own work.

One of the reasons for the underwhelming performance of the omnichannel strategy could be that it is still an inside-out mentality focused on the company, technology and channels, instead of the customer and how people interact with companies (Amar et al., 2020). “Instead of chasing channels, application leaders should embrace MX for great CX by addressing new digital touchpoints and interaction modalities.” (Wong et al., 2020). MX is the current strategy of applying a customer-based journey-centric mindset with an outside-in dialogue priority, see comparison in Table 2.

Table 2: Comparison of Multichannel, Omnichannel and Multiexperience

	Multichannel	Omnichannel	Multiexperience
Mindset	Device-centric	Channel-centric	Journey-centric
Dialogue Priority	Inside-out	Inside-out	Outside-in
Channel/Touchpoints Interconnectedness	Multiple/Disconnected	Multiple/Connected	Multiple/Consistent
Main Driver	Increase reach	Increase conversion/sales	Reduce customer Effort and boost adoption
Interaction Modalities	Keyboard Mouse Touch	Keyboard Mouse Touch	Keyboard Mouse Touch Pointing device Gestures/Motion Chat Voice Vision Others
User "Job" Context preserved inside	Same-channel	Across channels	Across channels and interaction modalities

Source: (Borges, 2021)

4.1.2 Multiexperience in practice

Multi- and cross-device computing has become a fundamental part of human-computer interaction research. Current state of system design includes the introduction of modern modalities of speech and mid-air hand gestures in addition to the traditional modalities of keyboard and touch. As an example, Apple's Siri can be controlled via speech (e.g., setting an alarm or creating a to-do list), which previously had to be done via traditional inputs like keystrokes or touching a screen (Gnewuch et al., 2022). Balancing the strengths and weaknesses of each device by developing a deep understanding of technology characteristics (e.g., screen size) and task characteristics (e.g. complexity) is necessary (Gnewuch et al., 2022).

Cross-device research is exploring new ways for mobile, wearable, and tangible devices to interact with each other and with humans. With the emergence of new device form factors, materials, mixed-reality

technology, IoT devices, and shape-changing interfaces, there is a renewed opportunity to rethink the boundaries, purposes, and scope of devices (Brudy et al., 2019).

In recent years cross-device capabilities have continued to appear in commercial products, while several studies have shown controversial findings about device utilization. One example showed that Apple's Continuity experienced issues with users having challenges in understanding its features (Raptis et al., 2016).

Companies have approached MX through developing apps to compliment existing desktop applications or websites, but in many cases this only included migrating functionality, content, and design from already existing applications to mobile devices without accounting for the new device's specific characteristics, e.g. smaller screens and limited keyboard input (Levin, 2014). Nowadays, companies are migrating experiences into AR/VR without exploiting the inherent advantages of the technology, namely not being bound by characteristics of physical reality (Berkemeier et al., 2019).

Paths for entering MX can vary wildly. One company might approach MX by adding an app to run parallel to their website, and a different company may enter MX by adding speech interaction capabilities to their ERP system (Gnewuch et al., 2022) (Gnewuch et al., 2022).

AR and VR technology allows ecommerce businesses to display their products so that customers can evaluate and interact with the products in real scale (Peukert et al., 2019), e.g. Ikea AR furniture viewer (Ozturkcan, 2021).

Replicating functionality is not enough, and playing on the strength of each modality is key to making a multimodal system adoptable by users. Thorough understanding of each modality's strength and weaknesses is necessary to achieve higher MX and to make sure systems are used the way they were designed. Choosing modalities wisely is essential, as having many different devices and various modalities for each quickly becomes complex and unmanageable (Gnewuch et al., 2022).

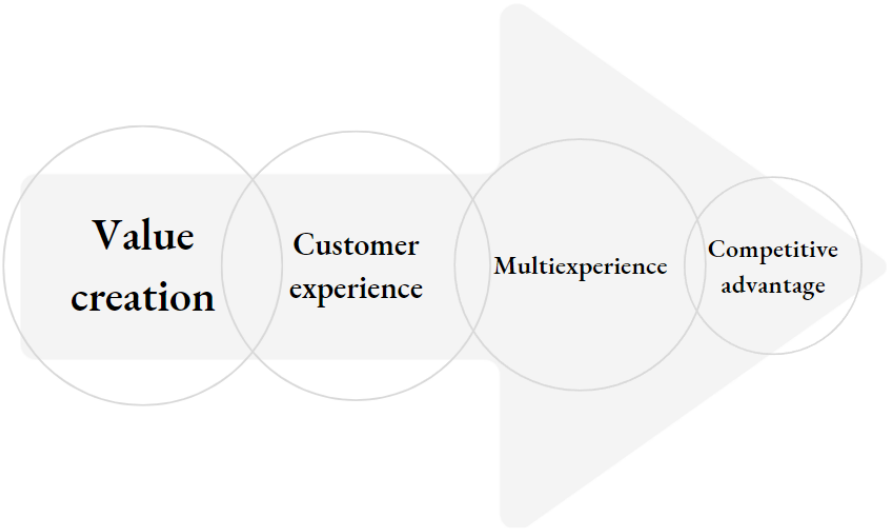
4.2 Building a theoretical framework

To build a framework from which to analyze the case company and analyze potential in this new domain, we need to understand how the company creates value and how it works on building competitive advantage and how it approaches improving its service offering. While we can see from the review on MX, theres is a desire to separate MX and CX, but they remain interconnected in a way which good MX design directly influences CX, which makes it necessary for us to also have a deep understanding of CX and applying this to the understanding of how MX can contribute to competitive advantage.

Through a thorough review of relevant concepts the concepts related to value creation, competitive advantage and CX are presented below. In essence the literature review shows that competitive advantage is achieved by delivering more value than competitors, and that for retail businesses CX is the main value

creation aspect and differentiator. Within CX, MX can play a significant part in making unique value propositions to customers, thus leading to a gained competitive advantage.

Figure 3: Graphical representation of topics addressed in the literature review and how they connect value creation and competitive advantage.



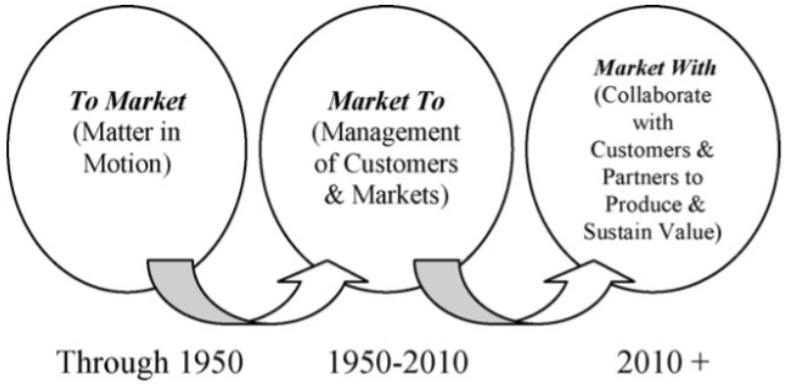
Source: Own work.

4.3 Value creation

Creating value is essential for the survival of any venture, but the concept of where and how value is created has evolved over time. Traditionally, the focus was on the production of goods, and the value was perceived to be defined by commodities and labor, specifically the output of production (Smith & Cannan, 1904). Then, with the rise of the service industry and service research in the later half of the 20th century, value was largely theorized to be generated during the delivery and consumption of services, and the value was determined by the market (Levitt, 1984). This led to a shift in the view of value creation from product to customer (Drucker, 1954). Over the past decades there has continued to be a shift in the perception of where value is created and a theoretical framework known as Service-Dominant Logic (SDL) has evolved (Vargo & Lusch, 2004, 2008, 2017).

This means consumers are no longer considered to be purchasing goods for their intrinsic value, but rather the services they can provide or enable (Vargo & Lusch, 2004). Hence the role of businesses shift from manufacturing, selling and delivering, to facilitating value co-creation where both parties participate. This signifies the shift from a traditional product-focused marketing towards a more customer-centric and service-oriented perspective.

Figure 3: Overview of the development of marketing from the early 1990s until today.



Source: (Lusch et al., 2007)

4.4 Service-Dominant Logic (SDL)

The core of SDL consists of the assumption that all economies are service economies and service is the basis of all exchange, which means that even physical products should be viewed as services (Vargo & Lusch, 2004). According to SDL value is co-created by multiple actors, always including the customer. It focuses on the exchange of intangibles like specialized skills, knowledge and processes (Vargo & Lusch, 2004). Furthermore it states that "marketing is a continuous social and economic process where operant resources are paramount". Operant resources are intangibles that create value such as skills or knowledge. The opposite are operand resources, which are typically static, physical or tangible resources that must be acted upon to produce value (Vargo & Lusch, 2004). For instance, a computer (operand resource) only becomes valuable once someone with the necessary knowledge (operant) uses it. This view is essential to the understanding of SDL

In addition an important aspect is that value is co-created by the customer and the provider, rather than being solely the responsibility of the provider. This means that customers are now seen as active participants in the co-creation of value, rather than passive recipients (Vargo & Lusch, 2004).

Considerable scholarly discourse has taken place since the proposal of a new dominant logic of marketing and value creation by Vargo and Lusch (Vargo & Lusch, 2004). The result of this is the condensing of 5 axioms for understanding value through SDL (Vargo & Lusch, 2017). The axioms form the theoretical foundation for the understanding the principles of SDL, and their implications for understanding value cocreation in economic exchange. See the overview of the axioms in table 3 below (Vargo & Lusch, 2017). The modern perception of value creation is much more customer-centric, emphasizing the importance of understanding and meeting the needs and preferences of the customer.

Table 3: The five axioms of Service-Dominant logic

#	Axiom
Axiom 1	Service is the fundamental basis of exchange
Axiom 2	Value is cocreated by multiple actors, always including the beneficiary
Axiom 3	All social and economic actors are resource integrators
Axiom 4	Value is always uniquely and phenomenologically determined by the beneficiary
Axiom 5	Value cocreation is coordinated through actor-generated institutions and institutional arrangements

Source: Reconstructed from (Vargo & Lusch, 2017)

For this particular study we will focus on axioms 1, 2 and 4, and apply them in the assessment of the case company, as axioms 3 and 5 relate to factors outside the scope of the research question referring to actors and systems outside the firm and their customers. While axioms 3 and 5 are still relevant for the holistic understanding of value creation and the market, we will here focus on those factors relating to the firm itself and its direct customers.

Axiom 1 states that "Service is the fundamental basis of exchange", meaning all economies are in fact service economies (Vargo & Lusch, 2017). This challenges the traditional view of goods-dominant logic which focuses on production and exchange of goods as the primary source of value (Vargo & Lusch, 2004). Instead, it focuses on the intangible, dynamic and relational aspects of co-creation through service exchange as a process instead of the exchange of units (Vargo & Lusch, 2008).

Axiom 2 suggests that "Value is co-created by multiple actors, always including the beneficiary", building upon the core principle of SDL and emphasizing the dynamic and collaborative nature of value creation. Value is created by the combination of the beneficiary's skills and resources and the service offering, as it combines into something greater than the sum of its parts, meaning how the customer utilizes a service determines the amount of value generated (Vargo & Lusch, 2008).

Axiom 4 "Value is always uniquely and phenomenologically determined by the beneficiary" signifies that value is uniquely subjective and context-dependent and individually experienced by the person, business or entity on the receiving end. This means businesses must form, develop and maintain relationships with customers, and focus on deep understanding of the customer and subsequently designing customer centric services (Vargo & Lusch, 2004). Valuation does not only depend on the beneficiary, but also its unique circumstances (Vargo & Lusch, 2017). For instance, the value of a meal delivery service may change depending on circumstances such as social settings, hunger level, available time and so on.

The SDL axioms carry significant implications for businesses, as it encourages a customer-centric approach to value creation, and therefore to how they conduct business in service of the customer. Businesses must recognize that value is determined by each customer, and the businesses must focus on individual customer preference and experience, rather than a one-size-fits-all strategy. The axioms represent the modern way of understanding value creation, the importance in viewing the customer as

part of the value generation process and the holistic social and economic perspective in co-creation of value. It underlines the importance of having a deep understanding of the customer in order to provide the most value.

Table 4: Summary of the 3 Axioms of SDL applied in this study.

	Axiom 1	Axiom 2	Axiom 4
Axiom	**Service is the fundamental basis of exchange**	**Value is co-created by multiple actors, always including the beneficiary**	**Value is always uniquely and phenomenologically determined by the beneficiary**
Significance for retail	**Retail is not solely about selling products, but more fundamentally about providing service**	**Value is created in collaboration with the customer, and also with partners like technology providers**	**The customer decides what has value, and deep understanding of customer experience, needs and contexts should guide investment decisions.**

Source: (Vargo & Lusch, 2017)

While being well-researched and highly applied in the field of marketing, SDL has also been met with criticism. There are differing views, not only including the traditional Goods-Dominant logic of which Vargo and Lusch initially proposed to move away from, but there are also contrarian views on the role of the customer. One of these views is that value is inherently embedded in products, which is a key aspect of G-D logic as well (Vargo & Lusch, 2004). Grönroos (Grönroos, 2011) suggests that the involvement of the customer may be of lesser importance than indicated by SDL, as some customers may prefer a more passive role. Another point of critique has been the lack of emphasis on the value generated by employees, as they are directly and indirectly involved in value generation, and more importantly that a poor application of involvement can lead to value co-destruction (Plé & Rubén, 2010). In addition it is perceived to lack clear guidelines for practical implementation and operationalization in business strategies. However, based on the general acceptance of the logic, and the minor implications of the differing views on the role of the customer I chose to apply SDL as proposed by Vargo and Lusch for this study (Lusch et al., 2007; Vargo & Lusch, 2004, 2008, 2017).

4.5 Competitive advantage

Understanding where to look for, how to acquire and how to achieve competitive advantage is an essential skill of management of any business, but particularly highly competitive online retail businesses.

According to SDL, competitive advantage is predominantly primarily attributed to operant (e.g human skills) resources, as opposed to operand resources (e.g raw materials), as knowledge and skills are applied to in problem-solving, the fulfillment of needs and producing a favorable CX (Vargo & Lusch, 2004). Operant resources are therefore the fundamental source of competitive advantage. (Vargo et al., 2008).

4.5.1 SWOT Analysis

The logic of Strengths, Weaknesses, Opportunities and Threats (SWOT) suggests that firms can obtain competitive advantage through using their internal strengths for neutralizing external threats and exploiting external opportunities, while avoiding areas in which they are weak (J. B. Barney, 1995; Helms & Nixon, 2010).

4.5.2 Resource-Based View (RBV)

A strategic management framework that is designed to complement the SWOT analysis and addresses competitive advantage is the Resource-Based View (RBV) (J. B. Barney, 1995). It emphasizes the importance of a firm's internal resources in building and sustaining competitive advantage (J. Barney, 1991; Wernerfelt, 1984). Firms possess tangible and intangible resources that together combine into a unique set of financial, physical, human and organizational assets that can be leveraged to create value and achieve competitive advantage (J. Barney, 1991; Galbreath, 2005; Wernerfelt, 1984). A central aspect of the theory is that the industry competitors have resource heterogeneity, which means that they differ in resources and capabilities (J. B. Barney, 1995).

Resources that bring competitive advantage must be valuable, rare and inimitable and the organization must be organized to exploit its resources and capabilities (VRIO) (J. Barney, 1991; J. B. Barney, 1995). These elements enable firms to develop and execute strategies that can differentiate them from the competition through sustainable competitive advantages.

4.5.3 Sources of competitive advantage in online retail

For online retail, some sources of competitive advantage are more important than others. For instance, the ability to price yourself competitively, having a smooth interface to browse and shop. Payment and shipping options are considered important differentiating features. CX has become the main source of retailers' sustainable competitive advantage (Artusi et al., 2020; Pei et al., 2020).

4.6 Customer experience (CX) in online retail

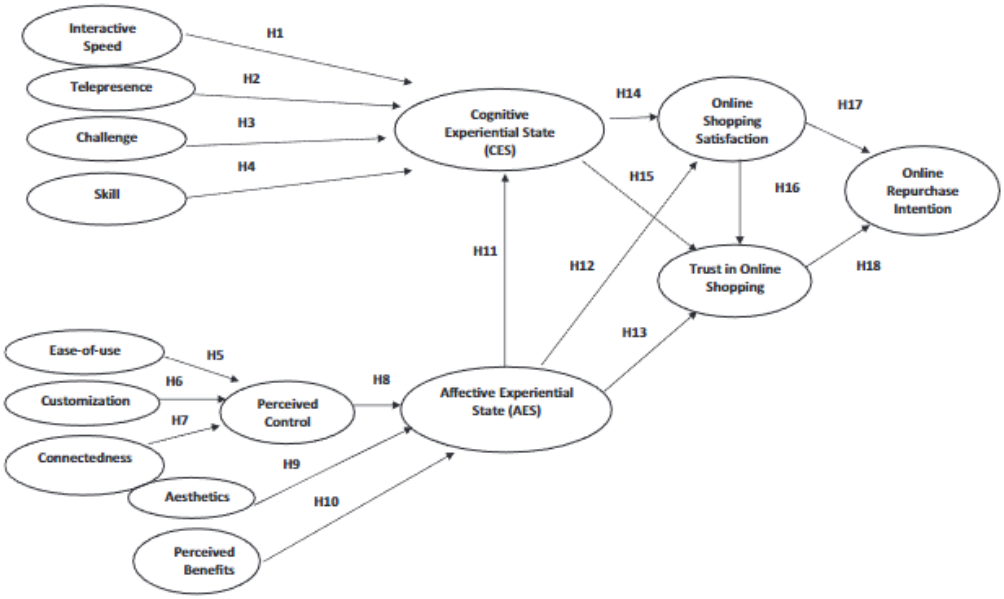
CX is a priority in businesses, even though it has not been like that forever. The great shift from a goods-dominant economy where value was closely related to the cost of production, to a service-dominant economy where value was determined by the market, prompted a great increase in service research, and this lead to focus on customer related performance measurements like customer satisfaction, customer retention and customer relationships even in traditional goods firms (Rust, 1998). This increased focus on the customer meant that the way the customer experiences dealing with a business must be designed to optimize for these factors. The importance of customer experience was further emphasized by Schmitt (Schmitt, 1999). Increasingly, creating superior CX has become an exclaimed goal of many brands, making its way into mission statements and strategy documents (Verhoef et al., 2009). Improving CX

tops the lists of business priorities (Accenture, 2015), and many large companies such as KPMG, Amazon and Google have chief CX officers (Lemon & Verhoef, 2016).

4.6.1 Online Customer Experience (OCE)

Published in the Journal of Retailing, a conceptual model for Online Customer Experience was proposed (see Fig), in an attempt to identify the antecedents and consequences (Rose et al., 2012). The paper suggests that factors that used to matter such as skill and technical ability of the user, and the speed of the website are no longer part of the overall judgment of experience (Rose et al., 2012). It relates elements of cognitive and affective experiential states into a measurement of OCE through a customers intention to purchase from the store again, called Online Repurchase Intention (Rose et al., 2012).

Figure 4: Conceptual model of online CX



Source: (Rose et al., 2012)

Their study showed that while a high degree of emphasis in businesses still was placed on visual design, graphical features and technical functionality, these are of less importance to the customer. For customers, control and empowerment were more important factors. The study found that e-retailers have three domains of control and how they may enhance OCE (see Table 5). It shows how ease-of-use, customization and interactions between customers are the areas within customer emphasis and business influence that overlap and that firms can have a positive impact on experiences deemed important by customers (Rose et al., 2012).

Table 5 Options to influence Online Customer Experience

	Ease-of-Use	Customization	Web 2.0
Description	*"Overly complex navigation and information overload disrupts the emotional state and likelyhood of a repeat purchase. "*	*"The ability to customize one's own space will similarly build a sense of personal control."*	*"Functionality that enables C2C interaction."*
Significance for retail	*"Sites that easily communicate product or service information in a way that fits with the customer's search process will enhance feelings of confidence and calm."*	*"Ease-of-use and customization work together in enhancing the experience. This can be equated to the way in which shoppers form their own rituals and routines when shop- ping in a traditional store setting"*	*"Customers develop their sense of relationship with a retailer through identification with others. This facility should be encouraged by e-retailers since it empowers customers by building feelings of confidence and control."*

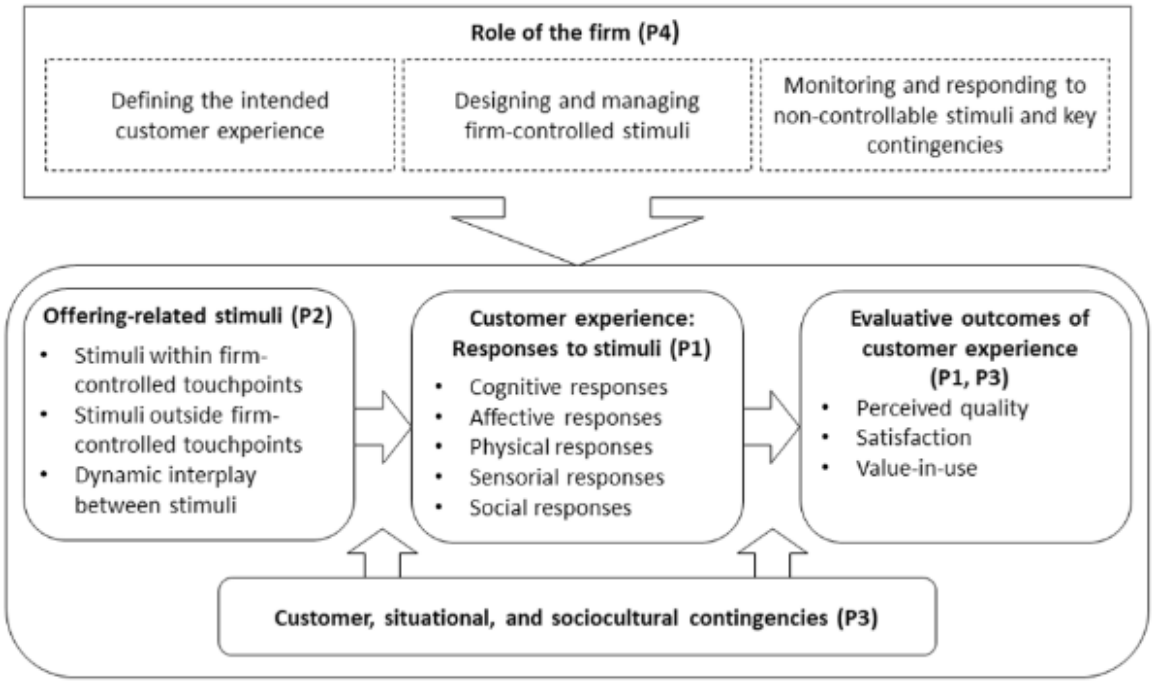
Souce: Based on quotes from (Rose et al., 2012)

4.6.2 Defining customer experience

Much has happened in the decade that has passed, the main points still stand, but there are still debates ongoing about the definition of CX. There are two predominant views: one suggests CX is a response to an offering (Meyer & Schwager, 2007) or an assessment of the quality of an offering (Kumar et al., 2014). In addition, there is disagreement whether experience is a characteristic of the product or the customer's response to a product, as the traditional interpretive tradition that states experience is a subjective perception by an individual (Addis & Holbrook, 2001).

The definition of CX that will be used in this study is the one suggested by Becker and Jaakkola (Becker & Jaakkola, 2020) based on their thorough review of CX literature, which is that CX is "non-deliberate, spontaneous responses and reactions to particular stimuli". This means that experience can not be controlled, as it is inherently up to each customer how they respond and react. Instead, an entity who wishes to impact CX must focus on the stimuli which can be applied to the customer (see Figure 5). The figure shows the big picture of CX, including what it is, what affects it, its key contingencies and the role of the businesses themselves (Becker & Jaakkola, 2020).

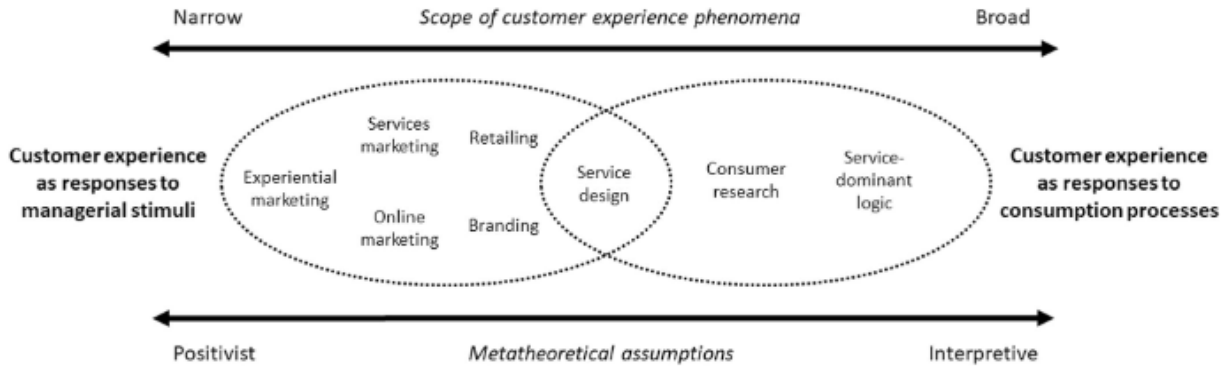
Figure 5: Conceptual framework for CX



Source: (Becker & Jaakkola, 2020)

Reviewing the literature on CX revealed a map of eight literature fields that contribute to the understanding of the field (see Figure 6). The main separations revolve around whether CX is responses to managerial stimuli or responses to consumption processes, and they each focus on different stimuli. Research in these fields focus on how CX can be affected by managing different types of stimuli, typically focusing on firm-controlled touchpoints (Becker & Jaakkola, 2020).

Figure 6: Theoretical map of CX



Source: (Becker & Jaakkola, 2020).

Because companies can not control the customers' responses, and by definition therefore the experiences of their customer, directly, they must instead focus on the stimuli they provide to provoke those responses (Becker & Jaakkola, 2020).

4.6.3 Tracking customer experience

In order to know how changes in stimuli are impacting those "non-deliberate, spontaneous responses and reactions", firms must record, measure and analyze these responses and reactions. Taking measurements of CX while taking into account its rich, multidimensional nature is no easy task and there is no academic consensus (Lemon & Verhoef, 2016). There have however been several attempts at creating scales to measure CX (Kuppelwieser & Klaus, 2021), which we will have a closer look at in the next few paragraphs. First let us take a quick look at the popular opinion on the matter. Measuring CX is popularly done by collecting data on perception (feelings, sentiment), interaction (actions, events), outcome (intent and results) metrics data (*How to Effectively Measure Customer Experience*, n.d.) collected using surveys, journey maps and a variety of other methods (Riserbato, 2022). Popular metrics include Customer Satisfaction Score (CSAT), Net Promoter Score (NPS), Customer Lifetime Value, Customer Churn Rate, Customer Retention Rate, Customer Support Ticket trends and so on (*How to Measure Customer Experience*, n.d.; Riserbato, 2022). Suggestions for improvements from popular literature include a framework of measurement that works in three levels, measuring the customer journey as a whole, phases of the journey and then finally the performance on each individual touchpoint (Parker, 2021).

In academia there is a different view of the proper way of approaching CX measurements. An interesting viewpoint is that the most popular measurement methods among practitioners were commented on with an interesting angle, particularly customer satisfaction surveys (CSAT) and its derivative, the Net Promoter Score (NPS). CSAT and NPS are considered proxy measurements of CS and have little to no link to consumer behavior (Imhof & Klaus, 2020). While the NPS provides ease of data collection and data manipulation, and is easily understood by executives it does not have particularly rich insights (Klaus & Maklan, 2013). Improvements can be made in the development of scales for measuring CX across the entire customer journey (Lemon & Verhoef, 2016). There is currently no academic consensus on how to measure CX (Kuppelwieser & Klaus, 2021).

Customer journeys in today's markets are multichannel, multitouch and new types of stimuli seem to be emerging every day (Becker & Jaakkola, 2020). This creates a complex, individualized customer journey consisting of a broad range of touchpoints outside and inside the firm's control that must be understood (Becker & Jaakkola, 2020). Kuppelwieser and Klaus (Kuppelwieser & Klaus, 2021) found 27 different scales for measuring CX, some specialized for certain settings such as a hospitality business setting for hotels and resorts, banking and health care services, and other more wide-ranging like Brand Experience (Brakus et al., 2009), online customer experience (Novak et al., 2000; Rose et al., 2012) among others (Kuppelwieser & Klaus, 2021). In common for them all was an inability to at the same time be holistic,

wide-ranging and easy to use (Kuppelwieser & Klaus, 2021). The current scales of measurement in CX are not as well developed as measures in other domains, such as service quality (SERVQUAL) and market orientation (MARKOR) (Lemon & Verhoef, 2016). Klaus and Maklan proposed the customer experience quality (EXQ) scale that, while more complex and cost-intensive in terms of data collection than NPS, supplies more insights (Klaus & Maklan, 2013). Out of the 27 scales collected by Kuppelwieser and Klaus, see appendix (10.3) for a table containing an extract of those deemed most relevant for online retail for future reference as potential in-use scales for the case business. For more CX scales for other settings and industries, see (Kuppelwieser & Klaus, 2021). Google scholar count is not updated from Kuppelwieser and Klaus' 2021 numbers. As you may notice, the scales proposed does not include popular metrics like service quality, customer satisfaction or the Net-Promoter-Score, and this is likely linked to the previous observation that they are considered proxy measurements of CX and have little to no link to consumer behavior (Imhof & Klaus, 2020).

4.6.4 Access to data on customer behavior in online retail

The data available to online retail companies through tracking of behavior of online shoppers presents unique opportunities to learn and adapt to customers' wants and needs (Sılahtaroğlu & Dönertaşli, 2015). While brick-and-mortar (traditional non-online) retail also have access to primary data through asking the customer for their opinion directly, counting visitors and sales, online stores have vast amounts of data instantly available objective data such as time spent on site, conversion rates, retention, cost-per-click, cost-per-conversion and so on through the clickstream (Sılahtaroğlu & Dönertaşli, 2015). The data is collected and can be analyzed live, and the firms can therefore implement changes and see their effects almost immediately depending on their volume of traffic. Data can be used to target or offer specialized experience to the specific customer in question or anonymized and aggregated into audiences to predict results or make decisions based on a segment or average customer (Sılahtaroğlu & Dönertaşli, 2015).

4.7 Propositions

Based on the literature and the research question, I formed the following propositions to guide the research design.

Table 6: Propositions derived from the literature review, with references

Topic	Proposition	References
Value Creation	**P1: The firm views value creation in accordance with Service-Dominant logic**	(Vargo & Lusch, 2004, 2016, 2017)
Competitive advantage	**P2: The firm considers customer experience the main source of competitive advantage**	(Artusi et al., 2020; J. Barney, 1991; J. B. Barney, 1995; Galbreath, 2005; Pei et al., 2020)
Customer Experience	**P3: The firm employs academically backed customer experience scales to measure customer experience success**	(Imhof & Klaus, 2020; Klaus & Maklan, 2013; Kuppelwieser & Klaus, 2021; Riserbato, 2022)
Multiexperience	**P4: The firm actively pursues opportunities in multi-device features**	(Brudy et al., 2019; Gnewuch et al., 2022)
Multiexperience	**P5: The firm actively pursues new opportunities in interaction modalities**	(Gnewuch et al., 2022)
Multiexperience	**P6: The firm is working to provide additional value through new modal technologies**	(Borges, 2021; Gnewuch et al., 2022)

Source: Own work.

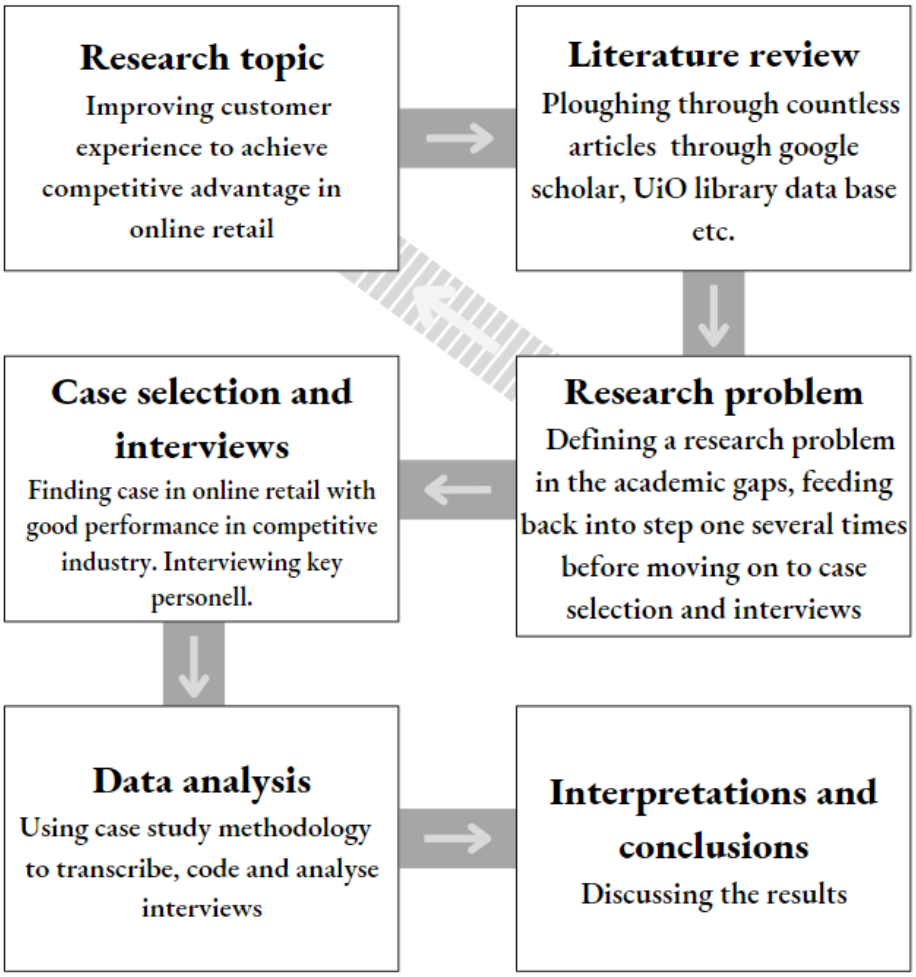
5 Methodology

This chapter provides an overview of the research methodology used in this study. The methodology utilized is a qualitative research design performed as a single-case study (Yin, 2018). Instead of listing out the general characteristics of this type of study, the following paragraphs will instead describe the method as applied in this particular study. The study can be described as both exploratory and descriptive.

As a single-case study, we are taking advantage of the experience of the key personnel of the firm through in-depth semi-structured interviews. The interview guide contains topics and questions based on the literature review, and aggregates the data while still retaining the integrity of the entire case, according to Yin's (Yin, 2018) description. This is then used to reach conclusions about the case by comparing it with the literature.

Triangulation is a key part of Yin's method of analyzing single-case studies, and in this study data was collected from three main sources. 1) Semi-structured interviews with key personnel, 2) Documents regarding the firm's strategy, actions and performances 3) Observations of the firm's and its competitors' online sales channels.

Figure 7: Flow chart showing the process of this case study



Source: Own work.

As MX is a topic of study that was found to be relatively unexplored, this study gathers information on its use and applications in the selected case. To put the information in a context where SDL and resource-based-view can be applied as a framework it gathers information about the company, its views of its own resources, position and competitiveness, how it works with CX and the use of new technology to improve CX and gain competitive advantage. The explorative nature of the study aims to contribute to the literature on the topic through combining existing literature with the insights of practitioners in a firm that has had steady and significant success in a competitive industry.

5.1 Validity and reliability

To critically assess the data collection methods and data collected, parameters of validity and reliability were addressed (Yin, 2018), where reliability refers to the consistency and repeatability of producing a

case study's findings, and validity refers to the extent of which the findings can be analytically generalized or the strength of the causal inferences made.

To ensure the reliability and repeatability of the case study, efforts to minimize errors and biases have been put in place as described below. The process that has been followed has also been documented and described explicitly, including how the interviews were conducted, how the transcripts were coded and how the findings were derived from these codes. Additionally, the application of data triangulation with multiple sources of evidence is also described, primarily as a means of corroborating the data from the interviews. See an overview of how validity and reliability has been handled in Table 7 below.

In regards to the validity of the findings, there are three measures of validity. Validity was addressed by the use of theory, multiple sources of evidence, data analysis containing pattern matching, explanation building and the addressing of rival explanations. As with most qualitative research, the goal has been to generalize to theory rather than to populations. For more details on the addressing of validity and reliability, see Table 7 below and the description of the process in the methodology chapter.

Table 7: Overview based on Yin's overview of validity and reliability tests (Yin, 2018), but with the actions that have been performed in this particular case

Tests	Actions	Phase of case study
Construct Validity	• Multiple sources of evidence has been used	Data collection
Internal Validity	• Pattern matching • Explanation building • Addressing of rival explanations	Data analysis, literature review and discussion
External Validity	• The use of theory to address the findings	Research design
Reliability	• Using a case study protocol • Maintaining a chain of evidence	Data collection

Source: Adapted from (Yin, 2018)

Through the design of the study and of this report I have tried to establish a chain of evidence. There is a clear connection between the questions posed, the data that is collected and the conclusions that are formulated as a result. The intention is to give the reader the ability to follow all the steps of the study, and as a consequence increase the reliability of the study (Yin, 2018).

While attempts at preventing bias and errors in the study have been made it should be made clear. I am the interpreter, and these phenomena are highlighted because I found them important in light of the theory and the interviewees' emphasis in this particular context. This means that the data per definition contains some bias based on my understanding, knowledge and interests. I have however done my best to be as unbiased as possible, staying close to the data, in this case primarily trying to stay close to the transcripts and what was actually said instead of extrapolating too far. While several sources of data form the foundation of the findings, it should be noted that the method does rely primarily on self-reported data from interviews, which means that the findings are also dependent on the views and considerations of the interviewees themselves.

5.2 Choice of case company

When considering which industry and which cases to study there were several factors to evaluate. As I have experience in online retail within arts and crafts I decided to place the study in a different segment than my own to keep sufficient distance personally and professionally, but also to keep any potential preconceived notions out of my research. The goal was to learn as much as possible about a relevant and useful topic without being biased or filled with personal opinions and beliefs, in practice: being objective.

Considering the significance of competitive advantage, it was desirable to study a competitive industry. While choosing the industry, considerations also included a wish for a fragmented market to avoid dominance by one or a few players. The Sporting goods market was chosen as a good fit because of its large size, competitive nature while being without a single dominant player. The assumption was that these factors would make applying new technologies to gain competitive advantage even more important, but the study itself could have been performed in any segment of online retail industry, for example electronics, home goods, clothing and so on. The choice was therefore mainly based on personal preference, not on literature.

Based on the propositions stated in the literature review, it was desirable to test the propositions with an "*unusual case*" as suggested by Yin (Yin, 2018). An unusual case, according to Yin, is a case that deviates from theoretical norms or even everyday occurrences. Fortunately I was able to connect with the prominent company in the highly competitive Norwegian outdoors sporting goods market. The firm studied was Milrab AS, a popular and successful outdoors sporting goods online retailer that has won prices for CX and had a significant growth history despite operating in a highly competitive industry (www.purehelp.no). The insights gained from studying this unusual case can be applied to a much larger population of firms competing for competitive advantage also in other sectors.

Table 8: Overview of case company Milrab AS

	NACE-branch	Revenue 2017	Revenue 2018	Revenue 2019	Revenue 2020	Revenue 2021	CAGR 5y
Milrab	**47919**: Other retail sale of specialized assortment of goods via mail order houses or via Internet	66.4 MNOK	100.4 MNOK	147.4 MNOK	831.8 MNOK	267.5 MNOK	41,43%

Source: www.purehelp.no

5.3 Types of data

The main source of data for this study is the information provided by informants through interviews. However, in addition to data from interviews, the author was also granted access to internal documents outlining strategic priorities in order to provide context for the analysis. Also, news articles, blog posts, review sites and ecommerce rating sites were also used for data gathering.

5.3.1 Primary data sources

Through semi-structured interviews based on the interview guide crafted from the literature review topics, primary data was collected. The interviews were performed with key personnel with experience, opinions and influence over the firm's CX and strategy work. Each interview was performed remotely on Microsoft teams, recorded, and then transcribed.

Table 9: Overview of interviews

Company	Role	Mode of Interview	Duration
Milrab	Chief Marketing Officer	Teams, recorded	2 hours
Milrab	Co-Founder, Ex-CEO	Teams, recorded	1 hour, 30 minutes
Milrab	Chief Supply Chain Officer	Teams, recorded	1 hour, 4 minutes

5.3.2 Secondary data sources

In addition to interviews, external sources such as Purehelp, Prisjakt, their online stores, blog posts and news articles were utilized to build understanding about the case company and corroborate interview findings. There was also access to documentation regarding the strategic planning process to show how the company frames CX design in their overall strategy.

5.4 Data Coding

After the interview recordings were transcribed the data coding could start, and I followed the methods suggested by Yin (Yin, 2018) referred to as the Coding Manual for Qualitative Researchers, but specifically the method described by PhD Kent Löfgren (Löfgren, 2013) based on Alan Bryman, Steinar Kvale and Svend Brinkmann's books (Bryman, 2016; Kvale & Brinkmann, 2009). Initially the finished transcripts were read and general themes and first impressions were noted. Then the transcripts were re-read carefully and relevant words, phrases, sentences or sections were labeled, in order to code or index the material. Considerations for what is relevant was because it was repeated, something surprising, the interviewee states that it is important, it relates to something from the literature review or reminds me of a theory or concept. Afterwards, the codes were assessed for importance and combined into categories or themes by bringing several codes together. In some cases new codes were created by combining two or more codes. Many codes were dropped in this process to focus on those most relevant.

5.5 Data Analysis

The data analysis naturally follows directly from the continuation of the same methodology used during data coding (Bryman, 2016; Kvale & Brinkmann, 2009; Löfgren, 2013; Yin, 2018). The categories were labeled and the connections between them were analyzed and described. I went through the categories looking for patterns, hierarchies and relative importance. This formed the core of the findings, as represents the new knowledge that was gained from the interviews.

6 Findings and results

In this chapter, findings will be presented from the analysis of the data on the case company, which will form the basis for the discussion.

Creating value and competing is done through customer experience

According to the firm's management they create value through offering the best products for the best price with great CX, including seamless shopping, the right selection of products, logistics and assisting customers both in selecting and supplying the items they need. Further, they consider there to be two main ways of competing when competitors sell the same product. Price and CX. However, if competing on price the firm in question is both reducing the value of their brand and reducing the value of their industry. Competing on price and employing discount campaigns was considered a necessary evil to bring traffic and sales, but a tool that was wished to be used less in the future. The firm desires and strives to compete even more on CX instead.

"We are going to be the best in customer experience. That is a very important and centrally communicated goal here with us, and this depends on many touchpoints."

CX consists of interface, logistics and service, meaning the way you interact with the store, warehouse management of stock, delivery and returns, and how customers feel treated by support features such as staff, infopages, self-service or chat bots. While the customer may not always be right most decisions need to be made with the customer in mind, as the customer is the one who decides who survives. One definite goal to avoid competing on price was working on the brand to become top-of-mind for customers for their product category through being the clear definite leader in product selection, competence and shopping experience. The customer's contributions to the value creation was limited to the feedback collected through interactions with internal or external review functions, for instance product review, site reviews and customer service tickets.

Customer experience is the supreme priority

Not only was CX considered the top strategic priority for management, it involved the whole organization as well as its suppliers and partners, from procurement to handing the product over to the customer. Keywords that were highlighted were seamlessness, process continuity, service consistency, repurchase intention, procurement demands, stocking levels, customer service ratings, fulfillment speed, returns management, lazy loading, filtering optimization, mobile priority and state-of-the-art product presentation. The interviewees underlined that the ability to deliver good CX is not the responsibility of one or a few departments, but of every single employee, supplier and partner. If only one link fails, the whole CX is potentially ruined.

"If you fail on one of those touchpoints, it spoils the customer experience, which is much of the rationale for the investments we have done on the system side now."

Rapid evolution quickly reduces competitive advantages to "*hygiene factors*"

Another insight from the interviews was the way the company views the development of technology in the online retail space. There were several examples of features that went from being a wow-factor that created considerable competitive advantage, to a "hygiene factor" that any store could offer. Innovative offers such as same day home-delivery, buy now pay later, personalized recommendations used to be competitive advantages that cost significant investments to facilitate and implement and that made a retailer stand out with a better service offering.

"Today many more can offer it, it has gone from a competitive edge to being a hygiene factor, you know? You have to offer it to even compete."

However, now as technology and service offerings have developed these have become commonplace and at a low cost, making them available even to small competitors. This means that what was once a competitive advantage quickly becomes a baseline expectation or a "hygiene factor". According to management, this presents a challenge as they must redefine their competitive strategy in response to changing industry standards and consumer expectations.

Data-driven, relying on direct feedback, satisfaction surveys and external review sites

The interviewees disclosed several key aspects of their viewpoints, positioning, business operations and strategic approach. Firstly, it was clearly highlighted that the company views itself as data-driven.

"We are data-driven, to a large extent, which means that a gut feeling is important, but we have to combine it with distinct data that can not be interpreted too much."

Customer service ticket categorization, volumes, CSAT survey, product and site reviews as well as external review sites are used to make operational and investment decisions. The clear emphasis on the data-driven approach underlined the fact that the company views its decision strategy as a competitive advantage.

Direct one-on-one feedback loops and open review sites feed data-driven decisions

Measuring success in creating good CX was done through several different means, but primarily direct feedback from customers through product and site reviews gathered through direct requests. CSAT surveys for instance following a customer's contact with customer service and the use of biannual CX surveys helps the firm track their performance in this regard. In addition, external review sites such as Google reviews, Trustpilot and Prisjakt were mentioned as important measurements of customer's experiences and satisfaction. While AB testing was actively used in the development of new features, content and interface design decisions, but there were concerns voiced about basing too much on AB testing as they can fool the tester into believing that an implementation had the desired effects, just because they were positively impacting the particular measures used for that test. For instance, a third party feature included videos displaying the products, and Milrab's tests showed high interaction with

these videos for customers who ended up purchasing the products. However, when asked, the customers said they had already decided to make the purchase before interacting with the videos, meaning the perceived value added was not really contributing to increased sales.

The company had recently set a goal to win a prize for CX. Previously they had won prizes, but in recent years they were not on top of the podium. Measuring success in CX was in other words done both by internal and external factors and the prize was used as a tangible and motivational goal. For the future, there were mentions of aspirations of more close and active involvement of customers.

Paying down technical debt to effectivize, ready for modern and future technologies

The desire to be a modern, forward-leaning and active player was obvious throughout, technical debt had become a weight around their neck and a few years ago the decision was made to swap out almost the entire system stack. While the systems were functioning very well and provided much value for the company, they were built on solutions from the past decade and were becoming cumbersome and would need to be dealt with at some point. In order to ease operations stability, improve employee experience and CX, as well as facilitate easier implementation of new technology in the future, the decision to invest large amounts of money and capacity in implementing a new system stack was made. The updating and refinement of its technological infrastructure was necessary to ensure its offering could remain efficient and future-ready. The investment was financially of considerable size, and the operational toll on the organization in the current implementation phase meant significant distraction from other value creating activities, for instance such as implementing new technology. New innovative features must wait until the implementation of the new system stack is in place as the implementation project takes priority for a period of time. However, as a benefit of this demanding project, the company will be able to implement new value-adding features more easily in the future. It was, according to the informants, still worth noting that gaining acceptable return on investment from implementation of new technologies not only depends on implementation but the continual post-implementation process of facilitating adoption, optimization, measurement, assessment and maintenance.

Designing for multiple devices has now become much easier, no longer a concern

Multi-device design was clearly emphasized to be highly influenced by the fact that 80% of traffic to the online store comes through visits on mobile devices. New content and solutions were designed and tested for mobile first, and making mobile function perfectly was the priority while quality assurance for other devices also obviously was performed. Different considerations were made for the adaptation of content from one device to the other, and to a large extent it had been done manually up until the core systems swap.

"This is actually one of the reasons we performed this change, because our old platform did not have responsive design and was not by default adapted to different units."

With the new systems, much of this multi-device design work, such as device responsiveness is handled automatically. In summary, multi-device design is an area of high importance but it is largely handled by the new system's technology otherwise handled by internal competence

Staying aware of possibilities in new modals, but not expected to have a large impact

Multi-modal design or new modal adoption, such as smart speakers or voice control, was not a priority for the firm at the moment largely due to a perceived low volume compared to the risks and challenges.

"We haven't worked on it, but have discussed it. We have not made any adjustments for that way of searching or navigating yet, but we have it on our radar. So we are not best in class, and probably won't be there from the start but we'll connect once we see that there is some volume there "

Currently, the potential gains compared to implementation investments and the temporary lack of capacity suggests it is not worth it to pursue these new channels. These features would be considered "spice on top", and that foundational factors must be prioritized and optimized first. However, the management ensures they are keeping up to date on the developments in the space and the system change process will ensure that the firm remains future-ready and able to implement any new valuable offering in this space. For it to be implemented it must be proven valuable, easily testable and proven to work for Milrab's own customers in a live test.

AR and chatbots have been tried, will implement when possible

It was apparent that the firm saw value creation through AR and chatbots as real possibilities, as they had already gathered experience through testing the technologies.

"The only reason we are not live with that now is that it needs pretty good input in order to work well enough. It learns over time but needs to talk to all the systems and be well trained to function well. It is insanely annoying to talk to a chatbot without finding out the things you want to find out."

The management considers the technology to be ready but, because of the demanding system change project, implementation of these technologies is not a priority for the time being. Initially, the firm will need to leverage content and potentially technology supplied by external partners, primarily the suppliers themselves. This allows them to cheaply implement AR with minimal investment and capacity needs. Creation of proprietary AR-content would be further down the line, and building their own technology was believed to be out of the question because of development and maintenance costs. Management was clear in expressing the need to balance pioneering ambition with operational stability for the duration of the system change project.

New technology or new design elements may displace other potential value creators

One of the challenges highlighted during the interviews is that new technology or design elements always compete for real-estate with other value creating features. Implementing features, for instance on a

product page, could lead to having to remove other informational features that in reality delivers more value for customers as a whole. Unnecessary features create cluttering that confuse customers and make the store look unprofessional.

Documents support emphasis on customer experience as the core of strategy

The internal strategic documents supported the statements made in interviews that the firm prioritizes CX, competing through developing excellent customer journeys, employing a holistic view of the customer's interactions with the firm, removing friction and creating good experiences in all links of the chain with a focus on being experts, proactive and inspiring with a long term strategic view instead of just taking the low hanging fruit.

7 Discussion

This chapter will examine, interpret and analyze the findings. To begin, let us return to the original research question 'How may online retail companies use MX to deliver better customer experience?' and in order to structure the discussion I will follow the topics and propositions from the literature review.

7.1 Value creation

P1: The firm views value creation in accordance with Service-Dominant logic

The firm is primarily selling physical products that can also be bought elsewhere, and the offering of these particular products were highlighted as part of their value proposition. This could indicate that the firm is following a goods-dominant logic (Vargo & Lusch, 2004), as the goods themselves are portrayed and considered to be a value offered by the firm. Also implied, is that the main offering in itself is neither rare, inimitable or a factor of organization, as required for it to create sustainable competitive advantage (J. B. Barney, 1995). However, from the findings I can tell that the firm can choose to compete on price or compete on value. Competing on price can be perceived as a double-edged sword. While it in the short term attracts traffic and can increase both sales and profits, it also potentially erodes brand value and industry attractiveness. This perspective is corroborated by Porter's five forces model, which highlighted the threat of price competition through competitive rivalry and bargain-seeking consumers as influential dynamics (Porter, 1979). Instead, value is provided through service-based offerings such as good CX by effective interface design, efficient logistics and great customer service offering value as a service in addition to physical goods (Vargo & Lusch, 2004). This signifies that the firm is following the first Axiom of SDL, where "service is the fundamental basis of exchange" (Vargo & Lusch, 2017). While there is no doubt that the customer is the reason the firm survives and thrives, the customer is not perceived to be actively part-taking in the value creation process, or the process for value co-creation, as covered in the literature review on SDL (Vargo & Lusch, 2017). Rather, customers are contributing retrospectively through reviews and customer service interactions, which implies that the second axiom of SDL is not fully applied to the value creation process in Milrab. This suggests that customers could potentially play a bigger role in value creation (Vargo & Lusch, 2008). CX is where the firm sees its main contributions of value for the customer and it considers the customer to be "always" right, and the organization-wide emphasis on ensuring a great CX in every touch point. As shown by Becker and Jaakkola (Becker & Jaakkola, 2020), the CX is inherently dependent on each customer. Collectively, from this I can deduce supporting arguments that the customer is the essential determinant for the value Milrab generates as well (Vargo & Lusch, 2017).

While the firm does involve the customer in the feedback loop of reviews and improvements, the direct cocreation of value with the customer is not as clear. The customer clearly contributes to the value creation through the generation of data, through various touchpoints to enhance the value of their offerings, but does not appear to be viewed to be a direct cocreator of value. As these interactions are

opportunities for mutual value creation it fits the second axiom of the SDL framework (Vargo & Lusch, 2017), but it potentially leaves much to be gained in terms of lifting the customer's active participation up on the agenda.

As can be seen, Milrab's view of creating value corresponds with a mix of logics. The products-are-value, goods-based logic is prominent, but with a clear and growing emphasis on principles of SDL. The desire to focus on the customer, and involve the customer more actively underlines the customer-centric views associated with SDL and experience design.

7.2 Competitive advantage

P2: The firm considers customer experience the main source of competitive advantage

The literature review was clearly stated that CX is the main source of competitive advantage (Artusi et al., 2020; Pei et al., 2020). From the findings, I gather that Milrab definitely emphasizes this same importance of CX in gaining competitive advantage and this matches well the proposition gathered from the literature. However, not only is CX the most important, but it is a complex domain that involves the whole organization and is an area of technology perceived to be moving fast, requiring the firm to move fast and implement solutions that impact and include the entire organization.

The firm's intent to foster CX as the main strategic goal and attempting to move away from price competitions through activating all parts of the organization matches the RBV in its goal to create a more rare, less imitable offering to build sustainable competitive advantage (J. B. Barney, 1995). The firm is working on building resources according to the VRIO framework (J. Barney, 1991; J. B. Barney, 1995; Galbreath, 2005), where valuable, rare and inimitable features combined with a capable organization leads to being a leader in product selection, delivering competence, being a valuable brand and delivering excellent shopping experience.

In addition, the interviewees clearly state that even success in CX can quickly diminish as CX motivation factors that previously led to competitive advantage become hygiene factors which customers expect everywhere, emphasizing the importance of continuing to keep up with changing customer demands. This further indicates that implementation of innovative value creating elements, such as MX, is likely to become even more important when it comes to staying sustainably competitive.

7.3 Customer Experience

P4: The firm employs academically backed customer experience scales to measure customer experience success

The firm's self-perception of being data-driven is prominent. However, design of CX based purely on quantitative decision making is no easy task as it requires measurable, relevant and reliable data. Milrab uses the popular sources of measures of CX success, namely proxy measurements of customer satisfaction

as seen in the literature review (Imhof & Klaus, 2020; Klaus & Maklan, 2013), which could imply that there are potential improvements in how Milrab measures their CX success. For instance through applying more targeted measurement scales such as customer experience quality (EXQ) or those listed in the literature review based on Kuppelwieser and Klaus (Kuppelwieser & Klaus, 2021). However, as discussed in literature it is typical for firms to rely on these proxy measurements, and is therefore still not surprising. Still, while the academically backed comprehensive customer experience scales proposed by literature are not employed, the firm does create their own performance measurement scales based on only CSAT and NPS, but both quantitative and qualitative data from internal and external sources, ensuring a solid foundation for making investment decisions on implementing new technology.

7.4 Multiexperience

P5: The firm actively pursues opportunities in multi-device features

Milrab has recently made improvements in the area of multi-device design through the core systems change, allowing for more effortless responsive interface design, however multi-device features and the flow between devices is not an exclaimed or proclaimed priority. As 80% of traffic still is from mobile devices, and the rest is now more or less automatically adapted for other devices through responsive interface design there is limited motivation to focus on multi-device design beyond the changes already made. However, this leaves cross-device features, such as seamless transitions between devices throughout the customer journey, as a potential area of improvement (Brudy et al., 2019; Gnewuch et al., 2022).

P6: The firm actively pursues new opportunities in interaction modalities

The literature draws upon the necessity of accommodating a wide range of preferences and interaction modes through multi-modal elements such as smart-speakers and voice control, as these could potentially provide value in the future (Gnewuch et al., 2022). In the case company, I found skepticism about the value contributed by these technologies supported by the firm's data-driven nature and the fact that traffic through, and adoption of, these new modals is still insignificant for their target segment. Staying ready and alert while focusing on other avenues, such as chatbots or AR, could potentially be the way of staying ahead of competition, as resources are better spent on these activities that are expected to generate higher returns as it stands today. Chatbots and AR have previously been actively contributing to value creation at Milrab previously, while new modalities such as voice control are currently not expected to be of sufficient interest to be allocated development resources. Still, staying aware and ready for movements in this space allows the firm to remain ready to capitalize on any innovation in this space in the future. In essence the firm is not prioritizing actively searching for new opportunities in interaction modalities at the moment, but will do at a later time.

P7: The firm is working to provide additional value through new modal technologies

New modal technologies such as chatbots and augmented reality are expected to provide opportunities for firms to provide additional value (Borges, 2021; Gnewuch et al., 2022), and as the findings show they have already created value for the firm. The findings also show that to add value to the current CX through richer, more informative and engaging experiences, the elements must line up with the firm's value proposition, fit with their service offering and provide more value than what it displaces.

The firm acknowledged the fact that implementing new technologies is not a decision or a task to be taken lightly, as it involves a continual post-implementation process of adoption, optimization, measurement, assessment and maintenance. Therefore, implementation of new technologies must be considered thoroughly.

As stated, Milrab is a frequent user of testing and performance change measurements as a means of considering whether to implement or not, and actively tries new technologies, solutions and services to gather data on what can provide better shopping experience. These are evaluated on hard facts, data points, that show clear value creation through improved conversions or feedback from customers. Hence, the MX elements to be applied in the future should ideally have clear value propositions and a low barrier for test implementation to gather quantitative data in a live test, potentially an AB test where a share of traffic is directed to the new elements.

Considering chatbots and AR have been tested in their ecosystem and proven to provide value, but are temporarily not active, it immediately shows the firm is aware of improvement potential in MX elements already, but based on the understanding of MX design gathered in the literature review and how the firm views value creation. One suggestion for improvement is cross-device features. While 80% of traffic comes from mobile devices, customers often transition between several devices through their customer journeys. Thus, implementing principles of seamlessness between devices can lead to a modern shopping experience where the customer is free to flow from one device to the other unhindered.

7.5 Applications beyond the case

Generalizing from the case results and the literature, I can derive some insights for extrapolation to other companies and sectors. Value creation happens beyond the products and core deliverables of the firm, and as seen in SDL and in the case of Milrab, moving more towards creating value through CX could be a powerful strategy. While many companies focus on their products or services as their main value propositions, a perspective aligned with goods-dominant logic, Milrab and other progressive companies move towards a logic resembling SDL where value is not created by the products offered but rather the exceptional CX. This approach should be considered adoptable by any firm in any industry looking to differentiate their offering beyond the goods themselves.

Measuring CX success is not a straight-forward task. As seen in Milrab, many different data points can combine into measurements that track performance and changes over time, and utilizing both internal,

external, site-wide, interaction based and product based metrics can create a holistic suite of measurements even when they don't adhere to a specific experience measurement scale.

While the case company's focus is not on MX elements at present, there is a clear understanding and appreciation of the potential value therein for the future. The approach of piloting and testing thoroughly before fully implementing can definitely be applied by other firms in other industries considering that the testing often can be done spending less resources than a thorough analysis, while producing more tangible data on which to make a decision. This effectively helps manage risk and ensure that new elements genuinely add value.

New technologies emerge, and as shown by tests done by Milrab with AR and chatbots, firms should stay open to trialing new technologies that can enhance their service offering. While all technologies clearly are not relevant to all firms, staying up to date on the emerging trends and making sure systems are ready to capitalize on them is something all firms in all industries can benefit from.

Prerequisites and conditions for transferring these insights to other firms include the need to have a customer-centric culture and resources to support the efforts in testing, measuring and implementing. Successful application of these findings may require data-driven decision making and the ability to accurately and effectively measure and evaluate CX.

8 Conclusions and recommendations

In this study the value creation process and the implementation of CX and MX design elements in online retail has been studied. The case company, Milrab, views value creation from a combination of goods-dominant and service-dominant logics, with most weight placed on service-dominant elements with the value being provided in the form of service and customer experience on top of the physical products supplied. Milrab's data-driven approach signifies the use of quantifiable data, but the study revealed potential for improvement through applying more comprehensive and precise measures of CX (Kuppelwieser & Klaus, 2021).

The study further supported the findings of the literature review that CX is the number one priority when it comes to value creation and the hunt for competitive advantage in online retail. However, what is currently a competitive advantage quickly can become a baseline expectation, known as a hygiene factor. This implies that to maintain a competitive edge it could be necessary to continually evolve to update their offerings as customer expectations change. To prevent implementing too many or the wrong elements, the firm must regularly test, analyze and implement new technologies and design elements to provide additional reasons for customers to choose them over their competitor. These methods should be tested using appropriate testing techniques such as AB testing.

While gut-feeling and intuition-based decisions can yield positive results, the use of the company's data-driven approach can help ensure that decisions are made rationally and ensures that operations and investment decisions are made in accordance with numbers, but emphasis must be made on measuring the right metrics on the correct customer segment, as measuring the wrong metrics can lead to wrong conclusions and value destruction.

It is also worth noting that the journey towards new technology implementation is not a race to the finish line. Making sure the technology works and provides value is just half the job. The emphasis can not be just on implementation of the newest and most fancy technology, but also on achieving sustainable value extraction and an optimum return on investment, which requires input also post-implementation.

Future implementation of MX elements will need to align with the firm's value proposition, fit with their service offering, and yield more value than they displace. In this respect, cross-device features and AI assistant technologies are likely to be the most influential MX elements that could be worth testing and implementing after the planned implementation of chatbots and AR product visualization.

In conclusion, Milrab is not currently heavily invested in MX elements, but is working systematically to be ready for the coming technological developments and displays a clear understanding of its potential.

8.1 Managerial implications

Managers in similar contexts can note several implications from the findings of this study. Firstly, managers must understand the importance of aligning new methods and technologies with their firm's

value proposition and service offering. As seen in this case, combining a clear perception of value proposition combined with a systematic data-driven approach can yield success. Regular testing, analysis and implementation of new technologies based on quantifiable data can ensure optimal resource allocation, effective decision-making and value creation over time. The threshold for testing new technologies could perhaps be kept low while based on clear value propositions, but the decision to adopt new technologies should be based on solid decision making data on performance increase measurements and holistic experience evaluations. Lastly, sustainable value extraction and optimum return on investment requires facilitation through enabled core systems, and a continual post-implementation process of adoption, measurement, optimization, assessment and maintenance.

As a side note for producers of MX elements or technologies, it is important to make sure that the threshold to implement a test is kept low, making it easy for potential adopters, i.e. clients, to test the solution in their own environment and measure the impact before making the procurement decision.

8.2 Suggestions for future research

While this study provides valuable insight into the value creation elements of CX design in the online retail sector and the implementation of MX design elements, there is still much to be investigated. To generalize the findings of this study, future research could examine multiple cases to study the phenomenon across companies, industries and geographic markets. Broader data gathering and analysis would further strengthen the understanding of the intersection of value creation, competitive advantage and experience design in more contexts. Moreover, as this study relies heavily on the perspective of the management of the company, future research could explore the perspective of other stakeholders such as customers or lower-ranking employees as this could add to the comprehensive view of CX and the role of MX in shaping it.

Given the rapid advances in technology, research must keep pace with the developments and continue exploring and evolving definitions and applications. In-depth exploration of value propositions in emerging technologies such as virtual reality, augmented reality and artificial intelligence-based chatbots include obvious avenues for future research.

8.3 Limitations

This study has provided valuable insights into the practices and strategies of Milrab, but as with all studies, this study is also subject to some limitations that are necessary to acknowledge to contextualize its findings correctly. While the coding and analysis of data is somewhat subject to interpretation by the researcher, the results presented are kept close to the raw data and the results are expected to be foundto be the same if the study was replicated. Furthermore, while this study allows for an in-depth examination of Milrab's practices and strategies, generalizations made here could in theory only apply to the case company directly. However, based on the connections to literature it can be assumed that the findings

also apply to other companies in similar situations and that both management and academia can learn from these findings.

The perspective of the primary source of data is that of the company's senior management, this presents a potentially biased view of the importance of particular topics as they may be inclined to present their decisions or actions favorably. However, the use of several interviewees with different backgrounds, roles and experiences, combined with data triangulation with internal and external documentation the validity of the findings are strong. Further strengthening of the validity could potentially be secured through additional sources of data, for instance from customers or lower ranking employees.

Time is a limitation of the findings of this study, not because of the boundaries of the study or deadlines, but because of the rapid advances of technology. As technology and modern CX and customer behaviors evolve, the findings of this study could quickly become outdated. Similarly, the connections to relevant academic literature could also quickly become outdated. For instance, the fields of MX and modern CX design are moving rapidly and definitions have not yet reached consensus, and potentially the definitions on which this study is based could change in the future.

Despite the limitations mentioned, the study provides a comprehensive, exploratory and descriptive view of Milrab's efforts and views in value creation, CX and MX. It offers insights into the intersection of entrepreneurship, innovation and online retail, and a contribution to the literature on the topics of SDL, RBV, CX design and MX.

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10 Appendix

10.1 Interview guide

UiO : University of Oslo

Interview guide for Semi-Structured interview:
The Role of Multiexperience in Electronic Commerce

Martin Flatmo Hove

12.04.23

The goal of this study is to address the question "How do norwegian online retail companies in the outdoors-niche use multiexperience to deliver better customer experience?", contributing to the literature on the intersection of customer experience (CX) design, Service-Dominant Logic and the use of multiexperience while also providing practical insights for entrepreneurs and management of firms seeking to improve their delivered CX.

"How may online retail companies use multiexperience to deliver better customer experience?"

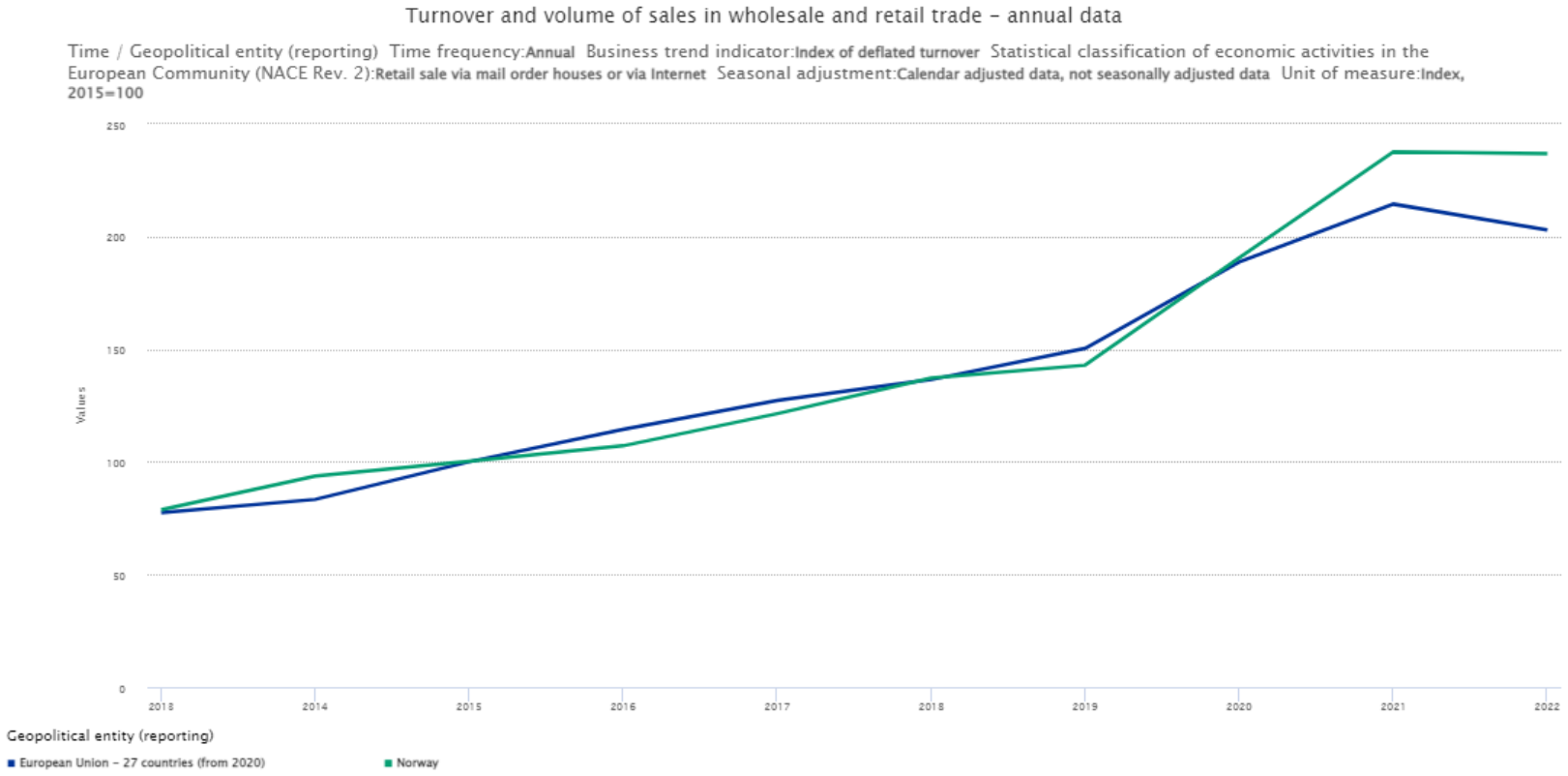
Sub-questions:

- How does the company see the creation of value?
- How does the company measure their customer experience success?
- How is the company using multiexperience elements today?
- How can multiexperience elements add value to the customer' experience?

The questions of the guide below pertain to the online store part of the business, and are all meant to be answered in the context of the opinion of the interviewee, not in the opinion of the firm.

Topics	Propositions	Interview Questions
Background	P2: The firm considers customer experience the main source of competitive advantage	1. What are your internal strengths and opportunities? 2. What are your internal weaknesses and threats? 3. How fierce is the competition in your market, and has it changed recently? 4. How do you think the firm can stand out from the competition in the future? 4-5 y
Service Dominant Logic	P1: The firm views value creation in accordance with Service-Dominant logic	5. How does the Company provide value to its customers? 6. How do customers contribute to this value generation? 7. How do you build and maintain customer relationships? 8. How do you use knowledge acquired through these relationships (i.e data) to provide more value?
Customer Experience Design	P3: The firm employs academically backed customer experience scales to measure customer experience success	9. What is the core of good customer experience? 10. How do you measure customer experience success? Has this changed over time? 11. How do you work on making the customer experience better? 12. How do you make sure you have the competence to design and deliver customer experience available? 13. What are the most important / which technologies or services do you currently employ for CX?
Multi experience	P4: The firm actively pursues opportunities in multi-device features P5: The firm actively pursues new opportunities in interaction modalities P6: The firm is working to provide additional value through new modal technologies	14. How have you worked with experience design on different devices? For example mobile, tablet and PC? 15. Have you used Voice or other modalities outside of touch, key or mouse for customers to interact with your brand? 16. Have you used, or do you plan to use, new technologies (such as AR, VR, chatbots or sensors etc)? 17. What will make you implement this technology? 18. What will be the challenges and risks of implementing?

10.2 Turnover of online sales in wholesale and retail trade



10.3 Overview of customer experience scales

Scale	Reference	Dimensions	Google Scholar Count	# of scale items
Service Experience Perceptions	**(Greenwell et al., 2002)**	Social recreation (4) Social scene (4) Physical Facility Core Product Service Personnel	322	
Customer Experience Quality	(Klaus, 2014)	Brand Experience (7) Service Provider Experience (11) • Post-Purchase Experience (7)	11	
Consumer Experience	(Knutson & Beck, 2004)	Service Quality (5) Value (2) Satisfaction (3)	98	10
Online post-purchase customer experience (OPPCE)	(Kumar & Anjaly, 2017)	Delivery (6) Product-in-hand (5) Return and exchange (6) Customer support (6) Benefits (6) Feel-good factors (6)	6	35
Online customer experience	(Novak et al., 2000)	Speed (3) Importance (5) Focused attention (4) Skill/control (6/4) Challenge/arousal (6/4) Telepresence/time distortion (7/2) Flow (3) Exploratory behavior (7)	3433	51
Online Customer Experience (OCE)	(Rose et al., 2012)	Skill (4) Challenge (4) Telepresence (4) Interactive (4) Connectedness (3) Customization (4) Control (4) Ease-of-Use (3) Aesthetic (3) Beneficial (4) Cognitive Experiential (1) Affective Experiential (4)	555	42
Transcendent Customer Experience	(Schouten et al., 2007)	Unidimensional scale of transcendent customer experience with 14 items.	428	14
Customer co-creation experience scale	(Verleye, 2015)	Hedonic (3) Cognitive (5) Social/personal (5) Pragmatic/economic (6)	132	19

Source: (Kuppelwieser & Klaus, 2021)