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Customer Experience Formation in E-commerce

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ABSTRACT

In today's competitive business landscape, good customer experience is at the core of every successful company. As today's customers can buy nearly anything, anytime, anywhere, and can easily compare and evaluate different companies that sell the services or products they need, market domination has shifted from companies to customers. With this change in the business environment, customer experience has become one of the most vital facets of marketing research in the 21st century, and countless studies have engaged with the customer experience to measure and define it. Studies have highlighted positive customer experience as the primary contributor to a company's competitive advantage, profitability, and differentiation from competitors. However, while the importance of customer experience has been noted, previous studies have examined it predominantly from the firm's perspective, focusing on company- and outcome-centric approaches, especially in service research. Truly customer-driven reviews, in which the formation of the customer experience is viewed through the customer lens without company-driven constraints or metrics, are particularly absent in the context of e-commerce. Therefore, this dissertation investigates customer experience formation from the customer's viewpoint, defining customer experience as a mental picture—a collage of meanings—constructed in the customer's mind. The purpose of this study is to increase understanding of how customers construct their experience cognitively in the context of e-commerce during online store visits and online shopping journeys. The dimensions and components of customer experience formation are examined through three independent studies that investigate the issue conceptually and empirically [interviews (N = 16), essays (N = 18), and a survey (N = 325)]. As a result, conceptual and empirical conceptualizations of customer experience formation are suggested. The first conceptualization introduces the new theoretical approach of sensemaking to study customer experience. Based on the sensemaking theory, the conceptualization concludes that customer experience formation includes 1) self-related, 2) sociomaterial, 3) retrospective, and 4) prospective sensemaking. The second, empirical conceptualization identifies subjects of customers' meaning creation processes and recognizes five dimensions in customer experience formation in e-commerce, being 1) dyadic, 2) personal, 3) social, 4) contextual, and 5) multilateral. The findings increase the understanding of customer experience formation by emphasizing its multidimensionality and complexity. It is concluded that the customer experience is not the customer's mental picture *of* a company but rather the wider mental picture *associated with* the company. The meanings included in the customer experience can be directly linked to the firm, but customers also actively consider and evaluate other companies, themselves, current phenomena, and other people when constructing their customer experience. These multidimensional considerations bring different nuances to the customer experience and determine whether the customer experience is, for example, positive or negative in tone. By studying the different dimensions of customer experience formation and identifying customers' meaning creation processes, marketers are in a better position to design and deliver personalized and relevant offerings that encourage positive customer experience formation. Investigating customer experience formation through the customer perspective allows a deeper understanding of what is ultimately relevant, meaningful, and valuable to customers, which can be utilized in service design and the development of new customer-centric business models.

Keywords: customer experience, e-commerce, service, customer-centricity, customer-dominant logic, b2c

TIIVISTELMÄ (ABSTRACT IN FINNISH)

Positiivinen asiakaskokemus on yksi menestyvän yrityksen kulmakivistä tämän päivän liiketoimintaympäristössä. Monet tutkimukset korostavat positiivisen asiakaskokemuksen merkitystä yrityksen kilpailukyvyn, kannattavuuden ja kilpailijoista erottumisen kannalta, sillä toisin kuin ennen, asiakkailla on tänä päivänä valittavanaan suuri määrä toistensa kanssa samankaltaisia palveluja ja tuotteita verkkokaupan yleistymisen seurauksena. Liiketoimintaympäristön muutoksen myötä asiakaskokemuksesta on tullut myös yksi markkinoinnin tutkimuksen tärkeimmistä kiinnostuksenkohteista 2000-luvulla. Lukemattomat tutkimukset ovat osallistuneet asiakaskokemuskeskusteluun mittaamalla ja määrittelemällä asiakaskokemusta. Vaikka asiakaskokemusta on tutkittu paljon, on sitä kuitenkin lähestytty pääsääntöisesti yritysten näkökulmasta. Etenkin palvelututkimuksessa asiakaskokemusta on usein tarkasteltu lopputuloksena ja asiakkaan reaktiona yrityksen toimintoihin. Aidosti asiakaslähtöiset tarkastelut, joissa asiakaskokemuksen muodostumista tarkastellaan asiakkaiden linssien läpi ilman yrityslähtöisiä rajoitteita tai mittareita, loistavat poissaolollaan etenkin verkkokaupan kontekstissa. Tämä tutkimus pyrkii vastaamaan asiakaslähtöiseen tutkimustarpeeseen tarkastelemalla asiakaskokemuksen muodostumista asiakkaiden näkökulmasta. Asiakaskokemus määritellään kognitiiviseksi merkitysten kollaasiksi, joka syntyy asiakkaan mielessä. Tutkimuksen tavoitteena on lisätä ymmärrystä siitä, miten asiakkaat rakentavat asiakaskokemustaan kognitiivisesti verkkokaupan kontekstissa: verkkokauppavierailujen ja verkkokauppaostamisen asiakaspolkujen aikana. Väitöskirja koostuu kolmesta tutkimuksessa, joissa tarkastellaan asiakaskokemuksen muodostumista konseptuaalisesti ja empiirisen aineistojen [haastattelut (N = 16), esseet (N = 18) ja kysely (N = 325)] avulla. Osatutkimusten kautta esitetään kaksi asiakaskokemuksen muodostumista kuvaavaa mallia. Ensimmäinen malli pohjautuu merkitystenanto-teoriaan (engl. sensemaking theory). Malli ehdottaa, että asiakaskokemuksen muodostumiseen kuuluu neljä dimensiota: 1) asiakkaaseen itseensä, 2) sosiomateriaaliseen ympäristöön, 3) menneisyyteen ja 4) tulevaisuuteen liittyvä ulottuvuus. Toinen, kahden empiirisen tutkimuksen löydöksiin pohjautuva malli tunnistaa viisi ulottuvuutta ja ehdottaa, että asiakaskokemus muodostuu 1) asiakkaan ja verkkokaupan välisen, dyadisen ulottuvuuden, sekä 2) asiakkaan ja muiden yritysten välisen, 3) henkilökohtaisen, 4) sosiaalisen ja 5) kontekstuaalisen ulottuvuuden kautta. Yhteenvetona voidaan todeta, että väitöskirjan löydökset korostavat asiakaskokemuksen moniulotteisuutta. Vaikka yrityksellä, kuten verkkokaupalla, on merkittävä rooli asiakaskokemuksen muodostumisessa, asiakaskokemus ei ole ainoastaan asiakkaan mielikuva *yrityksestä* vaan laajempi mielikuva *yritykseen liittyen*. Yritykseen kohdistuvien merkitysten ohella asiakaskokemukseen voi sisältyä esimerkiksi omaan kulutuskäyttäytymiseen, muihin yrityksiin, toisiin ihmisiin ja ajankohtaisiin ilmiöihin liittyviä pohdintoja. Nämä moniulotteiset merkityksenantoprosessit tuovat erilaisia vivahteita asiakaskokemukseen, ja määrittävät sitä, onko asiakaskokemus positiivis- vai negatiivissävytteinen. Tutkimalla asiakaskokemuksen eri ulottuvuuksia voidaan asiakaskokemusta ymmärtää syvällisemmin ja tunnistaa teemoja, jotka ovat asiakkaiden kannalta tärkeitä: mikä on heille oikeasti oleellista ja arvokasta. Tätä ymmärrystä voidaan hyödyntää palvelumuotoilussa ja uusien asiakaslähtöisten liiketoimintamallien kehittämisessä. Tutkimuksen löydökset kannustavat asiakaskokemuksen eri ulottuvuuksien tarkempaan tarkasteluun myös jatkossa.

Avainsanat: asiakaskokemus, verkkokauppa, palvelut, asiakaslähtöisyys, asiakaslähtöinen palvelulogiikka, B2C

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1 INTRODUCTION

In modern society, most people are customers of numerous companies because our lives are tied to consumption. We purchase and utilize a variety of products and services every day; we can buy nearly anything, anytime, and anywhere. We can also easily compare and evaluate different companies that are selling the services or products that we need to ensure that we get the best deal possible. Ideally, our purchase will be delivered to our home, saving us the time and effort of leaving the house. Advances in technology and e-commerce have empowered us as consumers by constantly creating new opportunities for consumption and interaction with other consumers. At the same time, the ever-changing consumption culture is renewing our ideas and opinions of what products and services should entail - what we are happy with and what we demand from companies.

Given the state of today's consumption culture and its importance and benefits to billions of consumers, it is no surprise that customer experience has become a leading interest for companies, executives, and marketing researchers in recent decades. While the customer-company relationship was still quite simple a few decades ago, typically consisting of face-to-face interactions in local markets and stores, today's business landscape has become much more complex. Consumption culture has changed drastically, and purchasing services and goods online has become common practice—in 2021, over 2.14 billion people are expected to purchase services and goods online (Statista 2020a). Where businesses once contended primarily with local rivals, today's market is packed with companies competing on the global battleground, with competitors a mere click away. It has become increasingly difficult for companies to distinguish themselves via the traditional marketing tools of product, price, place, and promotion, and the route to differentiation and success now lies in offering positive customer experiences.

Yet, companies and researchers continue to lack a solid understanding of customer experience: What is it? Why should we care about it? How can we better understand it? Customer experience is not an unambiguous phenomenon that is easy to investigate and describe. Some recent examples, such as the bankruptcy

of the global toy, clothing, and baby product retailer Toys "R" Us, demonstrate that even large and time-honored companies are struggling with their customer experience understanding. Such examples make it evident that no company is safe if it forgets the importance of customer experience, even if they are the market leader. By contrast, companies that invest heavily in customer experience, such as IKEA and Amazon, have grown rapidly and secured their status as some of the most iconic and beloved companies in the world (Forbes 2020a, 2020b).

In academia, multiple studies have proven the benefits of positive customer experiences for a company. The various positive outcomes include competitive advantage, profitability, differentiation from competitors, customer satisfaction, loyalty, retail patronage, customers' willingness to spend more time and money with a company, and positive word-of-mouth (WOM) communications (Donovan & Rossiter 1982, Carbone & Haeckel 1994, Pine & Gilmore 1998, Schmitt 1999, Berry, Carbone & Haeckel 2002, Wong & Sohal 2003, Prahalad & Ramaswamy 2004, Arnold et al. 2005, Wong & Sohal 2006, Gentile, Spiller & Noci 2007, Palmer 2010, Rawson, Duncan & Jones 2013). Negative experiences, in turn, have been found to cause significant harm to companies in terms of their revenue, reputation, and customer relationships (Svari et al. 2011). However, while the importance of customer experience is undeniable (Lemon & Verhoef 2016), and studies identify it as the core of a company's offering (Zomerdijk & Voss 2010, Ostrom et al. 2010, McColl-Kennedy et al. 2015, Patrício, Gustafsson & Fisk 2018), many theoretically and managerially relevant issues remain unexplored. Recent studies note that customer experience is only partially understood, particularly when considered from the customers' viewpoint (McColl-Kennedy et al. 2015, Voorhees et al. 2017, Becker, Jaakkola & Halinen 2020). Although customers have been studied extensively, in-depth analyses of the customer experience, without company-focused limitations, are scant, especially with regards to service research. While customer experience studies have traditionally focused on service elements (stimuli) and their outcomes (customer reactions, responses and evaluations, and the following behaviors or intentions), they have not delved into the mechanisms through which customer experience is formatted in the customer's reality. The next sub-sections give a short introduction to customer experience research and the shortcomings that can be identified from it to justify the purpose of this dissertation, which is to expand and further customer-centric knowledge of customer experience formation in the context of e-commerce in service research.

1.1 Research gaps in the customer experience literature

Recent customer experience studies have characterized the current state of customer experience research as fragmented, theoretically confused (McColl-Kennedy et al. 2015, Becker & Jaakkola 2020), and relatively nascent (Lemon & Verhoef 2016). In line with these arguments, this dissertation identifies several

issues in the customer experience literature in service research that highlight the need for further customer experience studies.

Firstly, even though the experiential aspects of consumption (Holbrook & Hirschman 1982) have been discussed in marketing research since the 1980s, customer experience was not considered a separate concept during the early days of related research (Verhoef et al., 2009). Instead, the topic was studied under other related constructs, such as customer satisfaction (Churchill Jr & Surprenant 1982) and service quality (Parasuraman, Zeithaml & Berry 1985, Cronin Jr & Taylor 1992, Collier & Bienstock 2006). The ability to measure customer reactions to a company's offering has been considered critical to managing a company's operations for quite some time; hence, the effects of different service elements on customer perceptions have been widely studied since the 1990s (Wakefield & Blodgett 1996, Wall & Berry 2007, Walter, Edvardsson & Öström 2010, Pareigis, Edvardsson & Enquist 2011). While the focus on customer satisfaction has been criticized for bias toward the rational aspects of customer experience (Palmer 2010), traditional quality and satisfaction approaches continue to influence customer experience research. Many studies still investigate customer experience from an outcome perspective (Helkkula 2011) by measuring customer experience as an outcome via customers' responses or reactions to service stimuli (Zomerdijk & Voss 2010, Klaus & Maklan 2012). One can even argue that customer experience has been used as a new and trendy name for traditional service quality and satisfaction studies. As Lemon and Verhoef (2016) note, empirical work directly related to customer experience as a separate and independent concept is limited. Therefore, there is a need for customer experience investigations that expand the concept beyond conventional measures and characterize its special features beyond customer satisfaction, for instance.

Secondly, marketing research has traditionally presented a company focus and a transactional scope (Heinonen & Strandvik 2018). The managerial perspective on customer experience research has led to company-oriented customer experience research especially in service research, which typically focuses on the optimal design of physical service elements and interaction between service providers and customers (Patrício et al. 2011, Teixeira et al. 2012). Studies addressing service encounters (Surprenant & Solomon 1987, Bitner 1990), critical incidents (Grove & Fisk 1997), and moments of truth (Grönroos 1990) have contributed to the understanding of customer experience. In these studies, customer experience is often regarded as a creation of the service provider; the customer is viewed as a rather passive actor who necessarily participates in the service process and whose role and activities must and can be managed (McColl-Kennedy et al. 2015, Caru & Cova 2015). Several methods and frameworks, including service blueprinting (Shostack 1984, Bitner, Ostrom & Morgan 2008) and multi-level service design (Patrício et al. 2011), have been proposed to manage customer experience through different service elements. Even though customer experience has recently been linked to the discussion on co-creation (i.e., the customer and the service provider jointly participate in customer experience creation) (Jaakkola, Helkkula & Aarikka-Stenroos 2015, McColl-Kennedy, Cheung & Ferrier 2015), and the

service provider's role as the only producer of customer experience has been challenged, company-led investigations still dominate customer experience studies. Recent studies suggest that research interest should be redirected from the production and measurement of service outcomes toward the customer sphere, including an examination of how services are uniquely interpreted and experienced (Jaakkola, Helkkula & Aarikka-Stenroos 2015), and how customers embed offerings in their processes (Heinonen & Strandvik 2015). However, despite the above ideas, customer experience studies typically still have a company-centric core regardless of their customer-centric intent, as Helkkula (2010) noted ten years ago. Thus, even when customer priorities have been studied, they have been investigated in relation to the service provider. For example, studies typically focus on a specific firm or offering and measure customers' reactions to service created by the firm. Genuinely customer-oriented studies, which do not emphasize the company's mindset, but the mindset of the customers, are required to expand customer experience research.

Thirdly, as the mainstream of customer experience literature conceptualizes customer experience formation as a dyadic process between the customer and the company, empirical studies, particularly, have focused on examining customer experience in isolation from the surrounding environment. While the customer experience phenomenon has inspired many theoretical papers and literature reviews that discuss what constitutes it, its setting, and the participants involved (Helkkula 2011, Jaakkola, Helkkula & Aarikka-Stenroos 2015, Akaka, Vargo & Schau 2015, Lemon & Verhoef 2016, Lipkin 2016, Jain, Aagja & Bagdare 2017, Kranzbuhler et al. 2018, Becker & Jaakkola 2020), and recent conceptualizations of customer experience highlight the active roles of other customers and other parties (Caru & Cova 2015), the role of factors beyond dyadic interactions remains quite unknown. Voorhees et al. (2017) note that over the past three decades, the focus of service research has often been on core service delivery, and what happens before or after the core has received less attention. Many scholars (e.g., Tax, McCutcheon & Wilkinson 2013, McColl-Kennedy, Cheung & Ferrier 2015, Voorhees et al. 2017) have encouraged further investigation of the factors and actors beyond the primary company in customer experience formation, and the need for studies that encompass the multidimensional customer experience has also been raised (Rawson, Duncan & Jones 2013). Due to its focus on core service delivery, service research has not fully engaged with the holistic customer experience and therefore presents an incomplete understanding of the concept (Voorhees et al. 2017).

Fourthly, many studies argue that customer experience research is also deficient in the online context (Rose et al. 2012, Klaus 2013, Trevinal & Stenger 2014, Martin, Mortimer & Andrews 2015, Bilgihan, Kandampully & Zhang 2016, McLean & Wilson 2016, Kawaf & Tagg 2017, Izogo & Jayawardhena 2018, Singh 2019, Singh & Söderlund 2020). While numerous papers have discussed customer experience in an online context (e.g., Novak, Hoffman & Yung 2000, Rose, Hair & Clark 2011, Rose et al. 2012, Bilgihan, Kandampully & Zhang 2016), these stud-

ies have focused on service quality, which reflects a provider-oriented perspective in which customer experience is understood as the customer's evaluation of service attributes (Singh & Söderlund 2020). Other potentially important contributors beyond the firm's influence during a specific service encounter (i.e., a visit to an online store) or during a customer journey (i.e., the complete purchase process, including search, purchase, and receipt of the product) have received less attention. In addition, many studies of the online context take traditional offline services as their starting point and make adaptations based on specific characteristics of the electronic context (Heinonen & Strandvik 2009). However, some argue that, while the offline customer experience literature provides valuable insights on customer experience in physical service environments, the simple transmission of offline models and concepts to depict customers' online experiences is not appropriate (Rose, Hair & Clark 2011, Martin, Mortimer & Andrews 2015). Wolfinbarger and Gilly (2003) suggest that, while the online medium has its unique capabilities, existing concepts from the era of traditional service environments may be inadequate in an online context. Furthermore, because many studies have focused on examining the antecedents and consequences of customer experience in the online context rather than customer experience itself, a gap remains, especially in viewing the experience from the customer perspective (Singh & Söderlund 2020) and as a holistic concept (Singh 2019). Izogo and Jayawandhena (2018) argue that the current conceptualizations of customer experience in the online context remain disjointed, and the current views find customers as passive receptors of value.

In summary, previous customer experience research that focuses on company- and outcome-oriented approaches has left a gap in truly customer-centric perspectives, especially in the online service context. It can be argued that studies in which customer experience is measured—for example, through factors tied to the firm—are not really customer-driven but are firm-driven. In service research, customer experience is still rarely studied without company-focused limitations, despite the importance of better understanding customers and their customer experience formation having been noted, especially in contextual papers. Studies explaining the drivers and conditions, customer activity, and individual processes in customer experience are still rare (Lipkin 2016). While customer experience research is increasingly recognizing the need to understand the holistic nature of customer experiences (Ordenes et al. 2014) and how customer experiences are formed (Lipkin 2016), theoretical frameworks depicting customer experience are still scant (Jain, Aagja & Bagdare 2017). Furthermore, Gao, Melero-Polo, and Sese (2019 p. 175) note that empirical research on customer experience is still sparse and that "at the level of the customer, there is still a dearth of studies aimed at a proper understanding of the drivers of customer experience." Customers' invisible processes have been especially overlooked, although it has been noted that an encounter only becomes an experience if it awakens feelings or sensations that are consciously realized by the customer (Poulsson & Kale 2004). Additionally, although researchers do discuss the internal dimensions of customer

experience, customers' internal processes have few in-depth analyses in the literature (Bustamante & Rubio 2017).

In line with the mentioned arguments, this dissertation posits that when studying a concept as complex as customer experience, it is essential to increase the understanding of how it is constructed by customers, in the customers' realities. Using the customer perspective for the investigation can reveal new insights on the customer experience concept that are lacking in previous company-centric customer experience research. Customer-centric views are essential to customer experience researchers and practitioners because they allow understanding of what is ultimately relevant, meaningful, and valuable to customers in customer experience formation.

1.2   The purpose of this thesis

This thesis aims to expand and further the customer-centric knowledge of customer experience formation in the context of e-commerce and more particularly online shopping (business-to-consumer (B2C) service). While customer experience formation can be understood as including physical (e.g., customers visible actions and behavior) and cognitive (e.g., thinking) activities, this study is interested in the latter—how customer experience forms in customers' minds. This thesis differs from traditional company- and outcome-focused customer experience evaluations by aiming to increase the understanding of how customers cognitively construct their customer experience. "Cognitively" is referred to as a person's ability to process thoughts. It is suggested, that while individuals are physical beings living in physical bodies, making physicality a constant presence in individuals' experiences, the formation of customer experience requires conscious thought (e.g., the flow of ideas and associations) through which sensations throughout the physical body are identified and reflected.

In previous studies, the cognitive dimension of the customer experience has often been combined with the customer's goal-oriented activities, suggesting that cognition is linked to rational thinking only (Babin, Darden & Griffin 1994, Frow & Payne 2007). Because of this, customer experience is often split into cognitive and affective elements, especially when studying it in an online context (e.g., Rose et al. 2012). This study does not consider these elements separately. Such as Kahneman (2011) suggests, this study is built on the idea that cognitive activities —thinking— can include fast, intuitive, and emotional, as well as more deliberative, and more logical dimensions. In line with Frijda (1986), this study finds emotion to be a part of the cognitive process; interpretation is necessary for consciously experiencing emotion.

This study defines customer experience formation as the different cognitive meaning creation processes—mental actions of acquiring understanding through thought—in which an experience is constructed and realized by the customer. Customer experience is defined as a mental picture—a collage of meanings that a customer associates with a service provider (online store). Customer experience

can be metaphorically thought of as a white sheet of paper that is supplemented—drawn, written, stamped, glued-on, and perhaps erased—during the customer journey. The white paper is created in the customer's mind when a new service provider is first recognized by the customer. If the paper disappears, the customer has forgotten the service provider, and the customer experience no longer exists. As its contribution, this thesis attempts to identify and depict different kinds of cognitive processes through which customers construct their customer experiences in e-commerce. Therefore, the main research question of this dissertation is as follows:

- RQ1: How can cognitive customer experience formation in e-commerce be conceptualized?

This thesis attempts to answer the main research question by identifying the dimensions of cognitive customer experience formation through three independent studies that investigate customer experience formation from different perspectives: conceptually (study 1) and empirically (studies 2 & 3). Each paper provides insights into customer experience formation through specific sub-questions (RQ2–RQ4) that help answer the main research question. The relationships between the research questions and research articles are summarized in Figure 1 and discussed in detail next.
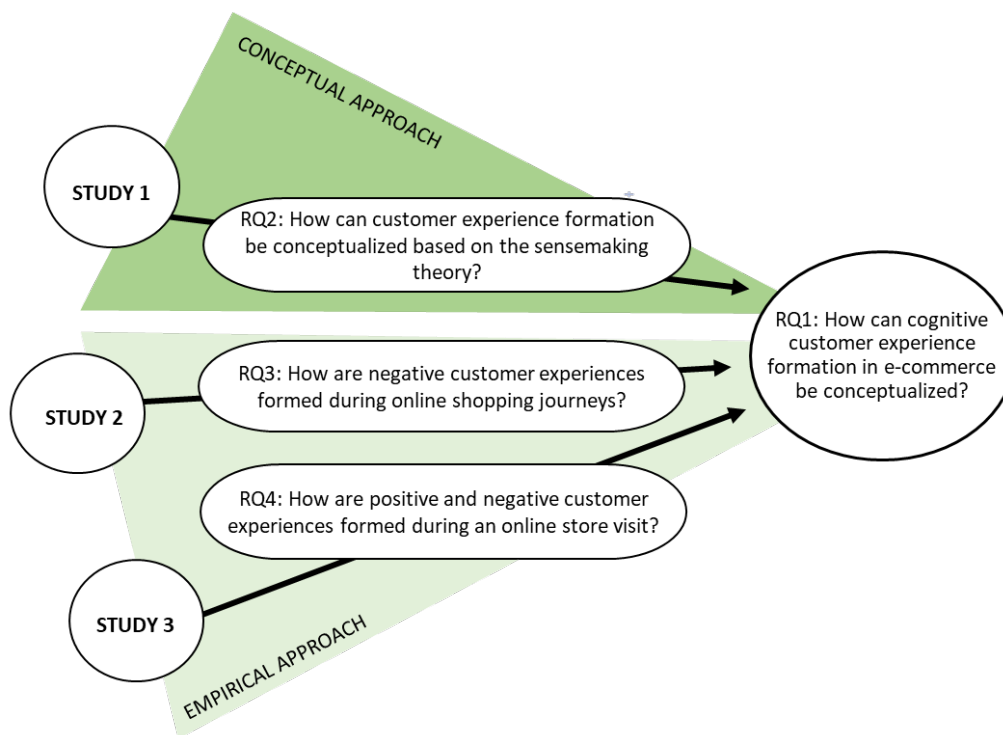
FIGURE 1   Relationships between the research questions and research articles

Study 1: Customer experience formation as a sensemaking process (conceptual study)

The first study investigates customer experience formation as a customer's sensemaking process. Inspired by some recent studies (Helkkula, Kelleher & Pihlström 2012, Dube & Helkkula 2015, Lipkin 2016, Ponsignon, Durrieu & Bouzdine-Chameeva 2017) where customers are regarded as active sensemakers, the study takes customers' sensemaking as its core and investigates how the sensemaking theory is engendered in organization studies and can be utilized in customer experience research. The paper seeks to answer the following sub-question:

- RQ2: How can customer experience formation be conceptualized based on the sensemaking theory?

A sensemaking framework that identifies the components of sensemaking and links these elements to customer experience and its formation as a cognitive process is introduced in the article. The study answers the main research question by constructing a theoretical sensemaking conceptualization of customer experience formation. The conceptualization is not tied to a specific service channel or context: although the customer experience is considered in the context of e-commerce in this dissertation, the model can be applied to other contexts as well. Study 1 forms the bases on which the other articles are built, even though the other articles are not linked to the sensemaking theory. The first study defines how customer experience formation is understood in this dissertation, and this understanding is utilized in the empirical investigations.

Study 2: Customer experience formation during online shopping journeys (empirical study)

The second study investigates customer experience formation during online shopping journeys. The study identifies factors that cause customers to create negative meanings during the e-commerce customer journey and guide the formation of the customer experience toward a negative outcome. The research aims to increase the understanding of why the identified factors negatively affect the formation of the customer experience during online shopping customer journeys. The main idea of the study is summarized in the following sub-question:

- RQ3: How are negative customer experiences formed during online shopping journeys?

By answering RQ3, the second study provides empirical insights that are used (together with study 3) to identify and depict different kinds of meaning creation processes through which customers construct their customer experiences in e-commerce. These insights are used to construct an empirical conceptualization (a

model based on the empirical evidence) of customer experience formation as an answer to the main research question.

Study 3: Customer experience formation during an online store visit (empirical study)

The third study investigates customer experience formation during online store visits. The study is based on attribution theory (Heider 1958, Weiner 1985), suggesting that individuals explain the causes of everyday events and happenings by giving them either external or internal attributes. The study aims to identify internal and external factors that cause customers to create negative and positive meanings during an online store encounter and thus guide the formation of the customer experience toward a negative or positive outcome. The sub-question of the study is as follows:

- RQ4: How are positive and negative customer experiences formed during an online store visit?

By answering RQ4, the third study provides empirical insights that are used (together with study 2) to identify and depict different kinds of meaning creation processes through which customers construct their customer experiences in e-commerce. The findings of the second study and the insights gained through the third study are used to construct an empirical conceptualization of customer experience formation (answer to RQ1).

1.3   The positioning of the thesis

This dissertation studies customer experience formation in the context of e-commerce, which is understood as the electronic buying and selling of offerings on the internet via online services. Therefore, this dissertation is grounded in service marketing research. This sub-section briefly depicts the different schools of thought within the service marketing stream and the positioning of the dissertation by explaining how this thesis approaches the customer experience concept within the service marketing domain.

1.3.1   Service marketing perspectives

As a research field, service marketing includes different schools of thought, including 1) service-dominant logic (SDL) (e.g., Vargo & Lush 2004, 2008), 2) service logic (SL) (e.g., Grönroos 2006, 2011), and 3) customer-dominant logic (CDL) (e.g., Heinonen et al. 2010, Heinonen & Strandvik 2015, 2020). Although these perspectives are not always explicitly recognized in service research studies, they act as mindsets that determine the research focus and scope: how topics are approached and how a phenomenon is understood and respectively acted upon

(Strandvik, Holmlund & Grönroos 2014). A dominant logic is an information filter "a lens" that depicts the view which the managers or researchers take when discussing services; it is the foundation of a study (Heinonen & Strandvik 2018). Whereas all logics (SDL, SL & CDL) explain the characteristics of service in society, and some similarities among them exist, they understand and approach service issues from different angles, have different purposes and underlying assumptions, and use different concepts and definitions (Heinonen & Strandvik 2018). This dissertation is built on the customer-dominant logic of service (Heinonen et al. 2010, Heinonen & Strandvik 2015, 2018, 2020), which is a perspective that is based on the primacy of the customer. Before introducing the core ideas of the different service marketing perspectives, Figure 2 summarizes the positioning of this thesis.
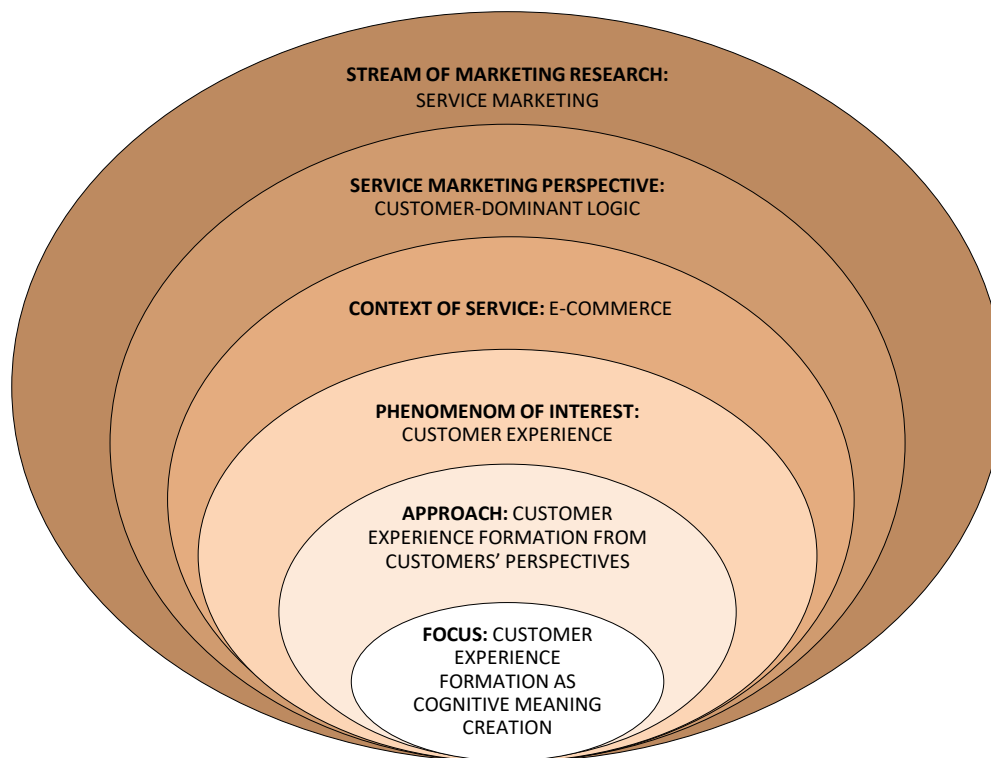
FIGURE 2   The positioning of the dissertation

The core ideas of the different service marketing perspectives surround the concept of value—one of the main interests of marketing research. The logics present different ideas of how to approach customer value and who creates value. This mindset has important implications for how a phenomenon, such as customer experience, can be approached. **SDL** (Vargo & Lusch 2004, 2008, 2014), which is the current mainstream approach to service marketing research, is a network-oriented view on markets that considers service as the basis of exchange. A key concept in SDL is value co-creation, which was introduced by Vargo and Lusch in 2004. SDL focuses on a phenomenological or experiential view of value where the distinction between service producers and consumers is blurred. According

to SDL, all economic and social actors, such as customers, firms, and other actors, are resource integrators. Value is not created for the customer only by the provider but for and by both parties throughout their interactions. Customers are value co-creators, and value co-creation happens only through the beneficiary's participation (i.e., the use of and integration with other resources). The beneficiary always uniquely and phenomenologically determines the value. Because SDL emphasizes the active role of the service provider in determining and facilitating the service value proposition (Helkkula, Kelleher & Pihlström 2012), it focuses on value creation within the business and indicates a more passive role to a customer in the service interaction. Despite recognizing that value is judged by customers on their terms, the SDL approach conceives that value is always co-created through interactions between customers and service providers (Heinonen, Strandvik & Voima 2013).

SL (Grönroos 2006, 2008, 2011, Grönroos & Voima 2013) views service providers as value facilitators—services that support customer's everyday physical, mental, virtual, and possessive practices during which value is created. The main idea of SL is related to the value-in-use concept. Customers integrate resources that they gain from the provider with other resources by applying their knowledge and skills within a process that renders value. The value generation process includes three value spheres: a customer sphere, a provider sphere, and a joint sphere. The provider sphere is closed to customers; it is the area where the service provider compiles resources that are offered to the customer. The joint sphere is the area where the service provider and the customer interact directly. The provider can engage with customers' value creation and co-create value with them. The service provider does not have an access to the customer sphere; it is an area where value is created either independently or with the other actors in the customer's ecosystem.

In contrast to SDL and SL, **CDL** (Heinonen et al. 2010, Heinonen & Strandvik 2015, 2018, 2020) approaches value from the customers' point of view. According to CDL, value is created also beyond the interactions between customers and companies; hence, it cannot be directly *created* or *co-created* but is instead *formed* by the customer. Value formation is understood as a customer-controlled process where the customer is responsible for creating value and how he or she perceives that value. Value emerges when an offering is used either physically or mentally in the customer's context. When using the service or product, the customer decides whether value is generated. Customers create value through their practices, and the company only serves to enable a customer's value formation. Heinonen and Strandvik (2015, 2018) posit CDL as an alternative view of service by arguing that other service approaches (SDL and SL) present a provider-dominant view of service. CDL emphasizes how customers embed offerings in their processes instead of focusing on how firms provide service to customers.

1.3.2 Customer-dominant logic

Of the three different service marketing perspectives, CDL best suits and explains how the author of this dissertation understands customers and how they should be investigated. Because the purpose of this dissertation is to better understand customer experience formation from the customer perspective in the context of e-commerce, CDL provides the most suitable fundamental base for studying the issue. In contrast to other service perspectives, CDL focuses on the customer's view of services instead of highlighting the provider's perspective, including service ecosystems (SDL) and interaction between companies and customers (SL). Given that customers are the core of every business (without them, there is no business), this dissertation claims that phenomena like customer experience should be firstly studied from the customer perspective, including how they depict the experience.

According to CDL (Heinonen et al. 2010, Heinonen & Strandvik 2015, 2018, 2020), companies and researchers must aim for holistic customer understanding. The focus should not be on limited approaches, such as collecting data about customers' reactions, wants, or expectations regarding offerings. Instead, service researchers and practitioners need to understand how customers live their lives, what challenges they face, and how different offerings are used according to customers' logic. The focus needs to be on understanding what customers are aiming for and what kind of thinking guides their choices and decisions (Heinonen & Strandvik 2015). CDL posits that customers do not use services in a vacuum; rather, both the use and the value of the service are affected by many factors and operators beyond the service in their environment. In their processes, customers create value for themselves through several activities to achieve the desired goal. Therefore, instead of focusing on interactions between the company and the customer, for example, firms and researchers must look beyond interaction and understand the different processes that customers must navigate daily, including at home, with other people, and with other companies. By focusing solely on business-to-customer interactions, companies lose valuable information about customers' practices and experiences, which they could utilize in their offerings and operations. By investigating customer processes, the potential and hidden value of offerings can be discovered.

CDL (Heinonen et al. 2010, Heinonen & Strandvik 2015, 2018, 2020) posits that an offering, such as a service, is not the most essential outcome of a company's operations; the value of that offering to the customer is most important. By understanding customer logic and providing solutions that are meaningful to customers, companies are better able to support their customers' goals and thus create customer value. By designing services and products based on in-depth customer information, companies do not have to persuade customers to find the potential value of the service (which was done in the infancy of marketing) because it is already incorporated into the service offering. By applying CDL, companies are better able to provide their customers with offerings that they are willing to purchase.

In line with the CDL ideas presented previously (Heinonen et al. 2010, Heinonen & Strandvik 2015, 2018, 2020), this dissertation understands customers as the creators of value and their customer experiences. The assumption that a single provider or service system has a dominant role in customer experience formation is challenged. Therefore, the focus of this dissertation is not on customers' reactions to services, interactions, or systems, which is typical of studies drawing on SDL or SL, but on customers' meaning creation through which they construct their customer experience and give meaning to their service encounters. In line with CDL, this dissertation assumes that, when using different services and constructing one's customer experience, a customer's meaning creation is not limited to the service provider only but can be linked to other issues and factors. This dissertation seeks to better understand what these issues and elements beyond the company can be. In contrast to mainstream customer experience studies, this dissertation aims to contribute to the customer experience literature in service research by exploring and identifying the hidden dimensions of customer experience formation (i.e., the dimensions that are not directly linked or visible to companies but can be essential from the customer perspective when defining the value of the service).

This dissertation considers CDL quite similar to the service design literature (e.g., Cook et al. 2002, Brown & Wyatt 2010, Stickdorn et al. 2012, Miettinen & Valtonen 2012) that considers customer/user understanding the core and starting point of all companies' actions and service design processes. Furthermore, both of these streams are understood as an alternative path to the company-focused service approaches (SL and SDL) on the theoretical and practical levels. Simply put, in both the CDL and service design streams, the traditional company-based inside-out approach is flipped around to a customer-based outside-in approach (Figure 3). This means that, instead of focusing on the company's operations and producing offerings based on the company's standards, the focus is placed on customers and their standards.

A typical example of the company-based approach would include first producing a service offering, followed by selling it to customers, and finally exploring how customers react to the offering. For example, a traditional engineering company might produce a new technical solution because they can construct it from a technical standpoint. However, when entering the market, the company might find that customers do not appreciate their solution if they either do not need it or it is complicated to use. In a customer-based approach, in turn, the first step is understanding customers' (existing or potential) needs (e.g., what kind of problems they face during everyday life or with service usage), followed by identifying potential business ideas and improvements based on this understanding. The process would continue with designing offerings together with the customers to provide solutions. In other words, instead of first creating a tool (as in the company-based approach), this mindset first explores what problems exist and which tools might be needed. After that, new tools are created based on the collected understanding.
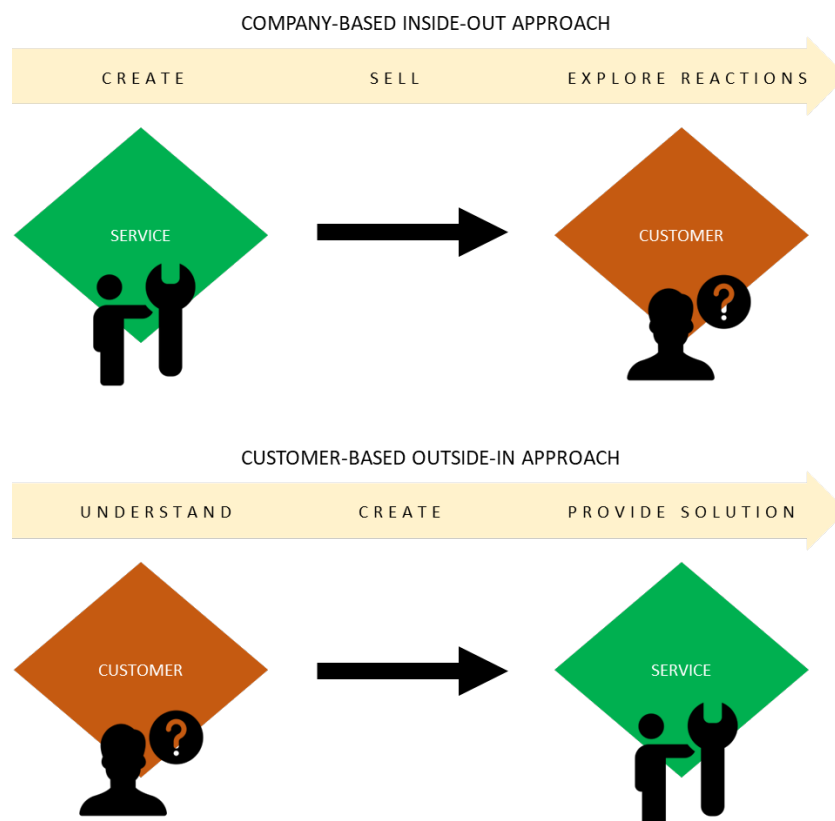
FIGURE 3   A company-based versus a customer-based approach to service

This dissertation understands the CDL approach as a mindset that allows truly customer-based investigations in service research. The approach suggests that customers should be understood in their contexts. This dissertation studies what meanings customers create during their e-commerce consumption as well as how they construct their customer experiences through those considerations. Based on the sensemaking literature, the conceptual investigation of this thesis aims to discover and picture possible ways of how customers create meanings. The empirical investigations then strive to provide real-life insights into customers' meaning creation through customer narratives that depict customers' thoughts during their e-commerce encounters. This dissertation seeks to provide new theoretical and empirical insights and ideas of customer experience formation that can be utilized in service research and for customer-based service design. By identifying different dimensions of customer experience formation, companies and researchers can find essential avenues for future studies and for improving service offerings.

1.4 Clarification of key concepts

The key concepts of this dissertation and how they are understood by the author in the context of this study are summarized in Table 1. These concepts are further elaborated in the following chapters.

TABLE 1   Key concepts

Concept	Definition
Cognition	The mental action or process of acquiring understanding through thought (flow of ideas and associations).
Conceptualize	To form a concept (an abstract or generic idea generalized from particular instances) of something.
Customer	An actor who purchases (or uses) goods or services from a business (in this study, a consumer).
Customer-dominant logic of service	A service logic that positions the customer at the center of attention, rather than the service provider.
Customer experience	A mental picture; a collage of meanings that a customer associates with a company (in this study, an online store).
Customer experience formation	Different ways in which customer experience is cognitively constructed and realized by a customer.
Customer journey	The path of a customer's encounters with one or more service providers or other parties to achieve a specific goal (i.e. purchase).
E-commerce (electronic commerce)	The buying and selling of offerings electronically on the internet (in this study, in B2C context).
Online services	Services that are conducted electronically on the internet.
Online store	An online service (website or application) on which goods or services are sold over the internet.
Sensemaking	A process or set of processes through which people give meanings to events and issues.
Service	Means of facilitating outcomes that individuals or organizations want to achieve.
Service encounter	A period when a customer is interacting with some content related to a particular service.
Service provider	A business that offers service to others, typically in exchange for payment (in this study, an online store).
Touchpoint	Any content related to a particular service/company.

1.5 Structure of the dissertation

This dissertation is structured into five chapters. After this introduction, chapter 2 discusses previous customer experience research in terms of how the customer experience concept has been previously approached and investigated. In chapter 3, the research approach of this dissertation, including its philosophical approach, its approach to theory development, and the methodology are introduced. Chap-

ter 4 summarizes the findings of the individual research articles. Chapter 5 presents two conceptualizations of customer experience formation in e-commerce based on the findings of the individual research articles and discusses the conceptualizations in terms of existing literature. In addition, the chapter gives suggestions for future research on customer experience, and finally, considers the quality and limitations of the dissertation.

2 CUSTOMER EXPERIENCE RESEARCH

The concept of experience has been demonstrated in multiple ways in business studies. This section reviews experience as a research topic and discusses how customer experience has been approached in the marketing and service literature.

2.1 Experience as a research topic

Significant disagreement and a lack of clarity can be found in how the term "experience" can be understood in the English language. Based on dictionary definitions (e.g., Cambridge 2020, Lexico 2020), experience as a *noun* implies either a practical contact and observation of facts or events, knowledge, or skill acquired by a period of practical contact of something or an impression that is left after an event or occurrence. Experience can refer to unmemorable, unprocessed, immediately perceived events, to wisdom gained in reflection on those events, or to an occurrence that somehow transforms or does not transform an individual. As a *verb*, experience implies encountering or undergoing an event or occurrence. Therefore, experience can indicate outcomes, such as learning, or a process, such as participating in an activity (Tynan & McKechnie 2009). Despite the different approaches, most researchers agree on its subjectivity. Experience is inherently personal; two individuals cannot have the same experience (Pine & Gilmore 1998).

In the marketing literature, experience has been approached with multiple concepts, including *customer experience* (McColl-Kennedy et al. 2015, Trischler, Zehrer & Westman 2018, Bolton et al. 2018), *consumer experience* (Bolton et al. 2014, Chaney, Lunardo & Mencarelli 2018), and *service experience* (Grace & O'Cass 2004, Edvardsson, Enquist & Johnston 2005, Helkkula 2011, Pareigis, Edvardsson & Enquist 2011, McColl-Kennedy, Cheung & Ferrier 2015, Caru & Cova 2015). The concepts of customer experience and service experience have often been used interchangeably as synonyms (Jaakkola, Helkkula & Aarikka-Stenroos 2015, Jain,

Aagja & Bagdare 2017), even though some differences can be identified. For example, the service experience concept is more flexible in terms of who is considered the subject of experience. Whereas customer experience always depicts the experience of a customer, the service experience concept, even though it is often used to depict a customer's experience of service, may also refer to a service provider's, such as an employee's, experience (Jaakkola, Helkkula & Aarikka-Stenroos 2015, Jain, Aagja & Bagdare 2017). Furthermore, the service experience concept is focused on describing experiences regarding consumption of services (Jain, Aagja & Bagdare 2017), while customer experience can refer to both services and goods.

In addition to the traditional concepts, the rise of online and e-commerce services has inspired researchers to invent new, context-specific names and content for customer experience. These include *online customer experience* (Rosenbaum & Massiah 2011, McLean & Wilson 2016), *online customer service experience* (Klaus 2013), *online shopping experience* (Pappas et al. 2014, Kawaf & Tagg 2017, Izogo & Jayawardhena 2018), and *online experience* (Bridges & Florsheim 2008). However, the traditional customer experience (Novak, Hoffman & Yung 2000) and consumer experience (Elliot & Fowell 2000) concepts are also commonly utilized in the online context. In addition to the marketing literature, information systems research typically employs the *user experience* concept (Hassenzahl & Tractinsky 2006, Lallemand, Gronier & Koenig 2015, Bilgihan 2016, Pappas 2018), highlighting the usability and technical elements of services and products. While marketing and information systems studies are quite intertwined in this field, and customer experience and user experience concepts refer to the same essential idea (i.e., how individuals perceive different services or products provided by a company), user experience and customer experience studies usually have different scopes. While user experience is generally understood as a customer's or a user's experience with a specific product, such as a website, app, or software, a customer's experience is a more flexible concept with a broader scope. For example, it can encompass end-to-end customer interactions with a company or its offerings during a customer journey and can include many channels and touchpoints.

In summary, there is considerable fragmentation in concepts referring to the same essential idea of customer experience. Some of these concepts highlight the context of customer experience (e.g., online or offline), while others do not. This dissertation uses the customer experience concept. Because the purpose of this dissertation is to understand customer experience formation in the e-commerce context with an open-ended approach, including customers' experiences with online stores and other relevant themes in customer experience beyond the store interface, the customer experience concept is simple, flexible, and general enough for these investigations. In other words, while the online customer experience and online customer service experience concepts suggest that customer experience linked to an online service is purely online with no other (offline) dimensions, such delimiting concepts are not suitable for this study.

2.2 Experience in the marketing literature

Marketing research has shown a growing interest in the experiential aspects of consumption, especially since the beginning of the 1980s. Before this, mainstream marketing research deemed consumers rational actors and decisionmakers whose purchasing decisions are based on rational problem solving and who seek to maximize their decisions' practical and functional benefits. According to the rational approach, it is believed that a customer's decisions are based on a rational assessment of expectations versus outcomes (Grönroos 1997). The milestone of bringing the experiential view of consumption into the marketing literature is commonly credited to Holbrook and Hirschman (1982), who argue for the recognition of experiential aspects of consumption, including the symbolic, hedonic, and esthetic nature of consumption. Holbrook and Hirschman (1982) regard consumption experience as a phenomenon that is directed toward the pursuit of "fantasies, feelings, and fun." They suggest that consumers are interested in living hedonic experiences and are not only seeking the utility attributes of a service or product. The view of consumption as a hedonic phenomenon later received increasing interest and acceptance with marketing and service marketing scholars who apply it to consumption in service settings (Dube & Helkkula 2015).

Despite the initial ideas presented in the 1980s, the concept of customer experience became a popular topic only in the 1990s, especially in practitioner articles (e.g., Carbone & Haeckel 1994), after which the number of publications began rising sharply. The ideas of an experience economy by Pine and Gilmore (1998, 1999) and experiential marketing by Schmitt (1999) inspired the experience discussion in the marketing field; a research boom on the topic can be identified from the beginning of the 2000s onward. In the 2000s, customer experience studies have been encouraged by the service-dominant logic emphasizing the experiential nature of customer value (Vargo & Lush 2004, 2008, Lusch & Vargo 2006).

2.3 Customer experience and its formation

Customer experience has been approached from various perspectives in the marketing literature, including service marketing, service-dominant logic, service design, consumer research, retailing, branding, and online marketing (Homburg, Jozić & Kuehnl 2017, Becker & Jaakkola 2020). While the different streams each have a particular focus or context of interest, customer experience studies usually discuss the topic on the general level without stream-related restrictions, especially when depicting related previous research (see e.g., Helkkula 2011). This study follows a similar path; while its main interests are the service and online contexts, this section is not limited to service discussions or online settings because that would give a limited view of customer experience research. Instead,

the remainder of this chapter aims to provide an overview of the development of the customer experience discussion since the 1990s, including the main themes, which are outlined in Table 2.

TABLE 2   The development of the customer experience discussion

	The 1990s		The 2000s		The 2010s
The essence of customer experience	CREATED BY A FIRM	⇨	CO-CREATED	⇨	CREATED BY A CUSTOMER
Creator of experience	Firm		Firm and customer		Customer
Characterization of customer experience	Reaction or response to stimuli created by a firm		Impression or reaction based on customer-company interaction or service stimuli		A holistic, multidimensional, and dynamic impression based on factors that a company can and cannot control
The role of the customer in customer experience formation	Passive, no control		Somewhat active, some control		Active, in control

As Table 2 shows, the customer experience discussion has shifted from the stimulus and reaction-based views to more comprehensive and extensive views since the 1990s, especially in conceptual research. The next subsections depict how different authors have approached and defined the customer experience concept over the years and how the discussion has developed through today.

2.3.1 Customer experience as a reaction to company stimuli

In the early days of customer experience research, customer experience was seen as the customer's reaction to stimuli created by the company. The research fields of services marketing, online marketing, retailing, branding, service design, and experiential marketing were especially focused on investigations where the main goal was to improve customer experience through different stimuli in service encounters and retail environments (Becker & Jaakkola 2020).

The response/reaction approach can be explained by marketing approaches that are based on the frequently used stimulus-organism-response (S-O-R) model (Mehrabian & Russell 1974), which suggests that an environmental stimulus affects an individual's cognitive and affective states, which in turn influence response, including whether an individual chooses to approach or avoid

a stimulus. Bitner's servicescape model (1992) has particularly inspired researchers in explaining customer experience. Based on the S-O-R model, Bitner suggests that physical environmental stimuli (S) affect customers' (O) inner states, which then influence their behaviors (R), such as approach or avoidance. Some researchers (e.g., Jain, Aagja & Bagdare 2017) consider research on S-O-R the foundation of customer experience research.

The stimulus-based approach is clearly visible in the earliest definitions of customer experience. Carbone and Haeckel (1994) discuss customer experience as a takeaway impression that is formed when a customer encounters products, services, or businesses and consolidates sensory information; impressions are formed when individuals filter a barrage of performance or context-based clues that are produced by a company. Performance clues are function-related, whereas context clues include appearance factors, such as décor or smell. The importance of functional and emotional clues is further elaborated by Berry, Carbone and Haeckel (2002). The authors state that, because each clue carries a message and suggests something to the customer, customers always have an experience, whether good, bad, or indifferent, when they purchase products or services from a company (i.e., customer experience is inevitable). The key to a firm's success is how effectively it manages these clues and thus the overall customer experience. All customers, including both consumers and firms, who engage with any kind of organization can be considered experiencers who have good, bad, or indifferent experiences (Berry, Carbone & Haeckel 2002).

Pine and Gilmore (1998, 1999) refer to stimuli as a stage, arguing that experience occurs when a firm intentionally uses goods as props and services as the stage to engage individuals. Pine and Gilmore (1998, 1999) approach experience as an economic offering that is different from products or services. Memorability as a condition of experience is highlighted; experiences exist only in the minds of individuals who have been engaged on either an emotional, intellectual, physical, or spiritual level. Therefore, two people cannot have the same experience. The role of a company as a producer of customer experience is emphasized; to succeed, companies must stage experiences for customers.

Today, many customer experience researchers still apply a stimulus approach to the study of customer experience and its formation in different service environments. Customer experience is commonly studied and understood as a reaction that is based on company-made stimuli, especially in customer experience studies in an online context. Rose et al. (2012, p. 309), drawing on Gentile et al. (2007) and Meyer and Schwager (2007), define customer experience as an impression and "a psychological state, manifested as a subjective response to the e-retailer's website." Rose et al. (2012) conclude that customers engage in affective and cognitive processing of sensory information from a website, and the result of this processing is the formation of an impression in the memory. The cognitive and affective state of the customer is influenced by different antecedent conditions. For example, repeated visits make the process of impression formation cumulative over time. In general, many studies have aimed to identify the antecedents of online customer experience, including the features of a high-quality e-

commerce platform and how online service elements affect online customer experience within a business-to-consumer context (Rose et al. 2012, Skadberg & Kimmel 2004). Many articles focus on website and service quality and develop measurement metrics and operational scales to identify a range of factors or dimensions that could result in effective website performance (Cox & Dale 2001, Madu & Madu 2002, Wolfinbarger & Gilly 2003). Researchers have aimed to find the best ways to design user-friendly online systems and interfaces to guide the development and execution of online services or systems (Lohse & Spiller 1999, Nielsen 1999, Spool et al. 1999, Ranganathan & Ganapathy 2002, Lee & Kozar 2009). Numerous variables that influence the customer experience in online environments have been identified, including ease of use, website aesthetics, customization, interactivity, engagement, and enjoyment (McLean 2017). Rose et al. (2012) propose ten antecedent variables (interactive speed, skill, ease of use, telepresence, challenge, customization, connectedness, perceived control, aesthetics, and perceived benefits) that are formative upon the cognitive and affective components of online customer experience.

As can be deduced from the previous characterizations, within this stream of customer experience studies, the main role of and interest in experience formation are credited to external stimuli in physical or online spaces (e.g., colors, scent, music, lighting, temperature, user interface) and customer response. With this approach, it is often assumed that a company can manage and determine customer experience (i.e., that a stimulus created by a company is generally perceived similarly by customers) (Kranzbuhler et al. 2018). The customer is considered rather passive and having little effect on the formation of experience. Service companies are seen as actors who compound resources to enable, direct, and support customers' experience formation processes (Åkesson, Edvardsson & Tronvoll 2014). The goals of this approach are to understand how customer experience can be managed and directed toward a positive outcome, how companies can use stimuli to affect customer reactions, and determining the optimal design of processes and systems within a firm (Kranzbuhler et al. 2018). Therefore, many empirical customer experience studies aim to discover the impact of specific cues to customer experience. Hypothetic-deductive reasoning and surveys and experiments have been employed to study the relationship between customer experience and other variables (Becker & Jaakkola 2020). This is typically done by measuring how cues, such as servicescape elements (e.g., aesthetics, layout, accessibility, and displays), affect customer responses, including quality perceptions, repurchase intentions, and length of stay.

Furthermore, many studies (e.g., Boyer & Hult 2006, Rose, Hair & Clark 2011, Rose et al. 2012) have investigated the relationship between customer experience and behavioral responses, including repurchase intentions and WOM recommendations, concluding that positive customer experience leads to positive outcomes from the company's perspective. Rose et al. (2012) propose that customer experience leads to three outcomes: satisfaction, trust, and repurchase intention. Similarly, Klaus and Maklan (2012) find that customer experience has a significant impact on customer satisfaction, loyalty, and WOM intentions and

is therefore linked to company profitability. Izogo and Jayawardhena (2018) propose an integrated framework for the online shopping experience that includes eight dimensions (emotional lift attributes, entertainment attributes, product-related, cost-related, trust-related, expertise-related and task-related experiential attributes, and convenience and usability attributes), which are activators of the affective and cognitive experiential states—the two broad aspects of the online shopping experience. The perceptual experience, including the affective and cognitive experiential states, is argued to lead to a range of consumer behaviors (behavioral experience), including electronic WOM, repurchase intention, and external and internal response to a service experience (Izogo & Jayawardhena 2018).

As can be deduced from the above review, the models describing the formation of customer experience can be complicated and include many different factors and relationships because they are often designed for quantitative measurement purposes. While the models comprehensively describe the formation of customer experience, they focus on the service provider's perspective, how the customer reacts to the company's offering, and what follows from the reaction. Therefore, the potential contributors to customer experience beyond the company are typically neglected. Table 3 presents examples of response and reaction-focused characterizations of customer experience and its formation. However, as can be seen below, customer experience definitions are often rambling. Hence, although this dissertation characterizes the definitions as highlighting either reactions and responses, interaction or multidimensionality, single definitions may fall into more than one category.

TABLE 3   Response and reaction-focused characterizations of customer experience and its formation

Author(s)	Definition
Carbone & Haeckel (1994, p. 8)	Experience is "the 'takeaway' impression formed by people's encounters with products, services, and businesses—a perception produced when humans consolidate sensory information."
Pine & Gilmore (1998, p. 99)	"Experiences are inherently personal, existing only in the mind of an individual who has been engaged on an emotional, physical, intellectual, or even spiritual level. Thus, no two people can have the same experience, because each experience derives from the interaction between the staged event (like a theatrical play) and the individual's state of mind."
Berry et al. (2002, p. 1)	"The composite of all the clues makes up the customer's total experience. [. . .] The clues that make up a customer experience fit into two categories. The first concerns the actual functioning of the good or service. [. . .] The second category concerns the emotions and includes the smells, sounds, sights, tastes, and textures of the good or service as well as the environment in which it is offered."
Rose et al. (2012, p. 309)	Online customer experience is "a psychological state manifested as a subjective response to the e-retailer's website. The customer engages in cognitive and affective processing of incoming sensory information from the website, the result of which is the formation of an impression in memory. A number of antecedent conditions will influence the cognitive and affective state of the customer. Repeated website exposure makes the process of impression formation cumulative over time."

2.3.2 Customer experience as a result of interactions

While customer experience has been traditionally approached as a customer's reaction to company stimuli, many authors have provided refinements and ideas on the elements that contribute to customer reactions and how companies can manage the customer experience. One of these refinements includes the emphasis on social interaction between customers and companies. While the service literature has traditionally focused on service resources and their optimal management to create customer experiences, customer relationships, and competitive advantage, the interaction-based, co-creational views on customer experience were particularly encouraged by the introduction of SDL (Vargo & Lusch 2004, 2008, 2014) which highlights the co-creational aspects of service offerings. Since the 2000s, the service management literature has strongly investigated how customer experiences are or can be co-created between firms and customers within service encounters and relationships. The focus of these customer experience studies has been on the interactions between customers and employees and the influence of particular service settings on customer experience. Several studies have investigated, identified, and explained the steps involved in managing the customer experience, including how companies can direct customer experience toward the desired goal (Jain, Aagja & Bagdare 2017) through service stimuli and social interactions between companies and customers. It has been suggested that customers' engagement with the service production process through co-creation can further positive customer experience outcomes (Hwang & Seo 2016).

Poulsson and Kale (2004) highlight engagement and the emotional aspects of experience as well as its memorability by arguing that the value in an experience derives from its intensity and feelings of enchantment. Furthermore, personal relevance is needed in customer experience. The authors (p. 270) define customer experience as "an engaging act of co-creation between a provider and a consumer wherein the consumer perceives value in the encounter and in the subsequent memory of that encounter." In other words, the experience does something to or changes the individual (i.e., educates, entertains, engages). Whereas purchasing a product leaves the customer with a physical object, purchasing a service leaves the customer with something done for or on behalf of him/her. Hence, the essence of an experience is in what happens between the customer and the provider and the memory that remains as a result of that encounter. The authors argue that an encounter only becomes an experience if the customer apprehends either personal relevance, surprise, novelty, learning, or engagement—the greater the assortment of these sensations, the greater the intensity of the experience.

Gentile et al. (2007) further stress the customer's active role as an experience creator and the role of customer-company interactions. Instead of highlighting the company's role, they state that companies do not sell experiences or stage them, such as Pine and Gilmore suggest (1998, 1999); rather, companies provide customers with artifacts and contexts that are conducive of experiences and that can be employed to create unique experiences. Gentile et al. suggest, drawing on earlier definitions, such as Schmitt's (1999), that customer experience originates from interactions between companies and customers, which provoke a customer reaction. The customer experience is personal and implies the customer's sensorial, emotional, rational, physical, and spiritual involvement. The outcome depends on the customer's expectations and evaluation of the stimuli in the interaction.

In the online context, customer experience studies have focused on human-to-computer interactions. Klaus (2013, p. 445) characterizes the online customer service experience as a customer's "mental perception of interactions with a company online." These mental perceptions affect a set of outcomes, such as benefits, emotions, judgments (e.g., perceived value), and intentions. Hoffman and Novak (1996) and Novak et al. (2000) were among the first to address customer experience in an online context. In 1996, Hoffman and Novak proposed a model of consumer navigation behavior in a computer-mediated environment, incorporating the notion of flow to their proposal. According to Hoffman and Novak (1996), creating a commercially compelling website depended on facilitating a customer's state of flow. These ideas were furthered by Novak et al.'s (2000) discussions on customer experience in online environments. Even though Novak et al. do not define their perception of the customer experience, they suggest that the concept of flow is useful in understanding customer experience. The authors suggest that flow on the internet is a cognitive state that can be experienced during online navigation. It is determined by high levels of skill and control, high levels

of challenge and arousal, and focused attention, while it is enhanced by interactivity and telepresence. Telepresence means that the online environment with which the customer is interacting is more real or dominant than the physical environment. Flow is characterized as the "optimal experience" that is intrinsically enjoyable; therefore, online service providers should aim for this most compelling customer experience. The authors propose a structural model that embodies the components of a compelling online customer experience. Like Pine and Gilmore (1998, 1999), Novak et al. highlight the importance of immersive customer experience (Lallemand, Gronier & Koenig 2015).

It has also been noted that customer experience does not necessarily require direct interaction between the company and the customer. Whereas Poulsson and Kale (2004) and Spiller and Noci (2007) highlight interaction between companies and customers as a condition required for a customer experience to exist, Meyer and Schwager (2007) discuss indirect components, stating that customer experience is an internal and subjective response that is formed when a customer has any direct or indirect contact with a company. Direct contacts, such as purchases and use, are typically initiated by the customer. By contrast, indirect contacts are generally unplanned encounters with displays where a company's products or services are present, such as WOM recommendations and reviews. Klaus and Maklan (2012) provide similar ideas by suggesting that customer experience is the customer's evaluation of all attributes of their direct and indirect dealings with a service provider. Table 4 presents examples of interaction-focused characterizations of customer experience and its formation.

TABLE 4   Interaction-focused characterizations of customer experience and its formation

Author(s)	Definition
Novak et al. (2000, p. 22)	Flow on the Web is "a cognitive state experienced during navigation that is determined by (1) high levels of skill and control; (2) high levels of challenge and arousal; and (3) focused attention; and (4) is enhanced by interactivity and telepresence."
Pousson & Kale (2004, p. 270)	A commercial experience is "an engaging act of co-creation between a provider and a consumer wherein the consumer perceives value in the encounter and in the subsequent memory of that encounter."
Gentile et al. (2007, 397)	"The Customer Experience originates from a set of interactions between a customer and a product, a company, or part of its organization, which provoke a reaction. This experience is strictly personal and implies the customer's involvement at different levels (rational, emotional, sensorial, physical, and spiritual). Its evaluation depends on the comparison between a customer's expectations and the stimuli coming from the interaction with the company and its offering in correspondence of the different moments of contact of touchpoints."
Meyer & Schwager (2007, p. 118)	"Customer experience is the internal and subjective response that customers have to any direct or indirect contact with a company."
Klaus & Maklan (2012, p. 21)	Service experience is a "customer's assessment of all attributes of their direct and indirect dealings with a service provider that explains their behavioral loyalty through repeat purchasing. Its dimensions are product experience, outcome focus, moments-of-truth, and peace-of-mind (POMP)."
Klaus (2013, p. 445)	Online customer service experience is "the customers' mental perception of interactions with a company's value proposition online. These mental perceptions in turn drive a set of outcomes, namely benefits, emotions, judgments (including perceived value) and intentions."

2.3.3 Customer experience as a multidimensional and holistic concept

Over the years, the customer experience discussion has expanded from company-customer investigations to more comprehensive approaches in which the multidimensionality and subjectivity of customer experience are noticed. Recent studies have particularly advocated a more holistic view of customer experience, representing it as a subjective and internal response that is dynamic, holistic, and multidimensional (Halvorsrud, Kvale & Følstad 2016) and occurring throughout multiple stages. However, while multidimensionality has been emphasized in conceptual papers, it is not commonly realized on a practical level in empirical studies.

Schmitt (1999), who was one of the first authors to discuss the idea of the holistic customer experience, argues that, instead of following the old traditions of marketing that implement tools designed for the industrial age, companies should focus on customer experience. Furthermore, he argues that the meaning of the specific consumption situation should be investigated in its broader socio-cultural context. Schmitt (1999) suggests that there are five different types of experiences as well as strategic experiential modules (SEMs) for companies, including sensory experiences (sound, sight, taste, touch, and smell), affective experiences (emotions and inner feelings), creative cognitive experiences (thinking and

conscious processes), physical experiences, behaviors, and lifestyles (actions), and social identity experiences (which result from relating to a reference group or culture). Like Carbone and Haeckel (1994) and Pine and Gilmore (1998, 1999), Schmitt (1999) suggests that marketers can manage a customer's experience, and the goal for companies is to integrate different types of experiences into a holistic experience.

Verhoef et al. (2009) define customer experience based on the definitions and studies of Pine and Gilmore (1998, 1999), Schmitt (1999), Berry et al. (2002), Meyer and Schwager (2007), and Gentile et al. (2007). Verhoef et al. suggest that customer experience is a holistic construct and involves cognitive, affective, emotional, social, and physical responses to the retailer. In line with Meyer and Schwager (2007), Verhoef et al. state that experience is created by elements that a retailer can control (e.g., service interface) as well as features outside the company's command (e.g., the influence of others, purpose of shopping). The authors also extend the concept by emphasizing the customer journey and highlighting the holistic nature of customer experience, suggesting that it encompasses the search, purchase, consumption, and after-sales phases and can involve many retail channels.

Helkkula (2010, p. 6) characterizes customer experience (using the service experience concept) as a "holistic phenomenon," arguing that it is "subjective, event-specific, personal, and individually and socially constructed." According to Helkkula, individuals have experiences individually and also with their social networks, and these "lifeworld experiences intertwine with experiences relating to different types of events and service." Service organizations are intertwined with all other social networks rather than being a dyad relationship with the customer. Similarly, Trévinal and Stenger (2014) suggest that the online shopping experience is a subjective and holistic process that results from interactions between consumers, shopping practices, and the online environment, including online stores, consumer reviews, and social media.

The most recent conceptualizations of customer experience recognize the importance of a customer's past, imaginary experiences, and experiences involving active sensemaking processes by the customer (Ponsignon, Durrieu & Bouzdine-Chameeva 2017). According to Blocker and Barrios (2015), customers make sense of service environments and use them to create desired outcomes and experiences. Lipkin (2016) uses the sensemaking concept in her literature review of customer experience formation when referring to studies (Heinonen et al. 2010, Helkkula, Kelleher & Pihlström 2012, Dube & Helkkula 2015) that highlight the phenomenological lifeworld context in which the customer is active and in control. These studies emphasize customers' subjective, active, collective, and dynamic processes, where meanings are given to individual and social reality through experiential transportation back and forth in time. Ultimately, the experience is viewed as a multidimensional interpretation that builds on a customer's visible and invisible actions and interactions. The customer experience is considered part of a customer's life versus a single incident.

According to Becker and Jaakkola (2020), customer experience studies in consumer research and studies that draw on service-dominant logic have investigated customer experience as embedded in the customer's lifeworld by taking a subjective view and highlighting the role of contextual factors in customer experience. In consumer research, customer experience is characterized as personal, subjective, and emerging during the entire consumption process. It is described as emotional, hedonic, non-routine, and sometimes transformational (Becker & Jaakkola 2020). SDL understands customer experience as a subjective phenomenon emerging through responses to the holistic service process. The customer experience emerges in dynamic service ecosystems that involve many actors, and experiences are co-created in resource integration, embedded in context, and connected with value (Becker & Jaakkola, 2020). Within the stream of consumer research, consumer culture theory (CCT) understands customers as partners who collectively create experiences. The experiences are inherently interactive because consumers live in a culture that embeds different groups and shared meanings between consumers. Consumers are a part of an interconnected system of commercially produced products, and they use offerings to construct their identity and relationships with others (Caru & Cova 2015).

The latest studies on customer experience indicate that today's customer experience researchers mostly lean on earlier conceptualizations. In line with their earlier research, Lemon and Verhoef (2016, p. 71) conclude that "customer experience is a multidimensional construct focusing on a customer's cognitive, emotional, behavioral, sensorial, and social responses to a firm's offerings during the customer's entire purchase journey." McColl-Kennedy et al. (2019) state that customer experience is holistic, comprises multiple touchpoints during the end-to-end journey, and involves cognitive, affective, emotional, social, and sensory elements. The authors suggest that this definition outlines customer experience as a process that is comprised of interactions and activities. Freshly, Becker and Jaakkola (2020, p. 637) suggest that customer experience should be defined "as non-deliberate, spontaneous responses and reactions to particular stimuli". The authors explain that their view builds on the previous literature, but customer experience is separated "from the stimuli that customers react to as well as from conscious evaluation that follows from it." According to Becker and Jaakkola (2020), evaluative concepts such as satisfaction or perceived service quality are not components of customer experience. Table 5 offers examples of multidimensional characterizations of customer experience and its formation.

TABLE 5   Multidimensional characterizations of customer experience and its formation

Author(s)	Definition
Schmitt (1999, p. 57)	"Experiences occur as a result of encountering, undergoing or living through things. Experiences provide sensory, emotional, cognitive, behavioural and relational values that replace functional values."
Verhoef et al. (2009, p. 32)	"The customer experience construct is holistic in nature and involves the customer's cognitive, affective, emotional, social, and physical responses to the retailer. This experience is created not only by those elements which the retailer can control (e.g., service interface, retail atmosphere, assortment, price) but also by elements that are outside of the retailer's control (e.g., influence of others, purpose of shopping). Additionally, we submit that the customer experience encompasses the total experience, including the search, purchase, consumption, and after-sale phases of the experience, and may involve multiple retail channels."
Helkkula (2010, p. 6)	Service experience is "a holistic phenomenon, which is subjective, event-specific, personal, and individually and socially constructed."
Trevinal & Stenger (2014, p. 324)	The online shopping experience is "a complex experience lived by the consumers when they shop online, in both online and offline contexts (in a specific place, time, with or without any companions' presence . . .); it is a holistic and subjective process resulting from interactions between consumers, shopping practices (including tools and routines), and the online environment (e.g., shopping websites, online consumer reviews, and social media)."
Lemon & Verhoef (2016, p. 71)	The customer experience is "a multidimensional construct focusing on a customer's cognitive, emotional, behavioral, sensorial, and social responses to a firm's offerings during the customer's entire purchase journey."
McColl-Kennedy et al. (2019, p. 9)	The customer experience "can be conceptualized as holistic, comprised of multiple touchpoints in an end-to-end journey, involving the customer's cognitive, affective, emotional, social, and sensory elements."
Becker & Jaakkola (2020, p. 637)	Customer experience is "non-deliberate, spontaneous responses and reactions to particular stimuli."

2.3.4   The status quo of customer experience research

Overall, customer experience has been and still is interpreted in many ways. According to Palmer (2010, p. 196), the concept of customer experience has been "so widely used and abused that a potentially important construct is in danger of being dismissed because of the ambiguous manner in which it has been applied." As can be deduced from the previous sub-sections, most of the confusion related to the customer experience concept arises from different approaches where its content and links to other variables are understood in many (even opposite) ways. In these characterizations, customer experience is either an outcome, a process leading to an outcome, or an outcome leading to another outcome(s). Further-

more, the concepts is sometimes used as a synonym to the customer journey concept. To clarify what the different approaches can mean, Figure 4 offers simplified examples.

The first example in Figure 4 includes Edvardsson, Enquist, and Johnston's (2005 p. 151) definition of the customer (service) experience as "a service process that creates the customer's cognitive, emotional, and behavioral responses, resulting in a mental picture, a memory." This characterization suggests that customer experience is a service process that results in different responses and finally a memory. Similarly, Voorhees et al. (2017 p. 270) note that customer experience evolves throughout the service process that leads to outcomes. According to them, customer (service) experience is "the period during which all service encounters relevant to a core service offering may occur." Furthermore, it "comprises pre- and post-core encounters, as well as the encounters built into the core service provision as 'moments of truth' that influence customer outcomes." In their study, the customer (service) experience concept refers to the same essential idea that is included in the customer journey concept in many other studies. Customer journeys are usually defined as a series of touchpoints or moments that customers go through before, during, and after purchase (Becker, Jaakkola & Halinen 2020).
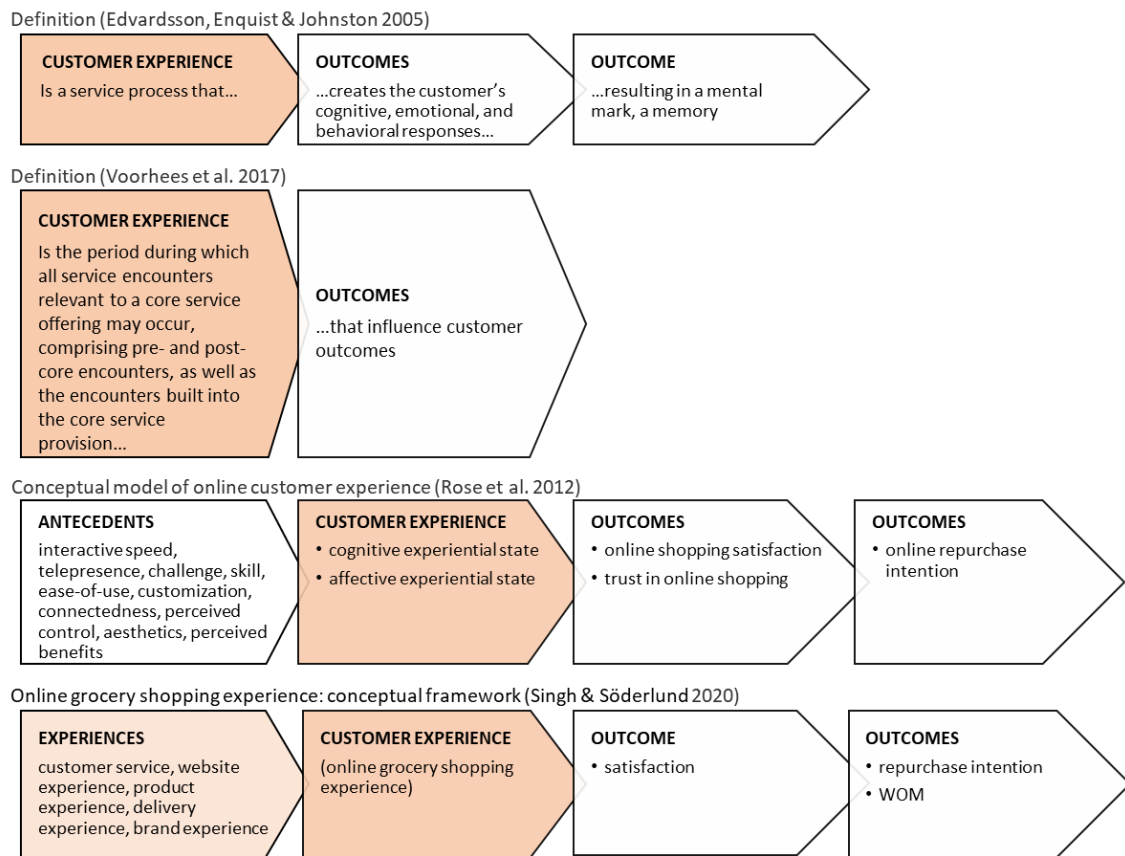
FIGURE 4 Different approaches to customer experience and its links to other variables

The third example includes Rose et al.'s (2012) conceptual model of online customer experience. The authors argue that the (online) customer experience consists of a cognitive and affective experiential state (component variables). Ten antecedent variables are proposed to influence the (cognitive and affective) customer experience that leads to three outcome behaviors: satisfaction and trust, and repurchase intention. In other words, customer experience is characterized as an outcome "a state of the customer" that leads to other outcomes.

The fourth example includes Singh and Söderlund's (2020) conceptual framework of the online grocery shopping experience. The authors suggest that the online (grocery shopping) experience is affected by experiences with customer service, website experiences, product experiences, and delivery experiences. Brand experiences, including subjective and behavioral responses, are also crucial to the overall online customer experience. The authors further explain that the overall grocery shopping experience is affected by previous experiences. They also suggest that the more favorable the overall online shopping experience is, the higher the customer satisfaction will be, and the greater the level of online satisfaction is, the higher the repurchase intention and the more positive the WOM recommendation about the online grocery retailer will be. In summary, in this characterization, the experience concept is used on two different levels: as an antecedent and an outcome. The customer experience is defined as an outcome of "different experiences," including an evaluation of customer service experience, website experience, product experience, delivery experience, and brand experience. Like Rose et al. (2012), the authors suggest that positive customer experiences will lead to positive outcomes, such as satisfaction and repurchase intention.

In addition to the many ways of understanding customer experience, some authors do not clearly define what they mean by the concept (see e.g., Novak, Hoffman & Yung 2000, Yang, Sun & Wang 2019, Singh & Söderlund 2020). The lack of a definition adds to the confusion. One example includes Singh and Söderlund (2020) (Figure, 4, example 4), who do not define what they mean by "online grocery shopping experience" but rather leave it to the reader to contemplate (as an outcome of other experiences). Another recent example includes Yang et al. (2019) discussing the role of customer experience in moderating the relationship between reputation (online consumer reviews) and price premium. While the authors do not define what they mean by customer experience, it can be deduced that it is understood as some kind of understanding, knowledge, or expertise when the authors state "as customer experience grows, customers establish their way of identifying trustable sellers and qualified products, relying less on a reputation system" (Yang, Sun & Wang 2019, p. 580). Overall, customer experience often lacks precise definition and is used on a rather superficial level as an umbrella construct under which various defining elements are collected without considering the various features in more depth and what those elements truly mean for customer experience. For instance, when customer experience is characterized as a multidimensional construct focusing on a customer's cognitive, emotional, behavioral, sensorial, and social responses (Lemon & Verhoef 2016, p.

71), the various dimensions are not typically described on a deep level (e.g., what a sensorial response means and how it differs from other types of responses). When considering the "sensorial response" more carefully, one might argue that it is meaningless from the customer experience perspective unless it is cognitively considered (noticed and thought about) by the customer. Therefore, it cannot be considered as an equal dimension of customer experience when compared to cognition.

In summary, many efforts have been made to conceptualize customer experience, and many studies have presented their views on its relationship with a wide range of variables. While researchers seem to agree that customer experience is a customer's response to or interpretation of a company, in practice, the different conceptualizations mean that customer experience operationalization differs in studies, resulting in measurement and validity concerns (Becker & Jaakkola 2020). Many studies conclude that customer experience research has provided a thorough assessment of the role that firms play in delivering customer experiences (Chandler & Lusch 2015). However, as Chandler and Lusch (2015) explain, today's customer experience depends on many actors, times, contexts, or meanings, and single operators do not define it. This is explained by technological developments, such as the rise of e-commerce, which removes the constraints of time (when), place (where), and constellation (with whom) in terms of consuming goods and services. It can be argued that company-focused investigations are limited in their ability to capture the essence of customer experience formation in today's consumption landscape; hence, the focus of customer experience studies must be directed away from companies and toward customers to show how customer experiences appear in the customers' versus the companies' world.

This study aims to advance the customer experience understanding in service research by investigating customer experience formation through the customer view. While customer experience studies have traditionally focused on service elements (stimuli) and their outcomes (customer reactions, responses and evaluations, and the following behaviors or intentions), especially in empirical investigations, they have not delved into the mechanisms through which customer experience is formatted in the customer's reality. While the subjectivity of customer experience has been recently noted, especially in conceptual papers, and many studies conclude that customer experience is created with elements that the service provider can and cannot control (Lemon & Verhoef 2016), investigations that consider customers and factors beyond the company are few, especially in qualitative empirical studies. This study aims to address this shortcoming by investigating customer experience formation as it appears in customers' reality without service provider/company-related restrictions. In contrast to mainstream studies, the main interest of this dissertation is not on the service elements or customers' reactions to those elements but on the processes through which customers build mental picture (customer experiences) when using e-commerce services. The focus of this study and its comparison with mainstream customer experience studies are summarized in Figure 5.
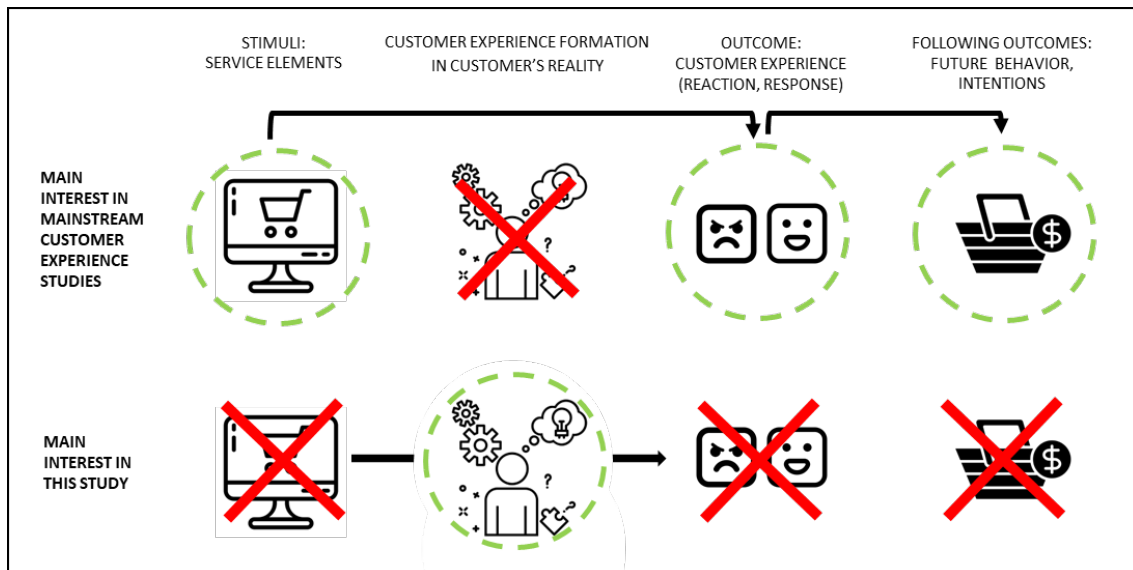
FIGURE 5   The main interest of this study and its comparison to mainstream customer experience studies

This study seeks to describe how customer experience formation can be structured and depicted, including presenting the important dimensions from the customer's viewpoint. The next chapter discusses the research approach of this dissertation and explains how this goal is approached in practice.

3 RESEARCH APPROACH

The production of scientific knowledge always requires certain assumptions of reality and the nature of knowledge. All research is underpinned by a stance toward the world that is studied (ontology) and how this world is investigated (epistemology). The research approach offers a framework that guides the research; it is a systematic and dynamic formation that provides a structure that guides conceiving, designing, and carrying out the research project (Saunders, Lewis & Thornhill 2019).

As Saunders et al. (2019) explain, all *research philosophies* can be compared to one another by placing them on an objectivism–subjectivism continuum. This placement further defines the ontological and epistemological assumptions of a researcher. Objectivism assumes that one true reality exists independently of people, and it is possible to know this reality through empirical observations. The subjectivist view in turn assumes that reality is subjective and that multiple realities exist; it is an outcome of social and cognitive processes (Eriksson & Kovalainen 2015). Objectivism is typical for natural sciences, while subjectivism holds the assumptions of arts and humanities. In business research, the research approach can also be understood based on Burrell and Morgan's (1979) presentation of social research *paradigms*. Burrell and Morgan present a 2X2 matrix where four rival paradigms are presented by combining the objectivist–subjectivist dimension with the regulation–radical change dimension. Based on this logic, each study can be labeled as either functionalist, interpretive, radical structuralist, or radical humanist (Saunders, Lewis & Thornhill 2019).

To clarify how the research approach is understood in this dissertation, Saunders et al.'s (2019) presentation of the underpinnings of business research is utilized (Table 6). They use the categories of 1) philosophy, 2) approach to theory development, 3) methodological choice, 4) strategy, and 5) time horizon to describe the research approach. This dissertation is rooted in *interpretivism*. Its approach to theory development is predominantly *inductive* but it also has some abductive elements. The methodological choice includes a *multi-method qualitative approach with a narrative inquiry* for its strategy with *cross-sectional procedures*.

TABLE 6　　　Underpinnings of business research (Saunders et al. 2019) and the approach in this dissertation

Philosophy	Approach to theory development	Methodological choice	Strategy(ies)	Time horizon
Positivism	Deduction	Mono method quantitative	Experiment	Cross-sectional
Critical realism	Abduction	Mono method qualitative	Survey	Longitudinal
Interpretivism	Induction	Multi-method quantitative	Archival research	
Post-modernism		Multi-method qualitative	Case study	
Pragmatism		Mixed medhod simple	Ethnography	
		Mixed medhod complex	Action research	
			Grounded theory	
			Narrative inquiry	

In the context of this dissertation, a noteworthy detail is that Saunders et al.'s (2019) framework only identifies qualitative, quantitative, and mixed-method methodological choices; it does not separate contextual research from these options. In line with this framework, this dissertation considers contextual research qualitative in nature because it (in this study) aims to interpret the research conducted by other researchers. Also notable is that the third research article of this dissertation uses a survey as its data collection method. While this choice might suggest a quantitative research approach, the main data used in the study include customers' written answers (narratives) to open-ended questions on the survey. These issues and the research approach of this dissertation are further discussed in the next subsections.

3.1　Philosophical approach: Interpretivism

The philosophy of science underpins the choices and decisions that are made when taking a research position, which in turn has implications for what, how (methodology), as well as why research is carried out. It concerns a system of assumptions and beliefs about how new knowledge is developed. According to Saunders et al. (2019), there are five significant philosophies in business research:

positivism, critical realism, interpretivism, postmodernism, and pragmatism. In this dissertation, an interpretivist philosophical approach is adopted.

The core ontological idea of interpretivism is that humans are different from other physical phenomena because they create meanings. The created meanings vary because of individuals' cultural backgrounds and circumstances. Therefore, social science research must be different from natural sciences and should not try to emulate the core ideas found in natural science studies; discovering universal laws or truths that apply to everyone is impossible. Marketing science explores the social world in which business is conducted, and phenomena cannot be studied in isolation from the world around us. The reality is complex and rich, including the flux of processes and practices (Saunders, Lewis & Thornhill 2019).

Interpretivism contains different tendencies that emphasize interpretation in one way or another. The various strands emphasize each's fundamental beliefs, the researcher's focus, and the preferred methods for collecting data. However, they are similar in terms of involving the researcher in the research, the use of a small number of respondents instead of large samples, and their focus on generating or building theories instead of theory testing. According to Eriksson and Kovalainen (2015), the current interpretive research is dominated by social constructionism, which posits that individuals do not discover or find knowledge as much as they construct it; our minds are active in creating knowledge (Schwandt 2000). Individuals do not have direct access to the "real" world, but their knowledge of this perceived world is meaningful in its terms. The ideas of social constructionism were initially presented by Berger and Luckmann (1966), who argue that our experience of reality is a result of processes and activities, which can be called social construction. The experience of the world as other is constituted for each of us in social settings, and various realities arise in the complex social worlds that we inhabit.

This dissertation is based on the ontological assumption in which individuals' reality is understood as subjective; it is constructed in and derived from interaction, created through interpretation, and influenced by the social context. Therefore, knowledge about social actors is available from social actors. The interpretative approach assumes that knowledge about reality can be gained through social constructions, such as a language, shared meanings, consciousness, documents, tools, and other artifacts (Klein & Myers 1999). The focus of research is on understanding what is happening in each context. The approach recognizes the complexity of understanding what is meaningful to research participants due to the consideration of multiple realities, the perspectives of different actors, and the subjective role of the researcher (Saunders, Lewis & Thornhill 2019). Therefore, interpretive perspectives assist in understanding how people interact and participate in social processes from their realities through meanings, beliefs, and intentions (Orlikowski & Baroudi 1991). The researcher's interpretations are key because an interpretive analysis is achieved through social interaction, and a collaboration between both parties (participant and researcher) (Miles & Huberman 1994) is needed. From the axiological perspective (i.e., the ethics and values of a researcher and how he/she deals with his/her values concerning

the participants' values), this means that the researcher needs to adopt an empathetic position (Saunders, Lewis & Thornhill 2019) and thus depict the world from the participant versus his/her own perspective. Furthermore, a researcher needs to recognize and reflect on his/her values while conducting research.

Interpretivist research, such as this dissertation, aims to create new, richer understanding and interpretations of the social world and contexts (Saunders, Lewis & Thornhill 2019). New worldviews and understanding are considered a contribution. Interpretivist research is concerned with subjective and shared meanings: how people, individuals, or groups of people interpret and understand social settings and events (Eriksson & Kovalainen 2015). To understand a social phenomenon, such as service consumption, the meanings that constitute such action must be grasped (Schwandt 2000). Researchers who follow the interpretivist approach argue that it is possible to understand subjective meanings by investigating an actor's cognitive constructs, such as beliefs or desires, objectively (Schwandt 2000). A phenomenon can be understood by studying what people think and what meanings are important to them. In line with these ideas, this dissertation aims to create a new understanding of customer experience formation in the e-commerce context by investigating how people interpret and give meaning to e-commerce, their e-commerce encounters, and different meaning creation processes. Whereas the empirical studies are interested in consumers' and customers' meaning creation, the conceptual study essentially investigates researchers' interpretations and discussions of the chosen topic.

3.2 Approach to theory development: Induction

The approaches to theory development include deductive, inductive, and abductive logic. Deductive reasoning starts with theory and assumes that the assumption made by the theory is correct if collected evidence supports it (Saunders, Lewis & Thornhill 2019). Deductive reasoning is the dominant approach in natural sciences. The opposite of this is inductive reasoning, which instead of theory employs empirical observations through which assumptions describing the phenomenon can be made. Abduction is intermediate, moving back and forth between the other two approaches.

According to Saunders et al. (2019), a purely deductive or inductive approach is difficult to achieve in business research, and studies typically include at least some abduction. This notion applies to this study as well. Interpretivist studies (in general) are mostly inductive, which means that these studies make few explicit assumptions about sets of relationships. The data are guiding the research and theory building; theory follows data rather than vice versa. The observations of the empirical world make it possible to construct explanations and theories about what has been observed (Kovács & Spens 2005). Based on these ideas, this dissertation can be considered predominantly *inductive*. During the research process, all the qualitative data were collected in an open-ended manner without strict theoretical frames, which allowed the first main findings to emerge

inductively from the data. However, one could argue that the researcher's previous understanding of the research topic, including different theoretical views, may have influenced the research process, including data collection and analysis. Thus, the process was not 100% inductive (and with this logic, no study can be). Furthermore, after becoming familiar with the main themes emerging from the data (patterns and regularities, and general conclusions), suitable theoretical lenses were searched to support and expand the empirical data analysis. For instance, with the third paper, the study respondents were asked to explain their emotions during an online store visit in their own words. After becoming familiar with the explanations, it was noted that customers typically mentioned either the online store, themselves, or something else in their explanations. Based on this notion, the author searched for a theory that explains such reasoning and found the attribution theory (Heider 1958, Weiner 1985). Hence, in the research paper, this theory was used to frame and support the initial findings from the data. The same pattern was followed with the second paper; data and initial findings arose from the participants' narratives, after which existing literature was utilized in framing and discussing those findings. In this respect, the research can be considered abductive. Abductive reasoning emphasizes "theory matching": the search for suitable theories to an empirical observation (Dubois & Gadde 2002, Kovács & Spens 2005). The findings of the studies 2 & 3 are based on empirical data, but have been refined in the later stages of the research process with the help of previous literature. However, when putting the findings of the articles 2 and 3 together in this dissertation, the empirical conceptualization of customer experience formation (Figure 9) was formed inductively concerning the main themes emerging from the articles' findings. In the case of the conceptual article, the notions of sensemaking in customer experience studies inspired the authors to further investigate the sensemaking concept, including what it entails and how it can be utilized to understand customer experience formation on a deeper level. The findings of the study 1 are based on the authors' analysis of the sensemaking literature and the main themes that emerged from that data. In summary, while this dissertation includes some abductive elements, the author finds that the overall approach is more inductive than abductive. Therefore, induction best describes its approach to theory development.

3.3 Methodological choice: The multimethod qualitative approach used with the narrative inquiry strategy and the cross-sectional technique

A methodological approach can be either quantitative, qualitative, or mixed-method (combining quantitative and qualitative) in nature. According to Walle (2015), marketing research has been primarily influenced by psychology and therefore has tended to embrace the objective and quantitative research strategies

that are popular in that field. However, the naturalistic shift in consumer research gave rise to more flexible approaches, including qualitative methods.

This dissertation utilizes *a multimethod qualitative* research methodology with a narrative inquiry strategy (Saunders, Lewis & Thornhill 2019). Qualitative research seeks to understand the phenomenon under study. This means investigating the meaning or purpose of a phenomenon (here, customer experience formation) to gain a holistic and deeper understanding of the phenomenon. *Narrative inquiry* means that texts, journals, conversations, or other similar materials are used to understand how people create meaning from the phenomenon under study. Narratives are stories through which people structure, explain, and understand their lives and social relationships. People interpret the world as a narrative that begins with and relates to their earlier narratives or knowledge; they construct their identities and seek to understand themselves through the stories that they compose (Eriksson & Kovalainen 2015). Narrative research studies use stories and investigate the meanings that different life events hold for people (Polkinghorne 2007).

As depicted earlier, this study seeks to describe how the customer experience formation concept can be structured and depicted based on evidence found in the sensemaking literature and empirical evidence collected from e-commerce customers. The empirical part of this dissertation analyzes the narratives of e-commerce customers. These narratives include customers' written and spoken stories about themselves as customers of e-commerce retailers. A narrative is a customer's description of a recent customer experience that focuses on what matters to him/her. The spoken and written narratives that were collected in this study provide representations of how individuals understand e-commerce situations and themselves therein. The research aimed to illuminate real-life experiences through the stories of research participants (Clandinin & Connelly 2000). A story or narrative is seen as an instrument through which "the hidden becomes seen." The stories were approached by asking the participants questions that would help the researcher interpret the participants' world. This approach allows detailed descriptions of experiences and the exploration of meanings that are connected to those experiences (Wang & Geale 2015).

Polkinghorne (2007) finds storied descriptions where people describe the meanings that they attribute to life events as the best evidence available to a researcher to investigate the realm of individuals' experiences. In line with these ideas, narratives were found the best way to study customer experience formation in this study. In narrative inquiry, the researcher assumes that participants provide insights into their experience and thereby offer new perspectives to understand the experience and to gain a deeper understanding arising from the participants' perspective. The approach reveals subjective truths for the participants within their realm (Wang & Geale 2015). Because this study deals with subjective thought, which cannot be seen, it relies upon empirical evidence that cannot be directly observed (Walle 2015). The conceptual study of this dissertation is based on research material that includes sensemaking and customer expe-

rience texts, books, and articles. The study analyzes the discussions and definitions of the customer experience and sensemaking concepts as well as the narratives written by researchers that discuss their views and understanding of sensemaking or customer experience. The conceptual study investigates and interprets the sensemaking and customer experience concepts, their characteristics, and their relationships to other concepts.

The last dimension that describes a research approach (based on Saunders et al. 2019) is its time horizon. Two options describe the research process's timeline. Longitudinal studies are conducted over time, continuously study the same situation or people, and aim to understand the dynamics and/or change processes related to the phenomena. The *cross-sectional* approach that is applied in this dissertation aims to obtain information from different contexts during the same period to provide snapshots of a phenomenon. Data are collected from one or more sources.

The data collection and analysis processes of this dissertation are depicted more closely in section 3.4. Table 7 summarizes the key elements of the research approach (Saunders, Lewis & Thornhill 2019) of this dissertation.

TABLE 7   Research approach summary

Ontology (nature of reality or being)	• The world is socially constructed and subjective: it is built through culture and language • Multiple realities with multiple meanings and interpretations
Epistemology (what constitutes acceptable knowledge)	• Knowledge about reality can be gained through social constructions, such as narratives, stories, perceptions, and interpretations

Approach to theory development	• Aims at theory development, new understandings and worldviews are a contribution
	 • Observations of the empirical world make it possible to construct explanations and theories about what has been observed
	 • Predominantly inductive, with some abductive elements
	   • Induction: developing ideas through induction from data; moving from empirical observations to patterns and regularities, and general conclusions
	   • Abduction: incorporating existing theory as a lens to frame the initial (empirical) findings

Methods	• Qualitative methods, narrative inquiry • Small samples, in-depth investigations • Concept analysis

3.4 Data collection and analysis

3.4.1 Research process and articles

As noted earlier, this dissertation includes one conceptual and two empirical research articles. Chronologically, the conceptual study started the dissertation process and has been in progress since 2016, while the empirical studies were conducted from 2017 to 2019. The empirical content of this dissertation has been shaped by the e-commerce research project "Data Analytics-Based Internationalisation Concepts of Electronic Commerce Solutions," which guided the overall dissertation process, especially the empirical data collection. The purpose of the project was to increase the understanding of online consumption from the consumer and data analytics perspectives. The project was conducted in the Faculty of Information Technology at the University of Jyväskylä, and it included the following business partners operating in the e-commerce sector in Finland: Edututor Ltd., Pulse247 Ltd., and Suurenmoinen Ltd.

The empirical findings of this dissertation are built on four datasets that were collected between 2017 and 2018. The empirical data include individual interviews (N = 7), small-group interviews (N = 9), essays (N = 18), and a survey (total N = 1,786, N = 325 qualified respondents). A summary of the utilized data is presented in Table 8.

TABLE 8   Data collection summary

	Study type	Service context	Approach	Method	Participants	Data collection
Study 1	Conceptual study	Not specified	Customer experience formation as a sensemaking process	Literature review Concept analysis	-	2016–
Study 2	Empirical study	E-com.	Customer experience formation during online shopping customer journeys	Interviews • Individual (N = 7) • Small groups (N = 9) • Essays (N = 18)	N = 34	2017–2018
Study 3	Empirical study	E-com.	Customer experience formation during online store visits	Survey: Open-ended questions	Total N = 1,786, final N = 325	2018

The main purpose of this dissertation is to provide two conceptualizations (i.e., a concept, an abstract, or a general idea that is generalized from particular instances) of customer experience formation in the context of e-commerce from the customer perspective; therefore, it is built on the ideas of concept analysis, which is interested in the characteristics of concepts (Nuopponen 2010). The purpose of

concept analysis is to form concepts that employ analytic and synthetic reasoning by using existing insight and concepts (Näsi 1980). Interpretive conceptual research seeks to either describe and interpret the totality of meanings of concepts or to reveal the meaning of a concept and its definitions (Walker & Avant 2005). According to Näsi (1980), concept analysis is needed in all research approaches, not just in theoretical research that focuses on exploring and analyzing different concepts. In line with this, the concept analysis perspective is most evident in the conceptual study included in this dissertation. However, as the present study as a whole aims to characterize and describe customer experience formation, it can also suggested that the research process that produced the two conceptualizations follows the ideas of concept research. Such as typical to concept analysis, this study seeks to clarify, refine and study the features and characteristics of customer experience formation and tries to distinguish the essential elements of the concept from non-essential ones (Walker & Avant 2005).

According to Näsi (1980), it is impossible to have an exact procedure for concept analysis. However, some of the main intertwined phases, including creating a knowledge foundation, external analysis, internal analysis, and forming conclusions, can be identified (Näsi 1980). A concept analysis begins with the *creation of a knowledge foundation*; creation of database, information gathering, and the mapping of research in the field. Concerning this, in *an external analysis*, the related concepts and superordinate concepts are distinguished from the investigation. In the case of this dissertation, the three individual studies and the research work that was done during those research processes can be considered the knowledge foundation of this study. During the research processes, the author of this thesis became familiar with the customer experience research field and limited the main scope of the dissertation to the customer experience formation concept in e-commerce. It was decided that the study would use the customer experience concept rather than the service experience concept. Although the service experience concept was involved in the early stages of the dissertation process and would also have been a potential option, the customer experience concept was eventually chosen because of its ubiquity and popularity.

In the third stage—*internal analysis*—the concepts are disassembled, and different views are specified and considered (Näsi 1980). For this dissertation, the individual studies provide separate views of the customer experience formation concept: views based on e-commerce customers' narratives are in studies 2 and 3, and a view based on the academic discussion is in study 1. Hence, the kind of information that is provided by the different perspectives and how they are similar or different was considered. Whether the content of the different views should be presented as their own conceptualizations or whether they should be merged into one conceptualization based on empirical and conceptual findings were also considered. Ultimately, two views (empirical and conceptual) on customer experience formation are presented because they provide a clearer overall outcome if kept separate. Therefore, in this study, the conceptual study is further elaborated as a separate unit, and the empirical studies are reanalyzed together. In other words, while studies 2 and 3 provide their findings regarding customer

experience formation, these findings are further analyzed and combined to provide the empirical conceptualization in this dissertation.

The last phase suggested by Näsi (1980) is the *forming of conclusions*. This includes making conclusions by accepting or modifying existing concepts or forming new concepts and concept systems. In this dissertation, the conceptual part provides its own conclusions of customer experience formation in e-commerce based on the sensemaking theory, while the empirical part provides another conclusion. Chapter 5 further discusses and demonstrates the two conceptualizations, their different dimensions, and the reasoning behind them. Lastly, further conclusions are drawn by a comparison of the two models. Before that, the data collection and analysis of the individual studies included in this dissertation are described in the following sub-sections. The concept analysis process and the relationship between the different studies and conceptualizations are visualized in Figure 6.
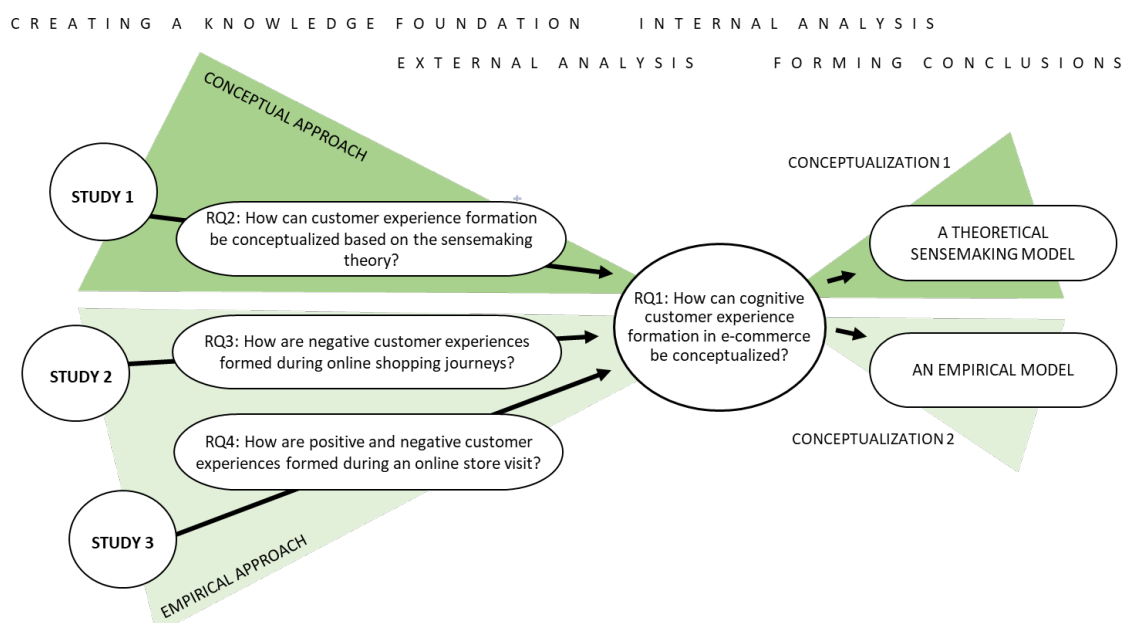
FIGURE 6   The relationship between the different studies and the customer experience formation conceptualizations

3.4.1.1   Study 1: Conceptual investigation

The first study of this dissertation is a conceptual investigation. Conceptual research is a methodology wherein research is conducted by analyzing present literature and information on a given topic (here, customer experience and sensemaking). Conceptual research does not typically involve empirical investigations but rather is related to abstract concepts or ideas. Conceptual studies can propose

empirical experiments to test theoretical ideas; however, empirical data to support their claims are not required. Notably, there is no standardized procedure for conducting conceptual research (Xin, Tribe & Chambers 2013).

The purpose of conceptual research is to either develop new theories or interpret and combine existing theories in a new way (Xin, Tribe & Chambers 2013). It includes making abstract statements and claims about a phenomenon, breaking statements into concepts, and explaining how different concepts relate to others (Walliman 2017). Conceptual studies mainly focus on a phenomenon or the theory that explains a phenomenon. In conceptual research, previous research and associated work are combined by collecting relevant information regarding to topic. It systematically explains as well as gives ideas about the actions needed based on the knowledge obtained from other ongoing research and other researchers' points of view on the topic. These ideas and suggestions are often summarized in conceptual frameworks. Whereas empirical research can be constrained by its focus on what is, conceptual research can enhance a research field by discussing what could be by providing creative, imaginative, and innovative ideas (Xin, Tribe & Chambers 2013). The rhetoric of the paper is crucial in contextual studies aiming to make something previously unnoticed both visible and noteworthy (Xin, Tribe & Chambers 2013).

The first study of this dissertation reviews the sensemaking literature in management research and customer experience research (focusing on service research) and proposes a theoretical framework of customer experience and its formation. The paper aims to clarify the customer experience concept by providing ideas of how sensemaking and customer experience literature can be utilized together in explaining how customer experiences come into existence as cognitive constructs. The study offers suggestions on how the constructed framework can be applied in further customer experience investigations.

3.4.1.2 Study 2: Interviews and essays

The second study aims to increase the understanding of how negative customer experiences are formed during customers' online shopping journeys. A qualitative dataset was collected from 2017 to 2018 from 34 consumer participants. The collection methods included individual interviews (N = 7), small-group interviews (N = 9, 2–3 participants per group), and written essays (N = 18). Interviewing is a key method for collecting narratives in the social sciences; the interviewer attempts to elicit information, opinions, or beliefs from another person or persons. Interviews are used to learn about how interviewees experience the world and how they think, act, and feel as individuals and in groups (Brinkmann 2013), and they can be used to study individual lived experiences. The collection of written essays had a similar purpose to the interviews. With this method, however, the collection of data did not include face-to-face interaction between the participants and the researchers because the participants wrote their essays alone, in a place of their choice, reflecting on the predefined questions.

The interview participants were recruited through mailing lists targeted to the University of Jyväskylä's stakeholders, such as students and staff. The 500–

1,000-word essays were collected from a course held at the university. The participants included Finnish consumers, 24 of whom were women (71 %), and 10 of whom were men (29%). The participants' ages varied from 21 to 68 years, but the majority (73.5%) were young adults under 30 years and students (79%), which is explained by the chosen recruitment channels. The participants were accustomed to online shopping, which is typical for Finnish consumers. Most participants reported that they visit online stores at least monthly (77%) and make online purchases monthly (65%).

To capture the participants' real-life experiences, open-ended questions were used. All participants were asked to describe themselves as online shoppers via questions about what they think of online shopping and how they behave as online shoppers. The participants were also asked to recall and reflect on their experiences in online shopping by describing their negative and positive experiences as well as their emotions during their online shopping journeys. The individual and group interviews lasted approximately 60 minutes and were subsequently recorded and transcribed. The essays were collected using a digital form where the participants wrote their narratives.

The transcribed data and the essays were analyzed with a thematic analysis alongside an inductive coding and analysis process with NVivo software. The analysis was grounded in empirical data expressions, and the analysis unit was a statement articulated by a participant. The analysis process included first collecting all the statements made by participants that described unpleasant and irritating situations during their customer journeys. After this, the negatively perceived touchpoints during customer journeys were identified via following a multistep, iterative process wherein the touchpoints were named, grouped, renamed, and regrouped multiple times based on the participants' statements. Finally, the identified touchpoints were grouped based on the customer journey phases.

3.4.1.3 Study 3: Survey with open-ended questions

Study 3 aims to examine how customers explain the causes of their positive and negative emotions during a visit to an online store. The empirical data were collected between September and December 2018 via an online survey. Open-ended questions were used as the primary data for the study. However, the respondents for the qualitative analysis were selected based on a measurement of the intensity of their emotions, which is explained later in this section.

The survey was conducted in cooperation with 18 Finnish online stores. The partner companies included various types of business-to-consumer stores selling cosmetics, clothing, music, electronics, groceries, home decorations, and recreation products and accessories. The survey method was chosen because it allowed the researcher to reach many respondents in a real-life context. Furthermore, the survey enabled the respondents to consider their online store visit in a real-life e-commerce context, and the data hence describe authentic customer experience formation in online stores.

The customers of the online stores were shown a link to the survey after they had successfully placed an order at a store. The survey first included questions about the respondents' demographics, their online shopping habits, and the particular online store visit. Some of the questions included how often they shop online, what they had just purchased, and how many times they had previously shopped at the online store in question. Following the background questions, the respondents were asked about their emotions during their online store visit. The intensity of different positive and negative emotions was measured by using a set of first-order emotion constructs with 28 specified emotions taken from the hierarchical framework by Laros and Steenkamp (2005), including optimism (optimistic, encouraged, hopeful), joy (happy, pleased, joyful), contentment (contented, confident), peacefulness (calm, peaceful), and excitement (excited, thrilled, attracted). Negative emotions include anger (angry, annoyed, irritated), frustration (frustrated, discontented, disappointed), fear (afraid, nervous, worried), sadness (depressed, sad, guilty), and shame (embarrassed, ashamed, humiliated). The respondents were asked to rate these emotions on a scale from one to seven. A value of one indicated that they had not experienced that specific emotion, and a value of seven indicated that they had strongly experienced that particular emotion during their online store visit. In the latter part of the survey, the respondents were asked to describe their experienced emotions and to explain what caused the strongest positive and negative emotions. The positive/negative emotions approach was chosen because it provided a simple frame in which participants could explain their customer experience construction.

The survey resulted in a sample size of 1,786 Finnish adult respondents. From these respondents, customers who experienced strong positive or negative emotions during their online store visits were first identified. Strong emotion was one that differed by more than two standard deviations from the average value for that emotion. Based on these criteria, 387 respondents were identified as experiencing at least one negative emotion, while the number of respondents with at least one positive emotion was 321. Because this study aims to understand how customers explain the causes of their emotions, we then excluded all respondents who did not also explain their negative or positive emotions related to the online store visit. Respondents with unclear explanations that did not help identify the cause of their emotions were also removed. Thus, the final number of respondents included 215 respondents with negative emotions and 138 respondents with positive emotions. Interestingly, of these, 28 respondents included individuals who had experienced both strong negative and strong positive emotions during the online store visit, leaving the final sample size at 325 individual respondents. Most respondents were 1) women and under 40 years of age, 2) reported making online purchases at least monthly, and 3) were familiar with the online store they were visiting (for more details; see study 3, appendix).

The written data from the 325 respondents were analyzed via NVivo software. The data included explanations that ranged from 2 to 429 words. Based on attribution theory (Heider 1958, Weiner 1985), which suggests that individuals explain causes of events by attributing them to internal or external causes, the

respondents' explanations for their emotions were first coded as either externally or internally attributed. The attribution was deduced based on the explanation's content. Explanations that included two or more distinct attributions were split into separate units for analysis. Before tallying the final counts and categorizations of the expressed negative and positive attributes, each analysis unit was coded and re-coded multiple times. Although the main themes explaining the positive and negative emotions were identified based on attribute counts, the principal objectives of the study were to better understand customers' sense-making during an online store visit and to recognize patterns in customer experience formation rather than quantifying the attributes.

4 SUMMARY OF THE RESEARCH ARTICLES

This section summarizes the main findings of the individual research articles.

4.1 Study 1: Introducing a sensemaking perspective to the customer experience

The purpose of the first study is to explore customer experience via a new theoretical lens that advances the understanding of how customers construct their customer experience cognitively. This conceptual study draws on the sensemaking theory that is engendered in organizational studies, and especially on the work of Karl Weick discussing the essential elements of sensemaking (e.g., Weick 1988, 1995, 2001, Weick, Sutcliffe & Obstfeld 2005). The study suggests sensemaking as a theoretical lens through which the cognitive elements in customer experience formation can be better understood and investigated. The study proposes that the sensemaking theory created by the organization researchers can act as a useful lens for customer experience researchers, especially if they are interested in the customer perspective. The study is motivated by recent customer experience studies that suggest that customers are active sensemakers but do not place the customers' sensemaking at the core of their investigations (Helkkula, Kelleher & Pihlström 2012, Dube & Helkkula 2015, Lipkin 2016, Ponsignon, Durrieu & Bouzdine-Chameeva 2017). In response to RQ2, the article first characterizes the customer experience and its formation. It then composes a framework that identifies the components of sensemaking and links these elements to customer experience formation.

 Conceptual framework. Sensemaking is commonly understood as meaning creation processes through which individuals give meaning to events or issues that are encountered and noticed during their everyday lives. Study 1 suggests that customer experience is a collage of meanings that a customer creates through sensemaking. The sensemaking literature notes that sensemaking en-

compasses three intertwined phases: noticing of cues, meaning creation, and enactment. Study 1 therefore proposes that customer experience construction in the context of services is inspired by services' cues and followed by actions based on the meaning creation that occurs.

Noticing—extracting cues from ongoing situations. Sensemaking studies regard the environment as the initiator of sensemaking (Weick 1995, Maitlis, Vogus & Lawrence 2013, Maitlis & Christianson 2014, Sandberg & Tsoukas 2015). When people engage in ongoing situations, they notice and extract salient cues from the environment and give them attention. In service research, services are often regarded as sets of cues or clues that are orchestrated by the service provider (e.g., Bitner 1990; Baker et al. 2002; Ballantine, Parsons, & Comeskey 2015). Therefore, study 1 suggests that customer experience construction starts when sensemaking starts—when the customer notices service cues and service thus becomes a part of the customer's reality. Cues are given closer attention based on the customer's existing mental models, such as what a customer finds attractive. Service cues can be produced by the service provider as well as other actors, such as customers themselves.

Meaning creation. The sensemaking literature suggests that noticing cues results in meaning creation, during which individuals give explanations to the encountered cues (e.g., Weick, Sutcliffe & Obstfeld 2005, Maitlis, Vogus & Lawrence 2013, Maitlis & Christianson 2014, Sandberg & Tsoukas 2015). Based on the sensemaking literature, study 1 indicates that meanings and therefore the customer experience are constructed through meaning creation processes that are wrapped around customer's considerations of 1) oneself (one's identity), 2) the surrounding world (the sociomaterial environment), 3) past, and 4) future. Meaning creation produces *plausible meanings* that are organized into meaningful groups via labeling, categorizing, and connecting them. Study 1 suggests that the collage of meanings from (previous and present) sensemaking episode(s) constitutes the customer experience of the moment.

Actions. The sensemaking literature suggests that meaning creation results in actions or non-actions (Weick, Sutcliffe & Obstfeld 2005, Maitlis & Christianson 2014, Sandberg & Tsoukas 2015). Actions include social processes where outcomes of meaning creation are shared with others by speech, interaction, and physical behaviors (Weick 1995). By their actions, individuals inject order into their reality and create prerequisites and new cues for meaning creation. In line with these ideas, study 1 posits that customer's sensemaking and the customer experience that is constructed through it directs a customer's future behaviors.

4.2 Study 2: How are negative customer experiences formed? A qualitative study of customers' online shopping journeys

The second study investigates how negative customer experiences are formed during customers' online shopping journeys. A customer journey is an approach

whereby the process of service delivery is mapped from the perspective of the customer only (Stickdorn et al. 2012). The study identifies negatively perceived touchpoints and investigates customers' sensemaking on these touchpoints, aiming to understand why they contribute negatively to customer experience formation. The paper argues that negatively perceived touchpoints direct the customer experience, which is understood as a mental picture, toward the negative.

In response to RQs 1 and 3, the findings suggest that customer experience construction can include various negatively perceived touchpoints throughout the entire online shopping journey. These touchpoints are grouped into four main categories based on the customer journey phases (Tynan & McKechnie 2009, Verhoef et al. 2009): 1) search and consideration, 2) finalizing the purchase, 3) delivery, and 4) after-sales interaction with the company. The first category is linked to the pre-purchase phase of the customer journey, while the second category refers to the purchase phase, and the third and fourth categories depict the post-purchase phase. Within the main categories, 20 subthemes that describe the touchpoints are identified.

Search and consideration. Study 2 identifies a lack of information and navigation difficulties as essential themes contributing to customer experience formation during search and consideration. The findings show that lack of information can be experienced on many levels and emerge as inadequate and undetailed product descriptions, incorrect and outdated information, and poor customer-company communications. Navigation difficulties include a store's confusing layout, poor technical functionality, and service elements that distract the customer's shopping process. Poor technical functionality, including download slowness, technical errors, and mobile incompatibility, can cause customers to look for other retailers. Distractions, such as pop-ups, ads, and music, are among the negative touchpoints that disturb the shopping process. Overall, the findings suggest that customers expect to be "left alone" in online stores. Online stores' attempts to communicate with their customers during store visits are perceived as unwanted surprises and espionage; pop-up chatboxes especially arouse feelings of discomfort because they are often considered intrusive. Furthermore, interactions with online store chatboxes are perceived similarly to dealing with a real person; therefore, closing the chatbox can cause negative emotions, including discomfort and feelings of impoliteness.

Finalizing the purchase. During the purchase phase, negative touchpoints are mostly linked to unpleasant surprises that prevent the customer from ending the shopping process. The negatively perceived touchpoints include unexpected details concerning the delivery (e.g., costs and options), complicated identification procedures, technical errors, lack of information regarding the order and delivery, and invalid discount codes. The findings suggest that such occasions cause customers to feel betrayed, misled, and desirous of something that cannot be ultimately reached.

Delivery. Slow shipping processes, inconvenient delivery places, uncertainty, and complications regarding the delivery are the main identified negative contributors in terms of deliveries. The findings highlight the importance of

smooth delivery from the customer perspective. Receiving parcels as easily as possible without exerting special effort or wasting time in locations that are close to customers' everyday routes are preferred. Picking up parcels from unpleasant or inconvenient locations and dealing with customs and courier services are identified as irritating features of online shopping because they require extra effort from the customer and interfere with their daily tasks.

After-sales interaction with the online store. Aggressive after-sales marketing, deficiencies in customer service, and complicated or expensive return procedures are negative touchpoints of the after-purchase phase. Aggressive after-sales marketing is linked to customers' perceptions of the content and frequency of the marketing messages. Receiving many e-mail advertisements and newsletters is perceived as disturbing and damaging to the customer experience because customers may feel too heavily engaged with the company. At the same time, marketing tricks (such as "only for you" advertisements) can be interpreted as degrading; companies are underestimating their customers' intelligence. Furthermore, because contacting customer service is often found displeasing and troublesome, customers do so only when necessary. Negative experiences stem from communication problems with customer service staff and/or the staff's inappropriate and hurtful communication styles, such as downplaying customers' problems and offering no apology when customers are disappointed. For purchase returns, complicated return procedures are perceived as irritating. Therefore, customers carefully consider the issue of returns before finalizing a purchase, and the availability of cost-free returns is a considerable incentive to complete a purchase.

4.3 Study 3: Customer experience formation in online shopping: Investigating the causes of positive and negative emotions during a visit to an online store

The purpose of the third study is to examine how customers explain the causes of their positive and negative emotions during a visit to an online store. The study investigates the main reasons attributed to emotions and explains them. The data analysis of the study is based on attribution theory (Heider 1958, Weiner 1985), which suggests that individuals explain the causes of everyday events and happenings by giving them external and/or internal attributes.

In response to RQs 1 and 4, the findings demonstrate the complexity of customer experience formation by showing that explanations for emotions are not merely attributed to the retailer in question; customers have various explanations for them beyond the online store. The study identifies three main bases for emotions during online store encounters: 1) the online store (external attributes), 2) the sociomaterial environment (external attributes), and 3) the customers themselves (internal attributes). The findings show that customers mostly blame the

online store for their negative emotions (68% of all negative attributes). By contrast, positive emotions are mainly attributed to customers themselves (47% of all positive attributes). Both negative and positive emotions are also explained by factors related to the sociomaterial environment (12% of all positive attributes and 8% of all negative attributes). The sociomaterial environment is considered the world in which the company and customer operate.

The findings suggest that both positive and negative emotions relate to similar themes. For instance, while the functionality of a store can be highlighted as a negative contributor to customer experience if there are problems during the purchase process, customers are also genuinely happy about a well-functioning online store. The findings further indicate that customers' emotions during a visit to an online store can be versatile and cannot be inferred, such as those based on the purchase decision. All respondents of the study completed the survey after they had successfully placed an order at an online store. Such customers can easily appear satisfied from a company's perspective. The findings, however, demonstrate that may not be the case; while many respondents reported experiencing strong negative emotions during their store visit, they made a purchase despite those emotions if the product or service is, for example, desired enough or hard to obtain elsewhere. In addition, some experienced very strong negative and positive emotions during their visit. These findings demonstrate that an online store encounter and customer experience formation during it can include variable meaning creation processes that are loaded with different emotions.

Positive emotions during an online store visit. Study 3 identifies 219 explanations for customers' positive emotions. Positive emotions are especially explained by factors related to the customers themselves (47%, 103 attributes) but also by the features of the online store (41%, 90 attributes). In addition, the sociomaterial environment (12%, 26 attributes) is identified as an important contributor to positive emotions.

The findings highlight the importance of customers' success (i.e., perceiving themselves as smart and skillful shoppers) regarding customer experience formation. Seeing oneself in positive light while shopping seems to contribute positively to customer experience. Positive emotions are attributed to a person's expertise and efforts as a consumer, to everyday life, and personal schedule management. Finding great deals (succeeding in a treasure hunt) and saving time for other tasks with online shopping are typical explanations for positive emotions. The findings suggest that the positive consequences of shopping are also imagined and linked to the future; the outcomes of the purchase and how it will make a customer's life more comfortable in the near or distant future are scenarios that further positive emotions during the store visit. The study concludes that positive expectations contribute to customer experience in a positive way.

The positive emotions associated with an online store are explained for the most part by the ease of shopping. Positive emotions are often aroused by a smooth and quick shopping journey. Product and service range as well as pricing are also essential contributors to customer experience. The store's atmosphere,

including its visual design and communications, are essential contributors because a store with "good vibes" can further positive emotions, such as joy and happiness, during the shopping encounter. These positive emotions are attributed to aesthetically pleasing products and displays and a company's friendly manner when communicating with its customers.

The factors related to the sociomaterial environment include considerations of the broader context of shopping, such as how and where shopping takes place and the benefits and consequences of different consumption choices. The benefits of a specific purchase for the environment, including ecological and ethical benefits, are also highlighted as a cause of customers' positive emotions. Contributing positively to the environment and the general wellbeing of humankind by consumption actions are considered vital due to current issues, such as climate change. E-commerce as a service for today's consumers can also cause positive emotions. Rather than being happy with a particular online store, positive emotions can be explained in terms of all the benefits (such as the ability to shop at home) that e-commerce generally provides for today's consumers. Additionally, the social aspect of shopping is attributed to positive emotions; envisioning how one's purchase may offer joy for others causes positive emotions and seems to have a positive effect on the customer experience.

Negative emotions during a visit to an online store. Study 3 identifies 338 explanations for customers' negative emotions, which mainly include factors related to the online store, with 228 attributes (68%). In addition, oneself (82 attributes, 24%) and sociomaterial environment (28 attributes, 8%) were identified as contributors to negative emotions.

The findings suggest that the online store is the leading cause of customers' negative emotions. Negative emotions are mostly attributed to unpleasant surprises and disappointments, including the desired product not being available, not enough products to choose from, technical errors, and complications in navigation and managing the order. The way an online store displays its products is vital because many negative emotions result from a poorly presented product range, and poor product displays tend to complicate a purchase. Pricing can contribute to negative emotions if considered incorrect (e.g., too expensive), unclear, or misleading. In addition, quantity discounts and "chasing" the discount limit (trying to collect so many products that the price limit for the discount is exceeded) are identified as negative contributors. While chasing discount limits is done often, it is considered stressful and sometimes an impossible mission that can lead to ordering unnecessary items that are regretted later.

Oneself and one's actions are also identified as causes of negative emotions. Consumption habits and the guilt associated with buying are typical explanations for feeling negative emotions; buying unnecessary items and surrendering to consumption desires cause disappointment with oneself and are thus experienced negatively. Furthermore, negative emotions are associated with unpleasant financial situations or ways of spending money. Both a lack of funds and spending money recklessly are identified as distressing factors. Overall, the findings show that consuming seems to cause mixed emotions because it induces an

inner battle in which the many negative and positive aspects of shopping are considered simultaneously. Consideration of whether one is making the right purchase decision is perceived as stressful and can cause negative emotions.

Finally, the sociomaterial environment is identified as a contributor to customers' negative emotions because considering the context of consumption and worrying about its environmental effects can cause concern. The irresponsible actions of people and today's culture of consumption are found troubling due to their harmful consequences for the environment. Acts of unnecessary consumption cause frustration and anguish among customers. In addition, the physical purchase environment, including other participants, is identified as a cause of negative emotions. Family members, such as spouses and even pets, can be accused of contributing negatively to one's shopping experience, if they are present during the online store encounter and cause distractions that hinder the shopping process. Moreover, other people can contribute to customer experience formation by not contributing enough (e.g., being heedless, not providing opinions or advice) to the purchase process. The findings also demonstrate that the purchase context can cause negative emotions. Some shopping contexts or stores can cause feelings of embarrassment if the customer perceives that he/she does not belong to the target group of the retailer or if there is a stigma related to the shopping context. Furthermore, shopping for certain products, such as groceries, can be perceived as unavoidable purchases, and such mandatory purchases are often negatively charged.

5   DISCUSSION

The primary purpose of this dissertation is to depict how cognitive customer experience formation can be conceptualized in the context of e-commerce (RQ1). This chapter combines the research findings from the individual studies and answers the main research question. Regarding RQ1, this dissertation suggests two different conceptualizations: the first is based on the theoretical investigation presented in the first research paper (study 1), and the second merges and re-examines the findings of the empirical research papers (studies 2 and 3).

The two different conceptualizations are described and discussed in the following sections considering the previous research on customer experience. The theoretical contributions and managerial implications of the conceptualizations are also considered. The end of this chapter presents the conclusions of this study, gives suggestions for future customer experience studies, and provides an evaluation of the dissertation.

5.1   Conceptualization of customer experience formation in e-commerce: A sensemaking model

5.1.1   Customer experience formation as a sensemaking process

Based on the sensemaking theory, which characterizes the sensemaking process to include the phases of 1) noticing, 2) meaning creation, and 3) enactment (Weick 1995, Sandberg & Tsoukas 2015), the first conceptualization divides the customer experience concept into two dimensions: 1) customer experience formation (process) and 2) customer experience (an outcome of the process) (Figure 7). **Customer experience** is defined as a mental picture, a collage of meanings, that a customer associates with a company/brand/service/product, depending on the context of the investigation. **Customer experience formation** is defined as a cognitive sensemaking process through which a customer constructs the mental picture that is associated with a company/brand/service/product. Given that this

dissertation investigates customer experience formation in the context of e-commerce, customer experience is understood here as a mental picture that is associated with an online store. A customer is defined as an individual who purchases or uses goods or services provided by an online store. Although this dissertation focuses on the context of e-commerce, it is suggested that the sensemaking model can be applied to customer experience studies in different contexts (e.g., online and offline).
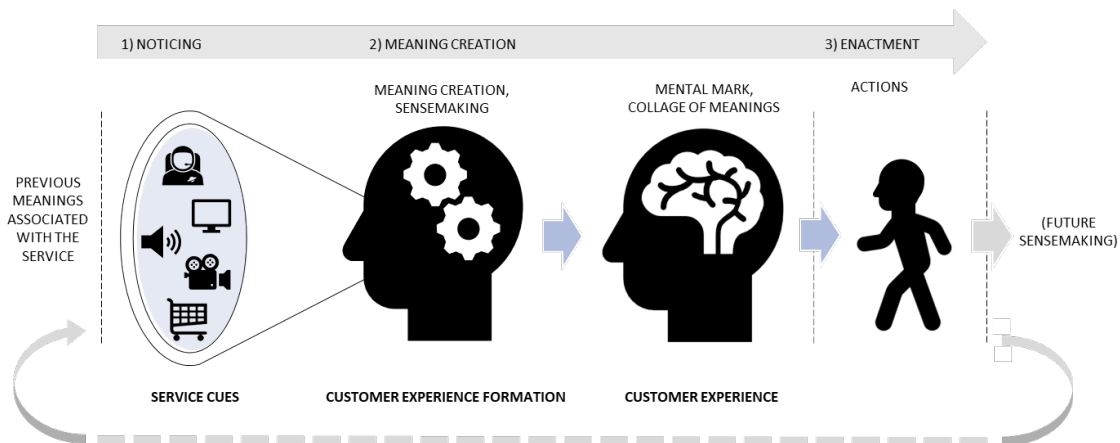
FIGURE 7   Conceptualization of customer experience formation and customer experience

Drawing on the previous sensemaking and customer experience research, the sensemaking model of customer experience formation (Figure 7) suggests that customer experience formation is inspired by different kinds of service cues from any source of sensory input. Service cues are any content that depicts the service and can be sensed by the customer. Customer experience formation is understood as a continuum where a customer notices service cues and constructs plausible meanings for them through sensemaking. Customers observe service cues from the environment and filter these into customer experiences (a collage of meanings) through meaning creation processes. The created mental picture guides an individual's behavior, resulting in either actions or non-actions.

The cues that provoke a customer to create meanings that he/she associates with a service can be produced by companies or other parties, such as other customers. Therefore, the construction of customer experience can start before the customer is directly interacting with a company, if the customer encounters some information related to the company that starts the customer's meaning creation process regarding the company. From a company's perspective, these individuals can be considered as consumers, or "potential customers", who know about the existence of the company and thus have a mental picture associated the company. However, a potential customer becomes a real customer only when she/he visits the company (i.e., online store), uses its services, or buys something.

The customer experience is considered abstract, meaning that it can comprise different meanings. The meanings associated with the online store may be directly linked to the store itself, but can also include any kind of meanings that

are awakened either when visiting the store or when encountering some information related to the store. For example, when we meet a new person, we may like or dislike him because he resembles some other person. In that case, the mental picture regarding the new person includes meanings that are not "his fault" but are based on our previous experiences. On the other hand, when the new person induces us to think of someone else, the mental picture associated with him has elements that are not directly related to him, but are inspired by him — every time we see the new person, we think of someone else. The same story goes with online stores; the customer experience can include meanings that are not under a company's control. In addition, the cues provided by the company may inspire meanings that get associated with other factors beyond the company in the customer's mind.

In line with the dual-coding theory (Paivio 1969, Paivio 1990), it is suggested that customer experiences are structured by individuals in terms of verbal codes (i.e., using words that define them or describe them) and image codes (i.e., visual images in the mind). The verbal and visual elements (meanings) together form the customer experience. By investigating customers' sensemaking and the meanings resulting from it, the essence of customer experience—the words and images that characterize it—can be better understood.

In line with the previous literature, customer experience formation is understood as a personal, subjective process during which sensory information from the external environment is processed (Carbone & Haeckel 1994). Customer experience formation is defined as a cumulative process if the customer is repeatedly exposed to service cues (Rose et al. 2012) and is also therefore always tied to the time of the review. Customer experience includes meanings that a customer remembers at a given time. This study suggests that customer experience changes when a customer creates new meanings, and it can also be forgotten; if there is no mental picture associated with a service, a customer experience does not exist. A customer needs to have some kind of mental presentation associated with the company so that the customer experience exists. Figure 7 presents a simplified snapshot of customer experience formation; the amount and content of different meaning creation processes included in customer experience formation are always dependent on the service and the length of the customer journey.

It is concluded that customer experience can include positively, negatively, and neutrally charged meanings. The overall relationship between these depicts the quality of customer experience, whether the mental picture is positive, negative, or neutral. This perspective is explained with the idea that, during their customer journeys, customers face a large amount of information, which may evoke different thoughts. A customer might, for instance, conclude that a restaurant's service employees are rude, but the service environment is enjoyable, and the food is tasty. In this case, it might be easy for the customer to verbalize the different dimensions of the experience but difficult for him/her to decide on the quality of the customer experience, especially by pre-given attributes (such as a

scale from 1 to 7). Therefore, understanding (versus the measurement) the different characteristics of customer experience formation and customer experience is emphasized.

In line with CDL (Heinonen et al. 2010, Heinonen & Strandvik 2015, Heinonen & Strandvik 2018), this study concludes that the customer is always the creator of any customer experience; it is not created by a service provider, and it is not cocreated. Similar to some recent studies (e.g., Becker & Jaakkola 2020), it is noted that companies can provide customers with compounds of service cues, and they may try to direct customer experience formation toward a particular outcome. However, the customer always decides whether specific service cues become part of their meaning creation processes and how the customer makes sense of them.

Theoretical contributions and managerial implications. The characterization of customer experience formation as a sensemaking process adds to the existing customer experience literature by providing a new theoretical approach—sensemaking—to study customer experience. Based on this approach, characterization of customer experience and its formation as a cognitive concept is suggested. Even though the importance of understanding customers and their customer experience formation has been noted, few studies have explored customer experiences truly from the customers' perspective: studies explaining the drivers and conditions, customer activity, and individual processes in customer experience are rare (Lipkin 2016). Furthermore, theoretical frameworks depicting customer experience are scant (Jain, Aagja & Bagdare 2017). From a managerial perspective, the conceptualization aims to clarify the customer experience concept by offering ideas on how customer experience can be approached from the customers' perspective in different areas, such as service design projects.

The sensemaking approach that is depicted in this subsection adds to the customer experience literature by characterizing customer experience as a mental picture or a collage of meanings. Because customer experience is defined as a cognitive product of the mind, the definition has some similarities to previous studies suggesting that customer experience is an impression, a psychological state (e.g., Carbone & Haeckel 1994, Rose et al. 2012), or a cognitive state (Novak, Hoffman & Yung 2000). However, while mainstream customer experience studies approach customer impressions from the company perspective by understanding the customer experience in terms of factors like perception of service quality, the mental picture presented in this study is not restricted to the company perspective or evaluations of it. The current study takes the discussion further by concluding that customer experience can include any kind of meanings that somehow become associated with a company in the customer's meaning creation processes (sensemaking).

Finally, the sensemaking approach adds to the customer experience literature by characterizing customer experience formation as a sensemaking process. While the snapshot of the conceptualization presented in Figure 7 has many similar ideas to previous marketing studies and the well-acknowledged S-O-R approach (e.g., Bitner 1992), the core idea and focus of interest between this study

and earlier studies differ. While previous customer experience literature has mainly focused on customers' reactions to service stimuli, it has skipped the meaning creation phase that is presented in the framework; the cognitive processes through which customers acquire certain reactions or perceptions have not received much attention. The main contribution and the core of the sensemaking model are thus a deeper exploration of the meaning creation processes through which customer experience emerges. These processes are discussed in the next sub-section.

5.1.2 Dimensions of customer experience formation

Based on the sensemaking theory, and especially the work of Weick (1995, 2001, Weick, Sutcliffe & Obstfeld 2005) this dissertation suggests that customer experience formation as a cognitive process includes meaning creation processes that are wrapped around customer's ideas of oneself (one's identity), the surrounding world, past, and future. In other words, it is suggested that customer experience is constructed through 1) self-related sensemaking (considerations of self), 2) sociomaterial sensemaking (considerations of the sociomaterial environment), 3) retrospective sensemaking (retrospective considerations), and 4) prospective sensemaking (prospective considerations) (Figure 8).

It is suggested that the role and importance of the different dimensions in customer experience formation can vary depending on the service or product context. Each customer experience formation process is unique and has individual characteristics. Therefore, the intensity of the different sensemaking dimensions can vary. For example, visiting a new online store, a familiar online store, or a rock concert would likely include different kinds of meaning creation processes. The suggested dimensions of customer experience formation are depicted in detail in the following sub-sections. The theoretical and managerial implications of the framework are summarized in Table 9 at the end of this section.
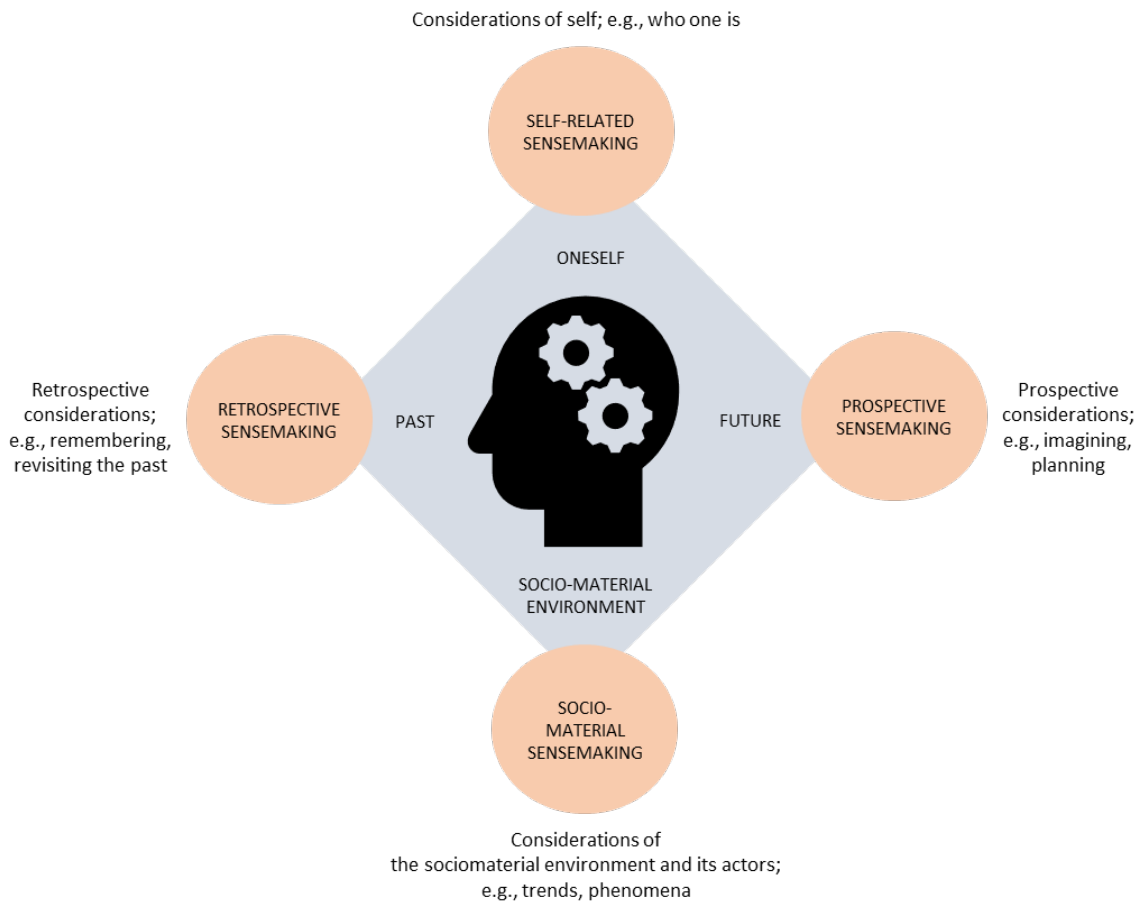
FIGURE 8   Dimensions of customer experience formation based on sensemaking theory

5.1.2.1   Self-related sensemaking

The sensemaking conceptualization suggests that customer experience formation includes considerations of self because, according to the sensemaking literature, sensemaking is grounded in identity construction, and an individual's understanding of self is what guides sensemaking and is constructed through sensemaking (Weick 1995, Weick 2001). How an individual understands himself/herself influences how he/she interprets and enacts meanings (Weick, Sutcliffe & Obstfeld 2005, Thurlow & Mills 2009). Based on the sensemaking theory, this dissertation suggests that, when customers construct meanings during service encounters or regarding a service (their customer experience), they encounter different kinds of self-reflection. These reflections include considerations of who one is and why they think or act a certain way. It can also include reflections of possible selves (individuals' ideas of what they could be, what they would like to become, or what they are afraid of becoming) (Markus & Nurius 1986) and the adoption of different roles and lenses (Oyserman, Elmore & Smith 2012).

Theoretical contributions and managerial implications. The sensemaking conceptualization adds to the customer experience literature by highlighting the role of the customer's self-perception and -considerations in customer experience formation. It is suggested that customers' perceptions of themselves have an essential role in customer experience construction because the customer is the creator of customer experience—the medium through which the experience comes into existence. While recent customer experience studies have explored new ideas and placed more emphasis on the customer perspective by examining how services are uniquely interpreted and experienced (Jaakkola, Helkkula & Aarikka-Stenroos 2015) and by characterizing customer experience as personal, subjective, and internal (Lipkin 2016), little emphasis has been placed on the personal and individual levels of customer experience formation to clarify the significance and meaning of personal reflections on customer experience. The sensemaking conceptualization suggests that investigating the self-related considerations in customer experience formation helps service managers and researchers better understand the mechanisms through which services intertwine with customers' understanding of themselves and their position in the sociomaterial surroundings. This knowledge is vital in providing customer-centric offerings and expanding customer experience research. By understanding how customers evaluate and analyze themselves in terms of different services or products, companies can better empathize with their customers and identify factors that are important for customers, including what allows customers' value formation and what may destroy it.

5.1.2.2 Sociomaterial sensemaking

In addition to considerations of self, the sensemaking conceptualization suggests that customer experience formation includes considerations of the sociomaterial environment. Here, the sociomaterial environment is understood as the (surrounding) world in which the customer operates (i.e., the environment and the social actors in it). Because individuals are surrounded by social and environmental circumstances, it is suggested that customer experience formation is always linked to an individual's interaction with the environment and its actors (Weick 1995). Therefore, customer experience formation is embedded with a variety of cultural meanings, including the general traditions, customs, and beliefs of a particular group of people at a specific time, which are stored in the environment (Ivanova-Gongne 2015). Because environments are physical spaces with a social dimension, and they have meanings and emotions tied to them, customer experience formation includes considerations that allow individuals to understand their roles in the sociomaterial environment.

Theoretical contributions and managerial implications. The sensemaking conceptualization extends the customer experience literature by highlighting the role of the sociomaterial environment in customer experience formation. It is suggested that, from the customer perspective, a service provider, such as an online store, is merely one actor among others operating in the sociomaterial environment. Therefore, customer experience formation is always linked to elements be-

yond the company and is never created in isolation from the sociomaterial environment. If the formation of customer experience is viewed as being formed only through the interaction between the customer and the company (as is often the case in marketing research), a limited picture of its formation is obtained. It is suggested that, when studying customer experience formation, investigations should also try to understand customers' perceptions and sensemaking beyond the company and its services. This perspective includes explorations of other important factors contributing to customer experience formation in the sociomaterial environment and how considerations regarding those factors become a part of customer experience formation. While the customer experience literature has investigated how other customers or service environments affect the customer experience, especially the indirect connections (i.e., outside a servicescape) between people and the sociomaterial environment, and their role in customer experience formation has received little attention. By identifying how customer experience links to sociomaterial surroundings and the phenomena that occur there, service managers and researchers can take the "helicopter view" (Schmitt 1999) to identify areas and opportunities for service improvement and design. These investigations can provide useful insights into potential drivers of customer experience, such as trends, and topics that customers perceive as relevant to themselves.

5.1.2.3 Retrospective sensemaking

Based on the sensemaking theory, the sensemaking conceptualization concludes that customer experience formation includes retrospective considerations. The sensemaking theory suggests that sensemaking builds on an individual's past; it is a process in which previous experiences and mental models that have been acquired during a person's life experience are used to frame and form a coherent picture of the encountered new situation (Woodside 2001, Weick, Sutcliffe & Obstfeld 2005, Steigenberger 2015). In line with these ideas, it is suggested that customer experience formation includes retrospective sensemaking, which includes remembering and revisiting the past. New meanings are created with the help of internal memory, including episodic and semantic memory (Tulving 1972). Episodic memory includes personal experiences that are specific to a time and place and can be recreated at any given point in time. Semantic memory includes general knowledge, such as facts, words, and concepts, which are intertwined with one's experience and are dependent on culture.

Theoretical contributions and managerial implications. The sensemaking conceptualization extends the customer experience literature by emphasizing the retrospective elements in customer experience formation. Previously, the temporal dimension of customer experience has mostly been approached by recognizing different concrete, tangible phases (before, during, and after) of the customer journey (e.g., Åkesson, Edvardsson & Tronvoll 2014, Lemon & Verhoef 2016). Furthermore, relevant studies typically focus on the moment of consumption, the purchase period, and what happens during that main encounter. The sensemaking conceptualization approaches the temporal dimension on a cognitive level by suggesting that customers can encounter mental time travel when

constructing their customer experience. Therefore, this study devotes further attention to the dimensions of customer experience formation beyond the moment of consumption and use of service. In line with previous conceptual papers (Helkkula, Kelleher & Pihlström 2012) that regard customers as active sensemakers, this dissertation suggests that customer experience construction can have both lived and imaginary dimensions via a combination of past and present experiences and imagined future experiences.

By characterizing customer experience formation as having a retrospective dimension, service managers and researchers can better understand how customer experience links to a broader timeframe in a customer's life. Such understanding is essential to understanding customers' expectations and criteria for selecting different offerings, which are built according to their previous life experiences. Furthermore, understanding retrospective elements can also be useful in finding new ideas for service design. By understanding how customers link service to their past ("all that ever happened"), memory ("all that is known"), history ("all that is told"), tradition ("all that is done"), nostalgia ("all that is felt"), provenance ("all that is rooted"), or heritage ("all that is [still] relevant") (Burghausen & Balmer 2014), companies can find ways to fulfill their customers' interests and identify factors to which customers have memory and emotional ties. Identifying retrospective meaning creation elements can be particularly useful in the context of experiential services (e.g., concerts, museums, theme parks) that aim to enhance strong emotional meaning creation for customers. Service elements that give rise to positively charged meaning creation, such as nostalgia, are useful in creating customer experiences that are connected to a customer's life on a personal level.

5.1.2.4 Prospective sensemaking

Finally, just as the sensemaking theory depicts that sensemaking includes prospective meaning creation, the sensemaking conceptualization concludes that customer experience formation includes forward-looking considerations. Prospective sensemaking refers to practices through which meanings regarding the future are created (e.g., Gephart, Topal & Zhang 2010) and includes mental activities where the attention and concern of people are primarily targeted at events that may occur in the future (Rosness et al. 2016). It also involves structuring the future by imagining a desirable state (Gioia & Mehra 1996), creating images and scenarios (e.g., Gephart, Topal & Zhang 2010), and considering a probable future impact of specific actions or non-actions (Gioia et al. 1994). Thus, prospective sensemaking requires the ability to envision the future as if it has already occurred (Gioia, Corley & Fabbri 2002), and envisioning and imagining constitute an essential part of this process (Gioia et al. 1994). In line with the sensemaking theory, it is suggested that, when customers construct their customer experience, they engage in prospective considerations, such as imagining future events and behaviors, including how the purchase will be present in their life in the future.

Theoretical contributions and managerial implications. The sensemaking conceptualization adds to the customer experience literature by suggesting that future-oriented considerations can have an essential role in customer experience

formation. Emphasizing the future-oriented dimensions of customer experience formation is vital for taking customer experience discussions further because, to the best of the author's knowledge, previous investigations on the prospective dimension of customer experience formation are minimal. While the existing literature has investigated the expected behaviors and intentions of customers after a purchase, including repurchase intentions and WOM behaviors, these investigations are typically focused on the service (e.g., will the customer purchase again or recommend the company and, if so, why). These studies provide useful insights, yet they represent a limited, company-centered perspective and do not elucidate prospective customer-centered meaning creation. Therefore, it is suggested that it is particularly important to investigate customers' prospective meaning creation beyond the company as well as how customers cognitively create their potential futures during service encounters. Marketing research has minimally explored any of the spontaneous acts of customer imagination (Philips 2017), even though they allow a better understanding of customers' future-oriented images, schema, and scenario creation. As Philips (2017) notes, the imaginative elements and customers' ability to imagine are essential for marketers because persuading consumers with a variety of tools (e.g., advertising, retail displays) is based on creating desirable images of products and services. One can argue that the entire marketing field relies heavily on consumer imagination and prospective sensemaking. The consumer research in the early 1980s noted that consumption experience is "a phenomenon directed toward the pursuit of fantasies, feelings, and fun" (Holbrook & Hirschman 1982, p. 132), but consumers' imagination has remained a poorly understood topic (Zaltman 2016, Philips 2017), especially regarding customer experience. Therefore, it is suggested that imaginative and future-oriented elements in customer experience formation should be more carefully considered to expand the customer experience literature. Such understanding is essential for marketers aiming to determine how customers justify their consumption choices and make their purchasing decisions as well as what kind of factors prevent or facilitate those decisions during customer experience construction. For example, by investigating how service usage links to customers' ideas of their future, service providers can provide their customers with customer-centric services that better facilitate value creation.

TABLE 9   A summary of the sensemaking conceptualization

Theme	Theoretical contributions	Managerial implications
Main takeaways	• Extends the customer experience literature by defining cognitive customer experience as a collage of meanings; a mental picture that a customer associates with a company/brand/service/product. • Extends the customer experience literature by defining cognitive customer experience formation as a cognitive sensemaking process through which a customer constructs a mental picture regarding a company/brand/service/product. • Extends the literature by suggesting that customer experience formation as a cognitive process includes 1) self-related, 2) sociomaterial, 3) retrospective, and 4) prospective sensemaking.	• Suggests that, by defining customer experience as a mental picture and by investigating its formation as a sensemaking process comprising self-related, sociomaterial, retrospective, and prospective considerations, companies can more thoroughly understand the customer experience and its formation from the customer perspective, especially when compared to company-centric measurements investigating customers' reactions (e.g., satisfaction) to service stimuli.
1) Self-related sensemaking	• Suggests that customers engage in self-reflection when constructing their customer experience. • Suggests that self-reflections include considerations of who one is and why one thinks or acts the way one does; it can also include reflections of possible selves and the adoption of different roles and perspectives.	• Suggests that, by investigating the self-related considerations of customer experience construction, mechanisms through which services intertwine with customers' understanding of themselves and their position in the sociomaterial surroundings can be better understood. With such an understanding, companies can better empathize with their customers and identify factors that support customers' self-related value formation.
2) Sociomaterial sensemaking	• Suggests that customer experience formation includes considerations of the sociomaterial environment (understood as the surrounding world in which the customer operates); it is always linked to an individual's interaction with the environment and its actors. • Suggests that, from the customer perspective, a service provider, such as an online store, is just one actor among others operating in the sociomaterial environment. Therefore, customer experience formation is always linked to elements beyond the company and is never created in isolation from the sociomaterial environment.	• Suggests that, by investigating the sociomaterial dimension of customer experience formation, service managers can better understand how customer experience is linked to its sociomaterial surroundings, e.g., shaped by trends, phenomena, and topics that customers perceive as relevant to themselves.

TABLE 9 continues

3) Retrospective sensemaking	• Suggests that customer experience formation includes retrospective sensemaking, including remembering and revisiting the past. • Suggests that customer experience is created with the help of internal memory, which includes personal experiences that are specific to a time and place, and general knowledge, such as facts, words, and concepts, which are intertwined with one's experience and are dependent on culture.	• Suggests that, by investigating the retrospective dimension of customer experience formation, service managers can better understand how customer experience becomes linked to a broader timeframe of a customers' life. Such understanding is important for understanding customers' expectations and criteria for selecting different offerings, and can be utilized in service design (e.g., experiential services).
4) Prospective sensemaking	• Suggests that, when customers construct their customer experience, they engage in prospective considerations where the attention and concern of the customer are directed at events that may occur in the future. • Suggests that prospective sensemaking involves structuring the future by imagining a desirable state, creating images and scenarios, and considering a probable future impact of specific actions or nonactions.	• Suggests that, by investigating the prospective dimension of customer experience formation, service providers can better understand customers' expectations and imaginings regarding the outcomes of the service usage; through this understanding, they can better facilitate their customers' value creation processes.

5.2 Conceptualization of customer experience formation in e-commerce: An empirical model

Based on the two empirical investigations, the second conceptualization of this dissertation identifies five dimensions in customer experience formation in e-commerce. From the customer perspective, customer experience formation includes 1) dyadic, 2) personal, 3) social, 4) contextual, and 5) multilateral dimensions. The dimensions depict the subjects of customers' meaning creation while consuming e-commerce services, including which issues customers consider during their online shopping customer journeys (findings from study 2) and online store encounters (findings from study 3). The conceptualization suggests that the formation of customer experience may involve a varying number of elements belonging to different dimensions; however, all formation processes do not necessarily include all five dimensions. Based on the findings, it can be suggested that the dyadic and personal considerations form the core of customer experience formation because customers' meaning creation processes often revolve around matters related to the online store and oneself as a customer of that store.

The identified dimensions show that, from the customers' perspective, the formation of customer experience involves internal (personal dimension) and external (dyadic, social, contextual, and multilateral dimensions) factors. Internal factors include elements within the individual, whereas the external factors point to something outside the customer. The personal dimension includes a customer's considerations of himself/herself as an individual, consumer, and customer of online stores. Meaning creation focuses on the person and includes internal speech through which the self and all personal actions and choices are evaluated and considered. The dyadic dimension includes a customer's considerations of the primary service provider, who in the context of this study is the online store. The subjects of meaning creation include all service elements that are controlled by the company and visible to customers. These can include the user interface, service personnel, advertising, and communication via social media. The social dimension includes a customer's considerations of people and their behaviors. The subject of meaning creation is linked to individuals and groups that can be present or absent, acquaintances, or strangers. The contextual dimension includes a customer's considerations of the environment in which he/she operates and the phenomena that occur there. The environment and its phenomena are shaped by people; thus, this dimension is closely linked to the social dimension. Finally, the multilateral dimension includes a customer's considerations of the alliance of other companies beyond the primary service provider that are visible to the customer during the customer journey (online shopping process). In this case, the subject of meaning creation includes online stores' stakeholders and all the service elements that are controlled by them. The conceptualization is summarized in Figure 9 and discussed more thoroughly in the next sub-sections in light of previous literature.
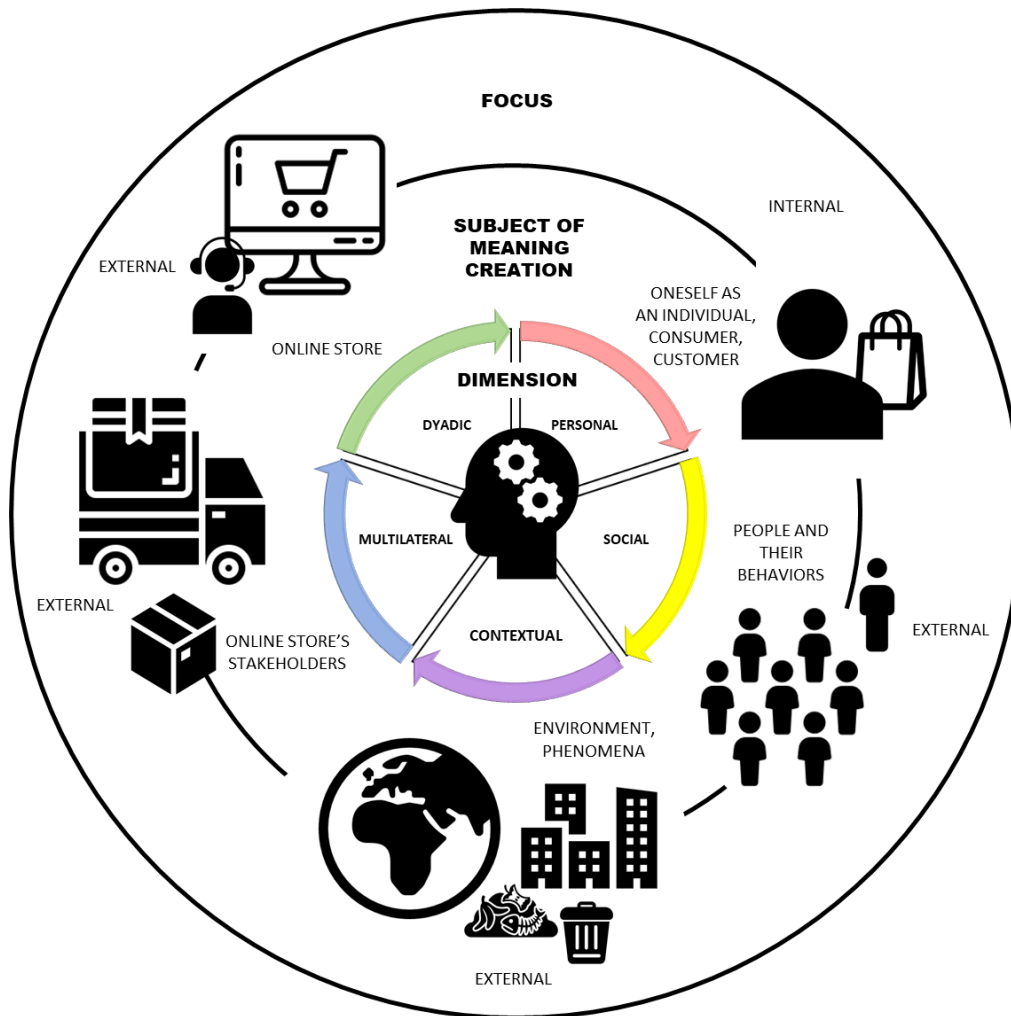
FIGURE 9   Dimensions of customer experience formation: An empirical model

5.2.1   Dyadic dimension

Based on studies 2 and 3, this dissertation identifies a dyadic dimension in customer experience formation based on customer narratives that discuss their encounters with online stores and how those encounters are perceived, including the essential factors in an online store regarding customer experience. As mentioned earlier, the dyadic dimension includes the customer's meaning creation regarding the primary company in the purchase process (in this case: the online store).

Consistent with previous mainstream customer experience studies (Berry, Carbone & Haeckel 2002, Meyer & Schwager 2007, Verhoef et al. 2009, Zomerdijk & Voss 2010, Teixeira et al. 2012, Lemon & Verhoef 2016), the dyadic dimension highlights the company's vital role in customer experience formation. This dissertation concludes that online store design, including information, navigation, and product displays, are essential contributors to customer experience formation in e-commerce. In line with previous literature, the findings also highlight

the importance of shopping convenience (Seiders, Berry & Gresham 2000, Seiders et al. 2007) and flow (Novak, Hoffman & Yung 2000, Skadberg & Kimmel 2004, Ozkara, Ozmen & Kim 2017) in customer experience formation. Seiders et al. (2000) explain convenience as the customer's effort and time costs associated with shopping in a retail environment; such considerations were commonly present in customers' accounts regarding company-customer interactions. The findings of this study suggest that, from the customer perspective, the term "flow" means ease of shopping and trouble-free service, and inconvenience and "no flow" include unpleasant surprises and disappointments caused by the store. The findings portray customers as rather pitiless actors. They expect the same high quality from all retailers and have high expectations toward the user interface no matter the company or its size. All companies are expected to rise to the standards set by the leading and biggest operators in the field. In line with existing literature, the findings suggest that, when customers cannot find and buy products from e-commerce stores, any difficulties they encounter are often attributed to external factors, including poor online store design (Guerrero, Egea & González 2007). Furthermore, the findings indicate that such attributions can be a significant determinant of customer satisfaction, including satisfaction with the service encounter and post-purchase behaviors (Iglesias 2009). Service failures—the inability of the retailer to meet a customer's expectations—easily result in online store abandonment (Tan, Benbasat & Cenfetelli 2016) because there are typically many other companies that provide similar offerings.

Study 2 also demonstrates the importance of after-purchase interactions between a customer and a company in customer experience formation. The findings indicate that aggressive after-sales marketing, deficiencies in customer service, and complicated or expensive return procedures can direct the customer experience toward the negative after the main service encounter. Aggressive after-sales marketing can have a negative influence on customer experience due to today's information overload; customers easily feel that they are contacted by too many companies, too often, and they are annoyed by advertisements and newsletters. In addition, having to contact a company after a purchase can end the customer journey negatively. The findings indicate that contacting customer service after making a purchase and dealing with return procedures have a negative influence on customer experience because they are often considered troublesome and complicated processes. Overall, the findings suggest that, if possible, customers want to avoid contact with online stores after making a purchase.

Theoretical contributions and managerial implications. This dissertation extends the customer experience literature by depicting the distinctive characters of customer-company interactions in the online context. Given that the dyadic characteristics of customer experience have been highlighted in the existing literature, identifying the dyadic dimension of customer experience formation is not a key finding of this dissertation. Notably, the dyadic dimension of customer experience formation is somewhat built into the customer experience concept because it is commonly agreed that customer experience depicts the customer's reactions or perceptions of a company, service, brand, or product (i.e., without any

contact or interaction with a company, service, brand, or product there is neither a customer nor a customer experience). However, while most customer experience studies have investigated the dyadic dimension via company-led measurements and pre-defined attributes, this study adds to the literature by providing insights into how customer-company interactions appear from the customer's perspective. Furthermore, this dissertation investigates the formation of customer experience both during a service encounter (study 3) and from a customer journey perspective (study 2). The findings thus allow for a broader understanding of the topic than studies that are based solely on individual service encounters, which are typical to service research.

The findings of this study add to the customer experience literature by providing insights into the important role of the online service environment in customer experience formation. Previous research has aptly demonstrated the importance of the service environment (retail atmospherics) on customer experience, especially in physical service environments. Studies have shown that store atmospherics, including design, ambiance, and social and functional elements, influence customer satisfaction, repurchase intentions, desire to stay at a store, and customer mood (Kotler 1973, Bitner 1992, Turley & Milliman 2000, Baker et al. 2002, Andreu et al. 2006). Such themes are present in this study as well. Whereas marketing research has traditionally focused on physical service environments, a similar company-led mindset has been transferred to online environments due to the rise of e-commerce. Studies in an online context typically emphasize the effects of store characteristics on customer experience (Eroglu, Machleit & Davis 2001, Lee & Kozar 2009, Koo & Ju 2010, Rose et al. 2012, Cebi 2013, Jiang, Yang & Jun 2013, Hasan 2016, Izogo & Jayawardhena 2018). When compared to these studies, this study acknowledges the role of store characteristics in customer experience formation; however, unlike previous studies, it does not focus only on those characteristics. Therefore, this study contributes to the customer experience literature by showing that the dyadic dimension between a customer and a company is only one part of customer experience formation. This finding encourages online stores to think broadly about the formation of customer experience; while dyadic interactions between companies and their customers are the core of customer experience formation, they are neither limited nor defined only by these interactions.

Furthermore, in line with Wolfinbarger and Gilly (2003), this dissertation demonstrates the unique characteristics of online environments and suggests that online and offline settings are inherently different from the customers' viewpoint. The findings indicate that, from the cognitive perspective, the design of a service environment can be more critical in an online versus an offline context. While a physical service environment may act as an inconspicuous background in which a customer can wander intuitively and pay little attention to its characters, in an online setting, the service environment is at the core of customer experience formation. Proceeding and navigating in online environments require conscious concentration and actions; nothing happens if the customer stops thinking (i.e., online shopping involves self-service with a technical interface).

When navigating an online store, customers are on their own; there are no common routes to follow, no sales personnel, and no other customers. The online world is also more straightforward from a sensory point of view because the environment can be seen but neither touched nor smelled. Customers must rely on the service environment and available information in their attempts to make a purchase. Additionally, misinterpretations easily lead to unpleasant surprises with purchases. The findings of this study demonstrate that there are many uncertainties built into online consumption, and a poorly designed online service environment adds to these uncertainties.

The importance of navigation-related issues in customer experience formation in the e-commerce context is demonstrated by the existing literature suggesting that navigation problems restrict customers from making online purchases (Guerrero, Egea & González 2007). During the early days of e-commerce, user interface limitations, search problems, and a lack of internet standards were identified as usage and purchase barriers that were specific to e-commerce (Hoque & Lohse 1999, Szymanski & Hise 2000, Park & Kim 2003, Swinyard & Smith 2003). While the findings of this study generally support those ideas, the results also suggest that today's customers already have an understanding of the standards and how an e-commerce store should be designed and implemented. Online shoppers are accustomed to the same general patterns of navigation from their experiences with online retail sites that they regularly use, and stores that somehow differ from that or fail to meet a customer's expectations are quickly considered confusing and challenging to use. Such interpretations direct the customer experience toward the negative. Customers desire seamless processes, and they are not hesitant to switch to retailers who can provide interfaces that meet their criteria (Kahn 2018). From a managerial perspective, these findings suggest that online stores must ensure their user interface's functionality and intuitiveness. The findings encourage online stores to prioritize in-store communications and information availability. When trying to differentiate an online store from its competitors, other strategies than exceptional site design should be used because customers often prefer sites that follow common standards. In addition, the findings indicate that websites should be developed and maintained in cooperation with customers who are the best detectors of errors and dysfunctionalities. Therefore, it is suggested that online stores provide in-store feedback options through which customers can easily report dysfunctionalities and give timely feedback. Furthermore, because most online store operations are invisible to customers (they do not see what occurs behind the user interface), companies are encouraged to communicate and to promote their behind-the-scenes efforts toward improved customer experiences to direct the customer experience toward the positive.

This dissertation also adds to the customer experience literature by depicting the role of service personnel in customer experience formation in an online context. Previous research has suggested that customers' interactions with store staff significantly impact customer experience in physical retail environments (Bagdare 2013). The findings of this study demonstrate that, while service staff

members are not physically present in online retail environments, they still have an important role in customer experience formation. Lack of accessibility (e.g., staff cannot be easily reached) or their poor behaviors (e.g., impoliteness or carelessness) in customer service channels (e.g., e-mail, phone) can contribute negatively to customer experience formation. The findings indicate that finding help can be rather challenging when compared to brick-and-mortar stores. In addition, interestingly, the findings also show that even computer-mediated service elements, such as chatboxes, can be perceived similarly to people (e.g., a salesperson who is following a customer in a brick-and-mortar store). These findings indicate that managers should carefully consider how to better acknowledge the human aspect in online stores (i.e., how to exploit customers' ability to imagine human-like interactions and how to avoid unpleasant encounters between customers and the human-like operators on the webpage). These findings also encourage online stores to ensure the visibility and accessibility of their customer service channels and proper staff training.

Finally, this study sheds light on customer experience formation during the after-purchase phase of the customer journey. While the purchase phase has attracted significant attention in the marketing literature because customers' purchase decisions and how companies can influence them are a core interest for marketing researchers (Lemon & Verhoef 2016), studies have rarely investigated the other phases of the customer journey, especially in empirical studies. This is a shortcoming, particularly in the e-commerce context, because the purchase moment does not end the customer journey; the purchase is not finalized until the customer receives the order. In line with previous studies (Singh 2019), this study shows that customers are expecting a pleasurable customer experience throughout their entire customer journey, from the moment they begin their search to the last interaction, whether it is delivery, with customer service, a return, a refund, or a marketing message. From the customer perspective, communication with the company is vital during the after-purchase phase. In terms of service failures, customers especially want online stores to handle their complaints quickly and provide reliable service (Singh & Söderlund 2020). Ahmad (2002) argues that customers are willing to continue their relationship with an online store and even recommend it to other consumers if they perceive that customer service makes sincere efforts to recover failed services. Conversely, if customers perceive that service personnel downplay their complaints by not resolving the problems or by refusing to listen, it leaves a negative impression. The findings of this dissertation support these views. The ease of customer service contacts and the efforts of the company in handling complaints are identified as important contributors to customer experience formation. Overall, customers want to be in control of the after-sales interaction and their relationships with companies. From a managerial perspective, companies should aim to understand how and how often their customers want to be contacted with after-sales marketing efforts, including what they view as the least stressful ways for customers to contact companies if needed.

In summary, from an online store's perspective, the dyadic dimension of customer experience formation can be somewhat controlled by the company because it determines its store design, which can be shaped based on its customers' wishes. However, each customer independently interprets the e-commerce offering, meaning that the store can only maneuver the formation of customer experience. When compared to the other dimensions of customer experience formation that are identified in this study, the online store has the most control over this dimension. Table 10 summarizes the dyadic dimension of customer experience formation.

TABLE 10   A summary of the dyadic dimension of customer experience formation

The customer's focus	External: Online store characteristics	
Activation	Activated in an encounter with an online store	
The online store's role in this dimension	Can be somewhat controlled by service design: the overall design of the service concept / store	
	Theoretical contributions	**Managerial implications**
Theme Main takeaways	• Supports the previous customer experience literature by identifying a dyadic dimension as one of the dimensions of customer experience formation. • Adds to the literature by showing that, despite its important role, the dyadic dimension between a customer and a company is just one (and not the only) dimension in customer experience formation. • Adds to the literature by defining the dyadic dimension of customer experience formation as a customer's consideration regarding the main service provider during a customer journey.	• Encourages online stores to think broadly about the formation of customer experience; while dyadic interactions between companies and their customers form the core of customer experience formation, it is notably not limited/defined only by these interactions.
The role of the online service environment (user interface) in e-commerce customer experience	• Shows the critical role of the online service environment in customer experience formation in the e-commerce context. • Concludes that online store design, including information, navigation structure, and product displays, are essential factors contributing to customer experience formation in e-commerce because online shopping involves self-service with a technical interface. • Highlights the importance of shopping convenience and flow in customer experience formation.	• Encourages online stores to closely monitor their user interface's functionality and intuitiveness; suggests that the user interface should follow the common standards. • Encourages online stores to provide easy in-store feedback options where customers can report dysfunctionalities in real-time. • Encourages online stores to promote their behind-the-scenes efforts aimed at improving customer experience.
The role of service staff in e-commerce customer experience	• Demonstrates that, while service staff are not physically present in online retail environments, they can contribute to customer experience formation through their absence, difficult accessibility, or behaviors in customer service channels (e.g., e-mail, phone, chatbox).	• Encourages online stores to ensure the visibility and accessibility of their customer service channels and proper staff training. • Encourages online stores to consider how to better acknowledge the human aspect in online stores.

TABLE 10 continues

| The role of after-purchase interactions in e-commerce customer experience | • Demonstrates the importance of after-purchase interactions between a customer and a company in customer experience formation. Indicates that aggressive after-sales marketing, deficiencies in customer service, and complicated or expensive return procedures can affect the customer experience after the main service encounter. | • Encourages online stores to emphasize the after-purchase phase of the customer journey.
• Suggests that companies should carefully consider the amount and timing of their after-purchase communications, customer service channels, and return policies. |

5.2.2 Personal dimension

Based on the second and third research papers, this dissertation identifies a personal dimension in customer experience formation based on customer narratives that discuss their self-reflections during online shopping. This dimension of customer experience formation is linked to customers' considerations of themselves as individuals, consumers, and customers of online stores.

Self-related meaning creation was particularly emphasized in the survey where the respondents were asked to describe the causes of their emotions in their own words. The findings show that, while customers typically evaluate and ponder the elements of an online store while visiting it, they do not limit their sensemaking to the store. The findings also demonstrate that, when explaining their emotions during service encounters, customers refer to their actions, efforts, and skills. The respondents attributed most of their positive emotions to themselves, while negative emotions were mostly explained via online store characteristics. The findings thus suggest that personal success as a consumer and perceiving oneself positively are essential themes in directing the customer experience toward the positive while seeing oneself in a bad light and being disappointed in one's actions can lead the customer experience toward the negative. The findings show that such disappointment is often linked to guilt associated with consumption (e.g., surrendering to consumer desires and consumption that is found unethical or unnecessary).

Theoretical contributions and managerial implications. This dissertation extends the customer experience literature by depicting the vital role of customer self-reflections in customer experience formation. Previous research has argued that customers have personal resources in the physical, mental, emotional (Rodie & Kleine 2000) social, and cultural (Arnould, Price & Malshe 2014) realms that they actively use in their value creation processes during service consumption (Kelley, Donnelly Jr & Skinner 1990, Rodie & Kleine 2000). Researchers acknowledge that customer experience includes a customer's internal processes, such as cognitive, affective, and physical processes (Bustamante & Rubio 2017). Furthermore, the role of individual characteristics, such as demographic factors, have been noted in customer experience studies (Tse & Crotts 2005, Axelsen &

Swan 2010). However, customers' self-considerations have been minimally discussed in customer experience studies. Therefore, this dissertation adds to the customer experience literature by demonstrating how personal considerations can become part of customer experience formation.

In line with earlier studies, this dissertation demonstrates that shopping can act as a mechanism for customers to define and negotiate themselves and their relationships with others (Compeau et al. 2016). Customer experiences are never formed in isolation from the individual who is constructing an experience; therefore, the personal dimension is always present in customer experience formation. This study finds that self-reflections are especially active when the service or purchase is in some way in conflict with a person's goals, values, or understanding of self. While shopping and service usage always include inner talk (i.e., personal actions and aims are pondered and negotiated) to proceed, encountering situations in which a person's values, goals, and actions conflict with one another or conflict with the well-being of other people seem to facilitate self-reflection. Purchasing or planning purchases that are considered unethical but inexpensive is an example of a potential conflict that could cause personal reflection. The findings add to the customer experience literature by noticing the important role of self-considerations in customer experience formation and by suggesting that positive or negative perceptions of oneself can positively or negatively affect customer experience formation. Because individual reasoning can be rather self-enhancing, seeing oneself in a positive light seems to contribute to pleasure and customer delight during a service encounter, whereas negative thoughts do the opposite.

From an online store perspective, the personal dimension of customer experience formation cannot be controlled because a company cannot control customers' self-reflections. However, a customer's considerations can be considered in service design and offerings, and through these actions, a company can try to positively influence those personal considerations. The findings of this study suggest that one opportunity for targeting positive outcomes (positive customer experiences) could include focusing on customer delight. This study implies that service providers may be able to further customers' delight by creating service elements that inspire customers to create positive images of themselves. Therefore, companies should find ways to help customers perceive themselves as successful, clever, and skillful shoppers during their service encounters. Customer delight can be understood as a character of customer experience (outcome) that goes beyond satisfaction, implying a more intense positive perception (Schneider & Bowen 1999, Arnold et al. 2005). While many marketing studies have expressed the importance of customer satisfaction as an antecedent or outcome of customer experience, it has been argued that satisfying the customer is not enough because a satisfactory experience is an essential and basic requirement for today's companies to succeed (Schneider & Bowen 1999). In line with these ideas, this study contributes to the customer experience literature by suggesting that, instead of investigating and highlighting the role of satisfaction in the context of customer experience, researchers and practitioners should put more emphasis on stronger

positively charged outcomes, including customer delight, and investigate how to increase those perceptions with different offerings.

In line with Schneider and Bowen (1999), the findings of this dissertation suggest that enhancing a customer's self-esteem can be critical to enhancing customer delight. Schneider and Bowen (1999, p. 41) suggest that a customer's perceptions of self-worth can be enhanced by acknowledging their perspective, importance, and rights and by investigating and serving customers as individuals. Previous studies show that self-worth is an important issue in customer experience formation because it can be diminished or enhanced by shopping (Compeau et al. 2016). However, in addition to enhancing customers' positive perceptions of themselves, service providers should ensure positive perceptions of the company as well. This is important because, as Puccinelli et al. (2009) suggest, customers' perceptions of causality can significantly impact their perceptions of the retailer and their repurchase intentions. They state that, if the customer experience is positive but the customer attributes it to his/her actions rather than those of the retailer, the positive experience is unlikely to enhance the customer's positive view of the retailer. This can be considered challenging from the company perspective, because consistent with attribution theory (Heider 1958, Weiner 1985), the findings of this study indicate that individuals tend to explain positive issues using internal attributions and by attributing their success to their abilities, while external factors (e.g., online store) are blamed for failure. Previous customer experience studies have reported similar findings. In the context of tourism, Jackson, White, and Schmierer (1993) find that tourists attribute positive tourism outcomes to internal factors and blame negative tourism experiences on external factors. Altogether, these findings suggest that companies need to consider carefully how to they can enhance their customers' positive internal and external attribution creation. Table 11 summarizes the personal dimension of customer experience formation.

TABLE 11   A summary of the personal dimension of customer experience formation

The customer's focus	Internal: Oneself as an individual, consumer, and customer	
Activation	Activated in an encounter with an online store; enhanced by situations in which one's values and goals conflict with each other or with others' values and goals	
The online store's role in this dimension	Cannot control, but can influence by service design (e.g., by providing service elements that make customers feel good about themselves)	
	Theoretical contributions	**Managerial implications**
Theme Main takeaways	• Extends the customer experience literature by identifying a personal dimension as one of the dimensions of customer experience formation. • Adds to the literature by defining the personal dimension of customer experience formation as a customer's considerations regarding him/herself during the customer journey.	• Encourages online stores to consider customers' self-considerations as a part of customer experience formation.
The role of personal dimension in e-commerce customer experience	• Extends the customer experience literature by depicting the vital role of customers' self-reflections, including their considerations of themselves as individuals, consumers, and customers of online stores, in customer experience formation. • Shows that a customer's positive or negative perceptions of oneself can positively or negatively affect customer experience formation.	• Encourages online stores to consider how to better understand their customers' meaning creation regarding themselves during e-commerce consumption, including what those considerations comprise and their role in customer experience formation.
The role of positive self-reflection in e-commerce customer experience	• Demonstrates that seeing oneself positively (being a successful and skilled shopper) can contribute to customer pleasure and delight during a service encounter and have a positive effect on the customer experience. • Consistent with attribution theory, it shows that online store customers typically explain positive issues using internal attributions and by attributing their success to their abilities. Vice versa, external factors (online store, other people) are blamed for failure.	• Encourages online stores to consider how customers' positive self-reflections can be encouraged during the customer journey (e.g., during the store visit or the after-purchase phase). • Suggests that online stores should focus on customer delight instead of satisfaction.
The role of negative self-reflections in e-commerce customer experience	• Demonstrates that negative self-perceptions and being disappointed with oneself can lead the customer experience toward the negative. • Shows that self-disappointment is often linked to guilt associated with one's consumption (e.g., surrendering to one's consumption desires and consumption that is found unethical or unnecessary).	• Encourages online stores to consider how customers' negative self-reflections can be avoided during the customer journey (e.g., during the store visit or after-purchase phase).

5.2.3 Social dimension

Based on the second and third research papers, this dissertation identifies a social dimension in customer experience formation based on customer narratives that depict their thoughts of people and people's behavior during online shopping. This dimension of customer experience formation is linked to customers' considerations of other people as individuals, consumers, customers, and larger social groups (e.g., communities).

The findings show that the social aspect of customer experience formation is emphasized in customers' meaning creation processes on two levels: from close friends and family members (i.e., narrow circle of life) to other customers and influencers (i.e., wider circle of life). The findings suggest that customers consider other people's behaviors and reactions during their purchase processes, and these social considerations can influence customer experience formation by either increasing the joy associated with consumption or causing feelings of discomfort related to consumption. The study demonstrates that contributing positively to the wellbeing of loved ones or other people can positively impact customer experience formation. Considering other people's actions can in turn negatively affect customer experience formation if others' behaviors are perceived negatively or if they disturb an individual's processes, such as shopping. The findings indicate that customer experience formation in an online context can be affected by the social elements in the physical space in which an online store is visited. Family members who somehow distract the shopping process or do not participate enough in a purchase process (e.g., not providing opinions or advice) can negatively affect the customer experience formation by bringing negative tones to the shopping process.

Theoretical contributions and managerial implications. This dissertation adds to the customer experience literature by depicting the role of social actors (i.e., other people in customer experience formation in the online context). Previous customer experience literature identifies the social aspects of customer experience, especially in the brick-and-mortar service contexts (Verhoef et al. 2009, Brocato, Voorhees & Baker 2012, Bustamante & Rubio 2017), arguing that customer experiences are "largely social activities" (Brocato, Voorhees & Baker 2012, p. 384). The previous literature often considers social elements part of the retail environment; they are social cues (Baker, Levy & Grewal 1992) that include service employees and/or other customers who have an impact on customer experience (Verhoef et al. 2009). Martin (1996) suggests that customers can impact one another in commercial contexts indirectly by being present in a service environment and directly through interpersonal encounters. Customers contribute to others' experiences through wait times or crowding, but they can also offer assistance or other social benefits (Baron & Harris 2008). Bustamante and Rubio (2017) argue that customer experience is co-created with other people in social contexts, and retail stores are contexts where customers perceive, interpret, and interact with the components of the service to engage in individual and collective processes. In line with these studies, the findings of this study suggest that other

people can have a role in customer experience formation, and the social dimension also exists in the online context. However, while customer experience studies often include service personnel as part of the social dimension, this study understands service workers as a part of the dyadic dimension of customer experience and not belonging to the social dimension because these social actors and their behaviors are guided by the service provider's protocol. For example, customer service workers take on the role that the company assigns them and represent the company (not themselves) while at work.

Furthermore, previous studies (e.g., Nambisan & Watt 2011) discuss the social dimension of customer experience in terms of consumer communities, which they argue can create collective customer experiences (Caru & Cova 2015). These studies state that many customer experiences are shared rather than individual and that value is created for individuals through interaction with other people (McKechnie & Tynan 2008). Communities generate value for all stakeholders, including the members, host, and third parties, through dialogue and relationships (Kozinets 1999). In line with these views, this dissertation notes that people and communities can influence customer experience formation, but the influence can also be indirect and is not limited to direct interaction during the service encounter. The findings of this study add to the customer experience literature by suggesting that other people can contribute to customer experience formation in an online context on both the physical and mental levels. While the online customer is alone at the online store, people or other actors in the background can influence customer experience formation via their behavior, participation, or non-participation. In line with previous research, the findings indicate that, when faced with insufficient personal resources, customers turn to other people, such as family members, for support and advice (Baron & Harris 2008). The findings suggest that online store visits at a customer's home or another physical place can involve many contributors to the customer experience of which the e-retailer is unaware and cannot control (Rose et al. 2012). The findings further indicate that, whereas the customer may appear as a single person in the retailer's data, the true customer can be made up of a group of people, such as a couple who makes purchase decisions together. Thus, investigations on who the customer actually is (e.g., an individual, a family, a couple, a group of friends), can offer important insights into customer experience formation. In addition, even though customers do not directly meet other customers or staff members in online service environments, the findings suggest that other people can influence customer experience formation by becoming a part of a customer's sensemaking processes. Customers consider other people's behavior and perceptions during service encounters; therefore, different groups of people, such as consumer communities, can influence customer experience formation by, for example, creating ideals of acceptable or non-acceptable consumption. While the findings of this study do not identify such communities or social influencers beyond customers' closest family members, it can be proposed that all communities that provide customers with information that becomes part of the purchase process can contribute to customer

experience formation. Notably, the respondents of this study highlighted the ecological issues in their customer experience descriptions; therefore, it can be assumed that social platforms or discussions that are dedicated to ecologic consumption have affected these respondents by giving them ideas regarding ecological themes. In line with Åkesson et al. (2014), this dissertation suggests that customer experience formation can be guided by norms and rules that shape people's consideration of what is acceptable or not within a specific group of people.

The social contributors discussed above constitute indirect touchpoints to customer experience formation. While other people can influence customer experience formation by influencing customers' perceptions of companies and brands or by participating in the shopping process on both the physical and mental levels, it is difficult for companies to identify and control these touchpoints, especially in the online context. This issue needs more attention among service managers and researchers, as it has been proposed that customer-owned touchpoints can have a more significant effect on customer experience formation than traditional marketing activities (Baxendale, Macdonald & Wilson 2015). Yet, indirect touchpoints have also been identified as a source of concern for marketing managers (Yakhlef & Nordin 2020). Becker and Jaakkola (2020) argue that, in terms of customer experience research, there is a particularly critical gap in the knowledge of how companies can affect the touchpoints outside their control. In line with these ideas, this study suggests that indirect touchpoints represent a fruitful topic for future investigations. Furthermore, the indirect touchpoints are not limited to social actors but include different elements belonging to the contextual and multilateral dimensions of customer experience formation.

It is important for online retailers to research which social actors are relevant to the customer experience formation. Investigate their customers' social backgrounds (e.g., family relations) and everyday life can be useful in these efforts. The findings of this study encourage online stores to consider direct and indirect social touchpoints that can influence customer experience formation. In addition to the identification of important contributors, these insights can be useful in understanding customers' shopping motivation: when customers are willing to shop and why, and when they are most likely the least disturbed by the other actors and factors in their surroundings. For example, if the majority of the company's customers are mothers that are most likely busy during the daytime with their children, such customers cannot focus on online shopping during the daytime. Thus, when designing sales campaigns, for instance, a company might benefit from having sales during later hours of the day when the mothers might have free time. Overall, to be truly customer-centric, the online store should organize its operations to meet the needs and rhythm of its customers' lives.

In summary, the social dimension of customer experience formation cannot be controlled by an online store. The company cannot control customers' thoughts about other people or social situations when online stores are visited. However, an online store can consider the social dimension and try to influence its customers' social considerations by its service design. Companies should strive to understand their customers' social considerations during e-commerce consumption, including what the considerations comprise and their role (e.g., positive/negative, major/minor) in customer experience formation. For example, as the findings of this study suggest that delighting others can bring positive nuances to the customer experience, an online store could consider this by offering product trials or special offers that can be given to someone else after purchase. Furthermore, as different consumer communities can direct individuals' thinking and consumption choices, they can be useful for companies to investigate to learn what their customers find important and meaningful. Online stores can also strive to create their own communities where customers can communicate with one another about things that they value. From the company perspective, such communities can act as valuable sources of information and insight and can enable better interaction between the company and customers, which can be utilized in areas like service improvement and design. Online stores can also benefit from offering content (marketing) that the potential and existing customer groups are interested in, such as tips, advice, and stories related to their products and the lifestyles they are related to. Table 12 summarizes the social dimension of customer experience formation that was discussed in this sub-section.

TABLE 12   A summary of the social dimension of customer experience formation

The cus-tomer's focus	External: People and their behaviors	
Activation	Activated in an encounter with an online store or encounters with other people during an online store encounter	
The online store's role in this dimension	Cannot control, but can influence by service design (e.g., by creating customer communities and content that is relevant to potential /existing customers)	
	Theoretical contributions	Managerial implications
Theme		
Main takeaways	• Supports the customer experience literature by identifying a social dimension as one of the dimensions of customer experience formation. • Adds to the literature by defining the social dimension of customer experience formation as the customer's considerations regarding other people during their customer journey. • Adds to the literature by identifying different levels of social dimension: the customer's narrow circle of life/wider circle of life, and indirect/direct influence.	• Encourages online stores to consider customers' social considerations as part of customer experience formation.
The role of the social dimension in e-commerce customer experience	• Shows that customers consider other people's behaviors and reactions during their purchase processes, and these considerations can affect the customer experience positively or negatively.	• Encourages online stores to investigate how social considerations affect customer experience formation.
The different levels of social dimension on customer experience in e-commerce	• Shows that the social dimension of customer experience formation includes two sub-dimensions; the customer's narrow circle of life (close friends or family) and the wider circle of life (people in society). • Demonstrates that other people's influence on customer experience can be direct or indirect; the social dimension is not limited to direct interaction during a service encounter. • Indicates that other people can contribute to customer experience formation in an online context on a physical level; people or other actors in the physical space can influence customer experience formation by their behaviors (i.e., participation or non-participation). • Shows that, in addition to physical presence, other people can influence customer experience formation by becoming a part of the customer's sensemaking process. Customer experience formation can be guided by norms and ideals that shape customers' consumption considerations.	• Encourages online stores to investigate customers' social circles, such as the family relations that can potentially influence customer experience and purchase decisions. • Encourages online stores to investigate communities and influencers that act as indirect touchpoints during the customer journey.

5.2.4 Contextual dimension

Based on the second and third papers, a contextual dimension in customer experience formation is identified based on customer narratives that depict their considerations of factors beyond themselves, people, and companies during online shopping. This dimension of customer experience formation is linked to customers' considerations of the surrounding environment in which consumption takes place and the phenomena that occur there. The contextual dimension is understood as "the broader context in which a service is consumed" (Palmer 2010, p. 202).

The empirical findings indicate that customers actively consider the broad context of shopping during their shopping journeys and encounters. These meaning creation processes include considerations of how and where shopping takes place and what the benefits and consequences of different consumption choices are in terms of various phenomena (e.g., climate change). Furthermore, the findings show that the contextual dimension of customer experience formation includes considerations of the purchase context (the type of purchase) and service channel context (e.g., online/offline). The findings show that contextual considerations can influence customer experience formation in either a positive or negative manner. It is indicated that different phenomena, such as climate change, can cause concern and other negative emotions, but regarding these considerations, acting for the sake of the common good with consumption choices can positively contribute to customer experience formation.

The findings indicate that, while constructing their customer experience, customers reflect on the pros and cons of their chosen service channel context in comparison to others and ponder the type of purchase they are making. For instance, the benefits that e-commerce provides on a general level, such as not having to shop at brick-and-mortar stores, can positively contribute to customer experience formation during online shopping. Conversely, the purchase context can also be a negative contributor, such as if it causes shame or feelings of repulsiveness. The findings suggest that different kinds of purchases (e.g., buying food versus buying clothes) can be preconceived in customers' minds, meaning that the context automatically inserts feelings into customer experience formation. As an example, some participants in the study indicated that purchasing groceries always has a negative tone because it is compulsory for survival.

Theoretical contributions and managerial implications. Customer experience researchers generally agree that customer experience is specific to the context (Helkkula 2011), meaning that contextual variables influence customer responses and evaluations. Despite these notions, research on the contextual dimension of customer experience remains fragmented and lacks a coherent view (Becker & Jaakkola 2020). Becker and Jaakkola (2020) argue that existing literature is limited in terms of identification and the role of critical contingencies (such as customer characteristics or situational and socio-cultural factors) for customer experience; hence, they call for more systematic research on the relevant contextual variables, their effects on customer experience, and the evaluative outcomes.

The findings of this study address this call by identifying and discussing the contextual elements as depicted by customers in the context of e-commerce customer experience.

In previous literature, the contextual dimension of customer experience is typically referred to only as by the type of offering (e.g., retailing, tourism) or service (e.g., self-service, multichannel service) that is being explored. Customer experience is different in different contexts, and this is emphasized because it is well-known that consumers generally behave and react differently depending on the shopping activity and purpose (Babin, Darden & Griffin 1994). Palmer (2010) notes that one of the most significant problems in developing an operationally acceptable measure of customer experience is the complexity of its context-specific variables. In addition to characterizations referring to different types of offerings, another approach to contextual elements is to understand them as factors beyond the obvious company-related context (e.g., service) in which customer experience is explored. Bustamante and Rubio (2017), for instance, argue that customer experience in the service *context* has both internal and *contextual* components. They state that customer experience is only partly internal because service contexts have a social dimension that is determined by customers when they interact with others in the service encounter (i.e., the authors understand the contextual components as social elements). Gupta and Vajik (2000) in turn take a broader approach to context by defining it as a combination of both physical and social elements within and outside a service provider's control. The authors (2000, p. 34) state that, in an experience, the context includes the physical setting with a particular selection and arrangement of products; it is "the world of objects and social actors, and the rules and procedures for social interactions with other customers and service facilitators." As can be deduced from these examples, the contextual elements in customer experience are understood in many ways. This study contributes to the contextual debate by suggesting that the contextual dimension of customer experience formation includes customers' considerations of the surrounding environment beyond the company and the phenomena that occur there. Unlike many other studies, this dissertation further suggests that the contextual dimension does not include considerations of other people, such as customers or service employees, because those confederations are part of the social and dyadic dimensions of customer experience formation.

Finally, the findings of this dissertation add to the customer experience literature by demonstrating how environments and phenomena become part of customer experience formation. Understanding such meaning creation processes is important from the company perspective because it assists online retailers in formulating and implementing better strategies to attract and retain customers. Online stores, among other types of companies, interact with a multitude of customers, each of whom often considers a different set of consumption attributes as important. If companies want to provide offerings that are consistent with their customers' world of thought, they must understand the issues and phenomena in their customers' operating environment that the customers find meaning-

ful. Customer experiences are never formed in isolation from the contextual surrounding. It is indicated that the contextual considerations are activated especially when customers perceive the service or their purchase as somehow special; out of the ordinary. When individuals encounter something new and special, they begin to reflect on their connection with the surrounding world and other phenomena. For example, shopping in an online store that sells groceries that are at or past their "sell by" dates inspired customers to consider related phenomena such as food waste, climate change, food production, and food consumption. The challenges and opportunities from this particular company's perspective, therefore, include how to present itself in a positive light in terms of these food-related considerations. From the online store perspective, the contextual dimension of customer experience formation cannot be controlled because the company cannot control the environment that surrounds its customers or the customers' thoughts on different phenomena. However, an online store can take the contextual dimension into account and try to influence its customers' contextual considerations through its service design and actions in (or for the benefit of) society. For instance, based on the findings of this study, positive customer experiences can be potentially enhanced, if the company pays attention to the environmental friendliness of its operations and communicates its environmental actions to customers. Table 13 summarizes the contextual dimension of customer experience formation.

TABLE 13   A summary of the contextual dimension of customer experience formation

The customer's focus	External: Environment and phenomena	
Activation	Activated in an encounter with an online store, especially in encounters with new services/products or when a service or purchase is perceived as unique or unusual	
The online store's role in this dimension	Cannot control, but can influence by service design (e.g., by taking phenomena important to customers into account in the service offering)	
	Theoretical contributions	**Managerial implications**
Theme Main takeaways	• Supports the previous customer experience literature by identifying a contextual dimension as one of the dimensions of customer experience formation. • Adds to the literature by defining the contextual dimension of customer experience formation as customers' considerations regarding the environment and different phenomena during online shopping processes. • Identifies different contextual levels: phenomena, purchase context (the type of purchase), and service channel context (e.g., online vs. offline).	• Encourages online stores to consider customers' contextual considerations as part of customer experience formation. • Encourages online stores to investigate what are the important contextual elements that customers reflect and find meaningful during online shopping.
The characteristics and role of the contextual dimension in e-commerce customer experience	• Demonstrates that customers actively consider the broad context of shopping during their customer experience construction. • Shows that contextual considerations include thoughts of how and where shopping takes place and what the benefits and consequences of different consumption choices are.	• Suggests that online stores should combine the important contextual elements (e.g., phenomena) in their service offerings and communications: how the important phenomena are reflected in the company's operations.

5.2.5 Multilateral dimension

Based on the second research paper, this dissertation identifies a multilateral dimension in customer experience formation based on customer narratives that depict their encounters with other companies in addition to the online store that is present in the online shopping customer journey. Together, these companies and stakeholders form a multilateral cooperative network around the online store. In the e-commerce context, these companies can include those that provide online payment or delivery services.

The findings identify stakeholders as essential contributors to customer experience formation, especially during the after-purchase phase of the customer journey. The study demonstrates that customer experience in an online shopping context is built during the entire customer journey and not merely during an

online store visit. The findings suggest that the after-purchase phase and stakeholders therein contribute to customer experience formation. Notably, delivery related encounters are noted as typical causes of negatively perceived online shopping encounters.

Theoretical contributions and managerial implications. This dissertation contributes to the customer experience literature by acknowledging the essential role of stakeholders in customer experience formation and by depicting how the stakeholders that are included in the service delivery process can contribute to customer experience formation. Previous research frequently defines customer experience as including direct and indirect contact between the customer and the primary service provider (e.g., an online store) (Meyer & Schwager 2007) and views them as the outcome of customers' interactions with firms at touchpoints that are owned by the primary service provider (Verhoef et al. 2009). As a result, investigations of other companies that can contribute to customer experience formation are widely neglected, especially in empirical studies and in an online context. The findings of this study show that customers actively evaluate the entire path regarding a purchase, from the product search to the delivery and onward to other after-purchase activities. In line with Tax et al. (2013), this thesis argues that a customer's interactions with any company that contributes to the overall service process can contribute to customer experience. From the customer perspective, the customer journey can include multiple providers who form a network that is centered on the customer. Tax et al. (2013) suggest a customer-designated *service delivery network* (SDN) perspective for addressing the different parties contributing to customer experience. SDN is defined as organizations that, from the customer perspective, are responsible for the provision of connected overall service experience. The findings of this study support this view and encourage investigations of the different actors in the SDN and their role in customer experience formation.

Understanding the SDN and the after-purchase phase of the customer journey is especially important in e-commerce. Whereas traditional brick-and-mortar consumption is often quite straightforward and typically includes interactions only between the primary service provider and the customer (the customer goes to the store, collects the items, pays, and leaves), e-commerce consumption is a more complicated process. While the overall purchase process is similar to that in a brick-and-mortar store until the moment of completing the order, the end of the shopping process is different. The customer does not receive the items immediately from the online store but must wait for the delivery, which is typically not handled by the online store but rather by stakeholder companies. This is especially true with tangible items but also oftentimes with electronic products, including electronic tickets, which are usually delivered via e-mail. This means that the e-mail service provider, not the online store, is the final stakeholder in the shopping process. Furthermore, before the delivery, the customer needs to encounter a payment process in which stakeholders are involved. The findings demonstrate that, while the online store is not directly responsible for inconven-

ient or problematic service encounters caused by other companies, these negatively perceived encounters are often attributed to the online store where the purchase is made. From the customer perspective, it is the online store that selects its partners (e.g., the delivery options) and is thus responsible for what happens during the later phase of the customer journey.

The customer journey and touchpoint-related understanding are essential from a managerial perspective. In an effective customer journey design, touchpoints should be designed such that customers perceive them as thematically cohesive and consistent (Kuehnl, Jozic & Homburg 2019). Thematic cohesion refers to a customer's perception of multiple touchpoints sharing a common brand theme. Thematic cohesion facilitates the recognition that a brand is the correct choice for a customer's lifestyle or goal. Consistency of touchpoints refers to the customer's perception of a uniform design of all touchpoints during the customer journey. Furthermore, touchpoints should be context-sensitive, meaning that they should be perceived as responsive and adaptive to a customer's goals and preferences (i.e., customers should recognize the different touchpoints as personalized and convenient) (Kuehnl, Jozic & Homburg 2019). In terms of cohesion, consistency, and context-sensitivity, the retailer and all other partners in a customer's shopping journey must communicate a similar, positive message. For example, if a customer orders a luxury product that is loaded with high-quality images and the courier partner leaves the parcel out in the rain, the customer's perception of touchpoint cohesion and consistency is likely ruined.

While it might be challenging for the retailer to control all touchpoints during the customer journey, online stores can, at an elementary level, influence the customer experience by their partner selections and the options they provide, such as for deliveries. Furthermore, (in an ideal case) an online store can negotiate and design practices that are visible to customers in cooperation with its partners. Without understanding and carefully designing the overall end-to-end process, service providers can distinguish themselves in particular encounters, but they may struggle to provide their customers with a positive overall experience (Halvorsrud, Kvale & Følstad 2016). Therefore, leading service providers typically use customer journey approaches in service design and management (Zomerdijk & Voss 2010). However, similar to the dyadic dimension, the store cannot control but rather only maneuver the formation of customer experience because each customer interprets the offerings differently. Table 14 summarizes the multilateral dimension of customer experience formation.

TABLE 14   A summary of the multilateral dimension of customer experience formation

The customer's focus	External: Online store's partners and stakeholders	
Activation	Activated in an encounter with the online store's partner company	
The online store's role in this dimension	Can be influenced but not controlled by partner selection	
	Theoretical contributions	**Managerial implications**
Theme Main takeaways	• Adds to the previous customer experience literature by identifying a multilateral dimension as a dimension of customer experience formation. • Adds to the literature by defining the multilateral dimension of customer experience formation as customers' considerations regarding other companies in addition to the main service provider (online store) that are present in the online shopping customer journey.	• Encourages online stores to study customers' considerations of stakeholders and partners as a part of customer experience formation.
The characteristics of the multilateral dimension in e-commerce customer experience	• Demonstrates that all companies that customers find as part of the online shopping service may have a vital role in customer experience formation; customer experience in an online shopping context is built during the entire customer journey and not merely during an online store visit.	• Highlights the importance of understanding and investigating the entire customer journey from the customer perspective.
The role of the multilateral dimension in e-commerce customer experience	• Demonstrates that, while an online store is not directly responsible for customers' problematic service encounters caused by its stakeholders, the negative encounters are often attributed to the online store because it is held responsible for its partner selection. • Shows that delivery related encounters are typical causes of negatively perceived online shopping encounters that direct the customer experience toward the negative.	• Encourages online stores to study how touchpoints owned by their stakeholders and partners influence customer experience formation. • Suggests that online stores should carefully consider their partner selection and pay special attention to their delivery partners.

5.3 Conclusions

This study answers its main research question (RQ1) by presenting two conceptualizations of cognitive customer experience formation in the e-commerce context. While this dissertation investigates customer experience formation from a theoretical perspective and through empirical investigations, both the theoretical and the empirical findings of this dissertation present similar conceptualizations of the formation of customer experience. Based on the sensemaking theory, the first conceptualization concludes that customer experience formation as a cognitive process includes self-related, sociomaterial, retrospective, and prospective sensemaking, including considerations of self, the sociomaterial environment, the past, and the future. Based on the empirical studies, the second conceptualization implies that customer experience formation includes dyadic, personal, social, contextual, and multilateral considerations. The identified meaning-creation processes depict the dimensions of customer experience formation.

By comparing the two conceptualizations (Figure 10), it can be suggested that the core themes of customer experience formation when investigated from the customers' perspective are self-relatedness, sociomateriality, and temporality. It can be concluded that both conceptualizations identify the self-related and sociomaterial dimensions of customer experience formation that are suggested in the theoretical model. The dyadic, social, contextual, and multilateral dimensions that are identified in the empirical conceptualization can be understood as factors that depict the elements of the sociomaterial dimension that is defined in the sensemaking conceptualization. Furthermore, the personal dimension of the empirical model gives insights into what the self-related considerations that are identified in the theoretical model can entail. Therefore, it can be suggested that the empirical characterization offers indirect support for the sensemaking characterization of customer experience formation. The temporal dimensions of customer experience formation that are identified by the sensemaking characterization in turn do not have a specific role in the empirical model because the data from the original papers have not been analyzed in terms of temporal considerations. However, the empirical findings give some insights regarding the temporal elements in customer experience formation and suggest that the dyadic, personal, social, contextual, and multilateral considerations can have temporal elements. For instance, the findings show that customers engage in prospective considerations during their shopping processes by considering and imagining the possible outcomes of their purchases, and these considerations can contribute to customer experience formation.
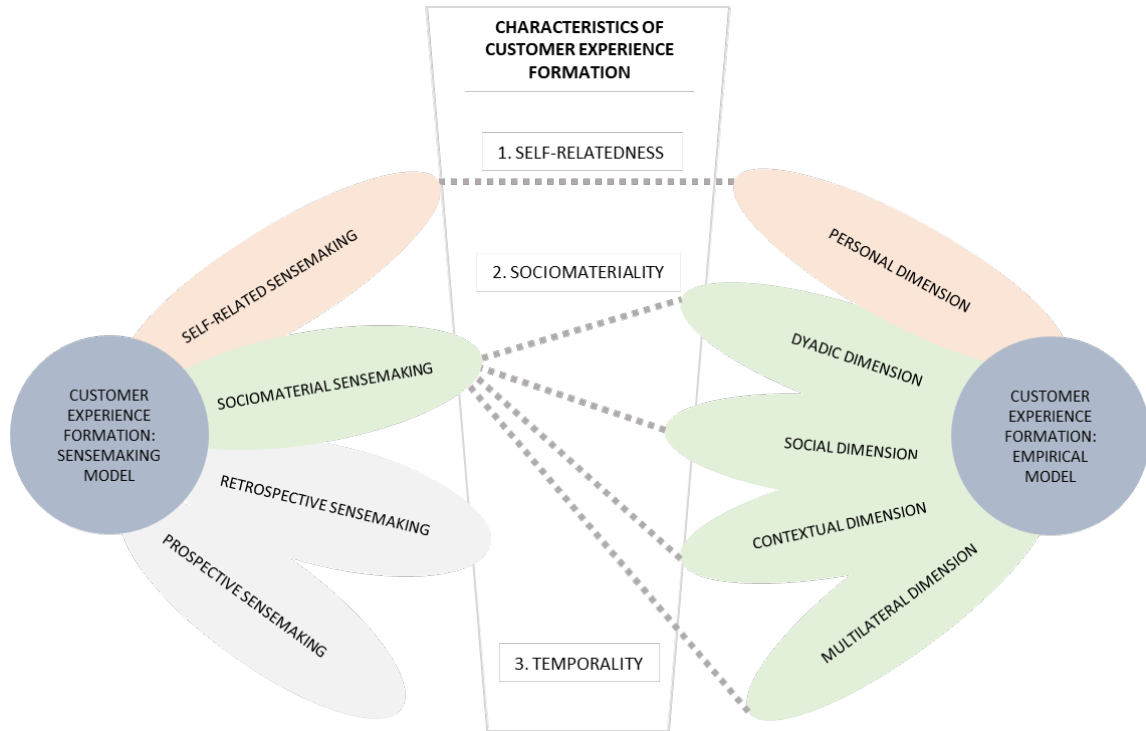
FIGURE 10 The similarities and differences between the sensemaking model and the empirical model of customer experience formation

The key contribution of this dissertation is the demonstration of the multidimensionality of customer experience formation through the two conceptualizations. The second essential contribution is the advancement of customer-centric customer experience research. While previous customer experience literature (especially empirical research) has focused on company-led investigations of customer experience and highlighted customers' reactions to service stimuli and the interaction between companies and customers, this study places the customer in the center of attention and studies customer experience formation through customers' lenses. This study advances the customer experience literature by characterizing customer experience as a cognitive mental picture and studying how customers construct their customer experiences through meaning creation. The study extends the existing knowledge by providing insights that depict customers' meaning creation processes that are not restricted to a service provider. As a result, this study shows the complexity and broadness of customer experience formation in terms of how customers create their experiences and the multiple factors that can be involved in that creation. Based on the sensemaking literature, the conceptual investigation of this thesis discovers and pictures possible ways of how customers create meanings. The empirical investigations provide real-life insights into customers' meaning creation through customer narratives that depict customers' thoughts during their e-commerce encounters. The findings of this study show that from a customer's perspective, the customer experience is not the customer's mental picture *of* a company but rather the wider mental picture *associated with* the company. This means that the meanings included in the customer experience can be directly linked to the company, but can also include

any kind of meanings that are awakened either when visiting the company or when encountering some information related to the company. While customers consider the main service provider, such as online stores, during their online store visits and online shopping journeys, they also actively consider and evaluate other companies, themselves, current phenomena, and other people when constructing their customer experience. The multidimensional considerations bring different nuances to the customer experience, and determine whether the customer experience is, for example, positive or negative in tone.

In line with previous studies (e.g., Verhoef et al. 2009, Rose et al. 2012), the findings of this study indicate that companies can partially influence yet not perfectly define the customer experience. Customer experience is linked to elements that a company can control (e.g., its service interface and assortment) and to factors that are outside a firm's control (e.g., other people and different phenomena). While previous studies have identified the possibility of external variables and touchpoints in customer experience formation, how customers perceive different factors outside the primary service provider and throughout their customer journeys remains mostly unknown (Kuehnl, Jozic & Homburg 2019). The empirical findings of this study provide new insights into what those contributors can be and how customers make sense of them. In line with Rose et al. (2012), this dissertation concludes that identification of the essential components of website quality provides a starting point for customer experience understanding in an online and e-commerce context; however, customer experience is much more than the interpretation of a website's elements. In line with Wolfinbarger and Gilly (2003), this dissertation demonstrates that customer experiences in e-commerce are built during the entire customer journey, including encounters with the website, delivery agents, and customer service, if needed. Overall, the findings therefore show that when investigating customer experience, it is important to embrace the role and perspective of the *customer*.

As a whole, this dissertation responds to the request for novel insights into the customer experience. Researchers have lately called for frameworks depicting customer experience (Jain, Aagja & Bagdare 2017), understanding of holistic individual-level perspectives of customer experience and how customer experience is formed (Lipkin 2016), diverse research approaches for understanding customers (Heinonen & Strandvik 2018), and novel thinking about customer experience (McColl-Kennedy et al. 2015). By adopting the customer view, discussing customer experience as a sensemaking process and by creating another conceptualization of customer experience formation based on empirical evidence, this dissertation provides new insight into all the above requests. The new theoretical and empirical insights and ideas of customer experience formation identified in this study can be utilized and taken forward in service research and customer-focused service design.

5.4 Suggestions for future research

While this dissertation contributes to the customer experience literature by providing new insights into customer experience formation, many vital issues require further investigation. A single dissertation is not able to significantly explore customers' worlds; hence, future studies are encouraged to increase the understanding of customers' meaning creation processes during the construction of their customer experience. Next, suggestions for future studies are discussed considering the characteristics of customer experience formation identified in this study (Figure 10). The suggestions are grouped under the three main themes of self-related, temporal, and sociomaterial dimensions of customer experience formation and are summarized (Figure 11) at the end of this section.

Self-relatedness. This study suggests that customers engage in self-reflection when constructing their customer experience, and the study highlights the role of self-perception and self-consideration in the formation of customer experience. As customers' self-considerations have been only minimally discussed in customer experience studies to date, this study encourages further investigation into the self-related dimension of customer experience formation to better understand what self-related considerations include and how they become a part of customer experience formation. Investigating the self-related considerations in customer experience formation can help researchers better understand the mechanisms through which services intertwine with customers' understanding of themselves and their daily life. This knowledge is important for providing customer-centric offerings and expanding customer experience research. The empirical findings suggest that perceptions of self can bring positively or negatively charged tones to customer experience formation. Seeing oneself in a positive light during a service encounter can contribute to pleasure and customer delight, whereas negative thoughts regarding oneself, such as guilt, do the opposite. These themes provide interesting scope for future studies. It is important to consider how companies can positively influence customers' personal considerations: to consider strategies that will encourage customers to perceive themselves as being successful, fair, clever, and skillful shoppers during their service encounters. Conversely, it is also important to investigate what makes customers feel bad about themselves during consumption processes. Although customers' self-related meaning creation cannot be controlled, being aware of its content is important from a service design perspective. By investigating how customers evaluate and analyze themselves and what makes them feel good or bad about themselves when consuming services or products, we can better empathize with customers and identify factors that are important to them in consumption. Service design literature has long highlighted human centrality and empathy in design processes. In empathic design, designers try to understand existing or potential customers as having special needs and desires so that they can understand the customers' lives and increase the likelihood that a service will meet the users'

needs and desires. The same applies to customer experience investigations: researchers must develop empathy for the customers they investigate to produce findings that accurately describe complex phenomena, such as the formation of the customer experience. In line with the CDL (Heinonen et al. 2010, Heinonen, Strandvik & Voima 2013, Heinonen & Strandvik 2015, 2018, 2020), this study suggests that service researchers need to understand how customers live their lives, what challenges they face, and how different offerings are used according to the customers' logic.

Temporality. This study suggests that temporal considerations can have an important role in customer experience formation. It is suggested that customer experience formation includes retrospective sensemaking, which includes remembering and revisiting the past, and prospective sensemaking, which includes envisioning and imagining future events and behaviors. In other words, it is suggested that customers engage in mental time travel when constructing their customer experience. While the empirical investigations included in this dissertation did not pay special attention to the temporal dimensions of customer experience formation, future research should focus on these themes in more detail. While previous studies recognized that customer experience formation consists of separable phases that form a temporal continuum (e.g., pre-purchase, purchase, after-purchase), customer experience studies have yet to centralize the temporal aspects on a deeper level, especially as cognitive retrospective and prospective processes.

Future studies should investigate the role of customers' retrospective considerations in their customer experience formation and the dimensions of retrospective meaning creation. Investigations on the retrospective dimension of customer experience are substantive, as they help understand how customer experience is linked to past events. Such understanding can provide information about customers' expectations and their criteria for selecting different offerings, which are built according to their previous life experiences. Furthermore, understanding retrospective elements can also help develop new ideas for service design, as it helps identify factors that customers have memories of and emotional ties to. Service elements that give rise to positively charged meaning creation, such as nostalgia, can be useful in making the customer experience more memorable and personal. Future studies are encouraged to investigate more carefully how the retrospective dimension — among the other dimensions identified in this study — of customer experience formation can be better investigated and adopted for service offerings.

Future studies should also investigate the role of customers' prospective considerations in their customer experience formation. Research questions should address the role and content of customers' prospective considerations in their customer experience formation. While customers' service-related considerations (i.e., revisit or repurchase intention, and WOM) have been studied to some extent, considerations not directly linked to the service need more research. These themes should be carefully considered in order to expand the customer

experience literature, because previous "open-ended" investigations on the future-oriented meaning creation in customer experience formation are minimal. How customers structure the future by imagining desirable states, creating images and scenarios, and considering the likely impact of a specific action or non-action provides important opportunities for future customer experience studies. Understanding prospective considerations is essential for marketers who wish to understand how customers justify their consumption choices and make purchasing decisions. Data collection and methods of analysis that capture customers' meaning creation at the moment of service use would likely provide the most authentic information about the temporal considerations.

Sociomateriality. This study suggests that customers engage in sociomaterial considerations when constructing their customer experience. The findings demonstrate that as CDL (Heinonen et al. 2010, Heinonen & Strandvik 2015, 2018, 2020) posits, customers do not use services in a vacuum; the use and value of a service can be affected by many factors and operators in the sociomaterial environment. It is concluded that in the context of e-commerce, sociomaterial considerations include the customer's opinions of the main service provider, such as an online store (dyadic dimension), as well as of other service providers (stakeholders) that are part of the shopping journey, such as delivery services (multilateral dimension). In addition, sociomaterial considerations include customers' thoughts about the environment in which the shopping takes place and the phenomena that occur there (contextual dimension), as well as about other people who operate in that environment (social dimension). The findings of this study encourage further investigation of all these dimensions. As the role of the main service provider in customer experience formation has been thoroughly studied, however, future studies should place more emphasis especially on the other dimensions (social, contextual, and multilateral) of customer experience formation. These dimensions can be very important from a customer's perspective but may be almost invisible or non-existent from the company's viewpoint (or from a company-centric viewpoint), and hence require further investigation to better understand their importance and content in service marketing.

This study suggests that the *social dimension of customer experience formation* also exists in the online context, despite employees or other customers not having the same presence in online environments as in physical service environments. As this study found that customers consider other people's behaviors and reactions during their purchase processes, future studies should dig deeper into these themes, investigating more carefully how and under what circumstances other people affect customer experience formation. Future studies could investigate who the important contributors to individuals' customer experiences are—for example, how family members, friends, or random people can positively or negatively influence individual meaning creation during the customer journey, or what role their support and advice play in customer experience formation. The role of consumer communities and the norms and rules of different groups in customer experience formation are worth further consideration. In addition, the findings also suggest that while a customer may appear as a single person in the

online retailer's data, the true customer may be made up of a group of people, such as a couple who make purchase decisions together. Future studies are therefore encouraged to investigate these "true customers" — how they can be identified, defined and considered in service design to make their customer experience as pleasurable as possible. Investigating customers' social backgrounds, family relations, and everyday life is useful for these purposes.

Concerning the *multilateral dimension of customer experience formation*, this study suggests that companies in addition to the main service provider can contribute to customer experience formation. Hence, important questions for future studies should address the role of other (partner) companies in customer experience formation. When analyzing and designing touchpoints to facilitate positive customer experience formation, it is important to also investigate those service cues designed and provided by other parties that are outside the primary company's own service setting but are critical to the customer experience. This understanding is especially important from a theoretical perspective. De Keyser et al.'s (2020) recent literature review on customer experience shows that 100% of the articles in their sample (N = 143) focus on company-controlled touchpoints. However, the authors also notice a growing recognition (46.85 % of the sample) of touchpoints that are outside the company's control. While investigating the entire customer journey is essential to understanding customer experience formation as a continuum, such research to date is scant, perhaps because it can be quite challenging. Future studies are therefore encouraged to help us better understand how the important touchpoints of the overall customer journey can be identified and investigated, and how this understanding can be utilized in companies' service design processes. How the different touchpoints during the customer journey can be designed so that they are thematically cohesive and consistent (Kuehnl, Jozic & Homburg 2019), is among the important questions.

In terms of the *contextual dimension of customer experience formation,* this study suggests that the environment in which consumption takes place and the phenomena that occur there can contribute to customer experience formation. Future studies are encouraged to investigate the contextual dimension of customer experience formation on a deeper level, including an investigation of the role of environmental and phenomena–related considerations in customer experience formation and identification of the important issues, trends, and phenomena from the customers' perspective. This study shows that customers' meaning creation processes can be versatile and far-reaching and include considerations of how and where shopping takes place and the benefits and consequences of different consumption choices in terms of various phenomena, such as climate change. Investigations of these processes, which essentially depict how customers evaluate companies and services in light of their environment — what is going on in the world — provide fruitful topics for future studies. Such studies have a strong practical relevance, because if companies want to provide offerings consistent with their customers' world of thought, they must understand what environmental issues and phenomena their customers find truly meaningful. A customer with a strong ecological mindset, for example, is likely to attach negative

meanings to a company that does not take environmentally friendly practices into account, so the customer experience (meanings associated with the company) will be at least partly negative. Furthermore, as the findings show that considerations of the purchase context (the type of purchase) and service channel context (e.g., online/offline) can be important in customer experience formation, future studies are encouraged to study these dimensions more carefully. It is suggested that purchase contexts and service channels can be prejudiced in customers' minds (the use of certain types of services may be perceived as embarrassing, or one service channel may in principle be perceived more positively than another), so it is important to investigate the role and causes of prejudiced associations in customer experience formation. Understanding prejudices, both positive and negative, can be useful in service improvement (i.e., in lowering the purchase thresholds) and omnichannel service design, where, for example, online elements are brought to physical service environments. In addition, while Palmer (2010) notes the complexity of customer experience measurement due to the context-specific variables, the overall findings of this study suggest that this problem could be addressed by constructing the measurements from the customer versus the company perspective. In that case, the metrics would not be closely tied to a specific service context but rather to the individuals who operate and use the services in different contexts. The main dimensions of customer experience formation and their content that are identified in this study could be used as inspiration when building new measurement scales.

In terms of the *dyadic dimension of customer experience formation,* this study suggests (in line with previous research) that the main service provider plays a vital role in customer experience formation. However, it is also suggested that from the customer's perspective, a service provider such as an online store is merely one actor among many operating in the sociomaterial environment. A customer's life does not revolve around a company; instead, the company is one of many actors that revolve around the customer. From the customer's perspective, the customer is the sun of the universe and a company is just one of the planets orbiting that sun. In line with CDL (Heinonen et al. 2010, Heinonen & Strandvik 2015, 2018, 2020), this study posits that it is vital to understand the roles companies play in the *customers'* universes. In other words, future studies should investigate in more detail how services are linked to customers' daily lives and what the big picture is from the customer's viewpoint, because consumption is just one process among many in customers' lives. An online purchase such as buying decorations may be part of a bigger process, such as organizing a birthday party. By investigating the underlying processes and goals of customers' purchases—how services and products are embedded in customers' lives (Heinonen & Strandvik 2018)—and their role in customer experience formation, service providers are better positioned to design their offering to meet and exceed customers' expectations. Service gaps and room for additional offerings can be identified by understanding the contexts in which service offerings are utilized in customers' lives. How companies can investigate and understand their role in customers'

lives is an important question for future studies, because previous customer experience studies (e.g., in an online context) have typically focused on issues such as usability—the interactions between the customer and the user interface. Based on the findings of this study, however, such investigations provide a limited picture of the customer experience. This study also suggests that an omnichannel perspective would be better employed for future studies when considering customer experience formation. The firm's service channels (e.g., online/offline) and their contribution to customer experience formation have traditionally been approached as more or less separate parts, rather than as an integrated whole, which has several drawbacks. When channels are thought of as separate, it is difficult to create a coherent picture of a customer journey within the firm, as valuable customer information is stuck in silos instead of being integrated into the whole. Future studies should provide new insights of how the different information silos can be unified in customer experience investigations.

In addition, while this study suggests that service elements (cues) are important contributors to customers' sensemaking, future studies should aim to better understand the relationship between service cues and meaning creation in different service channels and contexts. Studies should investigate how different service cues inspire customers' meaning creation: what kind of thoughts they evoke and what customers associate with them. Such investigations will help us better understand what service elements are truly meaningful and critical to customer experience formation. Understanding customers' meaning creation processes and their inspiration will help businesses design touchpoints that allow customers to construct rich, meaningful service stories and experiences that are likely to remain in their minds. Such clues are especially important in service design that aims to develop customer-centered services, in which the customer is placed at the center of the service development work.

Overall, this study suggests that customer experience formation should be investigated with new approaches that take a wider view of customer experience. The present study provides two frameworks that can be adopted, investigated, and refined by these investigations. Alternatively, studies should focus on one or more of the dimensions identified in the models. While this study utilizes a rather traditional research approach and methods, customer experience studies could take advantage of new tools made possible by technological advancements. Such tools, including apps or games, could be utilized for tasks like tracking customers' meaning creation processes during online or offline encounters with different services. This study highlights the importance of customer experience understanding, especially in the context of services, because customers play a significant role in service encounters; a customer's input directly influences how the service process proceeds and their perceptions of the service (Bolton & Saxena-Iyer 2009). While this study has focused on business-to-consumer context, the most prominent way of studying customer experience, the ideas presented in this study should be investigated in business-to-business (B2B) and consumer-to-consumer (C2C) contexts to understand the similarities and differences between the different contexts. For example, as recycling and buying from other consumers

has become a major trend in recent years, buying processes might include various actors with multiple roles in the process. From the perspective of customer experience research, these new service concepts and ways of buying create interesting opportunities.

Finally, advances in technology will change how online stores are executed and operated and how other services utilized in the purchasing process are organized, which will provide many interesting avenues for future studies. To date, online stores have primarily been online catalogs, but they will likely evolve toward virtual reality environments. In addition, augmented reality will change how physical, real-world environments are enhanced by computer-generated information. Recent cross-platform events, such as rap artist Travis Scott's new concert release on the Fortnite game platform, which attracted over 12 million attendees, demonstrate that consumers are interested in new ways of experiencing traditional offerings. Players of Fortnite can also buy virtual outfits, gear, and accessories to decorate their avatars in the game. A significant source of revenue for Fortnite is the sale of virtual currency used for in-game purchases (Mobile Marketer 2020). It can be assumed that similar e-commerce implementations will be a part of future retail e-commerce. In the future, a customer may navigate a virtual mall to visit virtual stores, try on virtual clothing with their avatar, and pay with virtual currency. Instead of picking up a parcel from the post office, it may be delivered by drone or be printed by the customer her/himself with a 3D-printer. As the traditional online and offline worlds become increasingly unified, these changes in the consumption landscape will offer exciting topics for customer experience research for years to come. The suggestions for future studies discussed in this section are summarized in Figure 11.

SOCIOMATERIALITY

ONLINE STORE

How can the different dimensions of customer experience formation be investigated and taken into account in service design?

What is the role of the main service provider when considering all the other potential contributors to customer experience formation?

What is the role of different service cues as an inspiration to customers' meaning creation?

How can a company adopt customer-dominant mindset when investigating customer experience?

How can companies investigate and understand their role in their customers' lives?

How can the convenience of shopping and flow be promoted during online shopping encounters?

How can the omnichannel perspective be better acknowledged in customer experience formation?

How does the advancement of technology influence customer experience formation in B2C, B2B, and C2C contexts?

STAKEHOLDERS

What is the role of other companies (i.e., stakeholders) and the touchpoints they create in customer experience formation?

How can the important touchpoints be identified and investigated outside the main service provider's (e.g., online store) control?

How can different touchpoints during the customer journey be designed so that they are cohesive and consistent?

ENVIRONMENT, PHENOMENA

What is the role of environment and phenomena-related considerations in customer experience formation?

What are the important issues, trends and phenomena that can influence customer experience formation?

What is the role of prejudiced notions towards purchase (type of purchase) and service channel (e.g., online/offline) contexts in customer experience formation?

PEOPLE AND THEIR BEHAVIORS

What is the role of other people, from close friends and family members to other customers and influencers, in customer experience formation?

How do other people influence customer experience formation in an e-commerce context on both the physical and mental levels?

SELF-RELATEDNESS

What is the role of customers' self-related considerations in customer experience formation?

What does self-related meaning creation consist of during customer experience construction?

How can self-related meaning creation be positively influenced during customer journeys?

TEMPORALITY

What is the role of customers' retrospective considerations in customer experience formation?

What is included in retrospective meaning creation during customer experience construction?

What is the role of customers' prospective considerations in customer experience formation?

How do customers make sense of the future during customer experience construction?

FIGURE 11 Suggestions for further research

5.5 Evaluation of the dissertation

When reading research articles, such as this study, it is important to consider how the study was conducted to assess the knowledge produced. This research employed a qualitative approach and used four different types of empirical data sets, including individual interviews (N = 7), small-group interviews (N = 9), written essays (N = 18), and a survey (total N = 1,786, N = 325 qualified respondents). In addition, a conceptual study was conducted. The diversity of the material ensured that the phenomenon under investigation was described from many different perspectives and in different situations. However, the chosen approach, like all research approaches, necessarily involved some special charters and lim-

itations that should be considered when assessing the study's quality. Interpretivist, qualitative research can be evaluated in multiple ways, and many protocols have been suggested for such evaluations. Lincoln and Guba (1985) propose four evaluative criteria for qualitative research: credibility, dependability, transferability, and conformability.

According to Lincoln and Guba (1985), *credibility* is the degree of believability or the truth in research findings. It includes the correspondence between the realities of the participants and the researcher (i.e., how closely the researcher interprets their intentions and realities and how well the findings match the evidence). Furthermore, credibility requires that the participants are true representatives of the phenomenon being explored. Credibility is closely linked to *confirmability*, which refers to the degree of neutrality of the study and the extent to which the findings are shaped by the respondents and not by the researcher's motivations or interests (Lincoln & Guba 1985). Finlay (2002) notes that researchers need to be aware of and analyze how intersubjective and subjective elements influence their work (i.e., they should be self-aware of their role in the research process). In qualitative research, the researcher's subjectivity is seen as an opportunity rather than a problem (Finlay 2006).

In the conceptual investigation of this dissertation, credibility and conformability were pursued by collecting relevant literature authored by the main, well-known theorists and researchers on the study topic from both sensemaking and customer experience literature. To identify the specific variables that were related to the research topic and to ensure that the intentions and findings of the different authors were appropriately understood, the links between the various authors and their interpretations of the others' research were investigated. In the empirical studies, the survey participants included customers of online stores who answered survey questions after making a purchase. The other participants shared their e-commerce experiences on a general level; they were not specific to a particular online store. Because the survey data came from online stores' real customers, the findings of the study represent customers' genuine narratives of their customer experience formation during an online store visit. It can be argued that the study thus offers more authentic views of the customer experience formation than, for example, those done in artificial laboratory conditions. In addition, because other participants retrospectively reflected their experiences, the findings from that part of the study represent customer experiences that have remained in the minds of the participants and thus can be considered to include incidents that are truly important from the customer perspective.

All participants of this study freely expressed their views on e-commerce and customer experience formation in their own words; therefore, all data from the empirical investigations represent the customers' perspective on issues that are important to them. However, as is typical with qualitative research, the relationship between the researcher and the participants shaped the focus and findings of empirical investigations. The essays and answers to the open-ended questions in the survey were written by the participants. Hence, the researcher's role in gathering the material was small, excluding the set-up of the questions. The

written narratives represent raw data from which the interpretation was wholly left to the researcher; it was not possible to ask additional or clarifying questions from the participants. Therefore, the credibility of the findings was pursued by asking easy-to-understand and straightforward open-ended questions and by disregarding material from which the individual's intent could not be discerned or clarified. In interviews, the role of the researcher was completely different because the method is based on an interaction between the parties involved. Interviews allow the researcher to understand the participants and their narratives on a deeper level; asking additional questions to gain insights on the participants' experiences is a valuable tool.

Furthermore, while the empirical findings of this dissertation rose from the data and thus represent the customer voice and their perspective on e-commerce, the findings are a result of a multidimensional research process through which they have been filtered and deduced. While the sensemaking theory served as an inspiration for and the core of the conceptual research (paper 1), the attribution theory helped structure and analyze the empirical material (paper 3). In the second paper, the empirical findings were analyzed in terms of the customer journey literature. This dissertation employed the interpretive approach and thus produced one version of the truth from a particular perspective that was filtered through the researcher. In terms of *dependability*, which refers to the traceability and stability of the data gathering and analysis processes (Lincoln & Guba 1985), this dissertation aimed to make the research process as transparent as possible by clearly describing the research approach and how data were collected and analyzed so that others can monitor the reasoning, interpretation, and consistency. In terms of the individual studies, special attention was given to the structure, logic, and plausibility of their arguments.

Finally, *transferability* refers to whether the findings of a study can be applied to other contexts and settings (Lincoln & Guba 1985). A study must provide a detailed description of the settings and the context in which the research was conducted and describe the research process with sufficient, rich detail. This allows others to make judgments about the transferability of the study and the applicability of the findings to other settings. A researcher cannot prove the study's applicability (Lincoln & Guba 1985) but rather can provide information that makes transferability judgment possible for others. This dissertation aimed to provide its readers as much evidence as possible of the research context so that they can evaluate whether the ideas and findings presented can be utilized in other contexts, situations, times, and populations. The author of this dissertation suggests that, while this study was executed in the context of e-commerce in Finland and its findings are not generalizable, the findings and ideas presented can— and should—be utilized and further investigated in other contexts.

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ORIGINAL PAPERS

I

INTRODUCING A SENSEMAKING PERSPECTIVE TO THE CUSTOMER EXPERIENCE

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II

HOW ARE NEGATIVE CUSTOMER EXPERIENCES FORMED? A QUALITATIVE STUDY OF CUSTOMERS' ONLINE SHOPPING JOURNEYS

by

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How are Negative Customer Experiences Formed? A Qualitative Study of Customers' Online Shopping Journeys

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Abstract. This study investigates how negative customer experiences are formed during customers' online shopping journeys. A qualitative, in-depth dataset collected from 34 participants was employed to identify negatively perceived touchpoints that contribute to the customer experience in a negative way. The findings reveal that negative touchpoints are experienced during customers' entire journeys, particularly after a purchase is completed. We identified 152 negative touchpoints from the data, of which 53 were experienced during search and consideration, 35 when finalizing a purchase, 33 during delivery, and 31 during after-sales interactions with the company. Within these four main categories, 20 sub-themes describing the touchpoints and formation of customers' negative experiences were identified therein. The findings highlight the importance of understanding the holistic customer experience formation, including the before- and after-purchase phases of the online shopping journey. In practice, the findings can be utilized in online service design and improvement.

Keywords: Negative Customer Experience, Customer Journey, Touchpoints, Online Shopping, E-Commerce, Service Design

1   Introduction

The rapidly evolving consumption field, wherein customers are gaining more control and additional consumption opportunities, has created a significant need for researchers and firms to more thoroughly understand the customer experience and its formation. Understanding the customer experience has been assessed as "critical" [1] and placed at the core of a company's offering because top-quality interactions between a customer and a company are becoming increasingly expected along every step of the customer journey.

While the customer experience has been a frequently discussed topic in marketing and information systems research as well as management practice, the collective understanding of the customer experience nevertheless remains limited and fragmented, especially in the online consumption context [2,3]. Researchers have argued that, while

the customer management discussion has strongly focused on the service provider perspective [4] and exploratory attempts to conceptualize and measure customer experience outcomes [1], the customer-oriented perspectives have attracted less attention. Therefore, it remains unclear what constitutes an experience from a customer's point of view [2] and how customers construct their experiences. Specifically, marketing researchers have recently called for a more thorough understanding of customer perspectives [4,5] and are increasingly recognizing the need to understand the holistic nature of the customer experience. Overall, understanding the customers' views including their wants and needs plays an important role in all kinds of businesses [6].

In the online context, the majority of past studies have consistently focused on examining customers' positive perceptions toward and beliefs about [7] online shops. Negative customer experience formation has been a scantly researched topic, although previous studies have sufficiently demonstrated the consequences of a negative customer experience, particularly in physical service environments; studies have, for example, indicated that customers' negative experiences can cause substantial damage to a company's reputation and relationship with their customers [8]. Negative experiences have also been demonstrated to affect customer loyalty [9] and influence complaining behaviors [10], repurchase intentions [11], and customers' attitudes toward a company [12]. Negative customer experiences are also frequently communicated to other customers [8], which increases the potential damage caused by a poor experience; today, online channels and social media specifically provide customers with opportunities for sharing their experiences in a fast and easy way. Hence, as the role of online consumption is becoming increasingly important, a more thorough understanding of the incidents that negatively contribute to a customer experience is vital for improving and designing online services that meet the needs of today's consumers.

To address the gaps in the customer experience literature, this paper investigates negative customer experience formation through a customer's lens. A qualitative, in-depth dataset collected from 34 participants is employed to identify negatively perceived touchpoints during customer journeys in an online shopping context. As this study highlights a customer's primary role as an experience constructor, and as experience formation is investigated through a customer journey perspective, this study contrasts with the dominant provider-led approaches that typically study the customer experience during a main service encounter (e.g., a store visit).

This study is structured as follows. First, the study's theoretical background is discussed, which includes both the customer experience and the customer journey. The study's methodology and findings are subsequently presented and, to conclude, the study's contributions and managerial implications are discussed.

2   Theoretical background

2.1   Customer experience

The customer experience has been a popular research topic in marketing since the 1990s. Due to the advances in technology and the rise of e-commerce, this experience

research has expanded from physical environments to online environments. While marketing researchers have investigated experience from the online consumption perspective [13], information systems research has discussed similar issues with a technological lens by, for instance, paying attention to the use of technology and the user experience [14,15]. As the word *experience* is both a noun and a verb in the English language, experience has been studied as both an outcome and as a process [16]. In this study, we regard customer experience as an outcome; as a summary of all the meanings customers construct through their customer journeys, during which they interact with a firm or multiple firms through various touchpoints. Negatively perceived touchpoints generate negative meanings and add negative tones to the customer experience, while positively perceived touchpoints have the opposite effect.

It is commonly assumed in the marketing literature that firms can orchestrate an experience to its customers. Therefore, the key elements regarding a customer experience have often been studied with quantitative, predefined, firm-led attributes that measure customers' reactions (e.g., satisfaction) to service environment stimuli. In an online context, the antecedents and consequences of customers' online encounters have been sufficiently identified in various studies, and several models and measurements have been developed to understand the influence of specific firm actions and factors on the customer experience as an outcome [17,18]. Furthermore, many studies have investigated the interaction between online service providers and their customers [19,20] during the main service encounter, at which point the customer is directly interacting with the company.

However, despite great interest in the customer experience, researchers have argued that customer experience research nevertheless remains limited and fragmented in both online and offline contexts [3,5] due to the dominance of provider-oriented and quantitative approaches. According to Heinonen and Strandvik [4], consumption can include many other important activities and meanings other than those that are visible to the company through direct interactions with their customers. Therefore, when applying firm-based measurements to the customer experience, a limited understanding of the total customer experience is obtained, as it provides no information on how the customer experience is influenced by other actors and factors beyond the firm's control. Thus, understanding how customer experiences are constructed through the entire customer journey—including the pre-purchase and postpurchase stages—should constitute each company's main interest.

2.2 Customer journey

The customer journey represents the different phases that characterize an individual's interaction with a service, product, or brand in a certain context. The customer journey is formed through various touchpoints, which are incidents an individual perceives and consciously relates to a given firm or brand. Touchpoints allow customers to construct their experiences with a service, brand, or product because their opinions and perceptions are largely influenced by the contact that is made through touchpoints in different channels. Although customer journeys are interpreted in different ways in the literature and can be described by various scopes, a customer journey is typically characterized

as a customer's flow his/her (1) pre-purchase actions to the actual (2) purchase and further to the (3) postpurchase stage. As Lemon and Verhoef [1] explain, pre-purchase actions include need recognition, search, and consideration. The purchase phase includes a customer's interactions with the selected company during the purchase event and is characterized by actions such as choice, ordering, and payment. The postpurchase phase covers the interactions after making a purchase that relate in some way to the product or service itself. The postpurchase phase typically includes behaviors such as usage, consumption, and service requests.

Despite the widespread agreement that the customer journey must be understood across all touchpoints, most research has focused on parts of the journey in isolation [22]. The purchase phase has attracted significant attention in the marketing literature, as the influence of marketing activities and the servicescape on one's purchase decision has been of special interest to marketing researchers [1]. However, the proliferation of different channels has led to an explosion in the number of different touchpoints within the customer journey. Therefore, understanding the effects of diverse touchpoints in an equivalent manner is needed in order to holistically understand the customer journey. Today, customers operate in multichannel retail environments, which means they can interact with various companies through various channels during their customer journeys. Information is searched through one channel, purchase is executed through another channel, and the product is retrieved through a third channel. Tynan and McKechnie [23] note that managing the customer experience through its whole lifespan—including the before and after stages—is of great importance, and in-depth knowledge of customers is required to exert such efforts. Studying services from a customer's perspective is beneficial because it provides insights into customers' value creation processes and helps identify the important elements that affect the customer experience within the service context [21].

3 Methodology

As this study's purpose was to gain insights into the customer perspective in online shopping, a qualitative and interpretive research design was applied during data collection. Interpretive methods make sense of human experiences by collecting and analyzing narratives. To collect a versatile set of narratives, individual interviews (N=7), small-group interviews (N=9, two to three participants per group), and written essays (N=18) were used as data. The interview participants were recruited through mailing lists targeted to University of Jyvaskyla's stakeholders, student groups, and staff, and the 500–1000-word essays were collected during a marketing course. The sample included Finnish consumers, 24 of whom were women and 10 of whom were men. The participants' ages varied from 21 to 68 years, but the majority (73.5%) were young adults under 30 years. Most were students (79%), which is explained by the chosen recruitment channels. Most participants visited online stores at least monthly (77%) and made online purchases on a monthly basis (65%). Therefore, the participants can be described as rather accustomed online shoppers, as is typical for Finnish consumers. The respondents' descriptive statistics are reported in Appendix 1.

Individual interviews and group interviews lasted for approximately 60 minutes and were subsequently recorded and transcribed. Open-ended questions were asked to capture the participants' real-life experiences. All participants were asked to describe themselves as online shoppers and then recall and reflect their own experiences in online shopping by describing their positive and negative experiences as well as their emotions during their online shopping journeys. Because the participants retrospectively reflected on their experiences, the data describes real-life experiences and touchpoints that have remained in these customers' minds and can thus be regarded as important and meaningful events from the customer's perspective.

The data was analyzed with a thematic analysis alongside an inductive coding and analysis process. The analysis was performed with the NVivo software and was grounded in empirical data expressions, wherein the analysis unit was a sentence or statement articulated by a participant. The negatively perceived touchpoints were categorized following a multistep, iterative process wherein all the statements made by participants that described unpleasant and irritating situations during their customer journeys were collected from the data as well as grouped and regrouped multiple times based on their content. The final categorizations and findings are discussed in the following section.

4   Findings

The findings demonstrate that customers face various negatively perceived touchpoints throughout their entire online shopping journeys. Overall, 152 negatively perceived touchpoints were identified from the data. These touchpoints were grouped into four main categories based on the customer journey phases, including: (1) search and consideration (53 references), (2) finalizing the purchase (35 references), (3) delivery (33 references), and (4) after-sales interaction with the company (31 references). Within the main categories, 20 subthemes that describe the touchpoints were identified. The negative customer journey touchpoints are summarized in Appendix 2 and analyzed in detail in the following sub-sections.

4.1   Search and consideration

Search and consideration is a significant step in the customer journey. During this phase, customers compare various options and search for the best deal. Negatively perceived touchpoints can easily drive the customer to a competitor who is merely a couple clicks away in an online environment. Lack of information (27 references) and navigation difficulties (26 references) in online stores were identified as the main themes con-tributing to customer experience during the search and consideration phase.

Lack of information was strongly connected to inadequate product descriptions and was experienced on many levels. Undetailed written and pictorial descriptions as well as incorrect information were among the negative touchpoints. As online shoppers rely on product descriptions and pictures to understand what they are buying, copying prod-

uct information from competitors' webpages, providing outdated information, and exclusively providing limited product information were all perceived as laziness and as signs of a poorly managed online store. The lack of information was considered as a significant buying barrier. The participants reported negative experiences when their wrong impression had led to unpleasant surprises upon receiving their orders, which were not as expected in terms of, for instance, material quality or product dimensions. Overall, the negligent product descriptions reduced customers' trust toward the online store, and some considered inadequate product information the greatest mistake an online store can make.

"If there's almost nothing told about the product, it's a sign of unreliability. It tells me about the shopkeeper's attitude towards his business." (Male, 49)

In addition to product-related content, lack of information was linked to communication with the company. Negative touchpoints were experienced specifically in situations wherein customers were unable to find contact information or receive a response from an online store. Such situations were determined critical in terms of customers' willingness to continue the shopping process with a particular online store. Some customers reported their use of simple e-mail questions as a tool to evaluate a store's service quality and trustworthiness; before ordering from a new shop, this was considered a useful practice for checking whether or not the store actually existed and provided decent customer service. The online store's inability to answer a customer's questions sufficiently or quickly on different channels was perceived as annoying. Chat services were commonly experienced as negative touchpoints because they had failed to provide answers to customers' questions in the expected timeframe.

"I don't have any good experiences. It's time consuming, as the same person is probably taking care of ten different chats at the same time." (Male, 26)

Navigation difficulties were explained by a store's confusing layouts and poor technical functionality. As online shoppers are accustomed to the same general patterns of navigation from their experiences on the online retail sites they regularly use, negatively perceived online stores were described as "messy," "recondite," "structurally confusing," and "difficult to use." Due to customers' high expectations toward the user interface, poor technical functionality, including download slowness, technical errors, and mobile incompatibility, was considered annoying and even unforgivable. Further-more, distractions such as pop-ups, ads, and music were among the negative touchpoints that disturbed the shopping process.

"Those ads, all the flashing ads around… I'm so irritated! They are particularly annoying." (Female, 40)

Online stores' attempts to communicate with their customers during store visits were perceived as unwanted surprises and espionage. Pop-up chat boxes specifically

aroused feelings of discomfort; "I feel I'm under espionage," and "it feels intrusive" were typi-cal customer viewpoints regarding pop-up chats. As many customers considered an online chat similar to dealing with a real person, rejecting the chat aroused discomfort and feelings of impoliteness.

4.2 Finalizing the purchase

Finalizing the purchase is a critical phase during the customer journey, as the customer has made a purchase decision and is willing to close the deal. The findings demonstrate that the checkout process is a key touchpoint of the online shopping journey. Negatively perceived touchpoints and the interruption of the purchase process at the "late stage" can cause the customer great disappointment due to his/her loss of both the desired product and the time spent on the shopping process. Negative incidents included unpleasant surprises, such as unexpected details concerning an order (e.g., lack of information and payment options). Unexpected terms of delivery (e.g., high shipping costs and service charges, destinations) were a typically negative touchpoint, especially when dealing with foreign online shops. The participants reported feeling betrayed on such occasions as well as being misled to desire something that could not ultimately be reached.

"Sometimes you find out at the end that they do not deliver to Fin-land. Then you feel betrayed." (Female, 27)

Identification procedures (e.g., including registration and passwords) were experienced as "frustrating," "time-consuming," and "too complicated," touchpoints. Much of this annoyance was connected to pressure caused by different sign-ins, as users today must remember many different usernames and passwords. Registration was also asso-ciated with spam mail and, as such, was avoided.

"The number of different passwords is overwhelming. I don't want to create a single account anymore." (Female, 34)

Technical errors at checkout were recalled as highly annoying; typical incidents of this nature included a store not accepting payment information or other details provided by a customer. For many customers, payment success was a threshold issue, and payment failure often led to termination of the customer–firm relationship.

"If I have problems with payment, I'll never go back to that store." (Male, 27)

Furthermore, invalid discount codes at checkout caused puzzlement and anger; "the code does not apply to these products," "the code cannot be combined with other offers," and "this code is valid only for purchases over X euros" were typical unpleasant experiences depicted by the participants.

4.3 Delivery

From a customer's perspective, delivery is often the last mile of the customer journey that ultimately concludes the purchase process. Delivery is also the stage when the online shopping purchase becomes concrete on a physical level and requires some actions from the customer. The findings indicate that negative touchpoints at this stage can have a strong impact on the overall customer experience. Delivery speed and ease of pick-up were identified as especially meaningful to the participants. Slow shipping was reported as a factor that may "ruin the whole shopping experience," especially if shipping is delayed. Overall, fast shipping and various shipping options were expected.

> *"I'm very annoyed, especially with Finnish companies, as they don't*
> *provide immediate delivery…that a taxi brings it to me, no*
> *matter what it costs." (Male, 49)*

The convenience of delivery was found to be important because the customers wanted to receive their parcels without exerting special effort or wasting time, preferably in locations that were close to their everyday routes. Being forced to pick up the delivery from an unpleasant or inconvenient location and dealing with pricy customs were considered irritating potential side effects of delivery.

> *"The origin of a store itself does not matter as long as I do not have*
> *to pay high shipping costs or deal with customs. I am so stingy*
> *and lazy that these are threshold issues." (Female, 23)*

A lack of shipping information was also experienced negatively. The participants expressed that they desired transparency—that is, visibility into the size and status of a package throughout the whole delivery process. Some participants specifically linked the negative touchpoints to courier services, which were considered annoying due to their service processes. During these processes, the customer must make special arrangements, such as by setting up an appointment for the delivery or impatiently waiting for the delivery during a workday.

4.4 After-sales interaction with the online store

After-sales interaction continues a customer's relationship with a firm after a purchase has been completed. In this study, aggressive after-sales marketing, deficiencies in customer service, and complicated or expensive return procedures were identified as negative touchpoints of the customer journey.

Among the interviewed participants, aggressive after-sales marketing was considered damaging to the customer–firm relationship. Being on companies' contact lists was considered annoying, and "not being able to get rid of a store," "too many advertisements sent by e-mail," and "too many newsletters" surfaced as typical causes for irritation. "Only for you" advertisements caused special irritation among the young adults. As these were considered marketing tricks, companies sending such advertisements were interpreted as "underestimating the customer's intelligence." Overall, many participants depicted the

receipt of too many e-mails and advertisements from online stores as well as the spamming of customers as foolish and amateur.

> *"It should be pretty self-evident that no one likes it if they get e-mails* [from the same firm] *several times a week." (Female, 24)*

Contacting customer service after delivery was conveyed as displeasing, troublesome, and a measure that was exclusively taken when absolutely necessary. Some participants reported communication problems with customer service staff due to the staff's lack of knowledge and language skills. Poor translations and spelling mistakes in customer– firm communications were considered a sign of negligence, laziness, and poor service.

> *"There were spelling mistakes on my airline ticket. I got very nervous! I think it is totally incomprehensible to have errors on your airline ticket." (Male, 23)*

Online stores' inappropriate communication styles also caused irritation. Downplaying customers' problems and offering no apology when customers were disappointed stirred up negative emotions among the participants. When returning purchases, complicated returning procedures were identified as negative touchpoints. Thus, online shopping returns were an issue that participants carefully considered before finalizing a purchase, and the availability of cost-free returns was a considerable incentive to make a purchase.

5   Conclusions and managerial implications

This study's purpose was to increase the understanding of the customer experience formation in the online shopping context by examining negatively perceived touchpoints during customers' online shopping journeys. This study contributes to the existing literature by addressing the calls for understanding the customer's viewpoint alongside the holistic customer experience [4,24]. As previous research has dominantly studied the customer experience with provider-led approaches and while favoring customer experience measurements [17,18,25], the present study provides new insights by examining customer experience formation through multiple customers' viewpoints, as depicted by customers themselves. Our study adds to the small number of studies [2,26] that have focused on the customer experience from a customer's perspective in the online shopping context. Furthermore, this study contrasts earlier studies, which have focused on examining customers' positive perceptions and beliefs [7] of online shops. Investigating customer experience formation through customers' lenses provides important knowledge for academics and practitioners, as it helps us more thoroughly understand how customers make sense of services and what they find truly meaningful in a certain context. In this study, the customers retrospectively recalled their negative online shopping experiences. Therefore, the findings demonstrate what kinds of touchpoints during the customers' online shopping journeys generally remain in customers' minds. Understanding what these touchpoints are and how customers interpret them is

useful due to their potential effect on customers' future choices regarding online shopping and online stores. Investigating the negative contributors to the customer experience is especially important, as the negative consequences of customers' negative experiences are sufficiently demonstrated in the existing literature [10,11,27].

This study's findings demonstrate that, from a customer's perspective, customer experience in online shopping context is built during the entire customer journey and not merely during an online store visit. Customers actively evaluate the entire path with a particular purchase, from the product search to the delivery and onward to other after-purchase activities. During the pre-purchase phase, many negative incidents were expectedly related to the online store's appearance, technical functionality, and provided information. In line with previous literature [15], the findings highlight the importance of a finalized and clear user interface as well as carefully created content (e.g., product descriptions). As the aesthetic quality and functional designs of online stores continuously rise alongside customers' expectations of those stores, the provision of an attractive website design plays a key role in successful online sales and a firm's survival in the intensifying competition among online stores. During the purchase phase, the terms of delivery and a smooth checkout process were important touchpoints for determining the customer experience. Closing the sale is every retailer's ultimate goal as well as an important "moment of truth" for a customer because this stage finalizes the consideration process, which may at times last for days or even weeks. This study's findings, as do those of previous studies [28], highlight the convenience of the checkout stage; all the complicated touchpoints that potentially dissuade the customer from completing the purchase should be identified and eliminated by the online store.

Whereas the previous literature has highlighted the phase during which the customer interacts with the main provider [1] (e.g., the online store), this study's findings indicate that partner companies may also play an important role in forming the customer experience. The findings demonstrate the importance of the delivery process, as a considerable amount of customer irritation in the participants' online shopping experiences was caused by shipping processes as well as unawareness and inconvenience related to those processes. In line with previous research [29], the findings reveal that the choice of delivery subcontractors as well as the ease of delivery are significant from the customer's perspective, as poor touchpoints (e.g., delivery delay) cause customer dissatisfaction [30]. Due to the technical advancements and rising standards in online consumption, customers are increasingly expecting quick and easy delivery solutions from online retailers despite the product they order or the industry to which the company belongs. In addition, customers' negative experiences with delivery are often attributed to the online shop from which a purchase is made, as the shop determines which options or services a customer can choose for the later stages of his/her customer journey. As depicted by this study's participants, partner companies are important when selecting the place of purchase. Hence, online stores should carefully choose their subcontractors (e.g., delivery partners). Furthermore, the after-sales communication between the online store and the customer plays an important role in forming the customer experience, as excessively aggressive advertising and return persuasion may negatively influence that experience.

Finally, this study demonstrates that the customer experience in online shopping does not purely occur "online". As negative incidents and touchpoints were linked to both online and offline touchpoints during the entire online shopping journey, online stores are advised to holistically consider their customers' journeys. It is important to understand how customers utilize the multiple service channels available to them, man-age conflicts, and come to rely on particular service providers. Understanding the entire customer journey and the most important negative and positive, online and offline touchpoints therein is a key factor for the successful design and management of e-commerce services. Service design methods (e.g., customer journey mapping, including the depiction of customer activities, emotions, pain points, etc.), provide useful tools for online stores seeking to improve their services [31].

The customer insights gained through this study can be utilized and further investigated in research and practice aiming to more thoroughly understand online shopping behavior and customer experiences therein. The formation of customer experiences in the online context should be further studied within different customer groups, through various methods and in diverse service settings. Furthermore, the postpurchase phase of the customer journey specifically requires more attention from both practitioners and academics.

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Appendix 1. The descriptive statistics of the respondents (N = 34)

	N=34	%
Gender		
Male	10	29.4 %
Female	24	70.6 %
Age		
21–29 years	25	73.5 %
30–39 years	4	11.8 %
40–49 years	3	8.8 %
50–59 years	1	2.9 %
60– 69 years	1	2.9 %
Status		
Student	27	79.4 %
Employee	6	17.6 %
Retired	1	2.9 %
On average, how often do you visit online stores?		
Daily	1	0.5 %
Weekly	13	25.1 %
Monthly	16	51.6 %
Yearly	4	20.5 %
Less than yearly	0	2.3 %
On average, how often do you make online purchases?		
Daily	0	0.0 %
Weekly	3	8.8 %
Monthly	19	55.9 %
Yearly	12	35.3 %
Less than yearly	0	0.00 %

Appendix 2. Negative touchpoints during customers' online shopping journeys
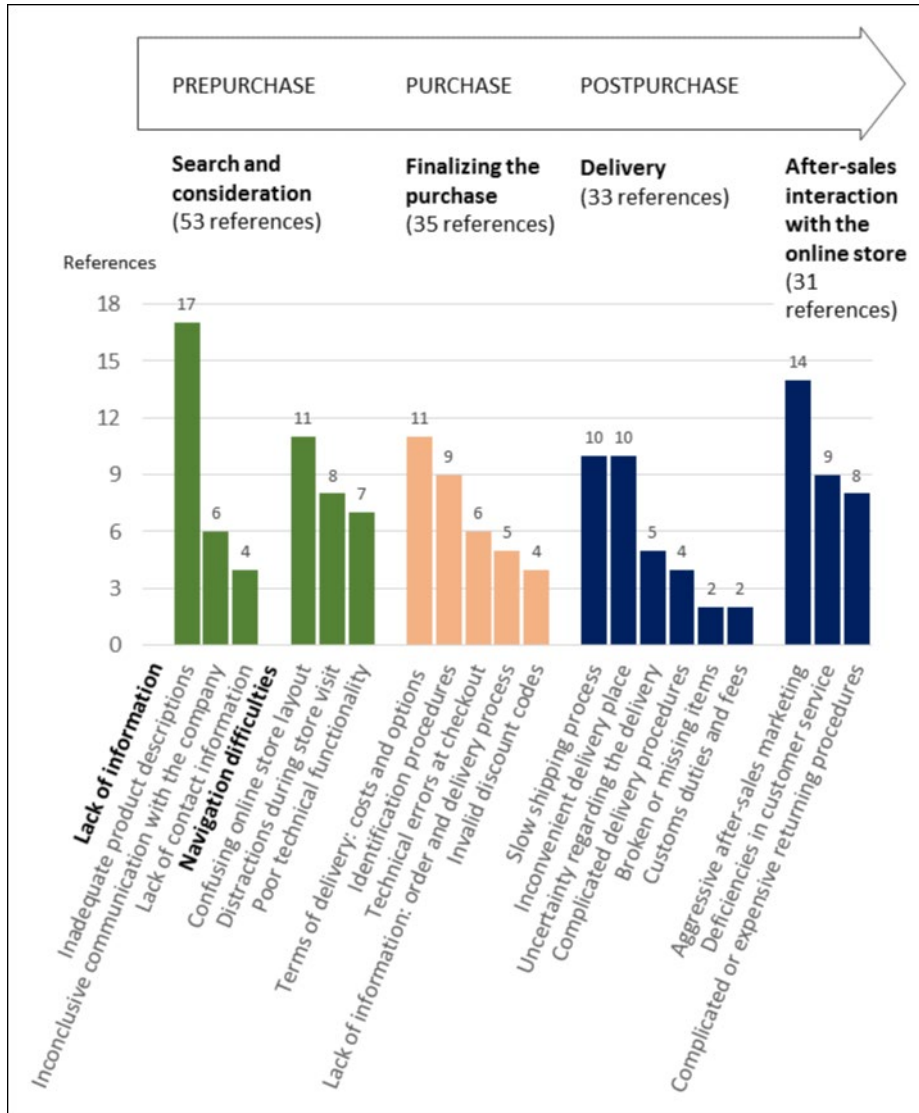
III

CUSTOMER EXPERIENCE FORMATION IN ONLINE SHOPPING: INVESTIGATING THE CAUSES OF POSITIVE AND NEGATIVE EMOTIONS DURING A VISIT TO AN ONLINE STORE

by

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Customer Experience Formation in Online Shopping: Investigating the Causes of Positive and Negative Emotions during a Visit to an Online Store

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Abstract. This study explores customer experience formation in an online shopping context by investigating the causes of customers' positive and negative emotions during their visit to an online store. Survey data collected from 1,786 Finnish online customers was used to identify individuals who experienced strong positive (N=138) or negative emotions (N=215) during their visit. The causes of negative and positive emotions were studied by analyzing customers' open-ended, written explanations attributed to their emotions. Attribution theory is utilized to explain how individuals make sense of their emotions. The findings show that customers offer various explanations for the emotions evoked during a visit to an online store. Three main themes were identified with respect to the causes of such emotions and related to: 1) the online store, 2) the socio-material environment, and, 3) the customer her/himself. Customers generally blame the online store for negative emotions, whereas positive emotions are mostly associated with oneself and one's success as a consumer. Both negative and positive emotions are to some extent explained by the sociomaterial environment. The findings demonstrate the complexity of customer experience formation. Further investigation of the topic is therefore warranted.

Keywords: Customer Experience, E-Commerce, Online Consumption, Emotions, Attribution Theory

1   Introduction

The importance of customer experience as a component of a company's competitive advantage is widely acknowledged among academics and practitioners, as consumers have unprecedented power and a variety of means whereby such power can be exerted. The importance of customer experience is therefore emphasized when providing online services for consumers. While corporate employees are typically compelled to use specific online services regardless of their individual preferences, it is comparatively easier for consumers to change their service provider (such as an online store) if the service

fails to meet customer expectations. In an online environment, an alternative service is merely one click away.

A vast number of studies have analyzed the influence of customer experience on customer behavior in online [1,2,3,4] and offline [5,6,7,8] contexts. As such, previous research has demonstrated the consequences of positive and negative customer experiences and how such experiences affect a company's performance. The literature notes that a positive customer experience which meets or exceeds customer's demands and expectations leads to greater customer satisfaction, long-lasting relationships and loyalty, and in doing so, creates a competitive advantage for a company and boosts its revenue [9,10]. In comparison, negative customer experiences weaken the company's competitive position. Negative customer experiences (which fail to meet customer expectations) lead to loss of sales and entail extra costs; for example, through customer service demands. Previous research posits that negative experiences negatively influence customer loyalty [11], word-of-mouth and complaining behaviors [12], repurchase intentions [13], and customer attitudes toward the company [14]. Negative customer experiences are also frequently communicated to other customers [15].

As an understanding of customer experience and how it is constructed by customers is important, the purpose of this paper is to advance the understanding of how positive and negative customer experiences are created in an online shopping context during a visit to an online store. Since previous studies in the online consumption context have for the most part focused on human-to-computer interactions [16] and examined customer experience through technical and company standpoints, this study makes use of a contrasting perspective and investigates customer experience formation with an open-ended approach as depicted by customers themselves and in their own words. Investigating customer experience formation through the lens of a customer would provide important knowledge for service providers and academics, as it would provide an in-depth understanding of how customers make sense of services and what they find truly meaningful for themselves in a given context. This study contributes to the existing literature consisting of a small number of studies [1,17] that have focused on the customer perspective in an online shopping context.

The study was conducted using survey data collected from 1,786 Finnish online store customers. As researchers have suggested that customers engage in affective and cognitive processing during their consumption activities and customer experience construction [2,18], an initial step in this study involved the identification of customers who felt strong negative or positive emotions during their visit to an online store. An analysis of how customers explained their emotions cognitively was carried out by investigating the open-ended, written descriptions attributed to their emotions. In the qualitative analysis, we utilize Attribution theory [19,20], which is concerned with how people explain the causes of events and behaviors they encounter in daily life. This provided a useful lens with which to frame how individuals make sense of online services and their emotions.

This study includes five sections. Section 2 discusses the theoretical background of the study including online customer experience and Attribution theory. Section 3 presents the methodological choices for the empirical study, and section 4 presents the

empirical findings. Section 5 discusses study contributions and managerial implications.

2   Theoretical background

2.1   Customer experience

Various marketing and information systems studies have contributed to our understanding of customer experience by investigating an individual's experiences in a variety of contexts. Individual experiences of online environments have been researched by making use of several concepts in marketing, including the online customer experience, online customer service experience, and the online shopping experience [1,3,21,22]. Information systems research typically employs the user experience concept, highlighting the usability of different services and products [23]. While these marketing and information systems studies are very much intertwined and customer experience and user experience concepts refer to the same essential idea (how individuals perceive different services or products provided by a company), these concepts usually have different scopes. The user experience is generally understood as a customer or user's use experience with a specific product, such as a website, app, or software. Customer experience, on the other hand, is a more flexible concept with a wider scope; it can encompass, for instance, end-to-end customer interactions with a company or its offerings and can include many channels and touchpoints. This study makes use of the customer experience concept, as our aim is to understand customer experience formation with an open-ended approach, including customers' experience of the online store interface, and, in addition, the other important factors contributing to customer experience beyond the store interface.

Customer experience is usually characterized and studied as either a process or an outcome. As customer experience is widely recognized as consisting of a customer's internal and subjective response (outcome) to any interaction with a company, many studies have either measured the quality of customer experience (outcome) or the kind of interaction (process) between online service providers and customers that lead to a certain experience [24,25,26,27,28]. In the online context, the focus of customer experience studies has been on human-to-computer interactions [16] and the study of what type of operating environment an enterprise should create for individuals so as to make their experience as pleasant as possible. A vast amount of research has examined the features of a high-quality e-commerce platform and how different service attributes affect the online customer experience within a business-to-consumer context [2,29,30]. An extensive amount of research has been conducted over the years which aimed to find the best ways to design user-friendly online systems and interfaces [31,32,33] to guide the development and execution of online services or systems [34,35]. The literature outlines numerous variables which a company can make use of to influence the customer experience in online environments, such as ease of use, website aesthetics, customization, interactivity, engagement, and enjoyment [36].

However, while customer experience studies have focused on measuring the service elements' effect on experience, the other contributors to customer experience outside the company's interface have attracted less attention. Researchers [2] have argued that the customer experience involves much more than customers' reactions to service stimuli and that the lack of understanding regarding the other contributors to customer experience is a shortcoming in online customer experience studies; this issue has been the subject of limited investigations [17,22]. A greater focus on the consumer perspective and the mechanisms through which customers process and interpret company offerings has been called for [37,38]. For example, from the customer's point of view, visiting an online store is more complicated than merely the interaction between the service provider and the customer [39]. It involves elements that are not visible to the company, such as a background, purpose, and goal of the online store visit. The visit also includes a device outside the online store, as well as the physical conditions in which the device is used. Customers use and interpret online environments differently and construct their experiences in unique ways. Customer experience is always internal, subjective, and event- and context-specific [40]. Hence, the analysis of customer experience should go beyond the immediate service delivery system and consider how customers create value in their own context [41].

To advance the understanding of customer experience from a customer's perspective, this study examines how customers depict the causes of their positive and negative emotions during an online store visit. We suggest that when customers construct their customer experience, emotions and cognitive explanations given to emotions during the service encounter define the nature of the customer experience. In this study, the customer experience is understood as an outcome of a customer's visit to an online store, including all the meanings created by the individual during the visit. For instance, negative emotions and thoughts that occur during a store visit are likely to direct the customer experience towards a negative perception, while positive emotions and thoughts are likely to do the opposite. It is therefore of importance to understand what kind of affective and cognitive processing [2,18] customers engage in during the construction of their customer experience. In this study, we provide insights on how customers make sense of their online store visit by making use of Attribution theory [19,20] as our theoretical lens.

2.2 Attribution theory

Individuals are motivated to assign causes to events, actions, and behaviors; people prefer the idea that things happen for a reason rather than being caused randomly. Attribution theory provides explanations on how events and behaviors observed during daily life are explained by individuals. Heider (1958) [19] was the first to propose a psychological theory of attribution, and his ideas were extended by Weiner (1974, 1985) [20,42] and colleagues [43], who developed a theoretical framework that has become a major research paradigm of social psychology. Attribution is a cognitive process including the internal (thinking) or external (speaking) activities by which people make judgments; attributes seek to explain what caused a particular behavior or event

and who or what is responsible for it [19,20]. Attributions are made in order to under-stand and to explain one's experience and to plan future actions. Unlike scientific psy-chology, which attempts to prove the causes of an individual's behavioral predisposi-tion, naive psychology—as attribution theory has been called—emphasizes people's perceptions of causes. In this study, we regard an attribute as an explanation given by an individual for his/her positive or negative emotions that occur during an online store visit.

Heider [19] divides the attributes into two categories: internal and external. An in-ternal attribute is always related to a person and is external to the situation. In an internal or "dispositional" attribution, individuals assign causality to something within their own control, such as effort or personal factors such as abilities, traits, or emotions. In an external attribution, causality is explained by situational or environmental factors, something that is outside an individual's control. The types of attributes individuals choose to assign to the causes of events affect their motivation and future behaviors [20]; therefore, identifying attributes can be useful for companies aiming to better un-derstand their customers' behavior and the reasons for it.

Human attributes are seen to be subject to various distortions. As Jackson (2019) [44] explains, people often develop biases or faulty reasoning. This reasoning is either self-enhancing (strengthening an individual's ego) or self-protective, which means that individuals protect their ego by blaming others for their own mistakes. Attributions are often considered to entail two basic errors: the fundamental attribution error and the self-serving bias [45]. The fundamental attribution error means that individuals tend to over-emphasize dispositional or personality-based explanations for behav-iors observed in others. In other words, people tend to emphasize the agent's in-ternal characteristics (i.e., "what kind of person that person is") rather than exter-nal factors (such as the social and environmental forces that influence the person) when explaining someone else's activities. Individuals also tend to perceive them-selves in an overly favorable manner. Self-serving bias involves an individual's tendency to explain positive outcomes such as their own success or other people's positive behavior towards themselves by reference to internal attributions and to blame external attributions for negative outcomes such as their own failures.

Research shows that customers' attributions can have important implications for companies. For instance, attributions are a significant determinant of customer satisfac-tion, including satisfaction with the service encounter and post-purchase behaviors [46]. Iglesias (2009) [46] found that customers who attribute service failure to the company make a less positive evaluation of the overall quality of the service encounter than cus-tomers who associate the failure to external causes outside the company. Previous stud-ies have used Attribution theory to study customer experience in the context of tourism. As there are only a few such studies making use of attribution theory in the context of customer experience [44,47], its application in the context of this study provides a fresh perspective with which to gain insights on a variety of aspects of customer experience in online shopping. As attribution theory is concerned with individuals' sensemaking, it allows for investigations of how customers construct their customer experience through their own lenses, without company-led restrictions. By identifying, categoriz-

ing, and defining the distinct elements that contribute positively or negatively to customer experience, this study enables deeper insights into the distinct components that shape customer experience in the online shopping context and beyond that of other online store elements.

3 Methodology

As the purpose of this study was to examine how customers explain the causes of their positive and negative emotions during a visit to an online store, empirical data were collected via an online survey conducted in co-operation with 18 Finnish online stores between September and December 2018. This survey method was selected as it allowed the respondents to consider their online store visit in a real-life context, both safely and at a place of their choice. The selected approach was determined to be suitable for our research aim as we were able to collect data that describes authentic customer experiences in existing online stores.

The stores included various types of business-to-consumer (B2C) stores selling cosmetics, clothing, music, electronics, groceries, home decorations, and recreation products and accessories. Customers of the online stores were presented with a link to the survey after they had successfully placed an order. In the survey, respondents were first briefly asked about their demographics (including age and gender) as well as their online shopping habits, such as how often they shop online, what they had just purchased and how many times they had previously shopped at the online store in question. Respondents were then asked about the emotions they had experienced during their online store visit. The intensity of different emotions was measured by using a set of first-order emotion constructs with 28 specified emotions taken from the hierarchical framework by Laros and Steenkamp [48]. Positive emotions included contentment (contented, confident), peacefulness (calm, peaceful), optimism (optimistic, encouraged, hopeful), joy (happy, pleased, joyful), and excitement (excited, thrilled, attracted). Negative emotions included anger (angry, annoyed, irritated), frustration (frustrated, discontented, disappointed), fear (afraid, nervous, worried), sadness (depressed, sad, guilty), and shame (embarrassed, ashamed, humiliated). The respondents rated these emotions on a scale from one to seven. A value of one indicated that they had not experienced that specific emotion, while a value of seven indicated that they had strongly experienced that specific emotion during their online store visit. In the latter part of the survey, the respondents were asked to describe in their own words their experienced emotions and to explain what caused the strongest positive and negative emotions. The respondents were also given an opportunity to freely comment on the survey itself.

In total, 1,803 respondents completed the online survey. However, the survey results of 17 respondents were excluded due to invalid or missing data, resulting in a sample size of 1,786 Finnish adult respondents. From these, we identified respondents who experienced strong positive or negative emotions during their online store visit; an emotion that differed by more than two standard deviations from the average value for that emotion was considered a strong emotion. The number of respondents with at least one

strong negative emotion was 387, while the number of respondents with at least one positive emotion was 321. We then excluded all respondents who did not also comment on their negative or positive emotions related to the online store visit or whose comments were unclear; the final number therefore included 215 respondents with negative emotions and 138 respondents reporting positive emotions. Out of these, 28 respondents included individuals who had experienced both strong negative and positive emotions. The final sample size was therefore 325 individual respondents. A large proportion of respondents were women and under 40 years of age. Most reported making online purchases at least monthly and were also familiar with the online store they were visiting. Respondents' descriptive statistics are reported in detail in Appendix 1.

We analyzed the written data provided by the 325 respondents in the open-ended section of the survey using NVivo software. The software was used to assess the trustworthiness, rigor, and quality of our findings. It was also useful for coding and organizing data into themes, for finding connections and relationships, to calculate attributions, and to share coding and categorization with the research team. Based on Attribution theory, the respondents' explanations for their emotions were first coded as either internally or externally attributed based on their overall content and most frequent cause. Explanations that included two or more distinct points were split into separate units for analysis. The length of the units ranged from 2 to 429 words. Each unit was coded multiple times before tallying the final counts and categorizations of the negative and positive attributes expressed by the respondents. It is important to note that although the main themes explaining the positive and negative emotions were identified based on attribute counts, this study was based on an interpretive approach. Our principal objective was to make sense of and recognize patterns that contribute to customer experience, rather than quantifying the attributes.

4   Findings

The findings demonstrate the complexity of customer experience formation in an online shopping context; customers have various explanations for their emotions and these explanations are not merely attributed to the online store in question. Three main themes were identified with regards to the customers' reasons for their emotions during online store visits. These included factors related to 1) the online store (external attributes), 2) the sociomaterial environment (external attributes), and 3) the customer themselves (internal attributes). The findings indicate that customers mostly blame the online store they visited for their negative emotions (68% of all negative attributes), whereas positive emotions are attributed mostly to customers themselves (47% of all positive attributes). Both negative and positive emotions are also quite equally attributed to the sociomaterial environment (12% of all positive attributes and 8% of all negative attributes). In this context, the sociomaterial environment is referred to as the "surrounding world" in which the company and customer operate. Figure 1 demonstrates the main themes of the attributes given to positive and negative emotions.
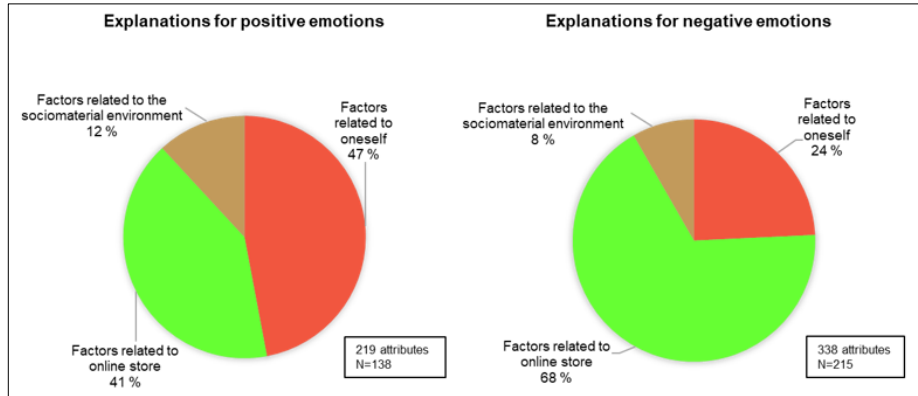
Fig. 1. The main themes of attributes given to positive and negative emotions during an online store visit.

The findings demonstrate that strong negative emotions were more commonly experienced by the participants as compared to strong positive emotions. The main explanations given for the positive and negative emotions are discussed and analyzed in more detail in the following subsections with translated sample quotes.

4.1 Positive emotions during an online store visit

A total of 219 explanations for customers' positive emotions were identified from the data. Positive emotions were explained especially by factors related to the customer themselves (47%, 103 attributes) but also often by the features of the online store (41%, 90 attributes). In addition, the sociomaterial environment (12%, 26 attributes) was identified as an important contributor to positive emotions and customer experience.

Oneself. Explanations given to positive emotions highlight the importance of a customer's personal success (i.e., perceiving oneself as a clever and skillful shopper) with respect to the customer experience. Personal success was attributed to one's expertise and efforts as a consumer (51% of self-related attributes). The ability to find and close good deals, succeeding in a "treasure hunt," finding "perfect products for oneself," and saving money with one's findings, caused positive emotions in many respondents.

> *"I was excited when I found the right products for myself. It caused the most positive emotions." (Female, 24)*

> *"I was pleased because I found the product at lower cost than in many other online stores." (Female, 40)*

Furthermore, feeling surprised and lucky contributed positively to customer experience; finding something new, neat, and unexpected while visiting an online store was experienced as a positive contributor to one's experience. Trying some new things, such

as a new store or a product (13% of self-related attributes) was perceived positively as it was associated with some additional excitement when making a purchase.

"I'm excited about trying some new products." (Female, 42)

In addition to sales and other kinds of "finds," facilitating one's everyday life (11% of self-related attributes), including saving time for "something more important" and "getting something out of the agenda" were typical explanations given for positive emotions. The findings demonstrate that the positive consequences of shopping were linked to the future and the outcomes of the purchase and to how will it make one's life easier in the nearby or distant future.

"I felt joy and the satisfaction of making my life easier when I was able to buy a variety of groceries inexpensively at once, without having to try to drag them by bus with my daily shopping."
(Female, 48)

In addition to daily tasks and everyday life necessities, the positive consequences of the purchase for oneself were visualized along with other aspects of life (e.g., how the purchased product will be part of joyful celebrations with one's family).

The online store. The positive emotions associated with an online store were explained for the most part by ease of shopping and trouble-free service (32% of store-related attributes). Positive emotions were often aroused by a "smooth" and "as fast as expected" shopping journey.

"I was pleased with the ease of making a purchase. All the steps went smoothly." (Female, 41)

The product and service range (23% of store-related attributes) and price level (11% of store-related attributes) as well as the store atmosphere (11% of store-related attributes) were also identified as important contributors to customer experience. Providing enough choices for customers was identified as important as many respondents reported an expectation of having a wide range of products and services from which to choose their favorite. Affordable prices and discounts, as well as special offers and services, were attributed as pleasant surprises which supported the purchase decision. Furthermore, as the following comments demonstrate, one's positive emotions were often explained as being the consequence of many different and meaningful issues.

"The range of products. They had cheap prices and the range is so variable that you never knew what new and exciting items to expect at the next page." (Female, 26)

"Most pleasing was the breadth of the range and sufficient product information, flexible payment and delivery methods, and the extra service provided for the frying pan I purchased. The

> *provision of this additional service seemed very attentive."*
> *(Male, 43)*

The store's atmosphere, including the visual design and communication, appeared as a notable contributor to customer experience, as respondents reported that a store with "good vibes" makes them "feel good," with the effect of experiencing positive emotions such as joy and happiness while shopping. "Good vibes" were attributed to "cute products and displays" and to a company's friendly manner when communicating with its customers.

Sociomaterial environment. The findings demonstrate that during a visit to an online store, customers explain their positive emotions in terms of issues related to the sociomaterial environment and by considering the wider context of shopping; i.e., how and where such shopping takes place and what the benefits and consequences of different consumption choices are. With respect to these considerations, the benefits of one's purchase for the environment (including ecological and ethical benefits) were highlighted (73% of sociomaterial environment-related attributes). Many respondents explained that they experienced positive emotions especially as a consequence of the "goodness and eco-friendliness of their purchase." Contributing positively to the environment and the general wellbeing of humankind as a consequence of one's own consumption actions was considered both possible and important (e.g., because of the importance of such things as climate change).

> *"I feel good that I can slow down climate change by this choice of*
> *purchase." (Female, 48)*

> *"Purchasing from this store is easy, comfortable, and ethical."*
> *(Female, 39)*

E-commerce as a service for today's consumers also caused positive emotions (13% of sociomaterial environment-related attributes) among the participants. Rather than being happy with the particular online store they were visiting, these customers explained their positive emotions in terms of all the benefits (such as ease-of-use) that e-commerce generally provides for today's consumers.

> *"It's wonderful when you can do the shopping from your couch."*
> *(Female, 43)*

> *"Enthusiastic about not having to shop in the midst of countless*
> *options (at a grocery store). […] Big stores are the worst. A lot*
> *of walking, a lot of choices and decision making." (Female, 26)*

A few participants also discussed the social aspect of shopping. A positive surprise for one's close friends and family resulting from a purchase (12% of sociomaterial environment-related attributes) was perceived as a positive contributor to one's emotions while visiting an online store.

> *"I ordered a small gift for my uncle and became very happy about*
> *it. I'm thrilled to wait as he gets it and calls me; what his reac-*
> *tions are." (Female, 43)*

While purchasing items for oneself caused plenty of positive emotions among the participants, envisioning how one's purchase may offer joy for others seemed to have a positive effect on the customer experience.

4.2   Negative emotions during a visit to an online store

A total of 338 explanations for customers' negative emotions were identified from the data. Whereas the participants credited almost half (47%) of their positive emotions to internal attributes and to themselves, negative emotions were explained especially by factors related to the online store (68%, 228 attributes). "Oneself" was identified as the cause of some negative emotions with 82 attributes (24%). "Sociomaterial" attributes were identified as a contributor to negative emotions with 28 attributes (8%).

The online store. The online store was identified as the main cause of customers' negative emotions during a visit. The negative emotions were mostly attributed to unpleasant surprises and disappointments caused by the store. These included surprises such as "the desired product was not available" (14% of store-related attributes), "there were not enough products to choose from" (7% of store-related attributes), "technical errors" (11% of store-related attributes), and "complications in navigation and managing the order" (10% of store-related attributions) which made the purchase journey complicated and time-consuming. Many respondents reported multiple explanations for their negative emotions, as the following quotes demonstrate:

> *"Frustration and other negative emotions arose when the website*
> *did not work and the selected products did not go to the*
> *shopping cart. Also, if the products I searched for were not*
> *available and the discounts were low." (Female, 39)*

> *"The site threw me out many times while processing order data and*
> *the page was loading really slowly." (Male, 57)*

> *"I was a little worried about the quality of the products and the*
> *reliability of the online store. The cost and versatility of the*
> *products did not meet my expectations, which was somewhat*
> *disappointing." (Male, 37)*

The way an online store displays its products, including products categories, filter possibilities, and product information, was important for respondents as they reported plenty of negative emotions (15% of store-related attributes) resulting from a badly presented product range. Poor product displays were thought to complicate a purchase, as a significant effort was required to manage the shopping process. Some participants

specified a time-consuming shopping process (5% of store-related attributes) as being the cause of their negative emotions during a visit to an online store.

"I had to put in a lot of effort to find suitable products for myself. It caused frustration." (Female, 70)

Furthermore, pricing (11% of store-related attributes) was identified as an important contributor to the customer experience. Prices that were considered too expensive (together with unclear and misleading pricing) were reported as causes of one's negative emotions. Furthermore, quantity discounts (5% of store-related attributes) aroused negative emotions. "Chasing" the discount limit was considered as something that one could easily end up doing, yet was nevertheless considered stressful and sometimes an impossible mission.

"I couldn't find enough to buy so that I would have reached the 20€ limit (for free delivery). It began to irritate me as I was forced to buy more and did not know whether I will use those products." (Female, 50)

Discounts were indicated as a cause of unnecessary consumption, as discount limits were considered to encourage customers to purchase items which they might not need.

Oneself. The participants also identified themselves and their own actions as the cause of their negative emotions. These negative emotions were mostly attributed to one's consumption habits and to the guilt associated with buying (36% of self-related attributions). In particular, buying unnecessary items and surrendering to one's consumption desires caused disappointment with oneself and hence were experienced negatively.

"Negative emotions were mostly guilt and anxiety because I ordered more than I need. Consuming and collecting stuff (to your home) is distressing." (Female, 29)

"I felt guilty and greedy for getting tempted - I ordered sweets in bulk packages. I wouldn't have bought them from a physical store." (Male, 28)

One's unpleasant financial situation (22% of attributes related to oneself) also caused negative emotions as both a lack of money and "spending money" were reported as "distressing." Overall, consuming seemed to cause mixed emotions for many respondents; shopping induced an inner battle in which the many negative and positive aspects of shopping were considered simultaneously, as the following quote demonstrates.

"Shopping for children's clothes makes me happy, but at the same time it costs and I don't really have money for this hobby. I am perhaps a little hooked on this, and in the midst of a hectic and busy everyday life, I get pleasure from it. But my wallet does not

> *like it at all. I have promised to stop, but online shopping is so*
> *easy, and Instagram and Facebook are so full of wonderful*
> *children's clothes that I cannot resist them." (Female, 33)*

Pondering one's purchasing choices and the different aspects was a cause of stress for the study participants. Negative emotions were reported by some participants, as they were not able to decide whether they were making a good purchase during their visit to an online store (15% of attributes related to the category of oneself).

The sociomaterial environment. Considering the context of consumption and worrying about its environmental effects was a cause of concern among the study participants. Today's environmental problems and the irresponsible actions of people (46% of attributes related to the sociomaterial environment) were reported as a cause of negative emotions while visiting an online store. Today's culture of consumption was found to be troubling due to its harmful consequences for the environment. The act of considering irresponsible and unnecessary consumption caused frustration and anguish among respondents.

> *"I'm annoyed as there are so many products produced in the world*
> *that really do not need to be produced. All kinds of useless*
> *trash." (Female, 58)*

> *"I became frustrated and annoyed at the fact that stores have to*
> *have absurdly large selections available all the time, because*
> *then much of it is eventually thrown away when there is no*
> *demand. Less would be enough." (Female, 35)*

In addition, the purchase environment (such as other participants in the physical space in which the online shopping was being done) was also named as a cause of negative emotions. Family members such as spouses and even dogs were accused of contributing negatively to one's shopping experience by disturbing one's concentration during a visit to an online store or by not contributing enough to the purchase process (29% of attributes related to the sociomaterial environment).

> *"I felt anger and frustration when I tried to make my spouse*
> *participate in the decision making and tell his opinion."*
> *(Female, 28)*

> *"Negative emotions were caused by the coughing and questioning*
> *spouse sitting next to me." (Female, 34)*

Furthermore, the purchase context (18% of attributes related to the sociomaterial environment) was also reported as a cause of negative emotions. These negative emotions were explained with feelings of shame and "forced buying." Some respondents reported that they were ashamed to buy from the store they had chosen, and thus expe-

rienced negative emotions. Furthermore, shopping for certain products such as groceries were reported as acts of "forced buying," meaning that such mandatory purchases always caused negative emotions.

5   Discussion, conclusions, and managerial implications

The aim of this study was to gain a greater understanding of customer experience formation in the context of online shopping and from the perspective of a customer (as described by the customers themselves). As previous research has predominantly examined how different service elements directly affect online customer experience as an outcome [24,25] and the interaction between service providers and customers has been highlighted [49], the present study contributes to the customer experience literature by investigating customer experience formation more extensively with an open-ended approach and beyond direct customer-company interactions. In other words, this study did not focus on how customers react to different online store characteristics but instead explored what kinds of other issues (in addition to the online store interface) can be meaningful for customers when they are using online services and constructing their customer experience.

Consistent with previous studies, the findings of this investigation highlight the important role of a company with respect to customer experience. As expected based on Attribution Theory and the previous customer experience literature, the respondents in this study attributed most of their negative emotions to the characteristics of an online store. Attribution theory suggests that individuals tend to blame external factors for negative events and issues and this was found to be the case here. As most negative emotions (68%) were caused by unpleasant surprises and disappointments caused by the online store, our findings, consistent with the existing literature [34,50], highlight the importance of both a well-functioning user interface and carefully selected online store content in making the purchase journey as easy and pleasant as possible for the customer.

When considering their positive emotions, the respondents attributed most of these to "themselves" (47%) (i.e., by making reference to their own efforts and skills). Positive emotions were experienced due to respondents' personal success as a consumer. These findings are consistent with Attribution theory, suggesting that individuals tend to explain positive issues using internal attributions and a self-serving bias and by attributing their success to their own abilities. Previous customer experience studies have reported similar findings. For instance, Jackson et al. [47] showed that tourists were more likely to use internal attributions for positive outcomes and external attributions for negative experiences. Hence, as individuals' reasoning can be rather self-enhancing (and as positive emotions seem to be especially self-emphasized), it is important for online stores and other service providers to find ways that customers are able to perceive themselves as being successful, clever, and skillful shoppers (i.e., to feel good about themselves) during their online encounters. Such methods could entail highlighting the positive outcomes of a purchase and providing customers with an opportunity to find something unexpected in an online store.

As a whole, our findings demonstrate the complexity of the customer experience both in terms of when customers construct their customer experiences and the multiple factors that can contribute to it. The findings indicate that the online store environment is not the only contributor to customer experience during a shopping visit. Customers actively consider and evaluate themselves, the surrounding world and other people when using online services and when constructing their customer experience. The customer experience is affected by the elements (such as other people) in the physical space in which the customer is using the online store. On the other hand, the perceived impact of one's purchasing decision on the sociomaterial environment and on other people, can influence the customer experience. Therefore, it can be concluded that by its choice of service design, the online store can influence how customers perceive the store while visiting it. Nevertheless, some of the emotions experienced by a customer cannot be influenced by the company as a customer's thoughts may not be focussed on the actual moment of consumption and the online store interface. Consistent with Trischler et al. [41], our findings indicate that in future studies other factors external to the online store should be more carefully considered when attempting to understand the holistic customer experience.

Finally, the findings demonstrate that customers' emotions during a visit to an online store can be versatile and cannot be inferred, for example, on the basis of the purchase decision. All of the respondents of this study completed the survey after they had successfully placed an order at an online store. Whereas customers who have placed an order may appear as "satisfied and happy" from a company's perspective, the findings of this study demonstrate that it may not be the case; many respondents reported experiencing strong negative emotions during their store visit but ended-up purchasing despite those emotions. Furthermore, some experienced both very strong positive and negative emotions during their visit, which demonstrates that an online store visit can be an emotional rollercoaster. From a managerial perspective, these findings highlight the importance of understanding the entire customer journey during an online store visit and not just the outcome (such as a purchase). Even though the negative emotions experienced during an online store visit may not contribute to the accompanying purchase, they may persist in the mind of a customer and affect future customer behavior (such as the willingness to shop at the store again in the future) [13].

The customer insights gained through this study can be utilized and further investigated in research and practice aiming to more thoroughly understand online shopping behavior and the customer experience therein. As the data for this study was collected from Finnish consumers and because our sample was dominated by women and consumers under 40-years of age, replications of this study in other countries with more balanced demographic samples could provide new insights. In addition, the formation of negative and positive customer experiences in the online context should be studied further with various methods and in diverse service settings. From a managerial perspective in particular, it is important to identify the causes of customers' positive and negative emotions, as they may have an effect on customers' future choices when shopping. Researchers and practitioners are encouraged to study the customer experience beyond that of the company-customer interaction, as well as during the entire customer journey encompassing the prepurchase and postpurchase phases.

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Appendix 1. The descriptive statistics of the respondents

	Negative emotions		Positive emotions	
	N=215	%	N=138	%
Gender				
Male	26	12.1%	23	16.7%
Female	189	87.9%	115	83.3%
Age				
18–29 years	69	32.1%	47	34.1%
30–39 years	59	27.4%	36	26.1%
40–49 years	42	19.5%	26	18.8%
50–59 years	29	13.5%	20	14.5%
60– 69 years	10	4.7%	6	4.3%
70– years	6	2.8%	3	2.2%
On average, how often do you shop online?				
Daily	1	0.5%	2	1.4%
Weekly	54	25.1%	29	21.0%
Monthly	111	51.6%	69	50.0%
Yearly	44	20.5%	36	26.1%
Less than yearly	5	2.3%	2	1.4%
How many times have you shopped in this online store?				
Never	76	35.3%	45	32.6%
1–3 times	83	38.6%	47	34.1%
4–10 times	41	19.1%	33	23.9%
Over 10 times	15	7.0%	13	9.4%