Tracing Smartphone-Enabled Customer Journeys

A Socio-Material Approach

Stoopendahl, Patrik

2024

Document Version:
Publisher's PDF, also known as Version of record

DOCTORAL THESIS
Textiles and Fashion

Tracing Smartphone-Enabled Customer Journeys

PATRIK STOOPENDAHL

A Socio-Material Approach

THE SWEDISH SCHOOL
OF TEXTILES
UNIVERSITY OF BORÅS

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—

A Socio-Material Approach

Patrik Stoopendahl

UNIVERSITY
OF BORÅS

Thesis in Textile Management
The Swedish School of Textiles, University of Borås

Tracing Smartphone-Enabled Customer Journeys—A Socio-Material Approach

Cover image: Prompted by Johanna Stoopendahl in DALL-E via ChatGPT 4.5
Printed in Sweden by Stema

ISBN 978-91-89833-31-9 (printed)
ISBN 978-91-89833-32-6 (PDF)
ISSN 0280-381X, Skrifter från Högskolan i Borås, nr. 146

Electronic version: http://urn.kb.se/resolve?urn=urn:nbn:se:hb:diva-30919

Department of Business Administration and Textile Management, Swedish School of Textiles, University of Borås
SE-501 90 Borås, Sweden
Tel. +46 33 435 40 00
www.hb.se

This work was supported by the Knowledge Foundation, grant number 20170215, as well as by Odyssey AB, Stockholm, and the University of Borås. Access to the tool “phone metering” was kindly provided *pro bono* by Reality Mines Limited, UK.

To
Johanna, Selma, & Alf

UNIVERSITY
OF BORÅS

Abstract

This doctoral thesis delves into the transformation of the customer journey—that is, the direct and indirect interactions between a customer and retailer over time—in the smartphone era. Using a socio-material perspective, it goes beyond current visions of the customer journey, which often focus on emotions and experiences, and instead explores how agency is distributed across elements that include consumers and their relationship with their smartphone as a device and a gateway to a digital market infrastructure. The research employs phone metering and interviews with informants to obtain insights into how individuals interact with their smartphones throughout their customer journeys, in what is known as "trace ethnography." This approach unveils three modes of a contemporary customer journey: exploring what to buy, access to instant shopping entertainment, and smartphone-enabled purchasing. The thesis also demonstrates the influential roles played by three key enablers: the social actor, the brand, and the product. Moreover, it explores how customer journeys are integrated into daily life as consumers initiate and pause their customer journeys. Furthermore, it examines how customer journeys can intertwine. These findings reveal the intricate web of interconnections underpinning contemporary customer journeys as they unfold.

This thesis introduces a perspective on smartphone-enabled consumers as hybrid actors who challenge traditional notions of sequentiality and phases in their customer journeys. This perspective leads to a nuanced understanding of agency as being distributed across a network of interconnected elements. Central to this thesis is the concept of "self-marketing," which elucidates how customers use smartphones to assemble personalized marketing experiences, blurring the lines between traditional touchpoints and user-generated "marketing scenes."

In summary, this thesis posits that customer journeys are elaborate. While emotions and experiences continue to play crucial roles in customer journeys, the findings show that the actions taken are partly shaped by the digital device and the digital market infrastructure, which are accessed daily. The distribution of agency across a network of elements underscores the transformative potential of smartphones within contemporary customer journeys. The conclusions drawn from this research offer a socio-material view of these journeys, highlighting their complexity and dynamic nature, and emphasizing the active role of consumers in partly shaping their own experiences. These insights collectively enrich our understanding of the customer journey, providing perspectives and opportunities for businesses and researchers alike.

Keywords
Customer journey, Socio-material perspectives, Trace ethnography, Agency, Smartphone

Sammanfattning

Denna doktorsavhandling utforskar kundresan, det vill säga de direkta och indirekta interaktionerna mellan en kund och handelsföretag över tid. Med ett socio-materiellt perspektiv sträcker sig avhandlingen bortom traditionella synsätt på kundresan, som ofta betonar känslor och upplevelser. Istället undersöks fördelningen av agens över element såsom konsumenter och deras interaktion med sin smartphone, betraktad både som en enhet och en portal till digital marknadsföringsinfrastruktur. Forskningen använder sig av telefonmätningar och intervjuer med informanter för att erhålla insikter i hur individer interagerar med sina smartphones under sina kundresor. Detta görs genom en metod som benämns ”trace ethnography”. Metoden avslöjar tre sätt på vilket kundresor praktiseras: utforskningen av potentiella köp, tillgången till omedelbar shoppingunderhållning samt köp understödda av smartphones. Vidare belyser avhandlingen de inflytelserika roller som tre centrala aktörer innehar: den sociala aktören, varumärket och produkten. Dessutom utforskar den integrationen av kundresor i vardagslivet, när konsumenter initierar och tillfälligt pausar sina resor, samt hur dessa resor sammanflätas med varandra.

I avhandlingen betraktas konsumenter som hybridaktörer vilka utmanar de traditionella uppfattningarna om faser i kundresan. Detta perspektiv leder fram till en nyanserad förståelse av agens som fördelat över ett nätverk av sammanlänkade element. Ett centralt koncept i denna avhandling är ”självmarknadsföring”, som lyfter fram hur kunder använder sina smartphones för att skapa personliga marknadsföringsupplevelser. Därmed suddas gränser mellan traditionella beröringspunkter och användarskapade ”marknadsföringsscener” ut.

I denna doktorsavhandling argumenteras att kundresor är komplexa. Medan emotionella och upplevelsebaserade aspekter fortfarande spelar en avgörande roll, visar analysen att kundresor såsom de praktiseras i konsumentens dagliga liv, delvis formas av den digitala enheten och den digitala marknadsföringsinfrastrukturen. Den distribuerade agensen över ett nätverk av element understryker smartphones transformatoriska potential av kundresor. Slutsatserna från denna forskning erbjuder ett socio-materiellt perspektiv på kundresor, vilket framhäver deras komplexitet och dynamiska natur och betonar konsumentens aktiva roll i att delvis forma sina egna upplevelser. Dessa insikter berikar förståelsen av kundresan och erbjuder nya perspektiv och möjligheter för både företag och forskare.

Nyckelord
Kundresa, sociomateriella perspektiv, spåretnografi, agens, smartphone

Acknowledgements

Achieving a PhD has been a dream of mine since the early days of my university studies. I have always been intrigued by the knowledge and passion researchers demonstrated. Even though research seemed challenging, it appealed to me as an incredibly rewarding endeavor. Initially, I stepped into an industry-based career in strategic consumer insight—but when the opportunity to explore digital retail through a PhD presented itself, I took it!

So many great individuals have contributed to this PhD thesis. I genuinely hope I haven't missed anyone, and I'd like to take a moment to express my gratitude.

To my supervisors, Malin Sundström, Christian Fuentes, and Hanna Wittrock. Malin, thank you for making all this possible, and for your belief in me. Truly, you have been my anchor. Christian, thank you for revealing the appeal of academia and for explaining everything to me. Hanna, your never-ending questions immensely enriched my personal growth, and your methodological guidance has been critical for my work. Together, you have challenged, nurtured, and guided me. I am deeply thankful to have undertaken this journey with you all and I am forever grateful for the patience you have shown me.

To the 10 informants, I am beyond thankful. Your involvement was crucial, from the interviews to permitting phone metering. Your willingness to participate was the key that unlocked all the findings. I hope this book finds a proud spot in each of your hearts and homes!

Deep thanks to the reviewers over the years, especially Thomas Müllern, Nicklas Salomonsson, Firouze Pourmand Hilmersson, Jenny Balkow, Alexander Flaig, and Christian Jamtheim Gustavsson. A special call out goes to Johan Hagberg, who provided constructive feedback in both the middle seminar and final seminar. Johan, your insights, and feedback improved my work.

To the University of Borås, the Industrial Graduate School of Digital Retail, KK-stiftelsen, and Odyssey, your financial support made this thesis possible. To Eva Gustavsson at the University of Borås, your moral support in difficult times kept me on track.

Michael Jäderlind and Cecilia Hjertzell, thank you for bringing me to Odyssey! I owe this fantastic opportunity to both of you personally. A huge thanks to Tobias Sjöqvist and partners at Odyssey, for keeping me going for as long as you could, even in the face of challenges like COVID-19. This thesis owes its existence to Odyssey and to all the people who shared my initial years as an industrial PhD student.

My deepest gratitude to Alex Sunnerstam and Alex Nicholson at Reality Mines for volunteering the technology and time to making phone metering happen. Working with you was a privilege, and your dedication and curiosity were crucial to this study.

To Hans Kjellberg, Riikka Murto, and Johan Nilsson for the wonderful PhD course in constructivist market studies and to all its participants, especially Alexander Flaig, Réka Ines Tölg, Fairouz Hussien, and Andrea Deverell, for making the course so valuable and fun! Also, thank you for the invite to the workshop in Sigtuna, which allowed me to present my research! Thank you, Johan Lindquist: Your invitation to give a seminar at the Anthropology Department at Stockholm University opened my eyes to new dimensions of this study. Thank you, Cecilia Fredriksson, for inviting me to Lund University to present my work in the early stages; this marked an important opportunity to self-reflect in the early stages of my work.

Ulf Johansson and Johan Anselmsson, my deepest, heartfelt gratitude to both of you for welcoming me into the marketing group at the Department of Business Administration, Lund University, essentially giving me a home! It could not have come at a more crucial time, becoming a well-needed lifeline during challenging times. To Sofia Ulver, Ulf Elg, and the others in the marketing team who participated in the research seminar, Carys Egan-Wyer, Burak Tunca, Javier Cenamor, Jon Bertilsson, Veronika Tarnovskaya, and Sönnich Sönnichsen, your feedback and responses provided confidence to make final decisions and push on until the end.

Thanks to everyone at the department on the third floor of Alfa one, for the laughs, lunches, and delightful chats. Shout out to Johan Jönsson! Thanks for the therapeutic touch downs!

Thank you to Fredrik Svedjetun for allowing me to share my insights as a chronicler in Tidningen Market and to Mikael Sydner for considering me in articles over the years. Being a chronicler has meant more to me than you can ever imagine!

I'm so thankful to all my industry friends and acquaintances for engaging with me and cheering me on. Special mentions go to Ann-Sofie Isaksson, Nic Staeger, Tommy Resin, Pernilla Jonsson, Ingvar Larsson, Jonas Andersson, Suzanne Fritz, Emma Ridderstad, Renée Säverot, Alex Baker, Jenny Sondell, Malin Anglert, Therese Blom, Morten Blomfeldt, Olof Törnqvist, Emilia Malmberg Larsson, Andreas Borgström, Jacob Dahlner, Minna Hellman, Leon Eckervall, Pino Roscigno, Nicklas Nyman, Arne B. Andersson, Ebba Kilman, Sofia Norén Sundström, Anna Kollberg, Billy Andersson, Urban Lindstedt, Susanne Jacobsson, Olle Hyberg, Henrik Sjödin, Linda Hättström, Martin Richardsson, Martin Sangell, Tom Thörnblom, Fanny Sahl, Jonas Karlén, Nina Egnell, Stine Ringvig Marsal, and many more.

Anna-Maria (and Johan!): Your unwavering support, generous hosting in Borås, and friendship have been a blessing.

Alex, thank you for believing in me and helping me to see things clearly. You are my academic BFF and still, the best is yet to come!

To my office buddy, Jörgen, for all the shits and giggles that provided the comical relief I needed.

Endless love and thanks to my family: parents Mimmi and Hasse, sister Fia, brother-in-law Fredrik, and their children Astrid, Sigge, and Lisa. Your enthusiasm and support for my “fooorskning”, and your love were my pillars. Thank you to all my extended family, for rooting me on.

Finally, to my wife Johanna, and my children Selma, and Alf. Johanna, your boundless love, and belief in me made all this possible; I owe my sanity to you. Selma and Alf, I pursued this journey for both of you: This effort is as much for your future as it is a personal accomplishment for me. You inspire me endlessly. I love you all beyond words.

Patrik Stoopendahl

Lund, March 2024

Definition of key terms (in alphabetic order)

Activation: The moment a consumer initiates a customer journey.

Agencing: A concept that illustrates how materials, technology, and human actors adjust in a dynamic process to achieve agency.

Agency: The capacity to act.

Cue or trigger: From a customer journey management perspective, any material or technology that retailers use to influence a customer to act, feel, or experience in a specific way or to make a choice.

Customer journey: A process consisting of three stages—pre-purchase, purchase, and post-purchase—where each stage comprises touchpoints; the concept anticipates that customer experiences and emotions trigger decision-making.

Customer journey management: Strategies and tools that equip the retailer to manage the customer journey; rests on the assumption that the customer journey is underscored by customer experience and emotions.

Deactivation: The moment a consumer ends an ongoing customer journey.

Elements: Materials, technologies, and social actors summarized in one concept.

Enable: A digital device, or similar tool, creates conditions that make it possible for someone to act in a specific way.

Influence: From a customer journey management perspective, the ability to indirectly impact a consumer's choice of brand or product via different cues or triggers.

Intertwinement: A term describing how customer journeys are entangled with each other.

Market infrastructure: A socio-material concept that elucidates technologies, materials, and social actors that align to make up infrastructures enabling the movement of goods and knowledge, among other things.

Marketing scene: A flow of or temporarily stable set of touchpoints that the consumer assembles when performing self-marketing.

Reactivation: The moment a consumer resumes a previous customer journey.

Self-marketing: A concept describing how a smartphone-enabled consumer creates moments of private marketing.

Socio-material assemblage: A set of temporarily stable connections involving materials, technologies, and social actors.

Touchpoints: Points of human, product, service, communication, spatial, and electronic interaction that collectively constitute the interface between an enterprise and its customers.

Traces: Digital information that consumers leave behind, representing their movements on commercial platforms or non-scientific software.

Trace ethnography: A methodology belonging to digital ethnography, in which traces of digital data are collected by a qualitative researcher and analyzed through the lens of conventional ethnographic methods such as interviews or observations.

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Chapter 1: Introduction

Chapter 1 of this thesis serves as a foundational platform, synthesizing various perspectives on the phenomenon of customer journeys in the digital age. It begins by establishing the context of my inquiry, and then progresses into an exploration of decision-making theory and the customer journey framework. Next, the chapter transitions into the complex phenomenon of smartphone-enabled customer journeys and finally arrives at present-day theorizing. It then discusses problems in current research, outlines the theoretical and methodological approaches employed in this thesis, and sets forth the research questions guiding this study. The chapter concludes by summarizing this thesis's main arguments and contributions, thereby providing a roadmap for the reader through the subsequent chapters.

1.1 Setting the stage

The customer journey has emerged as a framework that integrates customers' experiences with decision-making; it is defined as, "the process a customer goes through, across all stages and touchpoints, that makes up the customer experience" (Lemon & Verhoef, 2016, p. 71). In tandem with the digital transformation of the retail sector and the integration of smartphones into daily life, consumers are envisioned as being increasingly empowered to navigate and perform their customer journeys effortlessly, amounting to a process that has been acknowledged to be as elaborate (Grewal & Roggeveen, 2020) as it is easy for the consumer to perform (Herhausen, Kleinlercher, Verhoef, Emrich, & Rudolph, 2019). This perspective on the customer journey implies two propositions that deserves further scholarly attention: First, digital technology—and particularly the smartphone—plays a crucial role in shaping the customer journey, lending it complexity. Second, consumers increasingly depend on technology to perform the purchasing process and utilize the extensive digital market infrastructure to explore what to buy. Both propositions are reflected in a quote by 22-year old key informant Josefin from an interview in my study, which shows how the smartphone-enabled consumer performs the customer journey over time. Josefin easily transcend multiple brands and is granted endless possibilities of discovery. Most importantly, the quotation illustrates how the act of a purchase is not necessarily part of the process:

> It never ends … H&M to Zara, to Zalando, to Shein … and then I realize, now it's those pants that I need … and then I do the same lap again ... and then … ahhh … Maybe Lindex has those pants … there's so much, I mean, the supply is endless, and then, finally, if I can't find it … maybe I'll look at international e-commerce sites, and maybe I

> can order from them. It's like I can't put down the phone … now I've spent one hour, but I haven't consumed anything, I haven't bought anything … I've just scrolled in a manic way. (Interview with Josefin)

From this quote, it is obvious that smartphones have dramatically transformed consumer decision-making and the purchasing process—that is, the customer journey. This is a basic premise of this thesis. Smartphones offer user-friendly features that simplify shopping-related tasks that were once cumbersome or required considerable effort, changing the ways in which consumers interact with retailers and make—or do not make, as in the quote above—buying decisions. Whether the consumer is seeking products, gathering information, browsing the Internet, seeking advice from peers, or participating in online brand communities, smartphones have become an indispensable tool for accomplishing these tasks with ease and efficiency (Herhausen et al., 2019; Jonsson, Stoopendahl, & Sundström, 2015). With its launch, the smartphone began to challenge laptops and PC's as mainstream users' preferred device to access the Internet (Christensen, Raynor, & McDonald, 2015). Since smartphones' release, the symbiotic relationship between humans and smartphones in shopping quickly became indissoluble (Wang, Malthouse, & Krishnamurthi, 2015) and has remained so. Therefore, understanding the ways in which technology impacts the customer journey requires further investigation within retail research (Grewal & Roggeveen, 2020).

This thesis responds to the need to understand in detail how technology is changing the customer journey, and whether the ways in which consumers perform the customer journey with a smartphone aligns with how the journey is conventionally understood as a process of sequential phases (Hollebeek, Kumar, Srivastava, & Clark, 2023). I explore the elaborate intricacies of smartphone-enabled customer journeys—where the term "enabled" highlights the smartphone as a digital device that facilitates the conditions for a consumer to act—with the aim of further advancing the emerging socio-material outlook within customer journey literature. To accomplish this, I partially shift focus away from the sole human actor and instead adopt a socio-material and multi-actor-centric perspective. This perspective was proposed by Thomas, Epp, and Price (2020), who consider it to hold potential to uncover findings within the context of consumer daily life. A multi-actor-centric-perspective provides the necessary vantage point to scrutinize the orchestration and execution of customer journeys as socio-material entities. This approach illuminates the multifaceted and dynamic actions performed by smartphone-enabled consumers in the digital milieu, underscoring agency as being distributed and realized via the interplay between the technologies, materials, and social actors inhabiting the ever-evolving digital market infrastructure. Through this lens, the thesis provides an alternative understanding of the customer journey, in contrast to the conventional narrative of the customer journey as a sequential process performed by an individual human agent. This thesis makes use of a

socio-material perspective on customer journeys and the varying elements that perform these journeys. Instead of viewing customer journeys as progressing toward a goal, I consider the gradual "unfolding" of customer journeys as being marked by a process—a series of events—that is revealed piece by piece, often with elements of surprise or discovery, reflecting the dynamic and evolving nature of customer journeys as they intertwine and play out with various socio-material elements. This approach enables me to introduce empirical findings and concepts that further augment our knowledge of customer journeys while addressing the criticism that the customer journey literature has become overly narrow and firm-centric, thereby losing sight of real-life customer journeys in consumers' daily lives (Hamilton & Price, 2019; Rokka, 2021).

This chapter continues by laying the groundwork for an understanding of traditional conceptions of decision-making as an underpinning of the customer journey; it then provides an exploration of the established framework of the customer journey. Following this, the discussion shifts to the transformative impact of smartphones and digital technology on the customer journey, exploring the phenomenon that this thesis delves into. With these foundations and new phenomena established, the focus then turns to the present-day literature within customer journey research, as the chapter explicates how this thesis is intended to contribute to recent theoretical developments. Thereafter, the central problem of customer journey research is outlined: whether the traditional view of consumer agency, which is predominantly linked to emotional and experiential aspects is still relevant in today's marketing landscape. This segment critically examines this conventional perspective, arguing for the necessity of a broader and more nuanced understanding that considers the intricate complexities introduced by digital technology. The final parts of this chapter introduce the theoretical and methodological approach used in the thesis. I define my ontological position and the theoretical literature from which I draw inspiration, as well as concepts for theorizing the customer journey. Then, I outline the aim and two research questions that guide the research. At the very end, I provide my main arguments and contributions and a brief outline of the remainder of the thesis.

1.2 From narrow simplicities to broader complexities

In the 1950s and 60s, consumer decision-making was initially considered to be a "black box" of cognitive processes. This understanding came about because researchers lacked a comprehensive understanding of the brain's functioning in decision contexts and merely observed how specific stimuli led to observable outcomes (i.e., consumer actions). Over time, our understanding of decision-making has come to encompass an increased awareness of the roles of experiences and emotional response.

Currently, the concept of the decision-making process has become increasingly analogized using the "customer journey" framework, which reflects a more integrated and comprehensive understanding of how experiences and emotions influence consumers' decisions in varying retail and service settings. The framework is usually organized into three distinct phases: pre-purchase, purchase, and post-purchase (Lemon & Verhoef, 2016); or, the pre-core service encounter, core service encounter, and post-core service encounter (Voorhees, Fombelle, Gregoire, Bone, Gustafsson, Sousa, & Walkowiak, 2017). In tandem with the adoption of smartphones in everyday life, scholarly attention has come to focus on how smart technologies may significantly re-structure the way in which consumers make decisions, thereby making the phases-depiction of customer journeys obsolete. This increase in scholars' attention has led to the emergence of contemporary theories specifically developed to capture the broader complexities of customer journeys in a holistic manner; the nascent literature challenges the phases literature, pointing to it as obfuscating the realities of actual customer journeys in daily life (Hamilton & Price, 2019). This section digs deeper into this development as a foundation for the upcoming problem discussion.

1.2.1 A brief history of decision-making and information processing

Three main research streams in consumer decision-making emerged in the 1960s: (1), classical consumer buying behavior models, which have had a strong influence upon consumer behavior research; (2), decision analysis models, which particularly focus on decision problems; and (3), the hierarchy of effects model, which is the most cited stream in the customer-journey-focused literature. The research in this last stream corresponds with consumer behavior research but specifically narrows in on advertising and communication. These theories mark the beginning of the stream of research that still underpins the concept of the customer journey today (Santos & Gonçalves, 2021).

In its modern form, the customer journey typically assumes a linear progression, a so-called "funnel" that was conceptualized in the hierarchy of effects stream. This funnel involves a processing of information that connects the customer journey to the 1960s and the models of information processing specifically found within the stream of classical consumer buying behavior. Three grand models in classical consumer buying behavior were published by the scholars Nicosia (1966), Engel, Blackwell, and Kollat (1968), and Howard and Sheth (1969) (Santos & Gonçalves, 2021).

Nicosia (1966) was inspired by computer flow charting, and his model describes a system in which four subprograms in the model are activated. Nicosia explains the

psychological factors affecting consumer buying, which consist of cognition, perception, and selective exposure, among others. At that time, Nicosia's main contribution was to consider buying behavior as an ongoing process. Another systems-like approach was proposed by Engel, Blackwell, and Kollat (1968), who conceptualized consumer buying behavior based on the "human-as-a-black-box" behavior—related to different forms of triggers (input). Engel et al. proposed that the input would first pass through what they called the central control unit (CCU) via four phases: exposure, attention, comprehension, and retention. Once the input was filtered through the CCU, the decision process would begin, moving the consumer through an additional four steps: internal search and evaluation, external search and evaluation, purchasing, and past-purchase evaluation. The theory also identifies external forces: situational forces, product characteristics, consumer characteristics, and environmental factors.

Howard and Sheth's (1969) theory focuses on repetitive purchase behavior; like Nicosia's (1966) and Engel et al.'s (1968), their contribution is underpinned by psychology. This model differs from the other two in respect to the relationship that develops between the brand and the consumer. Howard and Sheth considered that much of purchasing is repetitive, with the brand as a central actor. Their starting point is defined as the moment in time when the consumer is motivated to purchase and the choice is self-endorsed; next, the theory explains, the consumer will consider different brands. A decision occurs due to a set of elements—a set of motives, courses of action, and decision mediators in which motives are combined with alternatives. This theory has been central in the continuing work of understanding the consumer decision-making process performed by an individual human agent.

The aim of research in the hierarchy of effects stream is "determining the stages of communication advertising strategies, identifying the main and cross-effects of different types of media to shape the perception of consumers, and defining optimal sequencing and coordination of communications contents" (Santos & Gonçalves, 2021, p. 9). This research stream, which is often encapsulated using the acronym AIDA (attention, interest, desire, action), can be separated into pre- and post-1960 research. The AIDA structure is a model that instructs a salesperson to apply pressure to the consumer's self-endorsed choice; until the 1960s, AIDA was a cornerstone in advertising and communications for practitioner and academics alike. However, post-1960s AIDA models began to shift toward viewing advertising as a long-term project, and AIDA models were subsequently developed to capture this perspective. Research on the hierarchy of effects commonly lacks the ability to consider interaction between stages; there is only one direction of movement, which is forward. Moreover, these models seldom sufficiently consider technology or account for how technology alters

the direction of movement. Finally, hierarchy of effects research pays little attention to the post-purchase stage (Santos & Gonçalves, 2021).

In summary, historical antecedents can be traced in the theories of consumer decision-making and information processing, communication, and advertisement. These historical foundations continue to shape the customer journey concept to some extent, with established theories that emphasize the individual human consumer as the central agent in a decision-making process. These theories conceptualize the consumer as the primary actor conducting processing, micro-decision-making, and internal deliberation, and they position external materials and technologies as triggers of an autonomic human cognitive process.

1.2.2 The sequential-phases customer journey literature

Customer centricity and engagement were intensely researched in the field of customer experiences during the two decades after the turn of the 21st century (Lemon & Verhoef, 2016). During this period, smartphones were increasingly adopted among consumers, who began to explore and use mobile devices in daily life. In 2009, the global management consulting firm McKinsey & Company, recognizing the trend in changing consumer behavioral habits, published an article titled "The Consumer Decision Journey" (Court, Elzinga, Mulder, & Vetvik, 2009). This publication stressed the need to focus on the customer's decision-making process by becoming customer-centric. "The Consumer Decision Journey" instructed firms that the decision-making process conceptualized as a customer journey would be central in evaluating marketing expenditure, branding, loyalty, consumer satisfaction, and much more. Most of all, the McKinsey model offered managers a simple yet effective perspective that still drew on ideas of sequentiality but added a feedback loop and denoted the importance of high-quality experiences. The model assumes human agency to be inherent in the individual actor and encourages managers to view their brand's management of the customer journey as a way of manipulating the customer's perception and behavior.

In 2016, the seminal paper by Lemon and Verhoef mentioned earlier suggested that experiences could be organized using the customer journey framework. The intertwined relationship between customer experience research and customer journey research rests on the assumption that experiences affect a customer's decision to purchase.[1] As the concept of the customer journey began to be accepted and used,

[1] At this point, I wish to provide a general understanding of customer experience research, as it contributes to the customer journey framework. Customer experience (often referred to as CX, or CXM, where the M stands for

researchers responded with explorations within an array of themes. Scholars of the customer journey utilize a plethora of theories and methodologies, many of which are aimed at understanding how consumers travel through a decision-making process and what experiences they have. This has ultimately resulted in a growing variety of customer journey conceptualizations that share three central assumptions: The customer journey goes through stages; the customer journey is comprised of touchpoints; and the customer journey is linked with customer experience.

The concept of the customer journey encompasses a framework of theories and methodologies aimed at dissecting the experiential process of how and why a customer moves toward a purchase, as well as the subsequent post-purchase dynamics. Central to the foundation of the customer journey is the information-processing theory, a theory that delineates how information is processed in a linear manner by individual human agents with self-contained emotions and experiences linked to agency. Information processing has been extensively employed to study and understand advertisement and how consumers assimilate information to inform a purchase decision. This theory characterizes information processing as a linear and sequential process, in which consumers engage with different phases, one after the other, in a predefined order (Santos & Gonçalves, 2021).

To summarize, the customer journey draws heavily from this linear and sequential notion, outlining the three phases of pre-purchase, purchase, and post-purchase. Within each of these phases, a series of behaviors and touchpoints—that is, any type of interaction between brand and customer—are defined (Hollebeek et al., 2023). These phases have been explored via several different methodologies and theories, predominantly founded on the idea of linearity, sequentiality, and the conception of self-contained human agency, emotions, and experiences (Santos & Gonçalves, 2021).

"management") is a research focus within service research. In service research, the customer experience is viewed as a central construct that must be explored and understood in order to understand the quality of a service. If, for example, a retailer introduces a digital screen in-store, on which a customer can purchase a piece of clothing, or designs a new smartphone app, then the consensus in this literature is that the experience of the customer should be studied to evaluate the quality of the service encounter. Within CX research, an array of methods and theories have been used to explore service encounters taking place both online and in physical settings. This has created a field rich in variance to which Lemon and Verhoef (2016) made a critical contribution by suggesting that the customer journey is an apt framework for organizing the scattered CX research field. Since then, depending on outlook, some researchers have continued to remain in the CX field, studying service encounters as single points of interaction between retailer and consumer, while others have chosen to continue to develop the aggregate understanding of the customer journey, and thus tend to link together several different interactions, or service encounters, into the process of a decision: the customer journey.

Author(s)	Definition
Zomerdijk and Voss (2010, p. 74)	The *customer journey* comprises "a series of touchpoints that 'involves all activities and events related to the delivery of a service from the customer's perspective.'"
Tax et al. (2013, p. 456)	The *customer journey* includes "all of the touchpoints ... from the customer's perspective ... [that are] required to help them achieve their goals."
Edelman and Singer (2015, p. 90)	"In the *classic* [customer] *journey*, consumers engage in an extended consideration and evaluation phase before either entering into the loyalty loop or proceeding into a new round of consideration and evaluation that may lead to the subsequent purchase of a different brand ... The *new journey* compresses the 'consider' step and shortens or entirely eliminates the 'evaluate' step, delivering customers directly within the loyalty loop and locking them within it."
Lemon and Verhoef (2016, p. 71)	The *customer purchase journey* is "the process a customer goes through, across all stages and touch points, that makes up the customer experience."
Anderl et al. (2016, p. 457)	The *online customer journey* includes "all touchpoints over all online marketing channels preceding a potential purchase decision that lead to a visit of an advertiser's website."
Voorhees et al. (2017, p. 230)	The *customer journey* details "a customer's journey with a firm over time during the purchase cycle across multiple touch points."
Rosenbaum et al. (2017, p. 2)	The customer journey is "the sequence of events through which customers may interact with a[n] ... organization during an entire purchase process."
Kuehnl et al. (2019, p. 1)	Effective customer journey design is "the extent to which consumers perceive multiple brand-owned touchpoints [to be] designed in a thematically cohesive, consistent, and context-sensitive way."
Kranzbühler et al. (2019, p. 308)	The customer journey comprises "touchpoints...that consumers [may] perceive as [satisfying or] dissatisfying."

Siebert et al. (2020, p. 46)	The customer journey is "the ongoing customer experience across the phases of a service cycle."
Shavitt and Barnes (2020, p. 41)	The customer journey contains "a series of touchpoints that involves all activities and events related to the delivery of a service from the customer's perspective."
Sudbury-Riley et al. (2020, p. 237)	The customer journey (CJ) comprises five stages: "(a) Pre-arrival: Details the CJ up to the point of [the customer] experiencing the service; (b) Arrival: Illustrates those touchpoints a customer may come into contact with as they first begin to experience the service; (c) Care and support: Illuminates the core service aspects provided by frontline staff; (d) The little extras: Those augmented service aspects; and (e) Final Processes and Aftercare: Depicts the completion of the core service and the aftercare experience."
Hamilton et al. (2021, p. 68)	The social customer journey is the customer's "path to purchase [that] explicitly integrat[es] the important role that social others play throughout the journey."

Table 1. Definitions of customer journey from previous studies. (Source: Hollebeek et al., 2023, pp. 11–12)

The customer journey concept explains that a customer goes through stages to complete a purchase.[2] Usually, these stages transpire across the whole process, from initial interactions until purchase and a subsequent stage of usage—namely, consumption. Touchpoints are "points of human, product, service, communication, spatial, and electronic interaction collectively constituting the interface between an enterprise and its customers" (Dhbar, 2013, p. 200); they can be owned and managed by firms, consumers, and other stakeholders. Finally, the customer journey is often argued as being linked to the customer experience (Hollebeek et al., 2023).

Research has reported that consumers' agency is intertwined with feelings of satisfaction, dissatisfaction, or neutral emotion toward different touchpoints

[2] Edelman and Singer (2015) argue for the need to manage the customer journey as any other product marketed by a brand. This entails setting up a cross-functional team of experts in several different areas such as analysis, customer relationship management, marketing, customer experience, and more to trace and evaluate the performance of the customer journey provided by the company to its customers.

(Kranzbühler, Kleijnen, & Verlegh, 2019). According to this view, companies should work hard to design an array of touchpoints that are positive and trigger consumers to purchase from the brand (Zomerdijk & Voss, 2010). However, scholars have also argued that consumers do not only experience emotions in relation to touchpoints; boredom has also been found to trigger customer journeys in fashion retail before the customer even enters a channel (Sundström, Hjelm-Lidholm, & Radon, 2019).

Within the phases of the customer journey tradition, some research attention has focused on how to secure an ecosystem of positive experiences for consumers. Establishing a strong brand awareness (Cheng, Anderson, Zhu, & Choi, 2018), building awareness (Khanna, Jacob, & Yadav, 2014), and providing touchpoints that please and arouse the customer are considered to lead to an increasing willingness to spend time and money on the brand (Clarke, Perry, & Denson, 2012). In this specific area, research on consumer response to web atmospherics shows how researchers have portrayed agency, suggesting that consumers' choice-making is sensitive and requires shopper-friendly experiences online (Griffith, 2005; Vrechopoulos, O'Keefe, Doukidis, & Siomkos, 2004) and that stimuli in terms of design, navigation, relevance in the form of clean e-commerce design, and simple ways to navigate are sought after. Online security also emerged early on as being key in the online customer journey (Harris & Goode, 2010; Szymanski & Hise, 2000).

Consumers' experiences are considered to be affected by the design of the online environmental settings in which the purchase will occur, which—when built properly—should aid customers in accomplishing their goals (Ellway, 2014). Moreover, studies have found that consumers develop different strategies to be able to evaluate the often large amounts of numeric information when moving along their journey (Santana, Thomas, & Morwitz, 2020). The literature depicts consumers as taking their time when in their customer journey but also as being responsive to subtle triggers or cues that researchers argue can manipulate consumers to move forward (Clarke et al., 2012; Zomerdijk & Voss, 2010). Paradoxical to the notion of manipulation, the customer is also considered to use an array of touchpoints that are relevant to their own set of interests and preferences (Tax, McCutcheon, & Wilkinson, 2013), indicating that the customers want to be in control of their own journeys (Nyström & Mickelsson, 2019).

Consumer agency has also been proposed to be linked to an ability to evaluate. Consumers are envisioned as constantly assessing brands and adjusting their expectations via the touchpoints they encounter (Kotni, 2017; Meyer & Schwager, 2007). Several studies argue that, when a customer feels the emotion of satisfaction,

the customer tends to purchase again from the same provider (Koetz, 2019; Marino & Lo Presti, 2018).

The literature assumes that a certain order of phases unfolds within the customer journey; however, consumers may also abandon ongoing digital customer journeys, giving rise to a specific research focus called “service failure and recovery” or “churning” (Tueanrat, Papagiannidis, & Alamanos, 2021; Lemon & Verhoef, 2016; Patti, van Dessel, & Hartley, 2020). Nevertheless, although consumers may stop in the middle of a journey for different reasons, whether emotional or practical, research shows that consumers may begin to perform a customer journey having already attached themselves emotionally to a brand, making it difficult for them to abandon specific retailers or brands that they feel appreciative of (Kanuri & Andrews, 2019; Palmer & Bejou, 2016).

1.2.3 Smartphone-enabled and elaborate customer journeys

While there is limited academic research on the impact of smart technology on the customer journey (Hoyer, Kroschke, Schmitt, Kraume, & Shankar, 2020) and a call has been made for further development in this area (Grewal & Roggeveen, 2020), recent studies have begun to explore the phenomenon under focus in this thesis: how smart technology reshapes the ways in which consumers perform customer journeys.

1.2.3.1 The impact of the smartphone

As this section will show, there is a consensus that the smartphone has changed—and continues to change—the ways in which consumers perform the customer journey. In addition to its variety of concrete applications, including a web browser, a camera, and tools for communication, the smartphone is a gateway to a digital market infrastructure and provides instant access to commercial content. Furthermore, smartphones facilitate the customer journey by enabling consumers to effortlessly accomplish a variety of purchasing tasks in their everyday lives, irrespective of their position in time and space (Fuentes & Svingstedt, 2017). Even though technology is considered to have a profound impact on the customer journey and customer experiences (Grewal & Roggeveen, 2020), and empirical studies support this proposition (cf Flavián, Gurrea, & Orús, 2020; Flavián, Ibáñez-Sánchez, & Orús, 2019), there is still sparse academic research on how smart technology is shaping how customer journeys progress (Hoyer et al., 2020; Tueanrat et al. 2021).

While the smartphone has made customer journeys accessible in consumers’ daily life (Herhausen et al., 2019), managing customer journeys has become challenging for the

retailer because customers do not tend to follow a linear and sequential process (Huré, Picot-Coupey, & Ackermann, 2017). Instead, consumers perform the customer journey on a smartphone by easily moving between different retailers' touchpoints (Bettencourt, Harmeling, Bhagwat-Rana, & Houston, 2022), being inspired on social media platforms (Spitzkat, 2022), or being influenced by close or distant peers (Hamilton, Ferraro, Haws, & Mukhopadhyay, 2021). This rapid shifting between and use of a variety of touchpoints has been identified as a crucial factor that must be understood in greater detail (Voorhees et al., 2017). The ways in which a consumer undertakes a customer journey are linked to the smartphone, as this device allows customers to deviate from the expected path prescribed by the customer journey model (Grewal & Roggeveen, 2020; Huré et al., 2017).

1.2.3.2 Digital media and communication

Information and communications technology has had a significant impact on what is termed "channel," "multi-channel," or "omnichannel" behavior. Today, the ways in which consumers practice customer journeys are considered to be complex (Flavián et al., 2019; Huré et al., 2017; Wolny & Charoensuksai, 2014), and some scholars argue that this is due to the freedom consumers have to tailor their journey using modern information and communications technology (Herhausen et al., 2019). With the rise of the Internet and widespread use of smartphones, consumers today incorporate digital media into their customer journey (Hall & Towers, 2017; Lynch & Barnes, 2020; Pauwels & van Ewijk, 2020). Search engines, websites, and blogs, including comparison sites, are commonly involved throughout the customer journey (Batra & Keller, 2016), while social media and digital word-of-mouth now greatly influence consumers (Colicev, Malshe, Pauwels, & O'Connor, 2018; Demmers, Weltevreden, & van Dolen, 2020; Y. Wang & Yu, 2017).

Search engines are changing the ways in which consumers solicit information in their customer journey. Early research on the involvement of search practices and search engines in the customer journey revealed that consumers with high-frequency shopping practices conduct more searches and visit more web sites on average than other consumers with lower frequency shopping practices (Johnson, Moe, Fader, Bellman, & Lohse, 2004).

Furthermore, search engines, together with social media and third-party advertisements, differ in their predictive relationship to sales (Duan & Zhang, 2021). Research specific to search engines and the practice of searching indicates that searching as a practice is both about conveying information and a social dynamic. Searching online has become an integral part of everyday life and is now part of how daily life is coordinated. In particular, Google has been identified as a search engine

brand with a very solid position in users' everyday search practice. Google's algorithms and their function have a direct impact on user's everyday life (Haider & Sundin, 2019). To understand the contemporary customer journey and its reliance on digital technology, search engines must be included in the analysis as central enablers.

1.2.3.3 New and changing sales channels

How consumers utilize and experience sales channels is the most researched dimension in the customer journey (Tueanrat et al. 2021). There is a consensus that consumers make choices in regard to what channels to use and how to use them (e.g., an online store, a physical store, and sales in social media are three types of channels). Depending on the reason for the journey, specific channels are chosen (Gao, Melero, & Sese, 2020). Moreover, with ongoing assessment of their choices (Anderl, Schumann, & Kunz, 2016), consumers tend to use channels they are already accustomed to (Anderl, Becker, von Wangenheim, & Schumann, 2016; Hickman, Kharouf, & Sekhon, 2020).

One rationale for the choice of channel relates to how customers feel that the specific channel they choose to engage with is the one most suitable for their end-goal (Hosseini, Merz, Röglinger, & Wenninger, 2018; Kerr & Kelly, 2019) and/or is more or less convenient (Sundström, 2007). Research also show that changing "channel devices" (i.e., from mobile to PC and back again) has a positive effect on purchasing: When a consumer shifts from using a small device (e.g., a smartphone) to a larger device (e.g., a computer) the consumer is more likely to purchase (Xu, Chan, Ghose, & Han, 2017). Often, the driving force for customers to engage in journeys that involve several touchpoints across channels is their sense of belonging to a brand and/or a community (Pallant, Sands, & Karpen, 2020). At the same time, however, consumers are aware of their privacy; they want to be in control regarding how closely a brand can approach them (Åkesson, Edvardsson, & Tronvoll, 2014).

Research considering more than one channel device has revealed specific patterns: Consumers tend to engage using a mobile device early in the customer journey; they then switch to a PC once they come closer to making the purchase. The same study revealed that the brand was more frequently searched when the consumer was on a mobile device early on in the customer journey, but the same practice was not replicated on a PC (Han, Han, Im, Jung, & Lee, 2022).

With the smartphone, an increasing number of channels are made available to the consumer. Today, consumers easily jump between channels (Hu & Tracogna, 2020), with multiple channel options available (Gao et al., 2020). Studies have demonstrated this dynamic behavior: In "showrooming," consumers visit a physical store channel but

purchase in the online channel; in "webrooming," they visit the online store but purchase in a physical store (Jocevski, Arvidsson, Miragliotta, Ghezzi, & Mangiaracina, 2019; Viejo-Fernández, Sanzo-Pérez, & Vázquez-Casielles, 2019). The mobile device has been pivotal in the development of showrooming (Viejo-Fernández, Sanzo-Pérez, & Vázquez-Casielles, 2020), as well as other areas. In fact, the usage of mobile devices and the constant development of new touchpoints is disrupting the customer journey and prompting the creation of new customer segments (Herhausen et al., 2019). As the number of channels increases, it is becoming harder to map customer journeys; thus, methodological development is paramount in advancing the literature (Lemon & Verhoef, 2016).

Smartphones are reconfiguring the ways in which consumers shop in-store (Svingstedt, Bäckström, & Fuentes, 2018). Notably, several studies have suggested that consumers who engage with their smartphones in-store spend more and purchase products at a higher price (Grewal, Ahlbom, Beitelspacher, Noble, & Nordfält, 2018; Viejo-Fernández et al., 2020). In addition, it has been found that smartphones change how shopping is conducted, both within and outside the store (Svingstedt et al., 2018); one study concluded that consumers went adrift from their intended path in a physical grocery store when using a smartphone (Grewal et al. 2018; see also Ahlbom, 2019). In research, it is essential to consider the smartphone within physical, in-store customer journeys, as well as online journeys, because consumers use their smartphones throughout the day, making no apparent distinction in when to use the smartphone or not.

1.2.3.4 Summary: How the smartphone has changed the customer journey

Against this background, the following can be concluded. In pace with information and communications technology such as the smartphone, studies have provided valuable results that begin to reveal how customer journeys are impacted by smart technology. Channel behavior is an outcome of technology in which customers easily switch between digital and physical channels. The Internet provides consumers with digital media, websites, e-commerce stores, blogs, social media, and comparison sites, which amounts to granting consumers the ability to browse a great variety of information and include it in their customer journey. The search engine has also been found to provide consumers with certain abilities to organize their daily life by searching for specific information—an action that ultimately becomes foundational in life. Algorithms provide customers with relevant and personalized content, allowing them to consume content tailored to their habits and interests.

Moreover, the studies I have reviewed validate the fact that the smartphone is changing not only the online customer journey but also in-store purchases while the consumer simultaneously uses a smartphone. This literature provides important insights that expand our knowledge of how the customer journey is impacted by smart technology. It also demonstrates that consumer agency—that is, consumers' capacity to act—is linked not only to experiences and emotions but also to the digital device and the functionalities it provides to its users. In the following section, I review present-day contributions that provide a broader perspective of the customer journey as part of consumers' daily lives.

1.2.4 Present-day theorizations of the elaborate customer journey

Understanding the current state of the art is vital in any research endeavor. This section seeks to navigate the rich tapestry of emergent trends that define contemporary discourse in customer journey research. By reviewing the most recent publications, I aim to situate this study within the contemporary landscape.

In summary, the discourse in the literature has evolved from simple and linear models toward capturing the increasing complexity of customer journeys. By approaching customer journeys with multifaceted approaches, researchers have begun to take various factors into account. Examples include elements of surprise (Siebert, Gopaldas, Lindridge, & Simões, 2020), education and consumers' sense-making (Beverland, Cankurtaran, Micheli, & Wilner 2023), collective journeying (Thomas et al., 2020), and consumer job journeys (Bettencourt, et al., 2022). This expansion of the literature stresses the need to evolve dynamic models and explanations of how and why consumers perform customer journeys in order to evolve the scientific discourse and remain relevant and aligned with real-world consumer practices, consumer experiences, and managerial needs (Voorhees et al., 2017).

In recent years, the concept of the customer journey has garnered substantial attention. The following topics have been explored and marked by studies that widen our understanding of the customer journey: the social retail environment (Argo & Dahl, 2020); cross-cultural differences in the customer journey (Shavitt & Barnes, 2020); political identity and its impact on customer journeys (Jung & Mittal, 2020); the human-machine relationship in automated shopping systems (de Bellis & Venkataramani Johar, 2020); how to make retail more personal between front-line workers and customers (van Osselaer, Fuchs, Schreier, & Puntoni, 2020); pride, relaxation and excitement, and customer journeys (Pham & Sun, 2020); out-of-store experiences that can be managed by retailers (Roggeveen, Grewal, & Schweiger,

2020); the role of numbers in the phases of the customer journey (Santana et al., 2020); and the role of packaging and its effect on brand building (Moreau, 2020). Finally, collective journeys have been explored conceptually by describing how families as a whole journey in retail, in a contribution that directly introduces the multi-actor-centric approach to customer journeys and demonstrates the relevance of the strategically oriented consumer journey to retail management through the application of practice theory (Thomas et al., 2020).

An argument to redefine the customer journey has been put forward by Hamilton and Price (2019), who conclude that a shift in perspective is due and suggest moving beyond the firm-customer interaction perspective. Expanding on Hamilton's (2016) publication, this argument emphasizes a focus on recognition of the *consumer* rather than the *customer*. In criticism of the customer journey, Hamilton and Price state that a focus on the customer prescribes by default a narrow approach, assumes a purchase, and fails to account for the broader vision of life, the "life project" of the individual or consumer. In contrast, the consumer journey prescribes the holistic consideration of a consumer's many journeys across many brands and with many more points of interaction. Replacing "customer" with "consumer" in no way makes the studies less relevant from the managerial perspective; on the contrary, Hamilton and Price claim that, if a firm is over-focused or consumed in improving a touchpoint, it risks losing sight of its consumer's transcendent needs and goals. It is only once a firm manages to map a holistic view of its consumers that the brand can realize where and with who or what it may strategically develop partnerships, new offers, and/or products.

Papers aligning with this broadening of the customer journey notion has explored chronic illness medication (Nakata, Sharp, Spanjol, Cui, Crawford, & Xiao, 2019); the consumer-object relationship (Novak & Hoffman, 2019); marketing in the sharing economy (Dellaert, 2019); romantics and the consumption journey (Mende, Scott, Garvey, & Bolton, 2019); culture and the consumption journey (Vredeveld & Coulter, 2019); Facebook and the consumption journey (Hildebrand & Schlager, 2019); outsourced touchpoints (Kranzbühler, Kleijnen, & Verlegh, 2019); ethical attributes (Schamp, Heitmann, & Katzenstein, 2019); and consumer engagement and brand community (Hanson, Jiang, & Dahl, 2019).

Their concern and call for a shift in focus toward a strategic inclination aligns with research exploring consumers' broader retail experiences (Mende et al., 2019) and studies following customer journeys across several retail channels (Anderl, Schumann, & Kunz, 2016; Herhausen et al., 2019). Earlier calls for a consumer-centric perspective in customer journey research are also notable, with researchers encouraging the study of touchpoints that are beyond the control of the firm (Heinonen & Strandvik, 2015) or

suggesting the adoption of a holistic perspective that can view several journeys as contributing to a common goal (Lipkin, 2016). Thus, the holistic perspective has been attracting research attention for several years.

The emerging literature in the field of customer journeys can be summarized as a turn away from customer-centricity and toward consumer-centrism and a multi-actor-centric approach (Thomas et al., 2020). This turn is set to accelerate the literature with dynamic depictions and overlooked theoretical perspectives of the ways in which consumers experience and perform customer journeys in daily life (see e.g., Rokka, 2021, who highlights this as an avenue for research). The papers reviewed in this section marks an advocacy to further investigate the impact of technology and include the consumer perspective when exploring customer journeys, in addition to introducing different theoretical approaches, such as socio-material theory, within customer journey management.

1.3 Problem discussion

Customer journey research has been criticized for having a sales-centric orientation and a focus on the purchase phase, while neglecting the complexity and nuances of the overall journey (Tueanrat et al., 2021; Schau & Akaka, 2021). This has resulted in an imbalance in the field and has opened the field to criticism of being too linear, narrow, and overly individualistic (Hamilton & Price, 2019; Rokka, 2021). Customer journey research is also inclined to solidify the notion that consumer agency is deeply entwined with personal feelings and experiential interactions. This conventional understanding warrants problematization, and I argue that reevaluating this assumption is crucial. Conventional approaches to conceptualizing human agency—particularly in the context of information processing and customer journey research—risk oversimplifying the role of advanced technologies such as smartphones, which are often relegated to being mere tools or passive facilitators or stimuli, neglecting their potential to enhance their users' scope of action and, ultimately, agency. Furthermore, the study of customer journeys has traditionally adopted an individualistic lens, only recently beginning to acknowledge the importance of social dynamics in this field (Hamilton & Price, 2019).

As research focusing on customer experiences and journeys has predominantly emphasized the emotional and experiential aspects of agency, it perpetuates the notion of the individual as a self-contained agent. This perspective highlights consumer emotions, ranging from satisfaction to boredom, and positions touchpoints as triggers for emotional responses that drive purchases. It presupposes that agency is intertwined

with emotions, experiences, and brand evaluations, all confined within the individual. Consequently, research has concentrated on strategies to elicit positive emotions through various means, including branding, web atmospherics, and online shopping environments, with the aim of enhancing customer engagement and spending.

While the experiences literature yields valuable research insights into and managerial guidance on purchasing behavior, it has been criticized for its narrow focus on the point of sale and on individual consumer experiences from a single-actor perspective. This approach overlooks the broader context of the consumer's life, including interactions with other social actors, socio-material environments, and the dynamics of concurrent customer journeys (Hamilton & Price, 2019; Rokka, 2021; Grewal and Roggeveen, 2020). Questions about how customer journeys evolve over time, what occurs between touchpoints, how they progress via smartphone use, and the interconnections between multiple journeys remain largely underexplored.

1.4 Theoretical approach

To address these criticisms and the assumption of agency identified in previous research, this thesis positions the smartphone-enabled consumer at the forefront of an investigation of the present-day customer journey, considering the combined agency of the consumer and smartphone as a unified actor. This approach has the potential to uncover the ways in which the smartphone-enabled customer journey is executed, moving beyond the traditional view of a linear, individual-human-agent trajectory. Building on the perspective of Thomas, Epp, and Price (2020), who advocate for a distributed agency approach, I agree with the need to view the consumer's agency as being distributed across a network of materials, technologies, and social actors (see also Schau & Akaka, 2021, who stress a sociocultural and broad approach to the customer journey). Instead of limiting technology to the role of an external factor that affects consumer behavior during the customer journey, I emphasize the smartphone's integral position of being deeply intertwined with agency. By understanding agency as something that is distributed among materials, technologies, and social actors, this study not only enriches the current comprehension of the customer journey but also contributes to the understanding of how consumers and smartphones symbiotically navigate complex digital market infrastructures.

When determining how to solve the identified theoretical problem practically, I was inspired by the socio-material perspective from constructivist market studies (CMS) (Kjellberg & Helgesson, 2007), which emphasizes that agency is distributed among elements (cf. Fuentes, 2019). This view implies that consumers are enabled to perform

actions depending on the materials, technologies, and social actors they interact with and through which they achieve agential capacity. This approach requires a symmetrical analysis of the materials, technologies, and actors involved when studying the customer journey and aligns with other socio-material investigations into processes involving consumers (cf. Stigzelius, 2018). In recognizing that agency is the outcome of a combination of humans, materials, and technologies that enable each other, I approach the customer journey by partially decentering the individual human.

To shift the focus away from the consumer as an individual human and achieve a balanced analysis, I treat the concept of the customer journey as more flexible than it is typically perceived (cf. Lemon and Verhoef, 2016). Building upon the foundations established by the literature reviewed earlier in this chapter, which confirms the existence of a smartphone-enabled consumer, I further develop this concept as a hybrid actor—that is, a specific actor made up by both a human and a technology (in this case, a smartphone). This "hybrid actor" is envisaged as a consumer who is inextricably intertwined with a smartphone, integrating technology into their purchasing behavior at every step of the way (cf. Fuentes & Sörum, 2019). What is included in a customer journey is left open, in contrast to the narrow customer journey literature, which assumes a certain process. Thus, my approach is to propose an open and process-based perspective of the customer journey that aims to capture the dynamic and interconnected nature of consumer agency in the digital milieu. This perspective is intended to offer a portrayal of the customer journey in the smartphone era.

In this thesis, I view agency as the capacity to act, as distributed among the actors, materials, and technologies—the so-called socio-material entities—involved in the actions. This perspective is highlighted by Callon (2005), who argues that agency can be neither exclusively human nor exclusively nonhuman. From the outset, I assume that actions take place in hybrids composed of some combination of human, material, and technical elements. By involving the smartphone, my approach resonates with Grewal and Roggeveen's (2020) call to better understand the impact of technologies on the customer journey.

Inspired by these theoretical resources, I trace the customer journey as it unfolds: I am interested in understanding how numerous actors come together (or "assemble") and jointly accomplish (or "perform") a specific chain of events that is reflected in the trace data consumers leave behind on their smartphone. This approach helps me explore how customer journeys unfold with the materials, technologies, and actors that participate in the process of the customer journey, including the use of the search engine, movement between scattered online touchpoints, and influence or pressure from other social

actors that collectively cause the customer journey to deviate from the sequential and linear paradigm.

To summarize, I propose that customer journeys are more than a series of customer experiences and emotions across a series of phases consisting of predefined behaviors. Instead, I suggest that the customer journey is a process comprising relationships between human, algorithm, computer system, social other (i.e., friends, family), retailer, and smartphone actors, whose intertwining causes the customer journey to be performed in specific socio-material ways and to unfold in a complex and elaborate fashion. This stance is in counterpoint to the positivist ontology presented in the customer journey literature, which focuses on consumer emotions, experiences, and sequential phases via a retail-focused approach (Tueanrat et al., 2021) while being technologically deterministic—that is, predominantly viewing customer journeys through the technology incorporated in them (Koronaki, Vlachvei, & Panopoulos, 2023).

1.5 Methodological approach

To explore the customer journey via a socio-material approach, I required data that could represent several customer journeys performed in daily life on the smartphone; for example, by tracking how the consumer moves from an e-commerce site to a blog, then onto a social media app, a search engine, and further onto a second e-commerce site hosted by a different retailer. The solution to this epistemological challenge lies in trace ethnography (Geiger & Ribes, 2011), coupled with a technology consumers can install on their smartphones called "phone metering." Trace ethnography requires the researcher to harvest digital trace data (in this case, by using a phone metering tool that registers the actions performed on a smartphone as part of a customer journey) and combine it with classical ethnographic methods to achieve a detailed description of the process undertaken by the informants ("informant" as the term used for those that participate in the study) and technology.

The trace ethnographic method clarifies how traces of digital data depicting an informant's customer journey practices on the smartphone can be epistemologically dealt with and integrated with interviews. The core tenant of trace ethnography is to consider the traces of data that informants leave behind as being inscribed with social meaning. By collecting such data and compiling it in a data warehouse, or by tracing data patterns that an informant leaves behind on platforms such as social media, from text messaging, or from e-mail correspondence, the researcher accesses data representing social actors' practices, ideas, meaning, and routines. To summarize, trace

ethnography offers a valuable perspective on the epistemological treatment and integration of digital data traces that represent an informant's smartphone-based customer journey practices, in conjunction with interview data.

However, a contradiction arises between methodological and theoretical considerations as I methodologically center on the informant. Trace ethnography centers on consumers and the digital traces they generate as the primary focus, while the symmetrical approach stresses a mapping of the many elements that are part of the assemblages within the customer journey. The latter necessitates careful navigation through reflective analysis and deliberately considering materials, technologies, and other actors that are not explicitly represented in the trace data. Discussing the trace data in follow-up interviews with the informants is a solution that at least partially mitigates trace ethnography's inherent human centering, as informants can report on elements not recorded by phone metering, such as in-store elements, signage, information, and social interactions.

Even with these efforts, it is essential to acknowledge that complete disentanglement of the contradiction between a primarily human focus and a focus on multiple human and non-human actors may not be achievable. In order to follow a flattened ontology and maintain an open notion of what a customer journey is, it is necessary to include the many elements within a customer journey in the method and analysis. However, this thesis strives to contribute to the existing body of literature on customer journeys by bridging the gap between theory and practice, making it important to reflect the literature's central focus on the human (cf. Lemon & Verhoef, 2016; Kuehnl, Jozic, & Homburg, 2019). Hence, the consumer as a customer remains in focus throughout the aim, research questions, and analysis, albeit not as a sole human agent but rather as a hybrid multi-actor agent who is intertwined with the smartphone that enables a certain kind of agential capacity that shapes the ways in which the customer journey is performed within the context of consumer daily life.

1.6 Aim and research questions

Informed by the background and problematization detailed in this chapter, my aim is to develop a socio-material approach to explore and conceptualize how smartphone-enabled consumers perform customer journeys and how these unfold, reflecting customer journeys as dynamic and evolving. Recognizing the smartphone as an integral component of a socio-material hybrid actor and making use of trace ethnography, I aspire to contribute to customer journey research by describing and

explaining how customer journeys unfold in consumer daily life, enabled by digital technologies. My inquiry has been shaped by the following research questions:

> **RQ1:** How do smartphone-enabled consumers perform customer journeys?
>
> **RQ2:** In what ways does the smartphone, as part of the socio-material hybrid actor, enable how customer journeys unfold?

1.7 Main arguments and contributions

My study contributes to the field of customer journey research by extending the existing literature to include three different modes of performance in the customer journey, to unveil how customer journeys unfold on the smartphone, and to explicate how journeys intertwine with each other. This study employs concepts from constructivist market studies (Kjellberg & Helgesson, 2007) to highlight the customer journey as a socio-material process and uses the research method of trace ethnography (Geiger & Ribes, 2011) to combine detailed traces of data from the informants' smartphones with interviews. Through this qualitative study, I provide a detailed and in-depth exploration of how the customer journey unfolds.

Overall, this research complements existing research on the customer journey by providing empirical findings, an advancement of the socio-material conceptualization, and a method that utilizes digital trace data combined with informant interviews. Finally, this research makes several practical contributions to the field by evolving the tapestry of customer journey terminology through describing the different and interchangeable behavioral modes consumers perform as part of their customer journey on the smartphone, giving rise to strategic questions regarding loyalty, customer journey management, and customer engagement. This introduction of new terminology can help retail-industry professionals and marketers shift from exploring the conventional linear and sequential view of the customer journey toward acknowledging complex customer journeys as an exciting opportunity.

1.8 Layout of the thesis

In Chapter 2, I introduce my theoretical framework, which is firmly rooted in a socio-material perspective. In Chapter 3, which introduces trace ethnography, I provide an overview of the methodological aspects underpinning the data collection, encompassing the interviews and phone metering, the subsequent analytical

procedures, and a thorough examination of the ethical considerations. Chapter 4 is dedicated to an exploration and elucidation of the first research question, while Chapter 5 systematically investigates and addresses the intricacies of the second research question. Chapter 6 presents a synthesis of the findings from Chapters 4 and 5, along with the overarching conclusions drawn from the study; it also underscores the contributions made by this research to the knowledge in the customer journey literature. Finally, in Chapter 7, I make use of the findings and contributions of the study to narrow the gap between theory and practice.

Chapter 2. The hybrid consumer in the digital world: A socio-material approach

In this chapter, I start by introducing CMS, the field from which the theoretical framework stems. Next, I explain the consequences of understanding the smartphone-enabled consumer as a hybrid actor. I then introduce the three concepts that make up the theoretical framework. Finally, I summarize the framework and reiterate how it assists in understanding the customer journey as an unfolding process whose organization is affected by numerous elements.

2.1 An introduction to constructivist market studies

CMS is a field that investigates and theorizes markets (see Kjellberg & Murto, 2021, for an overview of the different streams of marketing literature that theorize markets). This field is underpinned by the principle of constructivism, integrating ontological reasoning stemming from actor-network theory (ANT), science and technology studies (STS) (Callon, 1998b; Latour, 2005; MacKenzie, 2003), and the sociology of translation (Muniesa, 2014). CMS posits that markets are organized via mundane practices and processes as socio-material assemblages (Hagberg & Kjellberg, 2015) and investigates how these assemblages come about and achieve agency through processes known as "agencing" (Cochoy, Trompette, & Araujo, 2015). According to CMS, markets are "on-going socio-material enactments that organize economized exchanges" (Nenonen et al., 2014, p. 4). Although they seem to spontaneously emerge in concert with human buying and selling activities, markets are made up of concrete activities and ideas on market formation. CMS delineates these processes of formation as dynamic configurations of economized exchange, normative objectives, and market representations, as outlined by Kjellberg and Helgesson (2007) (see also Callon & Muniesa, 2005, for an extensive outline of "economized exchanges").

Hence, CMS rejects the notion of the market as a static entity; instead, this perspective approaches markets in the plural as resulting from ongoing processes of change and redefinition. This view of the market—or, rather, markets in the plural—as plastic and infused with ideas of "ontological instability" (Nenonen et al., 2014; Stigzelius, 2018) leads to a shift in focus from the market as a fixed entity to the *process* of market-making. This perspective, which has also been developed by Kjellberg and Helgesson (2007), rejects the notion of discovering and describing a preexisting market, thus

aligning with Callon's (1998a) argument of continuous development. A central pillar of CMS is the concept of economic performativity. Callon (1998a) posits that economic theory is not merely descriptive but also enactive in shaping economic realities. This conception has been explored by scholars such as MacKenzie (2003), who demonstrated how pricing theories reconfigured stockbroker practices in a financial market setting.

Another central theme in CMS is technology and how it shapes markets (Callon, Millo, & Muniesa, 2007). This does not entail a technology-deterministic approach but rather holds a stance that can be traced to ANT, where actants—both human and nonhuman—are considered to symmetrically participate in shaping each other and, in extension, agential capacity. Again, this view emphasizes that markets are understood within a socio-material world view; consequently, smartphone-enabled consumers are conceptually understood as hybrid actors (Fuentes, 2019).

CMS explores and theorizes how markets work and offers concepts that elucidate how consumption, for example, is shaped by the configuration of an array of heterogeneous elements at the mesoscale. A researcher employing a CMS perspective is thus invited to "deal with recursive relations between the whole and its parts" (Kjellberg & Murto, 2021, p. 207), meaning that the researcher should strive to capture both the bigger picture and micro expressions in order to explore how and why different markets come about. By utilizing socio-material concepts and adopting the ontological perspective that markets are continuously evolving, CMS aims to shed light on the practical realization of markets (Çalışkan & Callon, 2009) and therefore demands detailed and qualitative investigation and reasoning. There is a rich output of studies that accomplish these detailed and processual depictions. Examples include how pricing is made up of a series of practices and representations, in contrast to the notion of price as something that is merely perceived (Hagberg & Kjellberg, 2015); how frequent flyer schemes unpredictively develop the market over time (Araujo & Kjellberg, 2016); and how ethical consumption is put into practice (Stigzelius, 2018), to mention a few.

By exploring markets through the concepts offered in CMS, researchers can gain an understanding of the dynamic interplay of the elements participating in the construction of markets and market outcomes. The ontological underpinnings of CMS carry implications regarding how consumption—and consumers—are understood. In the next section, I offer a developed outline of how the consumer is viewed a hybrid actor within CMS.

2.2 The consumer as a hybrid actor

In CMS, the role of consumers is understood through consumers' interactions with materials, technologies, and social entities, thereby challenging traditional views of consumer actions as the products of isolated cognitive processes or purely autonomous choices. McFall has argued that several market elements engage through an intricate process in enabling consumers to consume, thus highlighting the complex interplay between consumers and the market (McFall, 2015). This perspective, which emphasizes socio-material dynamics, underscores the intertwined relationship between consumers and their environments. Inspired by this socio-material approach, I view consumers as socio-material assemblages—that is, as part of a network, where their capacity to act (i.e., agency) is not inherent but rather emerges from the very network they are intertwined with. This viewpoint defines consumer agency as a distributed quality within a socio-material network, suggesting that every interaction within this network influences, and even shapes, consumer behavior (Fuentes & Sörum, 2019; Hagberg, 2016; Stigzelius, 2018). In line with this view, Thomas and colleagues advocate for the adoption of a "distributed agency" approach to drive forward and enrich the existing body of research on customer journeys (Thomas et al., 2020). Such an approach invites us to reexamine the complexities of agency—not as an isolated human capacity but as part of a larger, interconnected socio-material world in which smart digital technology should be considered as more than tools.

In relation to consumer agency and smart technology, there is backing for the notion that influencing consumer behavior via technological design is inherently complex. Mobile applications, as technological instances, have been found to empower users to overcome specific daily challenges (Fuentes & Sörum, 2019). Concurrently, while there is significant focus on successful agency processes, such processes are also susceptible to failure. Fuentes (2019) suggests that, when an application intended to facilitate certain behaviors does not offer bidirectionality, it may result in a misalignment of agency. By examining interactions between digital devices and consumers, scholars have demonstrated the nuanced ways in which consumers and technologies co-evolve, emphasizing that the success of such dynamics hinges on conducive conditions for the emergence of consumer-technology hybrids.

Scholarly work in CMS has further delved into the idea that socio-material dynamics shape consumption, positing that such dynamics are not solely a derivative of individual consumer initiative but are rather the product of an intricate interplay involving materials, technologies, and various stakeholders. Infrastructure is deemed to be pivotal in fostering an environment that is conducive to consumer practices. This concept is echoed in the work of Solér, Koroschetz, and Salminen (2020), who report that infrastructural arrangements significantly influence the procurement and

utilization of goods and services. Moreover, promoting specific kinds of consumption can be achieved by actively engaging consumers via diverse materials, technological means, and social exchanges. Stigzelius (2018) corroborates this understanding through her examination of a major Swedish grocery retailer's efforts to cultivate ethical consumer practices. Within the broader theoretical landscape, these studies suggest that consumers do not enter the market with preestablished values or behaviors. The term "agencing" (Cochoy et al., 2016) elucidates this: Consumers' actions and viewpoints are intertwined with and influenced by their interactions with materials, technologies, and social actors, ultimately resulting in a specific agential capacity. This theoretical stance differs from the concept of the individual human agent and proposes that consumer actions should be appropriately considered as outcomes rather than as innate expressions of intrinsic values or standards.

In the literature that prioritizes the consumer's perspective within CMS, agency—as well as actions and choices—is construed as resulting from the socio-material network. This view stands in contrast to the classical economic paradigm that considers intrinsic norms, agency, information, free will, and rational choice to be intrinsic to human nature and as qualities of the sole individual agent, upon which the consistency and predictability of consumer behavior can be premised. CMS contends that the consumer's agency is always connected to—and contingent upon—prior interactions with materials, technologies, and social entities. From this vantage point, consumers are not regarded as solitary actors. This perspective is reinforced by Grandclément and Nadaï (2018), who demonstrate the dissonance between economic theories and the socio-material marketing practices that engage consumers, which potentially obstructs consumers' access to the information necessary for market navigation. These scholars' research suggests that consumption is intertwined within a complex network of attachments between elements.

In my examination of customer journeys, I am inspired by the perspective of consumers as integral components of a socio-material world that makes up their daily life. I view the consumer not as an autonomous decision-maker (as theorized in the literature covering, e.g., bounded rationality, judgement and decision-making, or prospect theory; see Nobel, 2023, for an overview) but as an actor whose customer journeys are the outcome of complex interactions with materials, technologies, and social actors. This approach challenges the traditional economic paradigm of the independent, rational customer journeying on a sequential and linear trajectory and instead emphasizes that consumer agency is deeply embedded in and simultaneously shaped by the surrounding infrastructural and technological context that makes up the fabric of daily life. By using this perspective, I aim to provide a nuanced understanding of customer journeys, recognizing them as dynamic, interconnected, and socio-

material, rather than isolated, self-driven processes; in this way, I align the theoretical outlook with the objective of this research: *to develop a socio-material approach to explore and conceptualize how smartphone-enabled consumers perform customer journeys and how these journeys unfold.*

2.3 Introducing the theoretical framework.

Here, I employ a discussion by Frank Cochoy (2012, 2015a, 2015b) in which he argues for the use of "self-marketing" to frame the contemporary patterns of consumption performed by smartphone-enabled consumers. By turning his discussion into a perspective, I can analyze and detect what materials, technologies, and social actors constitute the smartphone-enabled consumer's agential capacity and participate in the performance of self-marketing. While self-marketing spans the comprehensive scope of the customer journey, the term "marketing scene" (Beauvisage & Mellet, 2020) is used to specifically highlight the socio-material character of the touchpoint, and the concept of "agencing" (Cochoy et al., 2016) is used to illuminate the materials, technologies, and social actors that participate in the enactment of the customer journey.

This chapter discusses each concept separately; finally, the theoretical framework is synthesized with a discussion of how these concepts will be used in the analysis and how they enhance each other in the theoretical framework.

2.3.1 Self-marketing

On the topic of self-marketing, Cochoy writes: "Armed with a search engine, the consumer no longer only goes to the market but does her private 'marketing' in the sense of market exploration; hence, the concept of self-marketing" (Cochoy, 2015a, p. 145). Moreover, in an earlier publication on self-marketing, Cochoy noted: "Self-marketing … is an action that, following the old model of self-service, encourages the consumer to seek for herself, at least partially, the type of commercial action that is liable to seduce her" (2012, p. 221). These two quotes are central pillars of the introduction of self-marketing as a concept and point to two main sub-concepts: the search engine and the proposition that self-marketing mimics the principle of self-service.

Cochoy (2012) stresses the search engine as a central technology that grants the consumer a moment of private marketing; in other words, private marketing is a specifically tailored marketing experience that is an outcome of the specific search

terms entered onto the search engine. This view is contrary to more than a century of massive and invasive advertising that hit all consumers without any distinction, apart from rough market segments. In self-marketing, a consumer engaged in curious shopping behavior is no longer passively bombarded with messages that are difficult to escape. Rather, as Cochoy explains, the consumer is invited to be active, to engage in the process of moving toward tempting commercial offerings.

Shifting the notion of marketing as something that is performed by a group of professional marketers with access to a budget and marketing tools into the domain of "self-service" transforms marketing into a customer activity, where customers do the marketing for themselves. Thus, in self-marketing, the marketer can only provide a plethora of options for the consumer to seek out using a smartphone. This perspective is in stark opposition to the form of online marketing known as "digital marketing" (Kannan & Li, 2017), which is enabled by the collection of consumer data to retarget customers with offers blanketed in personalized communication. Examples of digital marketing include using the customer's first name in a promotional email, targeted ads such as online banners on social media or sites that propose products based on online behavior, and programmatic advertising in the form of online advertisements sold through real-time bidding (cf. Bartholomew & Williamson, 2023).

In self-marketing, however, the consumer is considered to be a hybrid actor who navigates the digital environment—an environment that is also "smart" in the sense that it is scripted to configure certain outcomes. In other words, technologies can be viewed as possessing the capacity to impact the choice and movement of the consumer (cf Helberger, Sax, Strycharz, & Micklitz, 2022). While the smartphone is integral to short-circuiting the ambitions of online marketing, Cochoy (2012) does not reject the notion that consumers are as much in control as they are influenced in the process of self-marketing, stating that a consumer's seeking is done "partially" by herself. This aligns with how the consumer is generally viewed in CMS: not as an actor with self-contained agency but as an actor that is attached to and therefore enabled by a variety of materials, technologies, and social actors (cf. Fuentes & Sörum, 2019; Stigzelius, 2018).

With self-marketing, Cochoy (2012) envisions the smartphone to be a device consumers use to explore the commercial world. Curiosity is central to this exploration—"a curious little revolution", he terms it (p. 217). The smartphone is essential in self-marketing, as it reads the digital world in ways that the human cannot. Thus, the smartphone acts as a gateway to a digital world that is hidden from the naked human eye. Once granted access, the consumer can curiously explore and encounter surprises.

Cochoy (2012) argues that retail has historically always worked to create socio-material attachment in order to attract the human subject to enter a commercial transaction, calling this effect "captation." Captation can be materialized in several ways, such as in the shape of a membership card. Cochoy suggests that the smartphone is a device that captures the consumer's motive of curiosity. Consumers are no longer bombarded with bluntly targeted information; now, they are invited to curiously move toward the offers that interest and seduce them in the process Cochoy terms "self-marketing."

Cochoy (2015a) also applies self-marketing to the debate between critical marketing and service-dominant logic. The former posits that the consumer performs labor on behalf of the corporation, while the latter stresses that the consumer co-creates the value offered by the corporation. Cochoy enters this debate with a different stance, arguing that it is problematic to view consumers' participation as either work or value co-creation, because it is unreasonable to assume that each consumer will follow the intended script—whether to do the work or co-create value. Instead, self-marketing acknowledges that the consumer does both. Cochoy provides empirical evidence supporting the proposition that consumers have "productive abilities" and interact with technologies and materials to both shape co-creative values and perform labor. Self-marketing emphasizes that consumers are in the process of both producing value and assembling to follow scripts, whether fully or partially. Instead, Cochoy argues that exploration, curiosity, having fun, and showing off are all part of the consumer practice that is self-marketing, as well as moments of seduction when the consumer is captivated to follow along and perform scripted actions. Nevertheless, the technologies made available to the consumer appeal to their preference to keep energy expenditure to a minimum—a need that the online search engine takes advantage of to seduce the consumer into using it.

Self-marketing provides a frame that positions the consumer and the devices she or he uses into an assemblage of at least two obvious actors: the human consumer and the digital device that grants access to the digital market infrastructure. Together, they constitute a specific kind of consumer with unique knowledge, capabilities, and habits that enters a digitalized retail environment in which offers can be sought out in a process that can be understood as a customer journey. The concept of self-marketing makes it possible to explore consumer actions as being fun, exploratory, and driven by curiosity, while understanding that consumers may be seduced and captivated by the technologies they encounter. This perspective allows me to follow along with customer journeys as they happen and to identify moments in which the customer journey is enabled by materials, technologies, and social actors. However, in order to understand

in greater detail the actors (both living and nonliving) that participate in these situations, it is also necessary to use a concept that focuses on the actors. To that end, the concept of the marketing scene is added as a second lens that complements self-marketing in order to clarify that touchpoints are made up of more than one interface; rather, they are assemblages of numerous heterogeneous actors and devices.

2.3.2 Marketing scene

The concept of the marketing scene is defined as "the alignment of specific marketing devices and consumer figures, which frames marketing operations" (Beauvisage & Mellet, 2020, p. 26). The marketing scene effectively elucidates the heterogenic tasks, devices, and knowledge marketers use to digitalize the *point of sale*, defined as the moment a sale is completed. In its originally intended form, this concept was developed as a lens to explore how marketers' work creates points of sale. However, in the theoretical framework of this study, the marketing scene is used from an opposite perspective, to elucidate how consumers engage with touchpoint(s) as a "marketing scene"—that may or may not include a point of sale—that consumers both encounter and bring into existence via their own use of the smartphone, through which they access search engines online.

In the original form of the concept, a "marketing scene" describes the myriad of systems, actors, analytics, and figures that are organized in a market infrastructure to make up a point of sale and simultaneously contribute to collect information about the customer (Beauvisage & Mellet, 2020). In other words, a marketing scene is a practical delimitation within a wider market infrastructure that is vast and includes many more aspects than just the practical work of creating a point of sale. Thus, the marketing scene is used in this thesis as a concept that focuses on specific assemblages within the wider "market infrastructure" (Kjellberg, Hagberg, & Cochoy, 2019).

Establishing a market infrastructure involves the organization of devices, knowledge, information, and practices. A market infrastructure is both political and economic; it supports the exchange of goods and is managed and invested into by several different actors (ibid.). While the concept of "market infrastructure" offers the terminology to approach this wide, complex, and multifaceted phenomenon, the concept of the "marketing scene" narrows the focus onto the specific consumer-facing devices, information, and practices that are scripted with the aim of influencing the consumer to make a choice.

As the data presented in this thesis specifically represents customer journeys and the informants' interactions during these journeys, I take the concept of market

infrastructure as a general lens. That is, in order to be able to trace the elaborate customer journey, I aim to stay open to the possibility of detecting that which falls out of the marketing scene scope and may be better captured with the market infrastructure lens (ibid.). Therefore, I use the concept of market infrastructure to acknowledge the socio-material fabric within which retailers convene and offer products and services through various touchpoints, in concert with the marketing scene as a more specific lens that draws attention to the micro-interactions and assemblages that ultimately make up a self-marketing pattern.

The argument for employing the "marketing scene" in combination with "self-marketing" is that it will allow me to explore whether consumers—as they perform curiosity-driven self-marketing and customer journey-like patterns—knowingly or unknowingly assemble specific consumer-driven marketing scenes through the mundane process of browsing for products or services online. The benefit of focusing on the "marketing scene" over "touchpoints" when tracing customer journeys is that doing so acknowledges the socio-material complexity that consumers encounter as they perform the customer journey; perhaps more importantly, it acknowledges that customers experience more than simple touchpoints as *moments in time* (Dhebar, 2013).

The concept of the touchpoint usually fails to recognize the work invested in the functionality, while being overly narrow regarding the single point of interaction. Thus, I use the marketing scene as part of the theoretical framework with self-marketing in order to avoid reproducing this overly individualistic approach using the touchpoint. Ultimately, the marketing scene views a point of sale as being brought into existence due to the effort of marketers; in this research, however, by following the self-marketing concept and putting it to work in response to the aim and research questions, I show that a marketing scene can also be understood as something that is assembled through the efforts and actions of consumers themselves.

Thus far, the theoretical framework's two concepts are self-marketing and the marketing scene. The first concept brings clarity to the customer journey as an ongoing process in which the smartphone-enabled consumer ventures into an exploration within which she or he has co-productive capabilities. During this process, the consumer encounters marketing scenes according to the concept's original intent; in addition, a marketing scene emerges in tune with the ways in which the consumer uses or responds to different elements throughout the process of self-marketing.

2.3.3 Agencing

The last concept used in this thesis is that of "agencing" (Cochoy et al., 2015). This theoretical concept explains the dynamic process of how agency is achieved. Thus, the notion of agencing in the theoretical framework is used to elucidate the participating elements that can be observed in the customer journey process, how they assemble over time, and what work is done by these elements—both human and non-human—to make the customer journey unfold. In other words, this thesis's use of the concept of agencing focuses the analysis upon how agency is achieved.

Unlike self-marketing and the marketing scene, agencing is a commonly used and well developed theoretical concept in CMS, with many contributions (Araujo & Kjellberg, 2016; Cochoy, Trompette, & Araujo, 2016; Fuentes & Sörum, 2019; Geiger & Finch, 2016; Hagberg, 2016; Onyas & Ryan, 2015; Petersson McIntyre, 2020; Ryan, Stigzelius, Mejri, Hopkinson, & Hussien, 2023). Rather than reproducing agency as the conventionally understood, self-contained human trait (Araujo & Kjellberg, 2016), agencing explains the process in which arrangements of actors and devices gain the capacity to act as an "agencement." Research by Fuentes (2019) corroborates this view by demonstrating that agency is distributed among many elements (materials, technologies, and social actors) and emerges as the elements adjust to each other. Furthermore, agency cannot be inherently possessed by any element; rather, it can be concentrated onto an element (ibid.).

Araujo and Kjellberg (2016) argue that agencing leads to an assemblage with a capacity to act, termed "agencement." Callon initially introduced agencement to CMS by borrowing the concept from assemblage theory. This borrowing was done to emphasize that an arrangement with a specific action, or "arrangements with the capacity to act" (Araujo & Kjellberg, 2016, pp. 94-95), involve both human and non-human actors. Thus, agency is viewed as an accomplishment produced by both humans and non-humans. Agencement can portray "acting" and "agency" in a way that the concept of the socio-material assemblage has been argued to fail to sufficiently achieve. Agencing draws attention to the process leading to the agency of the arrangement; in this thesis, the smartphone-enabled consumer achieves a specific agential capacity, or agencement. Agencing equips the theoretical framework with the capacity to focus the analysis on how, through self-marketing, the consumer becomes part of a wider actor network consisting of heterogeneous actors in the form of other human beings, technologies, materials, and concrete environments—the so-called different socio-material elements—whose capacity to act is distributed in a socio-material assemblage (cf. Kotliar, 2020).

In the theoretical framework, I posit that agency is distributed in a socio-material arrangement, which achieves the capacity to act through an agencing process. This acting capacity is what is termed "agencement" (Cochoy et al., 2015). Consequently, the agencing process is a socio-material dynamic process in which materials, technologies, and social actors adjust to each other and shape an arrangement that achieves agency. This means that agency is temporary and fluid, changing in its capacity depending on the involved actors and their specific actions. From the previous theoretical contributions made to advance our understanding of how consumers are agenced, we know that the process may be demanding and unexpected, giving rise to both misfires and overflows (Callon, 2015; Fuentes, 2019). Moreover, the actors involved in this process are numerous, and both studying practices and abstract discourse are needed in order to fully explore the process (Stigzelius, 2018; Fuentes & Sörum, 2019).

2.4 Summary of the theoretical framework

The aim of this thesis is to develop a socio-material approach to explore and conceptualize how smartphone-enabled consumers perform customer journeys and how these unfold, recognizing the smartphone as an integral component of a socio-material hybrid actor. To this end, I approach the customer journey equipped with three socio-material concepts.

Self-marketing centers the consumer in the analysis and explains how consumers utilize their smartphones to curate personalized marketing actions and experiences, known as "private marketing." It acknowledges consumers' active role in crafting their digital encounters, from seeking information to expressing preferences and sharing content, thereby blurring the line between user-generated and firm-generated content. Self-marketing implies that consumers are not passive recipients of marketing messages but are active participants who partially shape their own digital experiences. It envisions the active role of smartphone-enabled consumers in shaping their digital actions as they journey across the digital market. This concept aligns with both agencing and the marketing scene by emphasizing that consumers select and manipulate touchpoints while also being manipulated in turn by the materials and technologies they engage with.

The concept of a *marketing scene* refers to the collection of touchpoints consumers assemble as they navigate the digital landscape. These touchpoints represent various elements and interactions within the customer journey and can include websites, social media, online reviews, advertisements, and more. A marketing scene is a dynamic and

evolving construct that reflects the choices and preferences of consumers as they create their own path through the digital environment. The marketing scene builds upon the notion of self-marketing by identifying the touchpoints that consumers encounter in the digital space. It shows how consumers engage with technology and materials to construct their digital self-marketing trajectory.

Finally, *agencing* mitigates self-marketing's centering of the smartphone-enabled consumer by highlighting the interactive and dynamic nature of the relationships between materials, technology, and social actors in the customer journey. It aligns with how these elements adapt and evolve in relationship to each other, ultimately achieving agency. In the context of consumer behavior, agencing is applied to elucidate how technology, such as smartphones, or materials, such as e-commerce atmospherics, are not passive but are actively involved in the ways in which agency emerges and elucidate specific agential capacity.

With the concept of agencing, the theoretical framework contributes to the challenge of better understanding the customer journey as an open notion and as a socio-material arrangement, thereby extending the customer journey literature and simultaneously joining emerging socio-material perspectives (Thomas et al., 2020; de Bellis & Venkataramani Johar, 2020; Novak & Hoffman, 2019).

Chapter 3. Tracing customer journeys on smartphones and interviewing informants

In this chapter, I introduce trace ethnography, the methodology's development, its analytical principles, and its onto-epistemological alignment with the objective of this thesis. In the second half of the chapter, I describe the practical process of the study, detailing how I conducted trace ethnography over the course of this study to identify customer journeys made up of digital traces from smartphones and interviews with the informants who produced these traces. Finally, I discuss ethical considerations and ethical data tracing.

3.1 An introduction to trace ethnography

Trace ethnography belongs to "interpretive research in the online environment" (Nascimento, Suarez, & Campos, 2022, p. 493) and thus aligns with part of the aim of this research: to explore and conceptualize how smartphone-enabled consumers perform customer journeys. Conducting trace ethnography entails exploring a social phenomenon by collecting online data, for example (Rogers, 2019). Trace ethnography first emerged within organizational ethnography, driven by scholars' intention to draw into the light and actively study digital data in order to augment qualitative ethnographic data-collection methods such as interviews and observations (Geiger & Ribes, 2011). Geiger and Ribes (2011) introduced trace ethnography, utilizing a study on Wikipedia to demonstrate the methodology's potential to allow social science to collect and use traces of digital data. The results of their study garnered a level of detail that was "unprecedented" at that time (Denegri-Knott, Jenkins, & Lindley, 2020). As such, trace ethnography offers suitable tools and principles that enable an exploration into my research questions: *How do smartphone-enabled consumers perform customer journeys?* and *In what ways does the smartphone, as part of the socio-material hybrid actor, enable how customer journeys unfold?* In order to explore these research questions, I realized I would need highly detailed data on the ways in which customer journeys unfold when enabled by the smartphone.

As defined by Geiger and Ribes (2011), trace ethnography requires researchers to study data from software in order to detect meaningful patterns and weave them into the findings from interviews and observations collected via ethnographic data collection—the so-called fieldwork. However, Geiger and Ribes conclude that typical

ethnographic fieldwork—as a process during which the researcher enters the field, involving the immersive experience of exploring and detailing the everyday experiences, meaning-making processes, routines, and practices that constitute the essence of daily social life and culture during an extended period of time (cf. Eriksen 2000)—is not an appropriate approach for studying distributed phenomena. Instead, trace ethnographic data collection requires the researcher to be co-present at different nodes, rather than being co-local in the sense of being among the people the ethnographer studies, as is usually expected in anthropological fieldwork. Being co-present allows ethnographers to capture distributed phenomena, meaning that the ethnographer moves between staying close to the informant and being distant from the informant during data collection. This movement between nodes—or moving between being close to and distant from informants—has also been proposed by Wittrock (2011), who emphasizes that the term "fieldwork" bears certain expectations, such as being present in the field for at least a year. However, when a phenomenon is global, for example, or distributed across computational systems, anthropological fieldwork is at risk of losing relevance (see also Marcus (1995), who proposes multi-sited fieldwork). Therefore, Geiger and Ribes (2011) use fieldwork—in any classical sense—only as a way for the ethnographer to initially capture that which can be obscured by other methodological tools, such as surveys or interviews. Later in the process of collecting data, the trace ethnographer should become as distributed as the phenomenon requires, placing herself or himself at nodes in order to be co-present rather than co-local.

In being co-present, the researcher can "carefully follow coordination practices, information flows, situated routines, and other social and organizational phenomena across a variety of scales" (ibid., p. 1). This means that trace ethnography, as a research methodology, guides researchers in a detailed and meticulous examination of phenomena by focusing on the "traces" left behind and embedded in digital (but also physical) environments, such as through the use of a smartphone. This approach involves an analysis of coordination practices, revealing how individuals and groups organize their activities and collaborate. It highlights information flows, examining the movement and exchange of data within communities or groups. It also emphasizes situated routines, involving the day-to-day activities and behaviors of people and their cultural and social contexts. This methodology acknowledges complex human behavior and social structures. Analytically, it spans a variety of scales, ensuring a comprehensive understanding that encompasses the individual, group, and organizational levels, as well as different specific settings or environments (Geiger & Ribes, 2011).

In following trace ethnography, a researcher is encouraged to approach socio-material phenomena by writing qualitative descriptions and incorporating digital data into these descriptions. This approach aligns with ontological perspectives in CMS, which argue that human and non-human actors should be symmetrically analyzed in order to unveil how material objects form agential capacity in combination with humans (cf. Cochoy et al., 2015). Furthermore, this methodology aligns with the ontological view that digital data traces are imprinted with social phenomena; that data reflects subjectivity, practices, and habits; and that data reflects the social world within which it is produced (Ruppert, Law, & Savage, 2013). Through trace ethnography, a researcher can potentially access deeper insight about the field, the informants, or the phenomenon, if digital data can be studied and integrated into qualitative data. This is particularly the case when the use of digital trace data that effectively represents doings is combined with data from interviews, thereby capturing the phenomenon under study by using multiple types of data that enrich each other (Geiger & Ribes, 2011).

3.1.1 Current and prior use of trace ethnography

Today, trace ethnography is being applied in a broadening spectrum of research fields. Applications of trace ethnography include studies in practice-oriented library and information science research (Ekström, 2022; Islam, Jebarajakirthy, & Shankar, 2021; Sawyer, Kaziunas, & Østerlund, 2012; Sköld, 2018; Tattersall Wallin & Nolin, 2020), communications research (Leavitt & Robinson, 2017), anthropological research (Marsh, 2016), cyber-security research (Chang, Squires, & Wang, 2016), educational research (O'Keeffe, 2016), community and technology research (Mugar, Jackson, Østerlund, & Crowston, 2015), computer science research (Keegan, 2012), and social media research (Gangneux, 2019). Studies applying trace ethnography that are close to the theme of this thesis has investigated consumer taste (Airoldi, 2021). These cases vary in how trace ethnography is practically conducted. Some analyze the data using analytics tools for large sets of data from platforms, such as social networking systems, while others study data with a qualitative approach, integrating the findings from traces to explore practices and perceptions of informants when conducting interviews (Gangnaux, 2019).

3.1.2 Analyzing data collected with trace ethnography

The central analytical principle introduced by Geiger and Ribes (2011) is the use of the inversion approach in trace ethnography as a way of detecting and decoding the social meaning embedded in data traces. This approach entails studying data and continuously maintaining an open-ended perspective in order to try and understand

what the patterns in the data may express. The technique involves forcing oneself as a researcher to go beyond the spontaneous reaction of not seeing anything exciting at first glance and to allow the data's manifestation of the social phenomenon to emerge over time. Geiger and Ribes comment:

> While these data are routinely used to quantitatively determine abstract qualities of a system (e.g., tracking the browsing habits of a website's visitors), our methodology involves decoding, or *inverting*, these traces to provide rich qualitative accounts of individual users as they act within a broader social or organizational setting. (2011, p.1)

The process of conducting trace ethnography is concentrated on the collection and analysis of data traces, focusing on, for example, system logs in order to trace events as they have unfolded. Less has been developed in relation to combining data traces with interviews and/or observations. However, trace ethnography has been applied in other studies in which a combination of trace and virtual ethnography has allowed a more detailed exploration by analyzing trace data with observational and interview data (Jackson, Crowston, Østerlund, & Harandi, 2018) or— as mentioned earlier— analyzing the trace data of social media posts (Gangnaux, 2019).

Ekström (2022) proposes that trace ethnography puts informants' practices in hindsight and places narratives of the users' practices on the system in focus. He also argues that this methodological conduct entails an analysis that explores "what actually unfolded in detail?" rather than relying on the subjective recalling of events. Ekström (2022) also suggests that this involves taking a historic perspective that places a distance between doer and doings, which allows informants to share the researcher's outside-in, "etic," perspective of the informants' lived experiences, the "emic" (Eriksen, 2000). A similar argument is put forward in a methodological paper by Audy Martínek, Caliandro, and Denegri-Knott (2022), which introduces a closely related methodology to trace ethnography, conceptualized as digital practices tracing (DPT). These researchers also stress the need for methods that capture and analyze digital traces, thereby mitigating personal bias or informants reporting what is deemed socially acceptable or possible to remember, such as which digital platforms the consumer visited, for how long, the exact formatting of search terms, and the switching between apps.

While Ekström (2022) and Audy Martínek et al. (2022) emphasize the possibility of complementing the data when informants may be unable to recall in detail, Gangneux (2019) raises some concerns. In an exploration of issues related to the use of digital data in probing during interviews, Gangneux concludes that, while digital platforms— and particularly social media features like Facebook Activity Logs (FAL)—may enrich

qualitative social research by enabling researchers to add data that manifest social relations and individual behaviors, as recorded on social media, researchers must also remember the issues connected to this conduct. For example, digital data may create discrepancies between actual user behaviors and their self-reported accounts, leading to challenges in interpretation. Gangneux also cautions against uncritically adopting tools such as FAL, noting the risk of reinforcing "dataism" as an overreliance on digital data. In essence, while it may be fruitful to integrate digital data into qualitative research, researchers must remain cautious of the power structures surrounding modern digital technologies designed for purposes other than scientific ones.

3.1.3 Using trace ethnography to capture the socio-material

An ongoing onto-epistemological discussion is based on the argument that researchers should shun the idea that consumers live parallel lives online and instead begin to understand the complex assemblage between virtual and physical and how traces of data may inform us about social phenomena. Some scholars go as far as arguing that it is now time to "embrace the challenge of big data (Boyd & Crawford, 2012) and start taking advantage of the millions of digital traces that both consumers and digital objects leave on the internet every day (Thompson, 2019)" (Denegri-Knott et al., 2020, p. 955). Airoldi (2018) illustrates this proposition, by mixing digital methods and ethnography into a hybrid methodology. Post-API ethnography emphasizes that agency is formed in the hybrid actor-object (Nascimento et al., 2022). These propositions transition social sciences—and particularly the qualitative stream—toward that data that is usually harnessed by disciplines adopting a positivistic worldview; that is, the disciplines that record phenomena represented in numerical data (cf. Pink, 2022 for a similar shift in ethnographic methods into spaces governed by engineering and economics).

Like trace ethnography, post-API ethnography views metadata, which is defined as data about data, as output that consumers produce using software, the Internet, and digital equipment (Caliandro, 2014). Like a "hunter following the lead" (Nascimento et al., 2022, p. 495), the researcher traces this metadata, taking the actor as the unit of analysis (ibid.). Post-API ethnography is criticized for its use of software leading to limited researcher-informant participation, in contrast to what is expected when doing ethnography (cf. Kozinets, 2020). Geiger and Ribes's (2011) trace ethnography offers a solution to this criticism, as trace ethnography highlights the integration of digital traces with ethnographic methods such as interviews and observations, thereby enabling an "inversion" process through which the data can be analyzed (ibid.). In this

way, metadata can be integrated with the data obtained from informant interviews and observations.

In line with Denegri-Knott, Jenkins, and Lindley (2020), I posit that trace ethnography, as a specific form of ethnography, offers a methodological frame with the guidelines and ontological and epistemological principles required to explore and integrate digital data traces, making this type of data analytically available to social science researchers. In conclusion, trace ethnography aligns with the aim of this research, as described in Section 1.6: "… to develop a socio-material approach to explore and conceptualize how smartphone-enabled consumers perform customer journeys and how these unfold, reflecting customer journeys as dynamic and evolving. Recognizing the smartphone as an integral component of a socio-material hybrid actor and making use of trace ethnography, I aspire to contribute to customer journey research by describing and explaining how customer journeys unfold in consumer daily life, enabled by digital technologies." To achieve this aim, it was necessary to trace the micro actions that make up a customer journey and the elements that enable customer journeys to unfold. In the next section, I recount how the trace ethnographic data collection was conducted and how I translated the principles and guidelines into practical research.

3.2 An overview of the data collection

The totality of the data collection took place between December 2019 and February 2023 (38 months). The most intense data-collection period was during 2020, between March and December (10 months); additional data was then sporadically collected during the analysis and the writing of the thesis. I began doing interviews and observations early in 2020. In March 2020, COVID-19 was declared to be a global pandemic, with mandatory social distancing to prevent the spread of the virus. The pandemic emphasized the fragility of relying on in-person interactions and highlighted the need for a form of qualitative research that did not demand physical interaction. Phone metering of the informants' phones, in parallel with online interviews, occurred in November 2020, and additional interviews were carried out in 2022. In concert with the interviews in 2022 and 2023, the thesis manuscript was continuously developed in parallel with the evolving analysis, and the findings were discussed during a middle seminar and a final seminar. Figure 1 provides an overview of the process and the point at which the pandemic was declared during the data-collection process.

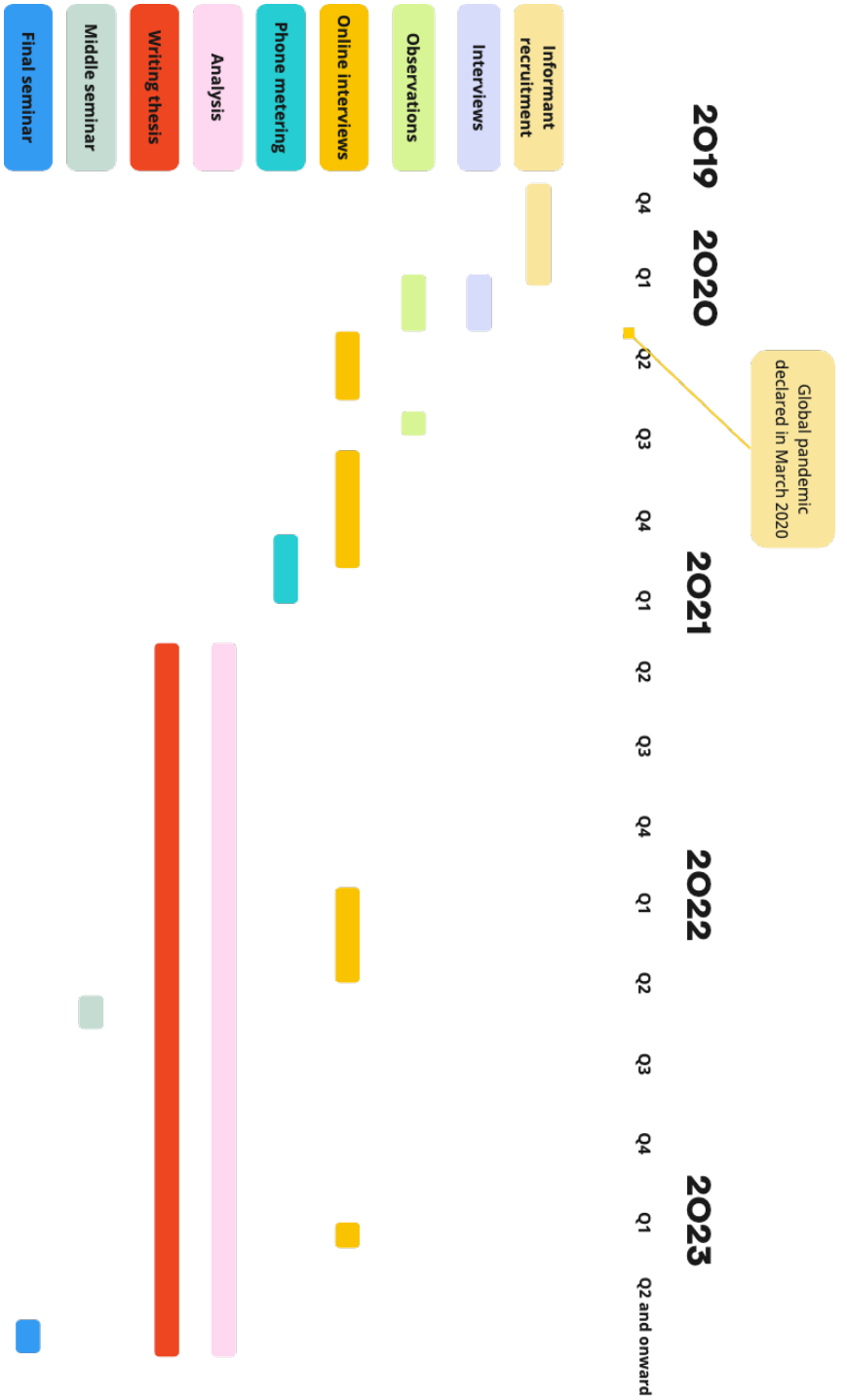

Figure 1. The timeline of data collection, analysis, thesis writing, and middle and final seminars.

3.2.1 Recruiting informants

Ten informants were recruited via convenience sampling. Most of the informants were recruited in the winter of 2019/2020, except for Fia and Fredrik, who were recruited in the early fall of 2020. The recruitment process involved leveraging my personal and professional networks, while prioritizing factors such as geographical proximity, ease of access, and willingness to participate. Informants who had been involved in my previous research—in both commercial (Jonsson et al., 2015) and academic contexts (my master's thesis)—were approached and asked for their participation, together with any other people living with them in their household. Recruiting informants within the same household enabled an exploration of the collective (Thomas et al., 2020) and social dimension (Hamilton et al., 2021). Through individual interviews and *dyadic interviews* (Szulc & King, 2022), I explored how consumers perform customer journeys and complement each other's customer journeys (see Table A1 and A2 in the Appendix for an overview of the recruited informants).

The first meeting took place at a neutral location outside of the informants' homes, such as a café, with the aim of making sure all the informants understood their rights and the purpose of the research. An information pamphlet describing the research and a consent form were handed out, and the informants were asked to read the information carefully and wait to sign the consent form until we met again. The consent form explained some of the rights an informant participating in research possesses, such as the right to be anonymized, to refrain from answering questions, and to discontinue participation at any time during the study. At this point in time, phone metering as a research tool was yet to be introduced to the informants, since the collaboration with the company Reality Mines, Ltd., was still under consideration. I mentioned the possibility of using this specific technology but chose to abstain from including it in the first version of the consent form. Later in the study, the consent form was updated to define phone metering and was redistributed at that point.

The informants' frequent use of smartphones in daily life constituted a form of competence, according to the notion of assigned competence explained by Gubrium and Holstein (2001). The informants had an interest in shopping online; in our initial interactions, I explored their views and self-reported habit of using their smartphone to solve a variety of shopping-related tasks in their daily life. All the informants lived in or close to Stockholm, making it easy for me to visit them. Apart from this similarity, they differed greatly in occupation, ethnicity, educational level, and spending habits, although these factors were neither registered nor included in the analysis.

The recruitment of informants was partly shaped by my personal context of being an industrial PhD student enrolled in an industry-based graduate school, the Industrial

Graduate School of Digital Retail (INSiDR), and employed by Odyssey AB, a data-driven branding technology and insights agency. In order for me to balance research quality with the aim to solve a business-related challenge for Odyssey AB, it was necessary for the sample of informants to reflect a broad span in age; thus, the youngest informant was in her early 20s and the most senior informant was over 60. Therefore, a critical factor in this study was that it involved 10 informants representing different age groups, all of whom were all engaged in performing customer journeys on their smartphone. Although the sample size of 10 was manageable and allowed the research to deeply probe each informant's customer journey, it may have been skewed, as underscored by Bernard (2011). Furthermore, the sample size may have affected the replicability of this study. To mitigate this issue, although the analysis was rooted in detailed and meticulous recordings of each informant's performed actions in manifesting customer journeys, I also strove to uncover general categories of behavior that recurred among several informants, thereby identifying what have been described as patterns that communicate deeper meaning and routines shared by many who belong to the same socio-cultural context (Eriksen, 2000).

Convenience sampling raises critical considerations regarding sample selection. While this sampling method offers practical benefits, such as accessibility and ease of recruitment, it has certain limitations. In particular, there was a risk of including informants who mirrored my own personal community and values. Moreover, relying on personal and professional networks can introduce biases, as the resulting informants might be prone to presenting themselves in a certain way based on our previous interactions. The issue of informants presenting themselves in a way they believe to be what the researcher expects is already challenging (Audy Martinek et al., 2022), and convenience sampling may augment this effect further if there is a prior relationship between the informant and researcher. However, it is important to note that I was not acquainted with all the informants beforehand, as I had not met Björn, Jocke, or Hasse previously. Future research can aim to recruit a larger, more diverse sample using a sampling method that minimizes potential biases, thereby enhancing the reliability and general applicability of the findings. Nevertheless, it is important to stress the aim of qualitative research and interviewing: "not to discover how many, and what kinds of, people share a certain characteristic. It is to gain access to the cultural categories and assumptions according to which one culture construes the world" (McCracken, 1988, p. 17). While the sampling method may well have introduced bias into the study, it does not necessarily make the categories that construct the informants' world—and thereby the study's results—less valid as a means of answering the research questions.

3.2.2 Collecting data

Unstructured and semi-structured interviews were generally used when interviewing the informants, both individually and in pairs. As explained by Bernard (2011), unstructured interviews are suitable for allowing informants to express themselves in their own way and at their own tempo. Since I was interested in approaching the customer journey as something that unfolds and involves several heterogenic elements, conducting unstructured interviews allowed me to listen to the ways in which the informants themselves made sense of their customer journeys in their responses. In addition to inquiring about their use of the smartphone, I asked the informants to share information about their daily lives and how customer journeys were integrated into different situations. As time passed, semi-structured interviews were also employed, based on an evolving interview guide that emerged from the early discussions with the informants in unstructured interviews. Following Bernard's (2011) recommendations, the semi-structured interviews were used to begin validating findings between informants in a time-efficient manner. These interviews tended to be more to the point, asking the informants to share their recollections of events contextualizing the traces metered on their smartphones.

The observations of the informants were conducted in early 2020 (for an overview, see Tables A1, A2, and A3 in the Appendix). The aim of these observations was to achieve an understanding of the informants' lives and the environments in which they spent most of their time by involving myself in their daily lives. During these observations, which usually occurred over a half or full day, I recorded fieldnotes with the purpose of probing what I had observed later, in the interviews. The number of observation sessions was limited to six due to the pandemic; nevertheless, in the observations I did manage to conduct, I observed the informants using Spradley's (1980, p.78) nine categories (see Figure 2 for an example of a setting recorded during observation):

- *Spaces:* The physical place or places involved;
- *Actors:* The people involved;
- *Activities:* A set of related acts people do;
- *Objects:* The physical things that are present;
- *Acts:* Individual actions that people perform;
- *Events:* A set of related activities that people carry out;
- *Time:* The sequencing that takes place over time;
- *Goals:* The aims the people are trying to accomplish;
- *Feelings:* The emotions that are felt and expressed.

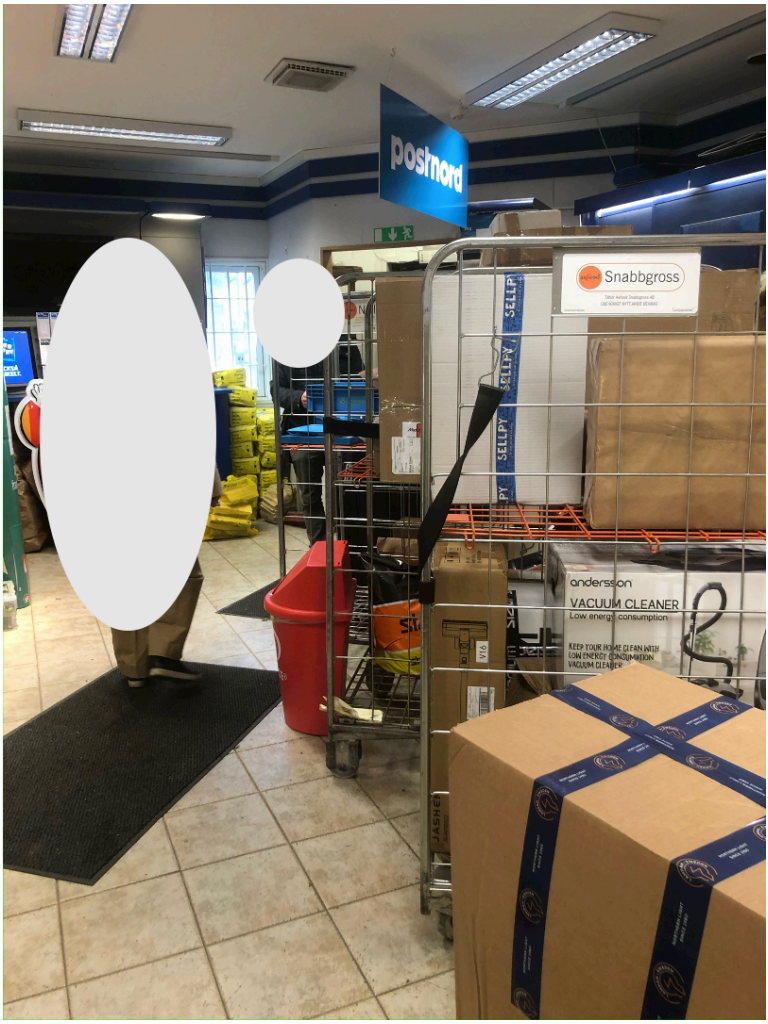

Figure 2. In this photograph, as part of a customer journey, the informants Jocke and Titti can be observed visiting their local post office, as indicated by the characteristic signage "Postnord," denoting the Nordic postal service provider. Jocke stands at the counter, facing the postal worker behind the counter, partially obscured by the parcels and packages in the foreground. The primary activity being carried out is a postal transaction involving the sending or receiving of packages ordered online. The objects in the space include various boxes and parcels, a shopping cart filled with items, a red bucket, and what appears to be a vacuum cleaner box advertising "low energy consumption." The space is functional, with tiled flooring and fluorescent lighting, typical of a utilitarian service environment.

As time passed, the interviews transitioned from being in person to being conducted online, as a result of mandatory social distancing and working from home during the pandemic (Figure 3 shows a typical interview setting using Zoom). Before the phone

metering was carried out, 15 semi-structured and unstructured interviews were conducted, ranging from 20 minutes to almost 2 hours in length (see Table A2 in the Appendix).

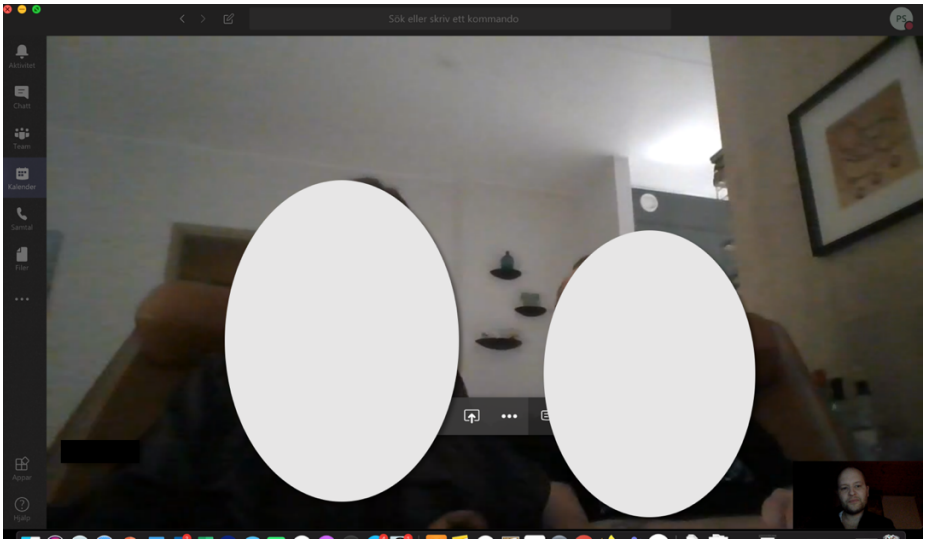

Figure 3. The majority of the interviews were conducted via Zoom, FaceTime, or WhatsApp.

After the summer of 2020, Reality Mines, Ltd., agreed to provide phone metering *pro bono*, thereby supporting the research. I acted as a facilitator to put the nine informants who agreed to the metering in contact with Reality Mines, Ltd., to obtain the tool called Reality Meter. The informants and Reality Mines, Ltd., entered a mutual General Data Protection Regulation (GDPR)-compliant agreement regarding the phone metering. In November 2020, the nine informants had their phone usage metered by Reality Mines. The process of metering the informants' phones began with the informants individually receiving a link via a text message on their phone, which prompted them to click on it. This link brought them to a webpage where a predefined (by me) ID code was prefilled in a text bar. I was the only person who knew the connection between the ID code and the informant's telephone number. After clicking "sign in," the informants were forwarded to a consent form specific to the company Reality Mines, Ltd., informing the participants of their rights when using the phone metering. For example, the consent form described what data was recovered from the informants' phone during the measurement period, stated that sensitive personal data (e.g., political views or medical information) was not collected, and noted that the informants were able to pause the metering at any time.

After accepting the terms and conditions, the informants were instructed to download a so-called “profile” onto their smartphone, which they activated by entering their phone’s preferences for virtual private network (VPN) functionality. The technology worked in the following way: The profile rerouted all commercial digital data produced in the smartphone via a specific VPN setup to Reality Mine’s servers. The data consisting of the informants’ use of applications (the time spent in an application, not their actions in the application), which was termed Real Life App by Reality Mines, and the visited sites and use of search terms on search engines, which were termed Real Life Web by Reality Mines, were sorted and transferred into a .zip file, which I accessed daily via an simple mail-transfer protocol (SMTP)-server application (see Table A4 in the Appendix for an overview of the amount of data). The SMTP connection enabled a direct linkage between my computer in Sweden and the server on which the data was stored. This process continued every day during November of 2020.

During the phone-metering period, I strove to connect with the informants who produced data traces indicative of customer journeys, in order to conduct short interviews. I asked the informants about what the data traces represented according to their own view and understanding, and together we discussed the traces and level of detail—which they themselves found both entertaining and surprising, often bursting into a laugh as I read back the data traces to them. The interviews created a context for the metering data, in line with a recommendation by Geiger and Ribes (2011), who note the importance of filtering digital data through qualitative material. In the interviews, the questions were crafted to align with the research objectives and to probe into the nuances of the collected trace data. During the interview, I shared the strings of data with the informant who had performed them (see Figure 4) in what Gangneux (2019) describes as a digital probe in the interviewing; in some instances, I also shared my screen to make the trace data visible to the informant. First, I allowed the informant to react to the information; then, I asked questions such as the reason for these actions on the smartphone, where and with who the actions took place, and what the informant’s reflections on these actions were (cf. Audy Martinek et al., 2022, who argue for phenomenological interviewing, integrating digital trace data when talking with informants). This methodical approach ensured that the analysis was both structured and purpose-driven, facilitating a systematic exploration of the extensive dataset. I asked questions regarding the informants’ reasons for searching on Google or their choice of search terms, or asked them to share broader narratives of the customer journeys to which the trace data belonged. I also asked them to contemplate their relationship with other people in their proximity and to think about how products or other elements (e.g., a store campaign or a certain type of offer) may have shaped their actions. The results of the interviews were noted along with the trace data.

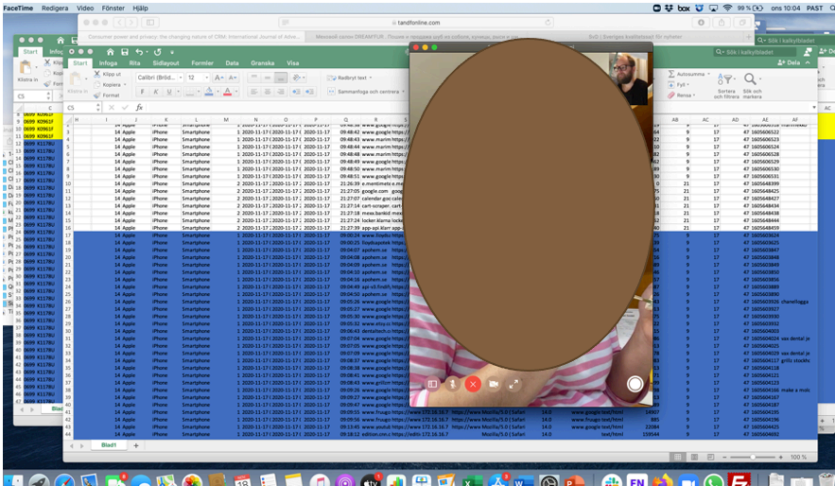

Figure 4. During and after phone metering, I used the trace data as a base in the interviews, asking the informants to contextualize and share the circumstances of their smartphone-enabled customer journeys. In this picture, I interview Mimmi at her workplace.

Most of the interviews were conducted during and after the phone metering. The selection of informants for the interviews during the phone-metering period was based in the amount of data generated by the informants' phones. More specifically, informants whose data included clear markers of customer journey expressions, such as the use of terms like "buy," brand names, specific products, or visits to e-commerce sites, were prioritized for interviews. This data-driven approach facilitated a straightforward categorization of customer journeys while allowing the informants Mimmi and Josefin to emerge as "key informants." Both the amount of data they produced when using their smartphone for customer journeys and their way of being "observant, reflective and articulate" (Bernard, 2011, p. 152) made interviewing effortless, as they willingly shared their views and retold the different situations in which they had used their smartphones.

Basing informant selection during the phone metering primarily on the ease of data categorization may have resulted in a neglect of subtler yet equally significant patterns. Such a bias may have skewed the research outcomes toward more explicit manifestations of customer journeys, potentially overlooking nuanced or less direct expressions. On the other hand, my focus on the obvious data had its merits. In this exploratory phase of the research, clear examples helped me to form a basic understanding of the data. This made the initial stages more manageable and allowed me to approach the other informants' data traces from the phone metering with a foundation for understanding the expression of customer journeys and how they could be manifested in the spreadsheets I received from Reality Mines, Ltd.

When the metering came to a halt, the informants once again entered their preferences in their smartphone and discontinued the profile settings, essentially disconnecting the VPN. The phone-metering technology yielded a total dataset consisting of 65 896 rows in Microsoft's spreadsheet program Excel (see Table A4 in Appendix). This data reflected the informants' actions involving their usage of applications and online browser behavior. From a qualitative perspective, the dataset can be considered large and perhaps even alien, as such a vast and detailed amount of data has historically been accessed only by the natural sciences (Venturini, Bounegri, Gray, & Rogers, 2018).

A total of 34 interviews were conducted over the full scope of data collection; eight of these interviews were held with two informants belonging to the same household, while the remainder were conducted as individual interviews. All interviews were recorded and transcribed using artificial intelligence. The observation sessions occurred at the beginning of data collection and on one occasion after the summer of 2020, during which I took fieldnotes. A total of three observation sessions were conducted. Any additional observations consisted of the informant panning her or his home with the smartphone during online interviews via FaceTime or WhatsApp and did not entail structured practices of collecting data. The COVID-19 pandemic hindered additional observations. During the analysis and the writing of the thesis, I asked additional, shorter questions and contacted Mimmi, Josefin, and Titti on multiple occasions using text messaging to gain better clarity regarding some of the recorded customer journeys (see Figure 5).

Figure 5. A text conversation with Josefin on December 15, 2022, to validate data.

> Patrik: Hi … Hope all is well … will you be able to come home for Christmas? If not, I hope you have a brilliant Christmas in … Quick question: Vi calculated that you purchased your sofa off of Facebook Market Place around mid-November. But then, on November 30th you searched for velvet sofa. Do you remember why?

> Josefin: Hi Patrik … is fantastic, staying in Stockholm for Christmas and New Year! Hmmm... I remember that I thought that the Facebook Market sofa only was temporary, due to the stress in buying a sofa spontaneously for several thousands. The Facebook Market sofa only cost me 500, so then I could have time to ponder. But then I didn't find one that felt right and the sofa I bought felt proper and felt that it was higher quality comparing to all the Ikea sofas that I tried out. I remember even getting comments for it, so I kept it instead. But there was a time after the purchase that I kept on exploring on sofa, thereof the search.
> Patrik: Nice! I hope you get a fine time off. Thanks, a thousand!

It was notable that conducting trace ethnographic data collection did not entail a perfect alignment and inclusion of the research tools of the interviews and phone metering in every interaction with the informants. In some instances, I conducted only unstructured or semi-structured interviews, or observation sessions; in other instances, I only collected trace data from the informants without contextualizing the traces with interview responses. It is important to acknowledge the potential limitations inherent in this combination of methodological tools, as it was not always possible to overlap them. For future research combining these research tools, it may be worthwhile to conduct pilot studies to gain a thorough understanding of what type of data is produced and by which informant, as a way to develop the sampling and, by extension, to enhance the quality and transferability of the findings.

3.2.3 Material processing and analysis

After the completion of the phone metering phase, the inversion process of the comprehensive dataset was conducted. Initially, I organized the data into informant-specific files—a strategy aimed at simplifying the interpretation process by providing a clear, focused view of everyone's data traces. This approach was crucial, given the volume of the dataset of 65 000 rows. This granular level of detail was indicative of the varied and intricate nature of the customer journey events captured during the phone metering. To make the phone-metering data easy to navigate, I then deleted the columns that contained only technological information, such as the version of the smartphone the informant was using, or other numeric codes that an information system would need to analyze the data. I then moved all the data connected to each informant's ID to a separate tab in the file that had the specific date attached to its specific ID. Finally, I configured the layout within the tab to make it easy to obtain an overview of the data and named the tab using the informant's pseudonym.

On each day and for each informant, I looked at the data and identified traces as either "user-generated data"—that is, information the informants had input themselves, as defined by Caliandro and Gandini (2017), such as search term input on a search engine—or "transactional data," which is defined by Ruppert et al., (2013) as metadata expressions of encounters with a touchpoint such as an e-commerce site, time spent on a customer review webpage, or patterns of searching for a specific brand or product using a search engine. Over the course of organizing the data, I worked through the dataset and added quotes from the interviews. Once the interviews had been integrated with the trace data, I began the second wave of the inversion process of the complete data: additional interviews in 2022 and onward, to be combined with the trace data.

In accordance with Geiger and Ribes' arguments (2011), these traces were considered to be embedded with social practice and meaning. Brand names, search terms, or other commercially relevant webpages such as customer review pages would often stand out. In a separate Excel file, I started to write out the actions I could observe in the data in the form of short descriptive narratives:

At 19.58, with the sofa purchased from Facebook Marketplace, she embarks on a 2-hour journey across several products, all related, as she is moving to her first own apartment and has purchased her first sofa. She performs the journey as follows:

> Entering Google, she searches for "rug" (*matta*) and then enters jysk.se and views rugs; then, via Google, she enters ellos.se, and then goes on to blocket.se, where she views ads of "*soffbord*" (searches internally). She views several ads, seems to enter Facebook, and then goes on to ahlens.se (only 1 second) and auktionsverket.se. She then goes to Google to search for "*auktionsverket*," goes back to Auktionsverket, Åhlens (a Swedish retailer) again (3 seconds), and goes on to Google to search "posters" (*affischer*). She goes to posterstore.se, then fotografiska.com, modernamuseet.se, dearsam.se and, via Google, on to nordicnest.se and desenio.se. Via Google searches for "*tqvlor*" (sic), she adjusts to "*tavlor*" (prompted by Google), enters photowall.se and then spart.se, views several Blocket ads on Google, and then goes on to Tradera (1 second). She goes back to the Google search results and enters printler.com, via Google, then on to absolutart.com and desenio.se.

Further information was also connected to these narratives, such as web pages, search terms, date, customer journey alignment (if it seemed that a practice was related to another on a different date), notes (connecting the narratives to previous research), interview data (i.e., I wrote notes connecting to interviews with the informant), completed purchases (I made a note if a purchase was completed in direct relation to the described practice), and thematical categories. Each event narrative was also cross-referenced with the app usage trace data, in which I explored how the apps were used before, during, and after the customer journey.

Figure 6. A screenshot showing the structure of the inversion process, combining phone metering data with interviews and preliminary categorizations on different levels.

Once I had compiled the interview and trace data, exhausted all the event narratives by enriching them with additional interviews, and used participant observations as analytical stepping stones, I began analyzing the data. During the analysis, I was inspired by the grounded approach, as explained by Charmaz (2006). Charmaz advocates an inductive and constructivist perspective and approach, encouraging the use of a qualitative analysis that remains iterative, moving back and forth between collecting data and analysis. More specifically, Charmaz delineates three important characteristics of an analysis: *process*, in which the researcher searches for actions in the data; *flexibility*, as the researcher follows new threads of data; and *coding and theoretical awareness*, which begins on a detailed level and then pans out in the later stage of coding. Charmaz encourages researchers to remain open during the analysis, in order to allow theory to develop through the data. Following these principles, I focused on rewriting the event narratives into actions and tried my best not to insert theoretical understandings or concepts during the first phase of analysis. I tried to remain open, stay close to the data, keep it simple, focus on short codes, compare the data, and move quickly through the material. In the second phase, I applied a structure of writing out first-order themes inspired by the most frequent and significant examples from the coding. In the third phase, I inserted the theoretical concepts and—through a messy trial-and-error process in which I moved between reading theory, studying the event narratives, coding, and writing up longer analytical excerpts—arrived at a set of overarching categories.

These categories were reiterated several times during the writing of the thesis; moreover, both the categories and the theoretical concepts evolved during the middle seminar, final seminar, and final version of this thesis. During the final writing of the thesis, I arrived at the aggregate themes described in Chapters 4 and 5. My analysis process was iterative and abductive, as I continuously explored the emerging findings in the data and validated them using theory and previous customer journey research literature (Brinkmann & Kvale, 2015; Dubois & Gadde, 2002).

All the work of analyzing the interviews in parallel with the trace data was done using Excel; coding the themes and topics was also done in Excel. For categorizing and searching for patterns, I utilized Miro, an online tool made for shared online

whiteboard collaboration; this allowed me to easily zoom in and zoom out as the analysis process progressed, which has been argued to be fruitful by Ryan, Stigzelius, Mejri, Hopkinson, & Hussien, (2023). I continuously returned to these computer systems to develop my analysis.

This processing and analysis amounted to the inversion of 226 distinct customer journeys. This process of inverting customer journey events, which stemmed from a meticulous and time-consuming progression, formed a robust foundation for the thesis. During the spring of 2022, I designed additional interviews in order to delve deeper into the insights gleaned from the phone-metering data, thereby enriching my overall understanding of the customer journeys being studied. A fruitful effect of the extended time between tracing and additional interviews in 2022 was the temporal dimension. Some customer journeys extended past the period of phone metering, so if I had only conducted interviews during November 2020, I would not have been able to capture the full length of these customer journeys. For future research, I recommend to anyone applying phone metering to split the interviewing between several researchers. Analyzing all the incoming data, inverting it into descriptions of customer journeys, and managing to allocate time in the informants' daily life for follow-up interviews proved a challenge. The responses from the informants and the high level of detail in the trace data speak to "scrolling back" in time (cf Robards & Lincoln, 2017), allowing the informants to reacquaint themselves with actions they performed over a year ago. Of course, for future research conjoining trace ethnography and phone metering, additional interviews during the phone metering period can only be assumed to be beneficial for enhancing the quality of a trace ethnographic study.

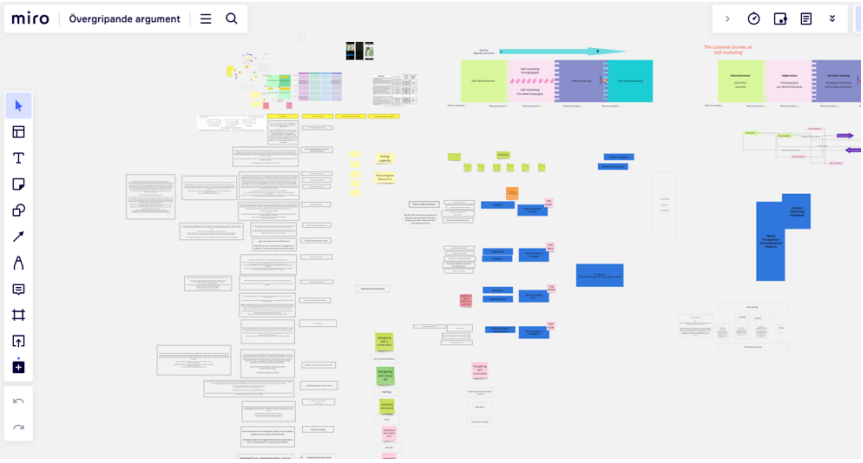

Figure 7. A screenshot of the Miro board upon which most of the analysis and concept development occurred.

3.2.4 Limitations and bias

Like all research, this study has limitations that emerged out of the choices made throughout the process. In this section, I briefly discuss these choices and the resulting limitations. First, the small sample size has both limitations and strengths. On the one hand, a larger sample, say of 20 informants, might have offered a richer array of data. With more participants, the study could have potentially uncovered a greater number of codes, themes, and sub-themes, possibly leading to different research outcomes. A larger sample size could also provide a more comprehensive understanding of the phenomena under investigation, enhancing the generalizability of the findings. On the other hand, the manageability of data would have become a significant concern with an increased sample size, especially for a sole researcher. The extensive nature of the data collected from the informants was already substantial, and adding more participants could have overwhelmed my capacity for detailed analysis. This raises important considerations about the balance between data richness and analytical manageability.

Furthermore, the impact of the sample size was somewhat mitigated by the diversity of the participant group. The informants represented a wide range of ages, genders, educational backgrounds, and professional experiences. This heterogeneity within the small sample added a valuable dimension to the study, providing a broad and nuanced set of data. Despite the small number of participants, the diversity within the sample contributed to a more comprehensive understanding of the subject matter. In conclusion, while acknowledging the limitations inherent in a smaller sample size, it is important to recognize the depth and breadth of insight that can be gained from a diverse yet manageable group of participants. This study's approach underscores the importance of carefully considering sample size in relation to the research objectives, data manageability, and potential for in-depth, nuanced exploration.

Second, conducting the trace ethnography method via phone metering technology provided by Reality Mines, Ltd., meant that the study was reliant on the data produced by this enterprise. With limited insight into the practices of the company Reality Mines, Ltd., I was unable to assess or evaluate the ways in which this organization, its ways of working, or the phone metering itself may or may not have shaped the data. A different approach would have been to locate a peer in the academic community who could build a solution to harvest data from smartphones, but this option was not pursued. Instead, collaboration with a company providing a ready-to-use solution allowed the metering to commence more quickly than could be expected if I were to build a solution from the ground up. One specific outcome that was out of my control was that the android user (the informant Fredrik) yielded considerably less detailed data compared with the other informants using iOS systems. Also, on November 20, no data was harvested at all from any of the smartphones. These are examples of

outcomes that I may have been able to manage if the system doing the phone metering was built by myself or a collaborator.

Third, I made no effort to shape the informants' daily use of their smartphone, and no guidelines were given to the informants on what to do on their devices, how long to spend on their device, or similar requests of that sort. Thus, the data varied in amount between the informants. Some explained their slimmer amount of data as being due to their limited use of the smartphone when practicing customer journeys. Jocke said that he preferred to use a tablet or computer on many occasions. As the metering was only on the smartphone, the customer journeys that were inverted in the analysis do not represent customer journeys that occurred across digital devices. For future studies, metering on additional devices would most likely make it possible to understand how switching between devices shapes the customer journey.

Finally, this study may be significantly biased due to the point in time during which most of the data was collected. The year 2020, when the data was collected, was a unique year due to the COVID-19 global pandemic. It is very likely that the pandemic affected the daily lives of the informants; moreover, the retail shopping event known as "Black Friday" occurs at the end of November, and Amazon launched in Sweden during the same period. The pandemic and these seasonal specificities were not directly taken into consideration in the processing or analysis of this thesis. That said, extending the interviews into 2022 may have mitigated the effect of the pandemic slightly.

The degree to which the results of this study are transferable hinges on how well the study describes the phenomenon and the transparency of the analysis (Moisander & Valtonen, 2006). Therefore, a detailed description of the data-collection process—especially the application of trace ethnography—has been provided. This description includes an in-depth explanation of the methodological tools employed (predominantly interviews and phone metering), enabling the reader to critically assess the research quality. The pursuit of transparency is a cornerstone of this study. Comprehensive details regarding the methods employed, the underlying theoretical concepts, and the practical execution of the study (which includes recruiting participants, data collection, compilation, and the processes of coding and interpreting the data) have been outlined and critically discussed. This thorough explanation not only reinforces the credibility of the research but also allows for an informed critique of its methodology and transferability.

3.3 Ethics

In this section, I discuss the research conduct in the study and ethical considerations along the way. Following the regulations set up by the Swedish Ethics Review Authority, this research project was set up to protect the involved individuals and their human dignity during the research. The Ethical Review Act (2003: 460) (Etikprövningsmyndigheten, 2023) provided a framework for this protection. According to these regulations, research may only be conducted with respect for human dignity and must take human rights and fundamental freedoms into consideration. Some of the key principles are as follows: Research can only be approved if its scientific value outweighs any risks to the participants' health, safety, and personal data privacy; consent must be obtained from research participants, and it must be voluntary, explicit, and informed; and sensitive personal data can only be processed if doing so is necessary for the research to be carried out. Research without consent is only permissible under strict conditions where it may provide direct benefits to the participant or when it involves minimal risk and discomfort. The Board also stipulates that research should only be approved if it is to be conducted or supervised by an investigator with the necessary scientific skills.

These principles and regulations are part of a broader set of guidelines that encompass the moral authority of trust, truthfulness, respect, and responsibility within research ethics (Etikprövningmyndigheten, 2023). To honor the principles of ethical research, I made it my priority to make sure that the informants were kept well informed about their rights, and I used consent forms to ensure that the informants approved the collection of their data. Before I initiated data collection, I assessed the risks of their participation and concluded that there was little or no risk in relation to the topic I was curious about. However, I soon realized that I needed to become integrated into their daily life as consumers in order to succeed in exploring their customer journeys in depth—particularly in relation to metering their smartphones. Almost certainly, I would observe and learn aspects of the informants' lives that would not be relevant to the research or find myself in unforeseen situations that could raise ethical questions (e.g., prescription drugs might be observed lying casually on an informant's kitchen table, or an informant could mention political preferences in passing during an interview) (McDonald, 2005). In the case of such an unforeseen situation, I treated it as irrelevant noise, as is encouraged by the Ethics Review Board in the setting of qualitative research. All the data was password protected and made accessible only to me.

3.3.1 From "dataveillance" to ethical data tracing

Trace ethnography in general and phone metering in particular could be argued to invade the informants' personal space. A sub-stream of research in critical marketing examines modern digital markets and their collection of data about users. This stream of research, known as "dataveillance" (Zuboff, Möllers, Murakami Wood, & Lyon, 2019) or critical algorithmic studies (Airoldi & Rokka, 2022), overlaps with calls for social science research to begin to explore the data traces left behind in digital platforms (Denegri-Knott et al., 2020). Recently, scholars have begun to explore how consumers understand the data-collection practices used by technology firms; the findings suggest that users differ greatly in their understanding and practices (Sörum & Fuentes, 2022).

Can tracing digital data produced by consumers be practiced in an ethical way? By employing several different layers of security, using the consent form as a continuous tool, and setting up principles of how to act when encountering situations that could risk sensitive information entering the research, I posit that it is possible to conduct research using a tool such as phone metering with the utmost careful and meticulous consideration of ethical principles. I recognize that phone metering technology can be argued to resonate with the dataveillance paradigm, as it is similar to other tracing solutions in its default passivity (e.g., cookies) (Mellet & Beauvisage, 2020). However, in this study, phone metering shifted from being passive to active when consent was introduced (Rooke, 2013). Even more importantly, neither the technology nor the data was an illusive "black box," as has been (in my opinion, rightfully) criticized (Airoldi & Rokka, 2022) and poorly understood by consumers in daily digital marketing situations (Verhoef, van Ittersum, Kannan, & Inman, 2020). Because I reintroduced the data from phone metering to the informants in the interviews, and because the informants were free to pause the phone metering, this research can be viewed as a response to the call to embrace and study digital data traces as a qualitative researcher in an ethical way (Denegri-Knott et al., 2020). In the next section, I provide an overview of the tactics I used to conduct a study with the highest ethical ambitions.

3.3.1.1 Tactics to conduct ethical data tracing

First, when explaining the technology, I made an effort to describe what would happen in very clear detail once the so-called profile was installed onto the smartphone by the informants. I also emphasized that they were free to pause the metering for 20-minute periods whenever desired. The informants were instructed to pause the metering as an extra precaution any time they browsed sensitive personal information or other data they did not wish to share with the study. In this way, the informants were ensured the agency to decide what data they were comfortable with sharing from their phones—an essential part of ethical data tracing. Second, before administering the technology, I

tested the solution on my own phone and studied the data traces I produced on it. This allowed me to verify that no data was produced other than that which the technology provider had explained. Fourth, I sent text messages to the informants every other day, reminding them of the active metering and encouraging them to pause the metering when they felt it necessary. Fifth, I used identification codes that only I had the key to, which entailed that none of the data in its raw form could be traced back to an individual person without the ID code, which was kept safe in an encrypted local folder on my computer hard drive. Thus, in total, I incorporated five layers of precaution or security to ensure maximum data safety.

In sum, all the steps taken during phone metering amounted to a data-collection practice that I argue is far from the technologies currently under scrutiny by the critical dataveillance research stream. Instead, consensual phone metering put the control into the hands of the informants, allowing them to decide what data to share, which is the opposite of what to expect from covert research (Calvey, 2008). I posit that the ethical harvesting of trace data hinges on the overall ethical approach of the contextual project. Once the pillars of ethics (i.e., goodness, human dignity, the principles of justice and autonomy, and lack of harm to anyone) (Oliver, 2010), are deemed to be untouchable and are never overlooked or ignored, we can continue to explore what ethical data tracing may look like today and in the future.

Chapter 4. Exploring how customer journeys are performed

The primary aim of this initial empirical chapter is to present the data gathered through trace ethnography and to discuss the findings relevant to the first research question: *How do smartphone-enabled consumers perform customer journeys?* Building on this question, this chapter delves into the actions displayed by the informants. The analysis centers on the consumer as a socio-material actor, shedding light on the intricate interactions between materials, technologies, and social actors. It demonstrates how consumers intertwine with these elements and thereby develop a capacity for action that is enabled by their smartphone and by the functionalities they access as part of the digital market infrastructure when using the device. To reiterate an earlier quotation from an interview with the informant Josefin:

> It never ends … H&M to Zara, to Zalando, to Shein … and then I realize, now it's those pants that I need … and then I do the same lap again … and then … ahhh … Maybe Lindex has those pants … there's so much, I mean, the supply is endless, and then, finally, if I can't find it… maybe I'll look at international e-commerce sites, and maybe I can order from them. … It's like I can't put down the phone … now I've spent one hour, but I haven't consumed anything, I haven't bought anything … I've just scrolled in a manic way. (Interview with Josefin)

This chapter identifies three distinct and interchangeable modes of the customer journey: *exploring over potential purchases* (Josefin explores what pants to buy), *seeking instant entertainment* (Josefin spends hours browsing), and *performing smartphone-facilitated transactions* (Josefin begins to evaluate price and availability on international sites).

4.1 Exploring what to buy

Beyond the acts of searching and selecting, the upcoming sections highlight the collective nature of the customer journey. As the informants interact with search engines, e-commerce platforms, and other functionalities, they are educated and guided toward a more informed understanding of the offerings available on the digital market infrastructure. In line with the ideas put forward by previous customer journey research emphasizing the collective (Thomas et al., 2020), the social (Hamilton et al., 2021), and the educational aspects of the customer journey (Beverland et al., 2023), as well as

the effort toward higher order goals (Becker, Jaakkola, & Halinen, 2020), discovery and learning are a key mode of the customer journey, underpinning the broader theme that the customer journey is as much about the voyage of discovery as it is about the destination.

4.1.1 Performing a marketing scene

Information-retrieval systems—or, more commonly, search engines—such as Google are critical in allowing the online consumer to explore what to buy. Searching as an online practice has become central in everyday life for many consumers (Haider & Sundin, 2019), and previous research has reported that the inputting of search terms is indicative of the consumer's intention in the customer journey (Humphreys, Isaac, & Wang, 2021). For example, Humphreys and colleagues (2021) show that, if consumers type "buy" into the search bar, it signifies (unsurprisingly) that they are in a concrete mindset—that is, they have progressed to deciding on a specific product. If they type "best," they are in an abstract mindset—that is, they are still considering options. Hence, the search engine is central in allowing users to probe the vast digital market infrastructure in order to explore what to buy.

In the context of the analysis in this thesis, consumer exploration can be seen in how the informants use a search engine to look for brand or product names, adjust their search terms, and visit various e-commerce stores quickly and efficiently. But how does exploration play out in detail? In the following examples, the concept of agencing is used to draw attention to how various elements—especially the search engine—endow the consumer with agential capacity to efficiently sort information, allowing the actor (i.e., the person and the device) to probe the market infrastructure by inputting search terms. In this way, exploring what to buy emerges as part of the wider and more empirically focused concept of self-marketing, which stresses that elements in several forms participate in organizing the customer journey. The combination of the search engine (and all its analytical and functional capacities) with the consumer's own phrasing and adjustment causes the search engine to perform in the way the consumer wishes it to perform, ultimately resulting in a consumer who produces elaborate and intricate traces of her or his actions online and reflects a hybridized agential capacity.

In the following dialogue, Fia shares her habit of browsing with me and describes how a certain product or category may be the subject of exploration over an extended period of time:

> *Fia*: I think it's quite fun to look around, I grew up that way, my dad used to go looking for recycled furniture. That's why I usually look at

> things a hundred times, but I never make a decision and buy things. Like, now I'm looking for jeans for myself. I think I've been looking at jeans for 6 weeks now, but haven't bought any yet.
> *Patrik*: When you're spending 6 weeks looking at jeans …
> *Fia*: [Laughs]
> *Patrik*:… what are you browsing? Social media? Stores? Reviews?
> *Fia*: Online stores mostly … like … comparing … but then I realize, I still need to try on the jeans, so it ends up that I buy them in the store. At least, jeans, sweaters on the other hand, I order, I can order, because it's important to me that it's free shipping … Otherwise, it's not worth it.

Fia's exploration of what to buy is partly manifested in the trace data of her browsing history. She reports visiting mostly online stores; however, in a separate instance, her search for "bohemian clothes" on Google provided an array of products, prices, and occasionally ratings, along with direct links to purchase these items, and Fia spent time browsing the products on Google without leaving the site to go to an online store. The interface of the search engine is where elements collide, effectively granting the consumer the agential capacity to transition from a state of unawareness about potential products to an informed position. The search engine provides Fia with a selection of product options and couples the product with pricing (in some instances, ratings as well). It also gives her the opportunity to click on a picture of the product to visit the site, from which she can—if she chooses to—order the product. As Fia puts it: "Online, there are too many choices for me; I need three options, then it's much easier for me, rather than having so many possible choices all the time … ." Fia seems to experience a conflict between the joy of looking around and the fatigue of having access to too many options. For Fia, then, the marketing scene effectively creates a manageable starting point from which to explore what to buy by narrowing her options.

The trace data reveals that Fia is looking at a collection of products representing several brands. This assemblage of cross-brand touchpoints functions as a specific and temporary *marketing scene* that materializes and is shaped by Fia's actions, intertwined with the search engine and the way in which the underlying algorithm decides to present products making up the category defined by Fia as "bohemian clothes." An adjusted marketing scene is accomplished when a search engine assembles materials, pictures, and text content to give consumers a time-efficient overview of potential products; this becomes a specific context in which the abundance of choices is narrowed down to a few products and brands. After Fia looks at the pictures produced by the search engine, the trace data shows that she continues to explore, visiting "shop the look" pages at an e-commerce fashion retailer. This last action is an enactment of her wish to be guided toward a purchase; however, without Fia reflecting on it, her

interaction with the search engine and selective search terms have created a virtual stylist that guides her through a bespoke marketing experience.

Exploring without a specific goal in mind—as in the case of Fia's broad exploration for bohemian clothes or her search for jeans over a 6-week period—is reflected in the data. In such cases, the informants deliberately kept their keywords broad, so as to let a goal emerge via the use of a search engine. When questioned about these patterns, the informants disclosed that they were actively seeking to try to define a specific product or goal; as they did not have a specific idea, they usually kept their terminology broad to allow the search engine to provide them with a wider range of options.

The search engine Google provides a type of marketing scene that materializes as an interface connecting several brands and products within the same category. In this way, the consumer using the search engine is exposed to a specific configuration that can be understood as a marketing scene specifically tailored to the consumer's exploration of what to buy in her or his customer journey. The central functionality of the search engine is to materialize the search prompt, and the underlying rules controlling the output in the system define the outcome. In the next section, I examine the ways in which the collected data reveal how search engines perform in relation to the user and how the user acts to navigate using this technology.

4.1.2 How the search engine performs with and transforms the consumer

As mentioned earlier, a search engine provides its user with an interface bringing together a combination of links, pictures, and short texts in response to the keywords the user enters into the system. This interface mobilizes the consumer and offers a trajectory that is relevant to the search term. It also provides images, allowing products to begin to be distinguished from each other. In CMS, this is known as the "singularization of goods," in which a product's qualities are described and made to stand out to the consumer, either through marketing or innovation. I also argue that the interface provided by a search engine can be conceptualized as a "calculative space" (Callon & Muniesa, 2005). Self-marketing (Cochoy, 2012) explains how a calculative space may empirically manifest: By using a search engine, the smartphone-enabled consumer creates order from an abundance of information and thereby obtains agential capacity typical of the hybrid consumer-actor performing a customer journey. However, sorting of information is not the only thing that occurs; the sorting itself results in a space (i.e., a search page) where pieces of information are assembled in relation to each other, making products "stand out." This space allows consumers to transform into efficient information sorters simply by remaining on the search engine

pages, enabling them to probe the market infrastructure through their search queries. It also provides consumers with tailored marketing scenes within the search engine where products can be compared, essentially giving the consumer the capacity to calculate and explore in a manner that is characteristic of a smartphone-enabled consumer. Of course, the same is true for a consumer shopping online using other devices, such as a tablet or computer; however, as the focus of this thesis is on the smartphone, such usages will not be discussed here.

The search engine significantly enhances a consumer's capability to retrieve information swiftly and efficiently as an outcome of smartphone-enabled agency. Its ability to facilitate precise and rapid searches grants consumers the power to traverse the expansive digital market infrastructure with unprecedented ease, thus enabling the rapid assimilation of knowledge and insight. In this way, the search engine plays a central role in the agencing of the smartphone-enabled consumer.

In line with the thesis aim of describing and explaining how customer journeys unfold in consumer daily life enabled and by digital technologies, next, I delve further into the role of the search engine as a socio-material assemblage, a calculative space, and a marketing scene. I examine how the search engine participates in the mode of exploring as part of the customer journey and investigate the ways in which agential capacity emerges.

The data vividly highlights the exploratory behaviors of the informants, casting the search engine not only as a tool but as a pivotal actor within the socio-material assemblage that is central to the customer journey. The search engine goes beyond mobilizing potential products; it transforms the exploration from an undefined to a defined product search. Moreover, it does more than render the marketing scene visible; it actively constructs it, curating product images and related information to stage the scene for the consumer. Furthermore, the search engine plays an adaptive role, correcting user inputs and suggesting terms, thereby facilitating connections between consumer queries and market offerings. This responsive aspect of the search engine is key in shaping the exploratory experience and guiding the consumer toward her or his goals.

> One evening, just before 7 pm, Josefin activates Safari on her smartphone and types "marble plastic roll" (*marmor plastrulle*). Google intervenes, suggesting that she alter the phrasing from "plastic roll" (*plastrulle*) to "plastic film" (*plastfilm*). In her second search, Josefin changes the search term from "plastic roll" to "plastic film," as suggested by Google, and adds "kitchen" (*kök*). From the search results, she enters fruugo.se, and then goes to bauhaus.se. Again, Josefin returns to Google and types a new combination of words as a

query: “kitchen counter roll” (*köksbänk rulle*); after the search, she returns to baushaus.se, where she browses products related to the search and views an embedded video hosted by YouTube on the Bauhaus e-commerce store. During an interview, Josefin mentions that she visited a Bauhaus store to purchase a plastic roll different from the options she had explored online.

This example provides an outline of how the search engine’s participation enables the consumer’s agential capacity. As Josefin navigates the digital market infrastructure, the search engine not only assists in her search but also contributes to her understanding of product terminology. This interaction exemplifies an “educational moment” within the customer journey, in which knowledge is not just transferred but also co-created through the interplay between the consumer and the search engine. This moment resonates with Beverland et al.’s (2023) notion that meaning and knowledge are collaboratively constructed among various participants in the journey.

The interface of the search engine thus emerges as a crucial facilitator in agencing Josefin to perform an exploratory process. After Josefin’s first search, the search engine asks a leading question in red font beginning with: “did you mean” (*menade du*), and then follows with the suggested rephrasing, in bold italics text. By simply clicking on the suggestion in red, Josefin allows the system to refine her search, eliminating the need for manual correction. The user does not need to copy and paste the suggestion into the search bar. These observable expressions may be simple aspects of user-friendliness. However, this intervention also actively directs the course of the customer journey and exemplifies the degree of involvement of the search engine.

Once the suggestion to alter the phrasing is accepted by Josefin, the human actor, by clicking the red link, Josefin continues to perform the exploration that has been slightly adjusted by the system. Josefin explains that she does not view the search engine’s suggestion as being particularly problematic, noting: “If it had suggested something else, I would have accepted it.” Here, Josefin illustrates what Cochoy (2012) stresses within the concept of self-marketing as the “low-energy effect” in the use of smartphones when consumers explore the digital market infrastructure. This functionality—that is, the suggestion to change words—can be noted in other instances as well; for example, correcting misspellings is a recurring adjustment made by the search engine during the process of the consumer entering text into the search bar.

It is helpful to understand Josefin’s interaction with the search engine through the lens of agencing. Initially, her uncertain use of terms reflects limited knowledge. However, as she accepts the search engine’s suggestion, she transitions from uncertainty toward informed exploration. This moment of micro-interaction between Josefin, the search

engine, and its functionalities encapsulates how agency is distributed across a network of elements. The technology discerns her informational gap and provides an appropriate term, enabling her to discover the product for which she initially lacked the correct term. Through this smartphone-enabled agency, Josefin overcomes her knowledge deficit, demonstrating the transformative power of the search engine in the customer journey.

On another occasion, Josefin performs numerous customer journeys to furnish her new apartment, simultaneously exploring carpets, coffee tables, posters, and paintings. Misspelling "painting" ("*tavlor*" was misspelled as "*tqvlor*"), the search engine seems to conclude that this misspelling is obvious; it simply shows the results of the correct spelling, offering the misspelled term as a valid query only if she confirms it by clicking on the link: "Instead search for *misspelled term*." In this case, Josefin re-did the search by clicking on the correctly spelled term, even though doing so was unnecessary, and then entered desenio.se.

Unlike the previous example, the phrasing is altered by the search engine without confirmation from the human user in this instance: The system makes the decision on behalf of Josefin. In this case, the system is correct; Josefin is looking for paintings and posters. Maybe because of the high probability that the term "*tqvlor*" is an error on the part of the user, the correction made by the search engine is not as intrusive as its previous suggestion to change the search word using bright red font. Instead, the text is in black and blue, allowing it to blend in with the overall look and feel of the interface design. This example shows that the emergence of a product is not limited to internal human cognitive processes but is intertwined with the use of a technology such as the search engine, which provides materials in the form of pictures, text, and links.

When probing this topic in an interview with another informant, Fia mentions that she accepts the system's help thereby intuitively involving it in her specific agential capacity. When discussing the topic in an interview, she comments: "Instead of re-typing the correct word, I click the link that says correct spelling. I haven't really given it any thought. It's like with cookies, I just accept everything." In this way, Fia embodies a sort of hybridity between a human and non-human actor that is created through the performance of actions that assemble a human and non-human actor and, in turn, configure a socio-material assemblage that performs exploration.

The interplay between human users and material actors—more specifically, search engines—sheds light on the latter's potential to influence and shape the exploratory aspect of self-marketing within a customer journey. As this chapter has illustrated, such shaping is not a future possibility but a current reality, substantiated by the search

engine's role in guiding the user's word choice during searches. The search engine's organization of the marketing scene is not a passive backdrop; the search engine is an active participant in the fine-tuning of the search process, demonstrating a symbiotic relationship between user and technology in which the user views the search engine's participation as playing a positive role in reaching her or his goals.

However, this is just the surface of a much deeper dynamic at play. To fully grasp how customer journeys are performed, it is necessary to dig even deeper, considering the myriad ways in which human and non-human actors coalesce to achieve agency. The forthcoming section will discuss this by revealing how products themselves can emerge as influential actors within the narrative of the smartphone-enabled consumer's customer journey. Through this lens, the data will reveal how socio-material actions bring items into the spotlight, highlighting the distributed nature of agency and the participatory role of objects in the digital market infrastructure.

4.1.3 From broad to narrow exploration

The data underscores the search engine's pivotal role in the customer journey, particularly for consumers using smartphones as a critical technology. The smartphone acts as a gateway for consumers, crafting an overarching view of the digital market infrastructure. This is complemented by the informants' proficiency in utilizing search terms to navigate and direct the search engine's capabilities.

Take the upcoming example: Fia's customer journey across various categories ultimately culminates in the selection of a specific product. This is no random stroll through digital aisles; it is a strategic expedition driven by her deliberate choice and variation of keywords. These terms act as signposts, steering Fia through vast amounts of content toward her goal. Ultimately, the smartphone and search engine shape Fia's agential capacity as a consumer who performs customer journeys that traverse across brands, in what Bettencourt et al., (2022) have proposed and conceptualized as consumer job journeys (i.e., where the consumer has a task to accomplish).

In the narrative that follows, Fia's selection of keywords allows her to efficiently explore the possibilities of what to buy. Her inputs into the search engine are maneuvers that reflect a sophisticated interplay between consumer and technology. Fia's story provides a vivid illustration of the consumer's evolving customer journey—and her specific agency, underscored by the smartphone, in the search for products.

> At 10.37 am, Fia first enters lamp24.se and browses; she then enters Google and broadens the search for "lamp store Stockholm" (*lamp*

butik Stockholm). Next, she enters ikea.com and views beds and mattress for 15 minutes. Later, at 1.20 pm, Fia resumes using Safari and enters Google once again, typing in a query "tent for bunk bed" (*tält till våningssäng*). She enters ikea.com but suddenly stops using the browser. At 4.00 pm, she enters Safari and searches "bed tent bunk bed" (*sängtält våningssäng*); again, she enters ikea.com and searches on the internal search bar at ikea.com, viewing cabinets until 4.07 pm. At 4.30 pm, Fia resumes, visiting ahlens.se and an advertising campaign page she received in her e-mail. After viewing the page briefly, she enters Google, searches for "box spring mattress" (*resårmadrass*) and enters jysk.se. She views mattresses and then goes to furniturebox.se, after which she reenters Google and searches for "bed tent bunk bed" (*sängtält våningssäng*). Again, she enters IKEA, but then searches on Google for "bed tent" (*sängtält*), views the results, and enters lekmer.se. She reenters Google and searches for "bed canopy" (*sänghimmel*), stays on Google, and adjusts her wording several times while viewing the resulting pictures provided by Google: "bed canopy with lighting" (*sänghimmel med belysning*); "bed canopy with lighting in the ceiling" (*sänghimmel med belysning i taket*); and back to "bed canopy with lighting" (*sänghimmel med belysning*). Eventually, Fia enters komplett.se, but then returns to Google to search for "hut bunk bed" (*koja våningssäng*) and makes another adjustment to "canopy bunk bed" (*sänghimmel våningssäng*). She enters IKEA, then goes back to Google and adjusts her search to "ikea bed tent" (*ikea sängtält*). She then starts going back and forth between ikea.com and Google's search results. Eventually, she enters Google and then browses to reach lekmer.se, re-enters Google, and searches for "bed tent lighting" (*sängtält belysning*). She stays on Google and adjusts to "canopy lighting" (*sänghimmel belysning*); "diy canopy rock ring" (*diy sänghimmel rockring*); and "bed tent" (*sängkoja*). At this point, she enters wnm-group.se and views a product.

In this long exploration session, Fia engages in a dynamic process of adjusting her search terms in order to prompt the search engine to produce the desired product. Several different materials and technologies—pictures, e-com sites, and different combinations of keywords—participate to create an exploration in which each iteration or rephrasing entails an active adjustment, showing how intricately and precisely the consumer uses the search engine and all other resources to explore and find what she is looking for.

Furthermore, it is observable that the actions become linked together in clusters. Fia initiates exploring sessions that are thematically coherent; this is especially obvious in the last instance, when she is trying to allow a product to emerge that she can use to decorate her children's bunkbed. The emergence of the product materializes Fia's

higher-order goal of creating a cozy sleeping environment for her children; that is, it is her concrete and obtainable goal of a product that materializes this higher-order goal, showing that customer journeys manifest connections between goals within a structure over time. This proposition aligns with Becker et al.'s (2020) goal-oriented view of customer journeys, as well as Schau and Akaka's (2021) cultural outlook stressing the holistic context within which customer journeys are organized. Becker and colleagues' main points include introducing a customer-centric goal-oriented perspective, describing cognitive and behavioral processes in relation to goals, emphasizing the significance of higher-order goals for a holistic customer journey view, and highlighting the hierarchical structure of customer journeys. The present study further elucidates how the use of the search engine forges a socio-material link between the consumer's actions and goals, thereby taking part in a process of agencing that is enabled by the digital milieu within which the journey occurs. In the next section, I suggest that "search term probing" be viewed as a specific agential capacity that is bestowed to the consumer by the search engine, along with other material actors.

4.1.4 Search term probing

One evening, Mimmi searches for a Christmas tree bell of a certain size and material. In the interview, I learned that this was the reason why Mimmi had spent about 10 minutes on the retailer webpage svenskttenn.se. Mimmi often visits this site to stay up to date with current home decorating trends; it is both an e-commerce store and a brand from which she obtains inspiration. She is inspired to envision a Christmas tree bell in a certain size that she herself can paint and hang on her Christmas tree. Once this goal emerges, she begins to explore alternative retailers or solutions to make the Christmas tree bell herself.

> First, she enters Google and types the query "large Christmas tree bells" (*stora julgranskulor*); she then immediately changes the wording to "large Christmas bells 20 cm" (*stora julgranskulor* 20 cm). From this search, she re-enters svenskttenn.se to reconfirm the goal, but returns to Google after viewing some of the products and alters the search once again: "transparent Christmas bell 20 cm" (*transparent julkula* 20 cm). She then enters another retailer, panduro.com, and views products related to the search. Going back to Google, she consecutively makes short visits to three retailers: partykungen.se then Google then getspecial.se then Google then fyndiq.se, and then back to Google, where she alters the search by erasing "20 cm." Now searching with the wording "transparent Christmas bell" (*transparent julkula*), she enters cchobby.se then yoursurprise.se then cdon.se, and then returns to the search and alters it to "transparent Christmas bell 15 cm" (*transparent julkula* 15 cm).

> From there, she visits savero.se, and then again back to Google and searches “Christmas tree bell transparent 15 cm” (*julgranskula transparent* 15 cm); not leaving Google, she then adds “glass” to the search: “Christmas tree bell transparent 15 cm glass” (*julgranskula transparent* 15 cm *glas*). From there, she goes to temburestore.se then skoogle.se then fyndiq.se then Google then kristinasscrapbooking.se then Google then diyordie.elle.se then Google, and then alters her search to “Christmas tree bell 15 cm” (*julgranskulor* 15 cm). She then visits majalisas.se then bloomsburybarn.se then addwish.se then onlinepynt.se, and goes back to Google for another adjustment: “large Christmas bells 20 cm” (*stora julkulor* 20 cm). Then she visits heraldnyborg.se, returns to Google, and adjusts the search to “large Christmas bells 15” (*stora julkulor* 15). She visits juliett.se, but then goes back to svenskttenn.se; within another 45 minutes, she completes a purchase.

At the end, the data shows that Mimmi makes a purchase. However, the purchase is not a Christmas tree bell but a small candle holder from the brand she initially visited, Svenskt Tenn. During her search, Mimmi not only changes terms but also explores by moving the words around. Notably, this example offers additional insight into how consumers use search terms to probe: Mimmi changes the dynamic of the search when she simply puts “transparent” before or after “christmas tree bell” or “christmas bell.” She also adjusts her size search by typing in the subjective term “large” as a substitute for the numeral “15” or “20,” in what seems to be an attempt to find a product that may match the product she has in mind. The session ends with Mimmi realizing that there is no suitable product that meets her goal.

Consequently, Mimmi shifts to initiate a chain of searches as part of her exploration. In this instance, her intricate phrasing and adjusting of the search terms show how agency is constructed in close connection to the ways in which heterogeneous elements adjust to each other; each search outcome inspires Mimmi’s next action, allowing her to act. Mimmi seems to be as much on a quest to self-educate herself about a potential buy as she is on a journey to evaluate a specific product’s quality. As noted by Beverland et al., (2023), consumers are in constant processes of interaction and adjustment to gain learning throughout the customer journey, in what they term “educational customer journeys.” The excerpt above from the trace data demonstrates how such an educational process is performed by several materials, including differing combinations of words and technologies like the search engine and e-commerce platforms; it also shows how search term probing emerges as a smartphone-enabled consumer capability.

At the same time, e-commerce stores participate in transforming the consumer’s routine of probing. These platforms equip consumers with the capacity to expediently

navigate through an extensive array of products and services. The ability to compare offerings, access detailed information, and read reviews has become integral in the customer journey, allowing consumers to make decisions that they experience as good purchases. Fia expresses this as follows: “I’m a bit of a control freak; also, I want to know what I’m ordering, and that’s when I want someone to tell me: ‘this is a good thing’ … so that’s why I prefer advice, like reviews.”

Considering that this multi-firm, multi-actor, multi-touchpoint journey is common among the informants in the study, retailers should put considerable emphasis on trying to understand their offers within a wider context, rather than limiting their understanding of the consumer experience as something that is shaped within a retailer’s own touchpoint eco-system. In the next section, I explore smartphone-enabled agency when consumers know beforehand what they are looking for.

4.1.5 Exploring with a pre-materialized goal

Previously, I have shown that a goal can emerge through the intricate use of different search terms. In contrast, this section shifts the focus to scenarios in which consumers initiate their digital exploration with a clear objective in mind. Here, the analysis delves into how these consumer experiences with well-defined aims contrast with the more open-ended explorations discussed previously. I examine the implications of this goal-oriented approach on the customer journey, considering how the specificity of consumer intent shapes interactions with the search engine and influences the resulting socio-material assemblages.

Exploring a predefined goal appears often in the data. Examples include looking for children’s clothes; searching for a Father’s Day gift; looking for a poster to put on the wall in the kitchen; buying a rain cover for the stroller; shopping for specific interior design items for the summer house; replacing a vacuum cleaner; replacing a broken tea-pot; and trying to source the right type of lightbulb.

The informants often used the same trick to keep their exploration aligned with their predefined goal: employing product names, brand names, or retailer names. Titti used “chess” (*schack*) to keep the results of the search product relevant. Fia used the phrase “duplo zoo” to search for a specific type of branded toy. Many of the other informants also used brand names such as “fitbit” (a brand name), “jula stores” (where “Jula Butiker” is a Swedish retailer name), or “didriksson mittens” (Didrikssons *vantar*, where Didrikssons is a Swedish active lifestyle apparel brand). Furthermore, it was not unusual to observe in the data that social influence was pertinent in the informants’ actions in exploring a defined goal. For example, chatting at work about the idea of

visiting a meditation studio as an out-of-office social activity that made Fia search for a nearby Yoga studio or look for the different stationary needed to make a bespoke gift for her mother. Similarly, Mimmi's aim to obtain a weighted duvet cover stemmed from a concrete tip given by a friend.

In the act of exploration with a defined goal, the consumer's utilization of a search engine becomes precise. Armed with specific product names, brand names, or a path of closely related search queries, consumers navigate toward their intended goal. The upcoming example zeroes in on this focused approach, revealing how the specificity of a product type or retailer's name anchors the exploration process and adds another layer to the way in which agency is enabled throughout the customer journey.

> One afternoon, Josefin searches in the following order: "electricity contract" (*el avtal*), "electricity contract rental apartment" (*elavtal hyresrätt*), "fortum electricity" (Fortum *el*), "rusta fuse" (Rusta *propp*), "rusta västberga" (Rusta Västberga), "rusta fuse" (Rusta *propp*), "fuse buy" (*propp köpa*), "15a fuse" (15a *propp*), 15a fuse 250v" (15a *propp* 250v), "jula stores" (Jula butiker), and "bauhaus eriksberg" (Bauhaus Eriksberg).

It is notable that the targeted search strategy is not merely a linear progression; as observed previously, a consumer's exploration is characterized by an intricate process of trial and error, as evidenced by the searches Josefin performs while looking for fuses. Consumers refine their searches, learning which terms yield the most relevant results and which do not. Through the lens of consumer job journeys, as proposed by Bettencourt et al., (2022), Josefin can be understood to integrate several firms' resources in the process of localizing a fuse. However, her iterative process shows that the path she takes to find a product aligned with the job at hand is built on an intuitive understanding of how search engines respond to various combinations of keywords and phrases.

The centrality of the approach used to explore a defined goal further emphasizes the nuanced relationship between consumers and search engines. It highlights the search engine as not just a repository of information but as a dynamic partner in the customer journey. Each search acts as a probe—an experiment that helps the consumer navigate through the vast market infrastructure, both offline and online.

The next section shifts focus from the mode of exploration to another significant mode of the customer journey facilitated by smartphones: instant access to shopping entertainment. This mode encompasses a distinct aspect of smartphone usage, in which immediacy and leisure intermingle within the customer journey. This transition in the analysis is essential, as it broadens the scope of understanding of customer journeys on

smartphones beyond the seemingly instrumental act of exploring what to buy and considers how smartphones serve as portals to entertainment, providing immediate gratification and leisure at the touch of a screen. This instantaneity represents a different but equally significant dimension of the customer journey. As I investigate this mode, the findings illuminate how smartphones are not just tools for achieving specific exploration goals but are also devices for spontaneous enjoyment.

4.2 Access to instant shopping entertainment

My observational study of the informants' online behaviors demonstrated that the smartphone is a powerful technology that provides instant access to shopping entertainment. While the informants' browsing on various commercial sites may have appeared to be sudden and without a clear direction, the interviews revealed that these behaviors were driven by a search for immediate shopping entertainment. The informants engaged in a range of activities—from seeking information and reading articles to watching videos and simply exploring—to fill idle moments, satisfy curiosity, or dispel boredom.

The informants strategically navigated across various commercial touchpoints—a term traditionally used in the literature (as noted by Towers & Towers, 2022)—to fulfill their shopping entertainment needs. The smartphone emerged as a crucial facilitator in this process, granting them the ability to interact with a plethora of commercial shopping offerings anytime, anywhere. This transformed the smartphone into an enabler in combating boredom and engaging with content that sparked the informants' interest.

The omnipresence of smartphones in daily life, coupled with their ability to provide instant access to a vast array of content, allows individuals to effectively manage their idle time. This aligns with the assertions of Siebert et al. (2020), who propose that customer journeys offer an escape from the monotony of everyday life by allowing users to immerse themselves in alternate experiences or distractions as they wish. Thus, the smartphone-enabled consumer is not just a shopper but also an active participant in a continuous flow of entertainment, leveraging the digital market infrastructure for both practical needs and leisurely pursuits.

4.2.1 Transforming many touchpoints into a scene for shopping entertainment

The touchpoint can be considered to shape the practice of the consumer by keeping the consumer engaged with entertaining experiences. A closer look at the informant Sanna's search for "home decoration" reveals a dynamic process in which her practices shape a flow of several touchpoint elements adjacent to each other through the enactment of the customer journey.

After entering the online retailer jotex.se in the middle of the night (2.40 am), Sanna views films on YouTube, searches for picture frames and specific types of interior decoration for a balcony, and goes to skonahem.se, a Swedish lifestyle magazine that also offers inspirational content online. Sanna's browsing process in the subsequent hours creates a marketing scene that is shaped by herself and the specific way in which she chooses to browse using a search engine. As demonstrated in this chapter, the commercial content and touchpoints in such marketing scenes are organized in a certain order because of the ways in which the consumers use the search engine, the links they click, the results that are presented to them, and the associations they make when browsing the digital market infrastructure.

Because the consumer is intertwined with the smartphone and can easily visit an array of touchpoints to be entertained, a unique scene is enacted by the consumer in which she or he traverses individual touchpoints with different "ownership" (Towers & Towers, 2022), thereby creating a specific, temporary scene that organizes these touchpoints into a whole. Consumers navigate and decide for themselves in such sessions of "private marketing" (Cochoy, 2012). An additional dimension to the creation of this kind of marketing scene can be found by examining the use of wording as input in the search engine and how these words take part in shaping an entertainment scene.

Mimmi decides to search on Google using several words: "hand soap that does not dry out" (*handtvål som inte torkar ut*); a few minutes later, she searches "best hand soap" (*bästa handtvålen*). Like Sanna's haphazard browsing for interior design, Mimmi's search happens late at night—in this case, at 11.23 pm. Before this search, Mimmi browses around online, reading an array of different web forums and news outlets, as well as a press release pertaining to her line of work. In other words, she is not exclusively browsing commercial content. In the follow-up interview, Mimmi shares the reason for her sudden idea to perform a search for "hand soap that does not dry":

> I like to read and make comparisons. On the occasion of the hand soap, I think it was that I was unsure, or that I was doubtful of my

> own opinion, maybe. We've been using the same hand soap for a while, and I probably felt that "hmmm … is there a better one out there? What would that be?" And then, many times, I'll be like "pfff" [Mimmi makes a hissing sound] "they don't know anything" [laughs]. For me, it's also about knowledge, learning about what's at the foreground and what's rated as the best alternative. And also, on what factors do they gauge to evaluate, and what factors do I use. (Interview with Mimmi)

At a glance, the traces that Mimmi produces in this example may look like she is in a pre-purchase phase, evaluating a product. In fact, she is in a process to distance herself from a purchase: "They don't know anything," she explains, thereby positioning her already-made choice of a hand soap as the best or ultimate choice. Her smartphone grants Mimmi immediate access to an entertaining experience. By reading up on content about the very specific topic she wants to learn more about, she finds delight in participating in an act of private marketing: Mimmi mobilizes a series of interactions enabled by touchpoints, which collectively assemble into an entertainment scene in which Mimmi has her own bespoke experience. She concludes that she knows more about soap than the review site, in an enjoyable and entertaining moment that has been assembled to enable a feeling of "fun" in self-marketing (Cochoy, 2012).

The touchpoints offered to the consumer today are multifaceted. They provide information, pictures, descriptions, ratings, video, and more; they also provide the consumer with the possibility of performing—as in this instance—entertainment. When the consumer mobilizes a touchpoint for the purpose of entertainment, a transformational process organizes the touchpoints into flows that entertain the consumer. Because touchpoints are designed to create engagement and to retain the interest of the consumer, they are apt for the purpose of entertainment. However, this engagement does not seem to keep consumers on track toward a purchase. Unsurprisingly, the smartphone allows consumers to quickly flee a situation that feels unproductive and find a new means of entertaining themselves. Even if the informants do not purchase anything in direct relation to the entertainment they created for themselves, they are kept occupied for the moment; this raises the question of how research should expand the concept of the touchpoint as something more than a tool for nudging the consumer.

The socio-material landscape of the consumer journey is enriched by the integration of entertainment, transforming touchpoints into realms of both commerce and leisure. Within this framework, consumers engage in "self-marketing," as conceptualized by Cochoy (2012), leveraging the technological capabilities of their smartphones to actively curate their experiences. The interplay between the social behaviors of seeking pleasure and information and the technical affordances of smartphones facilitates a

personalized journey. In this way, the smartphone is a central element, actively shaping the journey with the content and the user. This self-directed journey blurs the lines between consumption and leisure, highlighting the evolving role of consumers as partial co-creators of their experience in the digital market infrastructure. Through their smartphone-enabled actions, consumers are not only defining what they buy but also how they spend their time.

4.2.2 Curious informants perform shopping entertainment

Curious entertainment can also be initiated by an external actor, such as a text message, an e-mail, or even a digital ad banner in social media or on a web site. These materials mobilize the consumer into a process of actions that involve touchpoints—again, from a variety of sources—amounting to the consumer's own private marketing scene. This process exemplifies a socio-material interaction, in which both social prompts (e.g., messages or emails from known contacts) and technological prompts (e.g., targeted ads from algorithms) intersect to influence consumer behavior. The materials from these diverse sources accumulate to form a unique customer journey for each individual, characterized by its alignment with the user's personal interests and current engagement.

The informants reported that activating a link that was sent to them in a text or email would often result in them visiting the brand that had reached out to them. The notification engaged the informants in short bursts of curious entertainment—not only in the form of *being entertained*, but also in the active verb of *entertaining* a basic curiosity or a willingness to keep themselves updated on the latest the retailer or brand was offering.

Curious entertainment can be observed when Jocke visits stayhard.se for only a few seconds, prompted by a digital newsletter. In the interview, he explains: "I didn't feel I was going there to purchase something, but rather because I received a newsletter." The same pattern of actions can be seen in other short events, such as when Titti is prompted by a digital marketing email and briefly visits drmartens.se. In another example, Björn receives a digital marketing e-mail and navigates onto bottegaveneta.com, spending about 8 minutes browsing in order to stay up to date with the latest releases from the brand. In all these examples, materials act as mobilizers for curious entertainment; however, the data also demonstrates that other social actors can encourage an informant to begin to source information. This is illustrated when Fia becomes curious after her partner argues that it's not possible to mend their child's pair

of rain pants, triggering Fia to visit a series of websites with the aim of proving him wrong.

Curiosity is also notable in Mimmi's actions when sitting on the subway going to work. While listening to a podcast about trends, the hosts begin to mention different designer furniture they want to buy. Not knowing what these furniture pieces look like, Mimmi begins to search specifically for "wegners peacock chair" and enters the retailer harald-nyborg.se. In this instance, several materials and technologies inspire Mimmi to perform curious entertainment. Listening to a podcast on her smartphone prompts her to navigate onto a search engine on the smartphone. She explains that she did not know what the chair looked like but became curious to find out. The findings from the interview make it possible to identify several actors in this episode: the specific chair mentioned, the host in the podcast, and the context of sitting on the subway on the way to the office. A step-by-step process unfolds, and Mimmi's actions entertain her. Because she is intertwined with the smartphone, she is what Cochoy (2012) would call "recruited" into a process of self-marketing. The same complex assemblage of different actors and devices can be noted in the traces and interview with Josefin. A sudden search for "rattan chair ikea brown" (*rottingstolar ikea bruna*) and a quick glance at the results list on Google is an action Josefin undertakes as curious entertainment to learn about the visual elements of chairs she knew only the name of, which are offered as a gift by her aunt to put in Josefin's new apartment.

The observations bring to light two key propositions regarding entertainment in the digital landscape and the concept of agencing—the process through which agency is achieved. Firstly, the emergence of specific entertainment scenes is integral to the informants' entertainment practices. These scenes are not static but are constructed dynamically through the consumer's actions. I posit that these entertainment scenes remain largely beyond the control of retailers, as long as the latter continue to view consumer interactions predominantly through the prism of discrete touchpoints. Moreover, when e-commerce sites or review platforms become part of an entertainment practice, it does not necessarily mean that the consumer has the intent to progress toward a purchase. Instead, these touchpoints are incorporated for their inherent value, such as providing information, and are thus repurposed by consumers to serve their entertainment needs. Secondly, the proposition of entertainment reveals that agency is deeply contextual and is dependent on the consumer's immediate situation, such as moments of boredom or responses to external prompts such as messages. While retailers may be able to initiate consumer engagement, once consumers embark on a journey, the consumers' primary objective is to engage with content that alleviates their idle time, rather than to make a purchase.

In essence, these insights suggest that, while retailers can facilitate an initial spark of curiosity, the subsequent consumer journey unfolds in a fluid, self-directed manner. Consumers wield their agency not to complete a transaction but to navigate through and interact with content that satisfies their immediate desire for entertainment. This redefines the role of commercial touchpoints in the customer journey, highlighting their versatility and the consumer's active role in repurposing such touchpoints within the context of the consumer's personal entertainment landscapes.

4.2.3 Shopping entertainment to pass time

The smartphone-enabled consumer performs entertainment, enabled by a network in which numerous actors and devices participate. The temporary outcome, in the form of entertainment, allows consumers to move around at their own whim—not because they are triggered into completing a "whole" three-phase customer journey, including a purchase. The prevalence of smartphones has notably reshaped the traditional customer journey, deviating from conventional notions of sequential and linear progression into a haphazard pursuit of entertainment as a mode of the customer journey. For example, the informants' actions on the smartphone and the ways in which touchpoints are shaped into a flow of content by which the informants are entertained mark a transformation from being bored to being entertained. The consumer's use of the smartphone adjusts with the touchpoints in the market infrastructure, together achieving the passing of time as an outcome—and, therefore, entertainment as a resilient mode of self-marketing to fill idle time.

Titti refers to this practice as "something I tend to do during lunch break at work." Today's consumer can instantly interact with a digital retail space for entertainment while having lunch at work, establishing a significant difference between digital and physical retail infrastructure that can be explored via what Cochoy (2012) articulates as a central trait in self-marketing. Through these practices, the smartphone-enabled consumer can be understood to be transcending traditional physical borders. The informants in the study did not approach the market as fixed but as a malleable context that changed as they acted on their smartphone.

Smartphone-enabled consumers can treat a retail space as plastic—that is, fluent—via their actions (cf. Nenonen et al., 2014). With little energy expenditure (which has been proposed to be a significant effect of smartphones, according to Cochoy, 2012), the consumer in this case can combine being present at the office with having a commercial interaction, all without leaving the lunchroom of the company. Titti does not only travel into the digital market infrastructure and visit various outlets in ways that require little energy on her part; she also creates highly elaborate combinations of

spaces as her smartphone presents her with an instant gateway to the digital market. I argue that, in understanding how consumers create these elaborate and intricate customer journeys, it is important to view markets as fluid—as scholars in CMS have significantly argued (Nenonen et al, 2014; Callon, 2015).

Callon's (1998b) perspective of the market as being in constant evolution supports the idea that consumer engagement—particularly in terms of entertainment—is part of an ever-changing landscape. This notion aligns with the fluidity of online entertainment scenes and the contextual nature of agency. As markets evolve, so do the ways in which consumers interact with various touchpoints, repurposing them beyond their intended commercial function to serve personal entertainment needs. Callon's assertion implies that retailers and market actors must adapt to these evolving consumer practices and agencies. The traditional, linear customer journey toward a purchase is no longer the sole pathway consumers follow. Instead, as markets change, consumers increasingly engage in diverse and dynamic journeys, driven by their immediate contexts and a broader search for entertainment.

4.2.4 Performing scrolling

One evening, late at night, Josefin searches for "Nelly" (a Swedish online fashion retailer) on Google, as a way of entertaining herself when feeling bored by browsing in quest of a product she has no defined need for. She enters nelly.se and browses around in the category "new in"; she also activates three different embedded YouTube videos showing garments. In the follow-up interview, Josefin explains that this type of random browsing is a common practice when she's bored, if she can't sleep, or when she simply isn't doing anything important. On another occasion, Josefin visits the pages of different online retailers and explains in the interview that she considers this style of browsing to be "deathscrolling" (*dösurfande*), indicating that there is no other rationale behind it other than simply passing time while using touchpoints embedded in the digital market infrastructure as the main distraction.

An important aspect to consider is the way in which Josefin practices entertainment. Her data traces show irregular actions—or fluid associations—regarding where to browse next, creating an elaborate and intricate order that Grewal and Roggeveen (2020) stress is the main characteristic of the contemporary customer journey. In the interviews, Josefin comments that she clicks on links due to curiosity rather than "need," as is assumed in customer journey management (Neslin et al., 2006; Puccinelli et al., 2009). Self-marketing elucidates how consumers participate in entertainment via the customer journey. Customer journeys are performed not because there is a specific need but for fun—and, as the analyses show, in order to pass time. This finding is

consistent with previous studies, like that of Sundström et al. (2019), who identify the factor of boredom as a reason to shop online. The present study, however, shows that no purchase is needed, as consumers can view haphazard scrolling without a purchase as an overall positive experience. Another way to understand Josefin's performance could be to view it as browsing. In other closely related consumer studies, browsing is typically considered to be an activity that is performed as a way to pass time (cf. Bäckström, 2013).

On another occasion, Josefin specifically reported being bored as a trigger for visiting shein.com, an online fast-fashion retailer: "When I'm not busy, I tend to do those searches." Josefin visits shein.com but spends only seconds on the site. Later, she reveals that the context of this interaction was a slow moment at the office: "It was slow at work … no customers coming in, and we [she and her coworkers] were all hanging out on our phones … and I usually do those searches when I'm bored." She seizes the moment to visit shein.com, despite having voiced hesitation about this e-commerce actor in a previous interview during the spring of 2020. Connecting to the trace data, Josefin offers the following argument for visiting a brand she had previously expressed moral doubts over: "It's because they're so cheap. I can buy bags for 100 kronor or a top for 50 kronor. At the same time, they have been criticized for being so cheap."

This example of a sudden visit to a store illustrates how consumers gain effortless access to retailers, having micro-interactions that can over time amount to extended interactions for the consumer. It also demonstrates that Josefin's easy and effortless actions are enabled by the smartphone. One can only assume that this fast and effortless access facilitates an opportunity for Josefin, despite the contradiction of visiting a brand she deems to be morally corrupt.

With a need for low energy expenditure, as suggested by Cochoy (2012), Josefin performs a private marketing session in the form of short micro-interactions connected to a specific circumstance of feeling bored; thus, entertainment mitigates her feeling of having nothing useful to do. This episode is inconsistent with the customer journey framework that prescribes that customer journeys should—at least often—include a purchase (Lemon & Verhoef, 2016; Tueanrat et al., 2021). What do such actions and motivations reveal about consumers' interactions with the digital market infrastructure, especially when their online activities appear more akin to entertainment than to focused purchasing? The interviews conducted alongside the analysis of trace data assist in answering this question. By displaying patterns resembling a search for entertainment, the informants consistently conveyed a lack of explicit purchasing goals. Instead, they articulated their primary motivations as spending time, exploring,

and deriving entertainment value from their smartphone activities, all while simultaneously interacting with commercial content. This finding reveals that the informants' actions are part of an intricate agencing process in which various elements and practices dynamically adapt to one another in creating a specific outcome of time spent browsing haphazardly across the vast space of the digital market infrastructure. In this way, their actions provide the informants with the ability to mitigate their boredom by simply using their smartphone to allow time to pass. In a sense, if the digital market infrastructure is designed to provide the necessary points of interaction to facilitate a purchase, this is reversed (much like in a session of the card game UNO) by the smartphone-enabled consumer, who chooses to use the infrastructure as a means of entertainment rather than to perform a purchase.

4.3 Smartphone-enabled purchasing

In this section, the practice of purchasing as a mode of the customer journey is closely examined, continuing the investigation into the first research question: *How do smartphone-enabled consumers perform customer journeys?* The purchasing mode differs from the previously discussed modes of entertainment and exploration. While exploration is marked by the search for and emergence of products, and entertainment is characterized by activities that pass the time or satisfy curiosity, the purchasing mode involves a more decisive set of actions. These actions include comparing prices, narrowing down choices, making decisions about products or services, and, ultimately, either reaffirming or abandoning these decisions. Understanding smartphone-enabled purchasing is critical in grasping the socio-material customer journey, as this purchasing mode reveals the nuances of how technologies, materials, and social actors participate to shape purchasing decisions and how consumers can perform purchasing enabled by the smartphone.

As the informants approached a purchase, circumstances involving pricing, discounts, or being aided in decision-making by others showed that purchasing is not a narrow process of transacting a product for capital. Instead, like exploring and entertainment, purchasing involves various functionalities embedded in the market infrastructure that are available to use in order to perform the purchase. In line with insights presented by Solér, Koroschetz, and Salminen (2020), I hold that infrastructures—whether physical or digital—are central in providing the necessary environment to enable specific forms of consumption.

In this section, I show how purchases are enabled by the search engine and its capacity to sort out information in the market infrastructure. More specifically, the search

engine allowed the informants to begin to treat price—an otherwise fixed element—as fluid, by enabling them to search and find coupon codes or discounts to use in the purchase. Moreover, the act of purchasing is shown to be a collective endeavor that involves a network of both non-human elements (i.e., the search engine and discount-finding algorithms) and human actors (e.g., peers who may recommend a product or share a promotional code). This socio-material perspective illuminates the multifaceted nature of purchasing, where the decision to buy is not made in isolation but is instead the result of a confluence of various enabling and influencing factors within the digital market infrastructure.

4.3.1 Negotiating the price

As the informants engage in the act of purchasing, their attention converges on aspects of quality and price, signifying a shift into the enhanced evaluative and discerning behavior of the customer journey. Theoretically speaking, this shift represents an entry into a "calculative space," a concept described by Callon and Muniesa (2005), where goods are actively contrasted against one another. In this space, informants are not passive consumers but active participants who perform calculations and make assessments to distinguish between various alternatives. This critical evaluation process is central to their decision-making as they navigate toward the completion of a purchase.

In the first example, Mimmi is in a calculative space; she expresses her feelings as "Frantic, totally frantic!" in a response in the follow-up interview, when I read back the data captured when she spent just over 3 hours trying to find a specific toy for her child. "It began with me seeing it on Blocket (a Swedish second-hand peer-to-peer platform), and I had thought about buying it for a while, but then I decided: I must have it!" This is an important moment in purchasing: the insight that a product is no longer just potential but has become a target to be prioritized, focused on, and acquired. As Mimmi sets her mind to purchase the toy, she begins to explore several different online sites, amounting to a purchasing scene.

Beginning with a search for "walking car" (*gåbil*), Mimmi visits toyspace.se and views one related product. Then she quickly navigates to amazon.se. At that time, Amazon had recently launched in Sweden. Mimmi noted: "I had just discovered Swedish Amazon and had spent a lot of time exploring the site." On amazon.se, she begins by typing "walking car" (*gåbil*), the same search term she used on Google, and visits a product page showing the Vtech walking car. After that, she searches again using the internal Amazon search bar provided on the platform, this time searching for "vtech." From this point onward, Mimmi spends a total of 3 hours moving between amazon.se,

etsy.com, amazon.co.uk, and cdon.se, searching for different versions of the Vtech walking car, then switching to compare different versions of a rainbow rocker between Amazon and Etsy. She spends the last hour browsing children's toys in general and versions of the Vtech walking car in particular, and begins to compare prices between cdon.com, amazon.se, and Blocket. The act of comparing prices is central in purchasing, but price is a curious and subtle element that has been argued to be a fluid representation rather than a fixed entity (Hagberg & Kjellberg, 2015).

In the current landscape of diverse commercial platforms, exemplified by various entities like Amazon and Etsy that operate in numerous countries and provide consumers with extensive product options on a globalized digital market infrastructure, the concept of price has evolved into a highly flexible and adaptable entity. This flexibility in pricing is further illustrated in the subsequent interview with Mimmi, where she emphasizes the significance of obtaining the lowest possible price. She goes on to elaborate that the decision to purchase second-hand toys does not necessarily guarantee a lower cost, which prompts her to meticulously consider multiple websites when engaging in a purchase. Through Mimmi's practice of browsing numerous international e-commerce platforms, a distinct purchasing scene emerges that is characterized by its capacity to offer varying price points. This type of scene is in a bidirectional relationship with individuals intertwined with smartphones, underscoring how the globalization of market infrastructure has considerably expanded consumers' horizons. The ability to access international markets for goods and services transcends geographical constraints, providing smartphone-enabled consumers with the opportunity to explore global markets and diversify their purchasing options.

At the end of the trace data representing Mimmi's purchasing, she activates a "wish list" on Amazon, putting the products on hold. After some time had passed, Mimmi told me that she ended up buying the Vtech walking car from German Amazon, where she found the same product for a better price, even lower than the same type of walking car secondhand in Sweden. As Mimmi put it: "This was my first purchase on Amazon, and it ended up being many more to come. Also, the text [on the toy] was in German, but that was just extra fun."

The hunt for a low price is a socio-material process. Mimmi mentions the product itself and the pricing as elements that contribute to her trajectory. The same routine was observable when she used "pricerunner" (an online price comparison service) and was able to identify a product at another online retailer. Other important elements included the multiple platforms, pictures, content, and search engine, as well as Mimmi's skill of knowing that Amazon in Germany might be cheaper than secondhand in Sweden. By easily moving between several e-commerce stores, both domestic and international,

Mimmi was able to look for the product at a price that she saw as obtainable. The act of purchasing should thus be understood as involving more than what is traditionally studied in the customer journey literature, such as a quick and easy check-out on an e-commerce platform, as shown in a recent literature overview (Tueanrat et al., 2021).

The agency of smartphone-enabled consumers allows them to approach and engage in a purchase by treating the availability of products and pricing as dynamic. Due to their access to an international market and their mobility enabled by the smartphone, consumers can journey across platforms and touchpoints to identify the product they wish to purchase. Through these actions, availability becomes negotiable—not only because the consumer has the freedom to seek for herself or himself, as explained by Cochoy (2012), but also due to the contribution of other materials in the form of sites providing alternatives and variants of the intended product. The consumer's agency is undeniably linked to these elements, agencing the consumer into an actor that is no longer subjected to the range of products and prices available and fixed on the local market.

4.3.2 Identifying discounts and coupons

A discernable trend in the data shows that the informants quest for discounts. Coupons, as a transformative material, bestow upon the customer the capacity to treat pricing as a malleable factor. Consumers now possess the ability to seek out discounts and promotions actively using another transformative element, the search engine, thereby exerting greater control over their expenditure and ensuring cost efficiency in their transactions.

The act of searching for discount codes emerges as a recurring theme in the data. Fia's inclination to search for "discount code lappeliten" (*Rabattkod* Lappeliten) exemplifies the proactive stance consumers take in seeking cost-saving opportunities. Her behavior reflects a wider trend in the data, as indicated by Josefin's statement: "I usually search for discounts. If you can receive a discount by answering a question, then that code can easily be found online." Josefin's description of her longstanding practice of searching for discount codes underscores the persistence of this behavior throughout her customer journey. Titti's decision to enroll in a membership program with the aim of accessing a discount highlights the extent to which consumers are willing to go in order to invest in discount acquisition. This approach to securing discounts demonstrates Titti's willingness to engage with the various mechanisms offered by online retailers. Fia's remark, "I usually visit them because they offer discounts," epitomizes the enthusiasm with which consumers pursue discount opportunities. Josefin's straightforward acknowledgment of being a "discount junkie" further

emphasizes the centrality of discounts in smartphone-enabled consumer agency. Josefin's purchase during Black Friday—despite her initial aversion to the concept—illustrates the persuasive influence of discounts. Finally, Mimmi's repeated searches for "discount code" (*rabattkod*) in conjunction with the food delivery service Foodora illuminate the role of external resources in the discount-seeking process. Her exploration of "rabatterat.se" ("discounted.se" in English) demonstrates the existence of dedicated platforms where users can access an array of discount codes for online shopping. These findings underscore the value consumers place on third-party platforms that enable and provide access to the discovery of discount codes online.

The trace data and statements from informants presented here illustrate the proactive and resourceful approaches the informants adopted in their pursuit of discounts as a form of participative pricing strategy. These findings differ from how the previous literature has viewed discount-finding as a retail strategy to extract surplus by allowing customers to engage in bidding (Santana et al., 2020). As shown in the traces and interviews, the informants can be said to represent "calculative consumers," as envisioned by the neo-classical economic dogma (cf. Grandclément & Nadaï, 2018). Using their smartphone, such consumers incorporate a routine that has allowed them to view price as a representation that can be challenged; the following interaction between Titti and an online retailer provides an example:

> This is what happened: I was shopping for Christmas tree lights, but I can't recall when I was there … but I was also looking for pillow covers, I was supposed to sew pillow covers, but then I found a really nice pillow cover with a pretty pattern of girls swimming, really really nice, but of course, I didn't need them either … and then I bought that, the lights, and probably something else … upon receiving the parcel and opening it to insert the pillow in the case, it turned out to be broken. So I contacted the e-commerce retailer and they promptly sorted a new pillow cover along with a 15% discount. The problem though, was that I had just bought another item from them, paying 1700–1800 in price. So, just when I had made that purchase, I read the email offering me the discount … and this is so typical me; I email them back, "hi hi, I've just placed an order, but hadn't noticed your email. Can you apply the discount on this already placed order?" Which they did, and then I felt: "Yes! Optimized!" (Interview with Titti)

To these consumers, price is not solid; instead, it becomes fluid and negotiable through the actions their smartphone enables them to perform, the digital market infrastructure, and the sites that offer access to coupons and discount codes. Moreover, as shown in the quotation above, the technological systems consumers access via their smartphone make it easy for them to contact the retailer, such as Titti's simple act of sending an

email to request a price change. Therefore, negotiating price is performed as part of self-marketing (Cochoy, 2012). Consumers seek for themselves a price they consider suitable. Seeking—and understanding how to leverage—discounts and codes becomes central in this endeavor.

Furthermore, the findings underscore the significant role prices play within the customer journey, revealing how they become flexible entities subject to the consumer's influence. This challenges the notion posited by Zomerdijk and Voss (2010) and similar research that emphasizes experiences and emotions as the central determinants of consumer decision-making. Instead, the smartphone and various touchpoints—particularly websites offering discounts and promotional codes—facilitate a process of agencing that transforms consumers into value-maximizing actors that can use time to their advantage, as exemplified by Sanna: "Right now, I'm looking around, I'm looking for what I want to buy … and I think that these products won't run out, so I wait for Black Friday." The smartphone-enabled consumer may move away from a brand's curated touchpoint ecosystem and toward third-party sites that can offer better deals; apparently, she can also use time to her advantage, waiting for a discount to become available.

Hagberg and Kjellberg's (2015) research supports the idea that numerous actors are involved in setting prices and determining pricing structures. The results in this section reveal that the consumer is one of the actors playing an active role in the production of price, especially within the context of a smartphone-enabled customer journey. Through their interactions with digital platforms and their strategic searches for discounts, consumers contribute to the dynamic nature of pricing, actively shaping the economic landscape as they pursue cost savings and optimize value.

4.3.3 Assisted purchasing

The process of making a purchase is shown to be a carefully orchestrated interplay among elements, requiring precise alignment for the transaction to be executed. This goes beyond the simple act of selection and payment, as the various actors—from search engines and discount code providers to review sites and payment gateways—must all synchronize effectively. In navigating this network, the smartphone-enabled consumer becomes a conductor, ensuring that each element is attuned to facilitate the final goal of purchase. In one example, Titti recalls a purchase made on her smartphone and bears the significance of the need for effective synchronization. Titti shares in an interview that she had been considering buying a new Christmas tree stand for a while because the old one was so ugly, but she had not gotten around to it. As she and her husband were strolling through the neighborhood on a break in their work-day,

Titti was struck by the insight that a new Christmas tree stand was something to gift themselves, inspired by the realization that a local vendor would be selling Christmas trees. Titti took the opportunity while waiting outside the local country trade store (*Lanthandel*):

> He [Titti's husband] was in the store to buy lunch, and I waited outside and surfed and found the Christmas tree stand, but didn't buy it then and there, but I continued to look around, and then it popped up later. (Interview with Titti)

This empirical finding challenges the traditional view of the purchasing process as a linear progression, presenting it instead as a complex, coordinated activity that depends on the successful interaction of a myriad of components within the socio-material system of the digital market infrastructure and consumer daily life in general. Moreover, performing the purchase itself should not be assumed to be an individual act; rather, it is an orchestration between social actors, as in Titti's example of self-gifting a Christmas tree stand to herself and her husband.

In the next example, Jocke achieves a purchase through a myriad of components, especially the use of a functionality on an e-commerce site that reminds customers when a product is re-stocked. In October of 2020, social distancing had become less strict. Hence, I was able to spend a full day together with Jocke as he worked from home. On that day, during the lunch break, Jocke picked up a parcel from the local postal office in the village and revealed its contents. The parcel was a flannel shirt from the outdoor brand Garphyttan. Jocke was pleased with his purchase and told me that the brand had been especially salient in his social media feed for the last half-year and, as time passed, he felt inspired to purchase a shirt to wear during the Arctic trip he and Titti aimed to go on later in the year.

Later, in November, the trace data shows Jocke navigating directly to the apparel retailer Garphyttan.se and browsing on a flannel shirt product page. On the site, he views an embedded video linked from YouTube, and then signs up for a notification, as the shirt is currently out of stock. Afterward, he performs another action related to his flannel shirt customer journey: He visits polarquest.se, the travel agency they plan to travel with. He stays on this site to read about COVID-19 in order to update his knowledge and learn whether the planned Arctic trip would still take place despite the pandemic. When presented with the trace data related to the flannel shirt in the follow-up interview, Jocke states that he "trusts the system," and "trusts that they will reach out once the shirt is restocked." He later informs me that he did receive a notification and purchased the second flannel shirt.

Jocke's purchase illustrates how the specific agential capacity of the smartphone-enabled consumer is intertwined with the elements he encounters. By signing up to receive a notification, Jocke is transformed from a consumer who would need to manually check the re-stocking of the shirt by visiting a retailer into a consumer who does not need to take any action and can just wait for the system's reminder. The out-of-stock functionality that is available to Jocke as he enters the e-commerce store shapes his customer journey. He chooses to sign up and then wait for the product to be back in stock. It can be assumed that a different technology, such as a recommendation to purchase the shirt in an alternative color, could have shaped Jocke's customer journey differently, perhaps resulting in a purchase. In this instance, however, the sale was completed later.

The "social other" is another actor that can assist in a purchase. Hamilton et al. (2021) idetify the "social other" as encompassing the social influences that impact consumer behavior, including friends, family, influencers, and broader social networks. These actors can significantly shape decision-making processes by providing recommendations, sharing experiences, or endorsing products. In the context of smartphone-enabled customer journeys, the "social other" often interacts with consumers through social media platforms, messaging apps, or review sections on e-commerce sites, offering advice and insights that can influence the trajectory of a consumer's purchase.

At the end of November, Josefin suddenly performs a search with the terms "mattress jysk" (*madrass jysk*), thereby identifying both the desired product and the desired brand in her terminology, and visits jysk.se, a home decoration retailer. This sudden visit to an e-commerce store and her use of precise terminology were explained by Josefin as being the result of a friend sharing her experience of purchasing a mattress from JYSK. In the interview, Josefin shares the reason why she went to JYSK in particular:

> My friend had bought a mattress from JYSK, her mother enticing her to buy a mattress made in Sweden. So, I thought, going all the way to IKEA for a mattress seemed a hassle, my friend was happy with her purchase, and so I was fine paying extra for a JYSK mattress. (Interview with Josefin)

This section has shown that performing a purchase is an intricate process in which several different elements contribute toward specific outcomes. Through different empirical manifestations of agencing, the informants are observed to achieve specific agential capabilities as they use their smartphone and access functionalities embedded in the market infrastructure. The analysis has shown that purchasing is a dynamic

interplay, extending the customer journey literature by introducing specific practices such as searching for discounts and signing up for restock reminders as part of purchasing.

These results focus attention on the intricate dynamics at play in a customer journey, which involve various materials, technologies, and social actors, and on how informants become intertwined with these elements, leading to a smartphone-enabled agential capacity. These elements not only grant the smartphone-enabled consumer a specific agential capacity; they also change the customer's role within the market. The informants carefully considered pricing and prices. The smartphone has transformed price into a malleable factor that consumers no longer need to view as solidified. By incorporating sites that provide discount codes and coupons into the customer journey, consumers now assemble such elements to enable a cheaper purchase. This finding illustrates how the smartphone enables a different form of customer journey—one that the consumer navigates, rather than one managed by a firm, at least to some degree (cf. Edelman & Singer, 2015).

4.3.4 Reconnecting with a prior purchase

After a purchase has been performed, the tendency to use the smartphone to check the order status was observed. Josefin purchased a coffee table from the interior retailer Chilli. Subsequently, she revisited the website to verify the status of her order, spending only a brief moment checking her order before navigating to the product page for the table she had previously purchased. Mimmi also used the Amazon website to check her order status, returning to the site to check her order for only a few seconds.

Interestingly, Josefin chooses to reconnect again 5 days later. While being in a "flow," as she reports in the follow-up interview, she is spending time exploring interior decoration on different sites. Having recently purchased a sofa, she reports that it was time to begin to look for a matching carpet. The data traces show that Josefin reconnects with her previously performed purchase in a sudden burst in the midst of her exploration; suddenly, she navigates to the Chili retail site and checks the order status for the coffee table she had purchased recently. This takes a mere 30 seconds; then, she shifts back and continues to explore by searching for "carpet" (*matta*), ending up browsing at mattadirekt.se.

Mimmi's and Josefin's actions illustrate a pattern in the data in which the smartphone-enabled consumer performs a customer journey that is characterized by quick shifts in focus. While Josefin is exploring interior decoration using her smartphone, the speed with which she is able to suddenly reconnect to a previous purchase by checking the

order status allows her to resist the sequential phase structure usually envisioned as part of a customer journey. In comparison with the previously established linear and sequential customer journey, customers now perform what is considered to be a complex and nonlinear journey. This is underscored by research concluding that complexity is prevalent in the way consumers perform (Flavián et al., 2019; Huré et al., 2017; Wolny & Charoensuksai, 2014) and suggesting that communications technology is the main enabler of these complex patterns (Herhausen et al., 2019).

I take a different stance, however, on the proposition that the way in which consumers perform the customer journey is complex. With their smartphone in hand, both Mimmi's and Josefin's agency is intrinsically linked to their device. It is their smartphone that allows them to navigate to a site where they can check on a previous purchase, even when, in Josefin's case, the consumer is engaged in exploring other products. Does this signify complexity, or is it simply a behavior that the smartphone enables? What may initially appear as bewildering complexity may, upon closer examination, reveal itself to be a harmonious orchestration of agency within the digital landscape, underscoring the transformative role of smartphones in shaping and simplifying the contemporary customer journey. This view diverges from the opinion of Court et al. (2009), who propose the notion of a "loyalty loop" in which looping occurs to draw the consumer into a new customer journey. In contrast to this view, this thesis reveals another style of looping that retains the consumer within the cycle of an ongoing customer journey, even after the purchase has been carried through.

4.3.5 Reselling an old purchase

The case of the informant Fredrik exemplifies the opposite of a customer journey the act of re-selling. Fredrik utilizes various apps and platforms on his smartphone to research the resale of a baby stroller.

> One morning, just before 8 am, Fredrik is browsing the Facebook app when he suddenly shifts to the browser app on his phone and navigates instantly to online retailer "ombarnvagnar.se" (aboutbabystrollers.se). After a short visit to the website, he shifts to the app Blocket; he then goes back to the Facebook app and alternates between the Facebook app and the Blocket app four times. Fredrik ends by using the communications app WhatsApp, and then terminates his usage of his phone.

Initially, I interpreted this data as Fredrik exploring to purchase a baby stroller, with the data reflecting a consumer undergoing a pre-purchase phase in the customer journey. I assumed that Fredrik experienced a need recognition on the Facebook app,

maybe from an advertisement, and then visited a blog run by a consumer who evaluates and rates baby strollers in order to research a potential product. The last section of data before Fredrik ended his phone usage showed him jumping between the apps Blocket and Facebook, and I assumed that he was comparing adds on Blocket and Facebook Marketplace. This suspicion was strengthened by my awareness that Fredrik has two small children and had repeatedly expressed a preference for buying secondhand. However, later in the data collection process, Fredrik revealed that he was not researching a stroller to purchase but was instead aiming to sell the one they owned. Thus, he visited Blocket, Facebook, and the baby stroller blog to research what to write in his advertisement to attract a potential buyer.

In this instance, Fredrik leverages the digital market infrastructure aimed at selling products to him and uses it as a context from which to derive information to better align his listing with the expectations of a potential buyer. It is noticeable that the pattern in Fredrik's data actually appears like the basis of an attribution model—that is, a mathematical model that uses digital footprints to predict future purchases (cf Anderl et al., 2016). The infrastructure Fredrik uses is inherently designed to support a decision-making process, and the data produced is thus biased in reflecting a purchase process, even when the practice Fredrik performs is not a conventional customer journey at all. One could even suggest that the market infrastructure misrepresents Fredrik, as he has no intent to purchase. In this case, the smartphone allows a consumer to enact a customer journey in a way that does not conform to the linear and sequential paradigm, nor to the models that posit the act of a purchase; instead, the smartphone serves as an integral technology that allows consumers like Fredrik to seamlessly perform different online activities.

4.4 Chapter summary

This chapter provided an exploration of the first research question: *How do smartphone-enabled consumers perform customer journeys?* It demonstrates how smartphone-enabled consumers navigate their customer journeys, emphasizing the integral role of technology. In this chapter, I investigated the intricate interactions that occur between consumers, digital technologies, and social contexts, demonstrating how smartphones and digital infrastructures shape three different *modes* of the customer journey: exploration, entertainment, and purchasing.

In Section 4.1, "Exploring what to buy," the chapter presents customer journeys as collective and informed explorations that go far beyond purchasing. This section shows how consumers leverage digital tools such as search engines and e-commerce

platforms to understand the array of available offerings, positioning the customer journey as an exploratory and educational process in which discovery and learning are as important as the final decision to buy.

In Section 4.2, “Access to instant shopping entertainment,” the focus shifts to how smartphones transform idle moments into opportunities for both engagement and leisure, merging shopping with entertainment. This transformation underscores the centrality of smartphones in consumers’ lives, not merely as facilitators of purchases but as gateways to a broader entertainment. In this way, smartphones blur the lines between firm-controlled touchpoints and the marketing scenes that assemble throughout the unfolding of a customer journey.

In Section 4.3, “Smartphone-enabled purchasing,” the analysis transitions to the economized dimensions of customer journeys. Here, the emphasis is on the intricacies of purchasing decisions, highlighting how technology, promotional strategies, and social influences converge to shape consumer behavior. This section reveals the multidimensional nature of purchasing, where decisions result from a complex interplay of technological functionalities and social dynamics.

In essence, this chapter offers a comprehensive exploration of the smartphone-enabled customer journey, highlighting the pivotal role of technology. It shows that the customer journey is a dynamic process encompassing exploration, entertainment, and informed decision-making, all within a socio-material ecosystem. This evolving landscape not only challenges traditional conceptions of sequential customer journeys but also accentuates the importance of understanding the complex interrelations among consumers, technology, and the marketplace in the digital era.

Chapter 5. Exploring how customer journeys unfold

The preceding chapter investigated the execution of the customer journey, thereby addressing the first research question. This chapter centers on the unfolding of customer journeys, specifically addressing the second research question: *In what ways does the smartphone as part of the socio-material hybrid actor enable how customer journeys unfold?* To address this question, the chapter begins by examining the initiation, interruption, and resumption of customer journeys. It then transitions to discussing the pivotal factors that facilitate the progression of these journeys. Concluding the chapter, I explore the ways in which various customer journeys intersect and interrelate.

This chapter continues to challenge the traditional view of a sequential customer journey that consists of phases; instead, it emphasizes the complex and fluid nature of customer behaviors in the smartphone era, where customer journeys are enabled by technology. The main point presented in this chapter is that smartphones are crucial tools that enable consumers to shape the customer journey, augmenting consumers' agential capacity in the process. Smartphones allow consumers to seamlessly access information, share links, and engage with brands and products, facilitating the dynamic nature of customer journeys as they unfold.

5.1 Initiating and stopping customer journeys

In this section, the findings show that several initiations and pauses occur as customer journeys unfold. If customer journeys are riddled with such pauses, then the paradigm of firms creating seamless customer journeys (i.e., journeys in which the consumer easily and quickly moves along a sequential process) comes into question. Supporting this perspective, Gasparin et al., (2022) and Neslin (2022) problematize the seamless and omnichannel customer experience and show the issues of catering for such customer journeys from a firm strategy and management perspective, thereby questioning the legitimacy of pursuing a seamless and effortless journey and the extent to which it can be achieved. As this chapter elucidates the networked relationships within customer journeys, especially those involving multiple elements, it expands on the literature's critical examination of seamlessness by underscoring the importance of tracing and analyzing customer journeys to describe how technology impacts customer journeys and shapes them into elaborate processes. The analysis suggests that

activations, deactivations, and reactivations are key components of modern customer journeys enabled by the smartphone.

While I recognize previous research that portrays the abandonment of an ongoing customer journey as being a result of difficult hurdles or service failures (cf. Arsenovic, 2021), consumers' actions in initiating and stopping their journeys can be perceived as a double-edged sword. Stopping, or abandonment, can indeed be a result of a hurdle or the outcome of a problematic service encounter (ibid.). However, this thesis shows that stopping may also happen in a customer journey as a way for the consumer to take time to solve the complexity of daily life. I advance the viewpoint that the stopping and resuming of customer journeys are outcomes of the hybrid actor—the smartphone-enabled consumer who possesses the specific agential capacity to achieve a series of initiations and pauses that ultimately structure the customer journey in a dynamic and elaborate fashion. The findings presented in this chapter largely counterpoint the view of customer journeys as consisting of sequential phases; instead, this chapter advances a dynamic perspective.

Even if retail managers wish for customer journeys to progress in a seamless and effortless manner, the daily life of the consumer does not necessarily allow this to happen. Today, the market infrastructure and its many touchpoints—although they may be scripted to influence a purchase (Helberger, Sax, Strycharz, & Micklitz, 2022)—allow consumers to easily take a break and then pick up their customer journey later, when the time or context is more favorable. I argue that managers should embrace the dynamics of customer journeys, with its instances of initiation, pausing, and resuming. To label these instances, I introduce the three terms of "activation," "deactivation," and "reactivation" in response to the question of how smartphones enable how customer journeys unfold.

Activation occurs when a customer journey begins. *Deactivation* happens for different reasons and is observed in the trace data when the consumer suddenly stops performing one of the defined practices and transitions to another task on the device or simply turns off the phone completely. *Reactivation* occurs when a consumer resumes a customer journey that is thematically or directly linked to actions performed earlier involving the same product or brand; for example, the consumer continues to explore a specific product or continues to browse general sites that are loosely connected to each other in a search for momentary entertainment. This chapter's particular focus on the instances of initiation, pausing, and resumption within journeys demonstrates smartphone-enabled actions that enhance the consumer's agential capacity. In other words, the ability to freely decide to divide a customer journey into sections over time is a trait of the smartphone-enabled consumer. Ultimately, this insight challenges the

conventional notion of firm-created seamless customer journeys and questions the authority firms possess to achieve such seamlessness.

The suggested terminology does not entail an inherent understanding in the same way that terms such as “abandonment” or “failure” indicate something being lost by a manager. Instead, the terms activation, deactivation, and reactivation are labels for use when observing *what* happens and *when*. In the next section, I present how activation and pauses occurred when the informants performed their customer journeys on a smartphone.

5.1.1 Activations, deactivations, and reactivations

First, this study confirms previous findings regarding channel experiences, emphasizing that the particular setup of an e-commerce experience has the capacity to send a consumer astray, away from their customer journey (Tueanrat et al. 2021; Lemon & Verhoef, 2016; Patti, van Dessel, & Hartley, 2020). However, even when a poor experience causes a deactivation, consumers may choose to reactivate a customer journey on the same platform that caused them to deactivate it in the first place. Thus, consumers may return to continue performing entertainment or exploration even after a negative experience on that platform.

In the instance of Jonas, deactivation and reactivation are particularly clear. The data shows Jonas entering the fashion brand “Marimekko”; he then deactivates his customer journey by closing the browser. However, Jonas returns to the site later that day, reactivating his customer journey. On his second visit, Jonas creates an account on the Marimekko site.

Later, Jonas explains the logic behind his data traces. He was browsing for fabrics online at the Marimekko site (in a customer journey that eventually ended in a purchase). He chose to end his browsing at one point, due to the emotion of irritation: “I don’t like it, basically, I need to order the damn thing!” Jonas exclaims. As he attempted to understand the price of the fabrics, Jonas needed to enter the checkout, which irritated him. In this case, Jonas’s agency is linked to the emotion he experienced, as well as to his smartphone: It was easy for Jonas to deactivate his interaction with the brand.

Jonas chose to return to Marimekko in the afternoon, due to the strong relationship he feels with the brand: “I like Marimekko, if it had been another brand, I would have ended it [the customer journey].” This event highlights what previous studies have established regarding the need for firms to have a strong brand relationship with their

customers. This relationship functions as insurance against customer journeys being completely abandoned (Kanuri & Andrews, 2019; Palmer & Bejou, 2016). However, this brand-centric proposition assumes that the strongest connection will be the brand-consumer relationship and fails to consider that the way in which smartphones work and the specific agential capacity possessed by today's consumers permit an easy transition back into a consumer journey. Just as the act of activating a customer journey on the smartphone is easily performed, so a customer journey can easily be deactivated and reactivated. The examples given below support this proposition: namely, that customer journeys on the smartphone are paved by activations, deactivations, and reactivations, which is a specific outcome of the market infrastructure and how the smartphone is designed.

A smartphone browser allows the user to keep several tabs open at the same time (Figure 8). This permits pages or content to be "saved," by simply opening another tab and continuing to browse elsewhere. The same thing happens if a user activates a link in an email: As the user is forwarded to the specific landing page the link points to, a new tab is opened and a consumer journey is activated. At the same time, the previous tabs are kept intact. In the data collected in this thesis, it was not uncommon for very short visits to occur to pages unrelated to the current journey. The metering system used in this thesis registered a newly activated tab with an "old" page as a new visit, when in fact, it was a tab the user had chosen to initiate a different action on. Nevertheless, this sudden interaction should be still considered to be part of the customer journey, as is constitutes an interaction and an exposure to specific content that the user has once chosen to visit.

As the functionality of the browser is configured, previous customer journeys produce tabs in the browser that have been overlooked as touchpoints by previous studies. In daily life, these tabs are central in allowing consumers to easily reactivate previous customer journeys. From a conceptual standpoint, these tabs can be understood to represent previous customer journeys as partial marketing scenes.

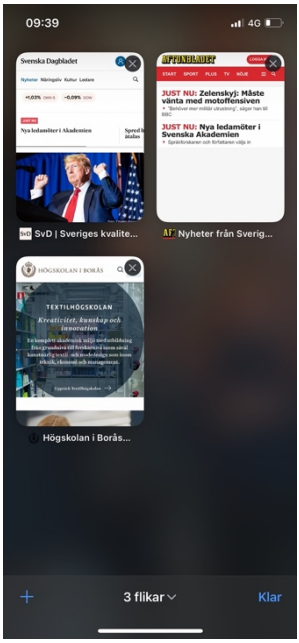

Figure 8. A screenshot showing how different pages are kept intact in "tabs" within the browser, acting as a file index of old customer journeys.

The emergence of tabs as a part of marketing scenes can be seen in the next empirical example. Jonas frequently visits the Swedish furniture retail brand "Svenssons i Lammhult." "It's a page I often use," Jonas says, in response to the question of why the data shows a direct visit to the homepage without a prior search on a search engine. Leaving the tab open in his browser has become convenient and timesaving for Jonas, to avoid having to choose to open a new tab and type the URL again and again. Thus, a previous customer journey already present in a tab may look like the start of a newly activated customer journey when re-opened by the consumer.

In a different example, Mimmi involves an old tab in a new customer journey as she navigates to find a suitable Father's Day gift. After googling for "Father's Day gift" (*farsdags present*), Mimmi views the results but then activates a tab that still bears the imprint from a previous journey, leading to the page of an e-commerce site selling detergents. Within a couple of seconds, Mimmi has redirected the tab to Google, where she continues her journey for a Father's Day gift. A similar event occurs when Josefin activates the web browser Safari on her smartphone; the site cocopanda.se is already present in a tab, but within 6 seconds she navigates to Google and proceeds with a search unrelated to cocopanda.se.

In these examples, the reactivation may be meaningful to the consumer, as the case of Jonas, who keeps “Svenssons” furniture always active in a tab, or it may just be a sudden reminder of an old customer journey that the consumer has no wish to reactivate at the moment, as in the cases of Mimmi and Josefin. For whatever reason, the data shows that activations, reactivations, and deactivations are specifically performed as outcomes distinct to the smartphone-enabled consumer.

Although there is validity to the assumption that a failed customer journey may occur due to a poor experience, this study contributes an empirically supported argument that consumers also stop some customer journeys because this outcome is enabled by the very configuration of the smartphone and the way in which it stores marketing scenes in the form of previously visited sites on tabs. Once more, this finding illustrates the agencing process discussed in previous sections. The functionality of the smartphone enables a new way of performing the customer journey that uses tabs as representations of previous customer journeys stored in the browser and easily (re-)accessed by the consumer.

Deactivations and reactivations also occur as a result of consumers’ competence in understanding how the market infrastructure functions and how best to proceed in a customer journey using a smartphone. In the following example, Josefin deactivates a customer journey and then immediately reactivates it using a different application on the smartphone.

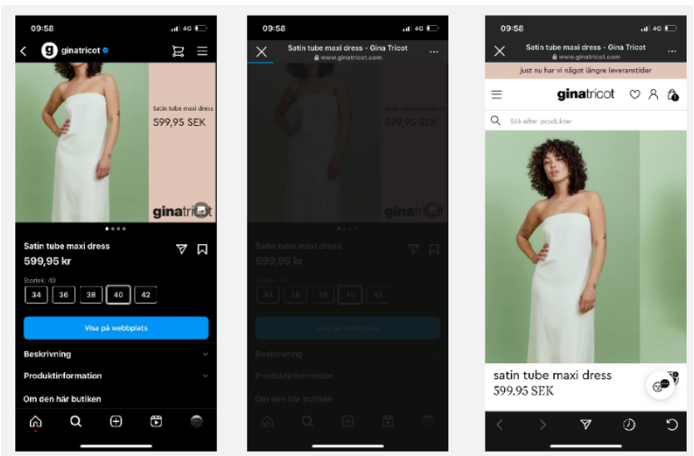

Figure 9. When the user clicks “show on webpage,” a pop-up browser appears in the Instagram app. As seen in the screenshot on the far right, the product can be viewed and purchased directly in the app. However, it does not offer a tab that can “save” the interaction.

The data shows Josefin making a short visit to the Swedish fashion retailer Gina Tricot in response to direct marketing in the form of a banner on social media. This action constitutes the activation of a customer journey (Figure 9).

In the follow-up interview, Josefin explains that she usually responds to banners in social media or posts in social media but avoids clicking on the link within the social media platform, as doing so opens a temporary browser functionality in the social media application: “I see a banner but open it in Safari. It’s annoying … maybe I want to save the link but can’t do that in Instagram.” In this example, Josefin expresses that Instagram’s configuration and design prevent her from engaging with the brand in the way she wishes to. She wants to explore the information in the banner, but not in the way permitted by Instagram. Therefore, she quickly deactivates the customer journey, as the actors are not functioning in a way that Josefin feels will allow her to perform the customer journey as she wants. Instead, she goes to Safari, which enables her to perform the journey in a way she finds more convenient, by maintaining a link with the information via a tab on the Safari browser on the smartphone. Given Josefin’s experience, the assumption and perspective of the customer journey as a decision-making process that is developed to give the customer a seamless and straightforward experience is fundamentally wrong for Josefin, who prefers to save her customer journeys on a browser for later reactivation. By doing so, Josefin resists the notion of the effortless customer journey and its translation into the functionalities offered by Instagram. Like the other informants in this study, Josefin seldom performs intact customer journeys as a sequential and linear process. Knowing that she might want access to the information for later reference, Josefin chooses to change the context by performing a series of activation, deactivation, and reactivation.

5.2 Moving within the customer journey

In this section, I demonstrate how the product, the brand, and the social other become important enablers in how customer journeys unfolded. Not only do they manifest in the trace data; they are also considered to be central by the informants when discussing their customer journeys and accounting for the choices they made. From an empirical standpoint, one of these three enablers organizes the dynamic flow of searching, reading, or seeking as the informants perform the customer journey. The empirical events depicted in this section show that several other actors and functionalities were also involved in the shaping of the customer journey, but agency was concentrated on one of these enablers and assembled with the smartphone-enabled consumer (cf. Fuentes, 2019).

5.2.1 Moving through the customer journey with a product

In the following example, chalk paint guides Josefin on a customer journey. The narrative of the chalk paint customer journey illustrates how the consumer transitions between various practices, while highlighting the impact of marketing scenes and physical touchpoints in the consumer's vicinity over time. Furthermore, the focus shifts from one product to another product the consumer was initially encouraged to explore.

At the start, Josefin is influenced by peers at her office as she participates in an intense and ongoing discussion about chalk paint. This product has been a recurring topic and has materialized from a distant topic for conversation into a product that Josefin began to explore. In the follow-up interview, Josefin shares her perspective of her actions: "There was a lot of talk about chalk wall paint. I haven't been very interested or cared about chalk before, but it was literally the only thing we were talking about." Josefin also expresses some hesitation in the follow-up interview, reflecting that the idea of painting using chalk wall paint seems like a hassle: "Oh my God, you have to paint so many layers!" Despite her initial resistance, one Saturday morning in early November 2020, Josefin begins to explore chalk wall paint via narrow exploration

> Josefin begins by typing into the Google search bar: "chalk paint" (*kalkfärg*). Google provides her with a tailored marketing scene. Nine seconds later, she adds "where" and redoes the search on Google: "chalk paint where" (*kalkfärg vart*). Several different brands selling wall paint have purchased keywords on the Google search engine and sponsored results are shown at the top of the search results list. Next, Josefin searches for "jotun" (a Swedish brand); straight after, she adds "store" to the search, searching for "jotun store" (Jotun *butik*). The traces show that Josefin begins to consider the store location (where can she physically go and buy it?) and the brand, using "Jotun" to increasingly narrow in on a potential product. From the results shown to her, she enters the website jotun.se and navigates to a "find store" functionality on the site. She returns to Google and searches for a specific local store that stocks and sells Jotun products; she searches "paint master's paint store" (*målarmästarens färgbutik*), but does not visit the site. Next, she performs another search: "where do you buy chalk paint" (*vart köper man kalkfärg*). She types "where buy" (*vart köper*). Using the search results, she visits colorama.se (a wall paint store brand). Suddenly, Josefin pauses Safari and enters the Facebook app, returning to Google on Safari after 4 minutes. Now she changes her search, inputting "antique white wall" (*antikvit vägg*) and viewing the results on Google's picture search functionality. She once again changes the phrasing and searches for "antique white wall paint"

(*antikvit väggfärg*), still using picture search. Afterward, Josefin uses the Instagram app briefly. She returns to the browser, visits ladyinspirationsblogg.se, and then searches for "laurel tree jotun color" (*lagerträd* Jotun *färg*). No longer at the office, Josefin shifts to rely on touchpoints (ladyinspirationsblogg.se) and social apps, which allow her to tap into social influence in an effort to continue her customer journey. Josefin leaves Safari and browses using different apps, both utility apps and social media apps. After clicking a promotional link in a social media app, Josefin proceeds to use TikTok before suddenly returning to Safari to search on Google: "cost painter one room" (*kostnad målare ett rum*). Directly after this last activity, Josefin's smartphone goes idle.

Josefin laughs as I read back the last search for a painter to do the work of painting a room. She responds: "It ended up with my mom painting the apartment. I stood painting the wardrobes for 2 days, but my mum just painted room after room, like a bulldozer." She continues: "I didn't get any chalk paint, I was really set on using it … and I did go to a paint store, and spoke with them about chalk, but we ended up buying ordinary base paint and thought that we would begin with that, and then add chalk, but we never ended up doing it …" Six months after the follow-up interview, Josefin has still not purchased the chalk paint. Via a text message, she reports: "I didn't buy chalk paint, felt like too much of a hassle. I only painted the ordinary paint, so it's kind of the same feel when it doesn't fully cover the wall surface."

Josefin's customer journey for chalk paint illustrates the profound impact social actors have on the customer journey and on the initial choice of a product to search for. Initially, Josefin's interest in chalk paint was sparked by extensive discussions with her colleagues at the office. What began as casual conversations gradually transformed into a tangible exploration of a product using the smartphone; this resulted in tailored marketing scenes with prominently displayed sponsored results due to Josefin's use of the search engine.

However, Josefin's customer journey was not limited to web browsing. She briefly switched to the Facebook app and then returned to Google via Safari. Her searches evolved, focusing on specific paint colors and shades—even employing Google's picture search functionality for visual inspiration. In addition, she briefly engaged with the Instagram app. Toward the end of her journey, Josefin sought information on the cost of hiring a painter to paint a room, indicating her intent to potentially hire someone for the paint job. This search was followed by a period of phone inactivity.

Somewhere along the way, Josefin realized that painting with chalk paint would be as tedious as she had initially thought; instead, she ended up buying a base color that she

could cover with chalk paint at a later stage. Therefore, the specific consideration for chalk paint has followed Josefin through her customer journey; although her final product is not chalk paint, it is a product that can act as a color resembling of chalk paint. Ultimately, Josefin's customer journey demonstrates the elaborateness inherent in such journeys. Chalk paint still affects Josefin's choice to use a base color 2 years later, although the base coat becomes a substitute for the chalk paint that ended up being perceived as too difficult to use.

Josefin's customer journey can be understood in relation to the fluidity of the customer journey and the different elements' relationships to each other. Chalk paint transitions into a higher-order goal (Becker et al., 2020)—that is, painting a room in her apartment—Josefin uses to organize the customer journey. Once Josefin is in the actual purchase situation, in the store, she decides to purchase an alternative, easier product, as a substitute for the more difficult chalk paint. Josefin perceives the qualities of chalk paint and its requirement to be painted on the walls in a certain order as difficult, or an advanced level; instead, she settles for something she can manage to use on her own, without a professional. Josefin's initial relationship with chalk paint is enabled by social influence; the relationship then fluidly shifts as her customer journey progresses to focus on the qualities of the product.

Josefin's customer journey has an unforeseen change in focus, as she shifts from social influence to the product itself. This finding raises the question of the validity of so-called service failure (Rosenmayer, McQuilken, Robertson, & Ogden, 2018) or abandonment (Wang, Cheah, & Lim, 2022). Josefin's customer journey can hardly be considered a service failure, because it does not merit the assumption that Josefin had a negative experience in her journey; neither is it abandonment, as Josefin did not place an item in any cart online. Although these are the traditional perspectives offered by the customer journey management literature, neither can fully explain or be used to explore Josefin's practices.

As discussed earlier in this thesis, the customer journey framework is itself an assembly that incorporates theories and concepts over time and is developed from an array of disciplinary contributions (Santos & Gonçalves, 2021). In this broad contributing literature, consumer need or problem recognition is part of the understanding of the customer journey, being defined as the moment in time when a consumer recognizes a problem that buying a product could solve. Consumer need is expected to propel the customer sequentially through the customer journey into the purchase phase. Although research on consumer need is an early contribution to the field of the customer journey, it remains an integral part of studies exploring the pre-

purchase phase of a customer journey (Gupta & Unissa, 2022; Sidhu & Saini, 2022; Yurt & Yildirim, 2022).

In counterpoint, it should be noted that Josefin's customer journey demonstrates how enablers overlap, resulting in Josefin's shift in focus. It can be argued that Josefin "pretend-purchased" chalk paint, as the base color she bought gives off the same vibe, shifting her problem recognition (to borrow management-literature phrasing) past the originally intended purchase to an alternative product. This customer journey reflects a trend in the data. The customer journeys identified in this thesis seldom—if ever—went as envisioned by the three-phase structure (Lemon & Verhoef, 2016). Instead, the ways in which the journeys unfolded and their outcomes varied, and the journeys were dynamic. Nevertheless, for Josefin, the smartphone can be said to have participated in materializing her goal of painting the living room with a color of preference by providing her with the ability to easily change direction and explore alternative products.

It is beneficial to compare the conventional customer journey with the socio-material interpretation to further illustrate the issues in the previous knowledge of this topic. Interestingly, Josefin's customer journey for chalk wall paint clearly reveals the occurrence of some sort of need recognition (i.e., that Josefin needed paint); it also shows that Josefin's need recognition is not only contextual and highly influenced by "social others" (Hamilton et al., 2021) but also extends throughout her journey rather than being confined to the pre-purchase stage, as assumed in other customer journey literature (cf. Hollebeek et al., 2023). In this case, Josefin's recognition of her need to purchase chalk paint inspired her to purchase a different product instead—a base paint that could be used with chalk paint. As Josefin and her mother paint her apartment, her need recognition—now in the form of considering a purchase of chalk paint to put on top of the base coat—remain part of her post-purchase experience.

A closer look at Josefin's need recognition for this very specific product reveals the emergence of socio-materiality. Josefin's social interactions at the office and her active search via self-marketing for the product in a digital market infrastructure—comprising search terms, suggestions from ads, and her own consideration of the qualities of the chalk paint (or the chalk paint's inherent agency)—assemble to shape not only the customer journey but also the outcome. This finding demonstrates that customer journeys are truly socio-material undertakings.

5.2.2 Moving through the customer journey with a brand

The brand is an integral part of the customer journey and a dimension that is well-researched in customer journey management (Tueanrat et al., 2021). Several studies suggest that the relationship between brand and consumer mitigates a consumer's abandonment of a customer journey—that is, consumers are willing to overlook negative online experiences to some degree if they know the brand well. It has also been shown that brands use social media to deepen customers' emotional relationship with the brands (Cheng et al., 2018; Clarke et al., 2012; Kanuri & Andrews, 2019). When an online consumer closes in on the purchase stage, transferring the customer journey onto the PC, the brand becomes less significant (Xu et al., 2017). In this section, I investigate the pivotal role of the brand as an element that shapes the unfolding of a customer journey.

The example below demonstrates that Jonas has a clear focus on the brand Artek. Jonas is on the lookout for fabrics to use for the headboard of the bed in his vacation home. He has a clear goal of what branded fabric he wishes to purchase. He engages a customer journey on his smartphone and performs acts of exploration.

> Jonas begins by opening a tab in Safari and going directly to the e-com site of the brand Artek (a Finnish interior design brand), artek.fi. He then goes to duckduckgo.com (an information retreival system that specializes in user privacy and preventing data tracking by third-party programs) and searches "artek." Jonas enters artekonline.us/products, then goes back to duckduckgo and on to charish.com, where he views products by Artek on the chairish.com site. He then moves to finstyle.com and views Artek products on that site; then back to artek.fi and views where to buy and products. Finally, Jonas signs up for an Artek newsletter. His focus on the brand has directed Jonas on a path that ends with signing up for a newsletter, but no purchase.

In the follow-up interview, Jonas shares that it will be difficult to order fabric test pieces online. In the example above, he researched "where to buy" in order to find a store to visit so he could obtain physical samples of the fabric. Although Jonas realized early on that his digital customer journey would need to transform into a physical practice (as he voiced in the follow-up interview), the trace data that follows the previous example shows him returning to duckduckgo and searching for "siena collection," then "siena collection" again, and finally "siena collection fabrics." He enters artek.fi and views a short promotional video of artists making furniture, as an act of entertainment. Although Jonas is unsuccessful in finding pieces of fabric to order as samples, his focus shifts to being entertained by branded content in a general scope, as

he views a video on the artisanship the brand associates itself with. Finally, the trace data shows that Jonas goes on Facebook on Safari, and then enters auctioned.com, searching specifically for "Hostkvalitete2020." He then pauses and reopens the Safari app at 17.47 (1 hour later), searches for "lanna" and goes to lannamobler.se, views decorative cushions, and then views the Sienna collection in stock at the furnishing retailer Länna.

It turns out that Jonas's actions are part of an extensive customer journey, where the brand is a central element involved in a potential purchase. Jonas was on the lookout for a specific fabric that would fit the headboard of a bed and was looking for an opportunity to order a test piece of fabric. He shared that using online resources was mainly to find what he called "detail information" about the products. This kind of consumer research practice is typically referred to as "web-rooming" in the literature (Jocevski, Arvidsson, Miragliotta, Ghezzi, & Mangiaracina, 2019; Viejo-Fernández, Sanzo-Pérez, & Vázquez-Casielles, 2019). However, the present study suggests that such "research" be understood as exploring what to buy, with the physical store becoming involved as a touchpoint along online touchpoints that make of the sum of a bespoke marketing scene. At the end of his journey, Jonas visits the mall Nordiska Kompaniet in Stockholm to order fabric test pieces, instead of ordering them online. Once the fabrics arrive, he decides to buy fabric from Marimekko instead: "And it turned out great!" he exclaims during the interview.

In this instance, the brand Artek enables a certain unfolding of the customer journey. Jonas's prior interest in and emotional bond with the brand are central. He admires the brand and its design ambition; nevertheless, the final purchase is not from Artek. According to the customer journey literature, this would be understood as a "failure" (Tueanrat et al., 2021; Lemon & Verhoef, 2016; Patti, van Dessel, & Hartley, 2020), as success would involve the final purchase being from the specific brand involved at the start of the customer journey. However, for Jonas, the customer journey was not a failure, and the brand still participated in influencing how his customer journey unfolded. For Jonas, the brand is malleable; another name brand does just as well if it entails a better fit. Thus, Jonas replaces Artek with Marimekko, another brand he admires and has a long-standing customer-brand relationship with. Jonas is pleased with his purchase; buying from Marimekko instead of Artek entailed a financial gain, as it was considerably cheaper.

Jonas's customer journey exemplifies the intricate process of an agencing that involves dissolvement and assembling. Jonas and his smartphone remain active, but the material actors—that is, the two brands—are interchanged: Artek is replaced with Marimekko. Expanding upon this finding, I argue that there is an assumption of linearity and

sequentiality in how a successful customer journey is envisioned from a managerial perspective. In Jonas's customer journey (as in Josefin's journey for chalk paint), the consumer is pleased with the purchase. However, for Artek (and for the producer of the chalk paint), these customer journeys are failures, as they did not result in purchases from these brands. It is not relevant to envision the customer journey as progressing according to an initial attachment to a brand or product. Instead, consumers change their mind, being enabled by the smartphone to quickly compare products, identify other prices, and involve the many different elements of physical stores, friends, family, or even pieces of test-fabrics, which together participate in unfolding customer journeys as "private marketing." A firm can only shape and influence this type of marketing to a limited degree, as it forms part of consumer daily life.

His actions of involving Artek and then changing the brand to Marimekko resulted in a purchase Jonas was pleased with. For Jonas, the customer journey was not a failure, even though Artek was involved in both exploration and entertainment yet received no benefit. The same can be said for Josefin, who was pleased with her choice to paint using base color, which was easier than chalk paint but turned out to look the same and give off the intended vibe. As these examples indicate, both the brand and the product may change as a customer journey unfold. This finding ultimately illustrates how agencing and elements constantly assemble and dissolve as time passes.

In the next section, I focus on social others and how they may participate throughout the customer journey.

5.2.3 Moving through the customer journey with social others

The smartphone has transformed social influence. Today, consumers easily and effortlessly solicit advice and input from other consumers, friends, or family throughout their customer journey via text messaging, social media, or word of mouth. The pervasiveness of social influence is underscored by previous studies that conceptually argue (Hamilton et al., 2021) and empirically demonstrate how social others play a key role in the unfolding of customer journeys (Spitzkat, 2022). As will be shown in this section, social connections become entangled with the customer journey to some degree via the smartphone, which facilitates a significant social influence that manifests in various ways, as identified throughout this study.

Fia and Fredrik practice their customer journey as a joint decision-making unit (Hamilton et al., 2021); over time, this has become a standard practice for them. Fia expresses her opinion on this practice by stating, "I want a choice-maker," and Fredrik

explains, “We’re like a team when we shop.” Their individual capabilities complement each other: “I like to shop for food, but it’s Fredrik who will do the inventory and check if we have rice at home,” says Fia, with a laugh. Together, they perform customer journeys and focus on complementing practices. Fia’s joy in shopping for food, exploring alternatives, and finding products that may fit their needs seem to suggest that she performs entertainment and exploration to a higher degree; in comparison, while Fredrik conducts inventories and manages previous customer journeys, he also engages in purchasing.

Although Fia and Fredrik perform their customer journey together, they leave traces of data individually when using their smartphones. These traces suggest that Fia almost never makes a purchase, whereas Fredrik makes purchase decisions with little or no preparation in terms of reading content or going through actions of entertainment or exploration. The data traces they leave behind on their respective smartphones can be understood as portions of the full customer journeys they collectively perform. As noted by Thomas, Epp, and Price (2020): “Even when a journey appears as an individual endeavor, various relationships are often implicated in the experience” (p. 10).

> One afternoon, Fia activates the browser Safari on her smartphone and directly enters the e-commerce site of the Swedish fashion retailer Lindex. She navigates onto pages showing children’s outdoor clothing and then navigates to Google, where she searches for another fashion retail brand, “Kappahl,” using the search term “kappahl.” Fia enters Kappahl’s e-commerce store and browses the same categories she visited on Lindex: children’s outdoor clothing. Abruptly, she stops performing exploration. A few minutes later, Fredrik activates the browser on his smartphone and enters the exact same page on Kappahl as Fia recently visited. During an interview, Fia explains: “I sent this to Fredrik, asking him, ‘is this good’?”; she then describes her choice of fashion retail brands: “I usually visit these two, as they often offer discounts.” Fredrik offers his perspective on their joint customer journeys: “Usually, when Fia sends me messages to look into a product, we’ve often discussed it prior. And then, I guess Fia has a moment of inspiration and will begin to search online. Often, she asks me ‘is this good?’ Fia evaluates colors and style, while I take an interest in functionality.”

Fia’s and Fredrik’s shopping styles complement each other. Thus, the findings of this study empirically support the criticism that the customer journey is insufficient in explaining how many consumers participate in customer journeys (cf. Hamilton et al., 2021; Rooka, 2021). Furthermore, the findings imply that the bias of the individual as a sole consumer in the customer journey is a fundamental flaw in the customer journey

framework. Instead, the empirical data shows that competences are mobilized and shared between human actors, who—enabled by the smartphone—jointly perform customer journeys in which they assess products to purchase in an interchangeable process of performing entertainment, exploration, and purchasing.

The smartphone enables and facilitate these actions by making online stores, such as Kappahl, effortlessly sharable between devices. Fia simply copies a URL and forwards it to Fredrik, and her customer journey transitions onto his device, thereby creating a relationship involving several elements. This enables Fredrik to access the ongoing customer journey initiated by Fia. In this way, their individual actions intertwine as Fia and Fredrik share the same information, allowing for a single customer journey to unfold between two people. The way in which all these elements assemble underpins the agencing process of the collective customer journey.

5.3 Intertwined customer journeys

In the final section of this chapter, I delve into the concept of interconnected customer journeys. Examining the ways in which customer journeys unfold reveals that, while customer journeys can occur in isolation, they can also become interconnected with other journeys. This idea has been alluded to in previous sections and has been conceptually proposed as a specific area requiring further research for a more detailed understanding (Bettencourt et al.., 2022). Thus, in this section, I aim to provide a comprehensive and detailed exploration of how customer journeys, when extended over time, can intertwine with each other. I elucidate three distinct ways in which interconnected customer journeys manifest.

To achieve an analytical understanding of customer journey intertwinement, I employ findings from a previous study (Geiger & Kjellberg, 2021) and use them as a lens to look through. In that study, three types of intertwinements—namely, sequential interrelations, mutual reinforcement, and interference—are used to describe how innovation processes and markets are brought together via digitalization (ibid.). In the present study, these findings are useful in understanding the processual interrelations of customer journeys because they may also come into close contact and be adjacently performed. The present study builds on this premise and examines whether this interrelation of consumer journeys is enabled by the smartphone and other elements in the market infrastructure.

In contrast to the findings and proposition by Geiger and Kjellberg (2021), a differing stance is offered by Hollebeek et al. (2023), who approach several ongoing journeys

with interdependence theory. Hollebeek and colleagues acknowledge that a journey performed by different stakeholders "transpires in a network of intersecting journeys" (p. 29). According to Hollebeek and colleagues, in interdependence theory, stakeholders journey and intersect, influencing other stakeholders' experiences. Hence, although interdependence theory is part of a networked systems approach, it assumes the experiences of actors to be the central link to agency. Therefore, the perspectives offered by Geiger and Kjellberg (2021) are better suited to the ontology of this study, as they highlight how multiple elements participate in bringing processes closer and causing them to intertwine with each other, ultimately constituting socio-material processes.

5.3.1 Sequential interrelations

The first type of intertwinement is defined by Geiger and Kjellberg (2021, p. 454) as follows: "This [sequential interrelation] is manifest when one subprocess triggers change in or provides input to a second subprocess." Sequential interrelation is a highly relevant phenomenon when discussing customer journeys, as this concept becomes apparent when one customer journey triggers changes or influences subsequent actions in another. Several instances of this can be observed in this study, such as in the example below, when the informant Titti attempts to assemble a coherent customer journey involving different products and categories into one. Sequential interrelation in customer journeys involves aspects that have yet to be materialized in one customer journey setting off a chain reaction of events in another. In summary, the concept of sequential interrelation is instrumental in understanding how various customer journey are interconnected and how changes or developments in one can have ripple effects on subsequent journeys, ultimately shaping the overall progression.

During a follow-up interview with the informant Titti, she describes a series of deactivations and reactivations happening over time, allowing several of her customer journeys to intertwine in sequential interrelation with each other. As a result of this sequential interrelation, the customer journeys Titti is performing both stop and progress. Titti is inspired by the trace data describing her actions to reflect over how she usually organizes customer journeys in relation to each other:

> If I reflect on the purchase of tulip bulbs, then I realize, maybe I should also get some seeds. Ahh … Then I have to check what I have, and maybe it's in the storage … I can't be bothered to do that now … So, then I give up on the seeds. I realize that I need to buy something, so I enter an e-commerce page, and I begin [to browse]. Sometimes it can be driven by stinginess, like it can be expensive shipping, and then I realize that there should be something else I also should buy …

> or, when I'm browsing, I realize if there was some additional stuff I needed, but then I can't be bothered, and so I think I often leave online baskets … Eventually, I'll complete the purchase, but far from always. (Interview with Titti)

In this interview, I asked Titti about the deactivations that were observable in the data of her customer journeys. Her actions cannot be fully explained using the notion of a linear process, nor can they be described as a performance that is solely shaped by touchpoints designed and managed by the retailer. Instead, the reasons for the pauses in Titti's data are a result of the sequential interrelations that occur when she is in the middle of both an ongoing customer journey for tulip bulbs and a process of realizing that additional items need to be purchased. These other items (in this case, seeds) become part of a sequential interrelation: Titti needs to check that she does not already have seeds in her shed, so the potential seed-related customer journey must progress further before the current journey for tulip bulbs can be finalized with a purchase.

The occurrence of this sequential interrelation can be understood by relating it to the agencing process. Titti's customer journey involves an array of actors that simultaneously participate in a separate customer journey. The need to investigate the seeds she may already possess disrupts Titti's agencing (e.g., she can't be bothered to go to the storage to perform an inventory of seeds), causing her customer journeys to sequentially interlink. Without progression in the customer journey for seeds, the customer journey for tulip bulbs must be temporarily put on hold; thus, they are in sequential interrelation.

Titti mentions stinginess in relation to shipping cost, which can certainly be understood as a significant element causing a sudden deactivation. In her follow-up interview, the data representing the customer journey for seeds and tulip bulbs inspires Titti to reflect on her typical customer journey actions. She describes the same interlinking relationship between customer journeys over time when visiting stores:

> We were at an outlet, and it dawned on me that we need scissors. So I checked the price online while in the store [showrooming], but didn't end up buying … so that's another instance, instead we went home … time passed, and then I realized "ah, the scissors!" and so I would buy it from Adlibris, and then when online on Adlibris, I realized maybe there's some stuff I need from here, and so even more time would pass … (Interview with Titti)

Titti portrays how her customer journey now involves several sales channels, touchpoints, and materials over time that both move toward and distract from each

other; the outcome is several ongoing customer journeys that begin to hinge on each other.

Sequential interrelations seem to cause customer journeys to be extended. The sequential interrelation of innovation processes on the market explains how one subprocess triggers change or input in another (Geiger & Kjellbarg, 2021). This holds true for customer journeys as well. Titti requires input from the process of possibly purchasing seeds for her customer journey to buy tulip bulbs; when this does not happen, the end result is a deactivation of her customer journey.

The market infrastructure, e-commerce stores, and the need for consumers to consider shipping cost and parcel pick-up locations jointly participate in making the customer journey elaborate. The same is notable in the previous example, where Titti recalls her need to buy scissors. A consumer's capacity to act within one customer journey may be related to actions in other customer journeys; however, the perspective that these are separate customer journeys that simply harmonize with each other is also true. When customer journeys align, they can cause deactivation across the complete network of ongoing customer journeys that can be performed in a specific category. This means that the way in which the market infrastructure is ordered in specific product categories at e-commerce stores affects which individual customer journeys may be intertwined in relation to the store; for example a store like Adlibris that offers a broad range of categories might be put on hold until the consumer can assess that enough products can be included in an order to obtain free shipping, resulting in a purchase.

Another way sequential interrelation can play out is observable in the empirical description below. Interestingly, this interrelation happens between a customer journey that has already been completed and an ongoing customer journey. The material representation of the earlier, completed customer journey (a bunk bed) provides input to a new customer journey, successfully establishing intertwined customer journeys.

In this example, Fredrik is not practicing a post-decision information search to explore more about the purchased item (cf. Pizzutti et al., 2022). Instead, his journey begins in response to a need that emerges from the purchase of the bed. In this way, a previous journey stretches across time to inspire new needs, becoming a link in what potentially becomes a series of customer journeys over time that are assembled together.

> One evening, Fredrik activates a customer journey and searches for "ikea bunk bed" (ikea *våningssäng*). After viewing a product page on the IKEA e-commerce store, he returns to Google and performs a search for "ikea hide screws" (ikea *dölj skruv*). He then re-enters the

IKEA e-commerce store and views the product page for “cover plug” (*täckplugg*).

As Fia explained, she had been annoyed with the holes in the bunkbed they had purchased secondhand; therefore, Fredrik took it upon himself to find the necessary product to cover them up. This example shows how several different actors assemble and establish relationships in a customer journey. Fia and Fredrik’s style of exploring customer journeys together over time creates a very specific style of customer journey practice that they routinely perform together and thereby create a specific agential capacity distributed among themselves and their devices. In this case, customer journeys intertwine via sequential interrelation while involving a multi human-actor alignment that adds to the complex network of multiple customer journeys coordinated in relation to each other and to the degree of progress.

5.3.2 Mutual reinforcement

The second type of intertwinement, mutual reinforcement, is defined by (Geiger & Kjellberg, 2021, p. 454) as follows: “This [mutual reinforcement] is manifest when two subprocesses unfold in symbiosis, each one reinforcing the other.” Mutual reinforcement dynamics play a pivotal role in understanding how customer journeys interact with each other, ultimately shaping consumer agency. This phenomenon becomes evident when two customer journeys operate in symbiosis, with each journey strengthening and amplifying the effects of the other and strengthening the agential capacity. Mutual reinforcement dynamics can significantly influence the overall outcome of customer journeys over time. Not many customer journeys in the findings expanded over several weeks, apart from Josefin’s journey to find a sofa for her first apartment. In the following empirical example, Josefin’s customer journey for a sofa illustrates an agential capacity enhanced by the process of multiple customer journeys that mutually reinforce each other.

It was notable that much of Josefin’s trace data showed a very intense performance of exploring pieces of furniture or other solutions for her new apartment. The purchase Josefin seems to have spent the most time browsing during November 2020 was the sofa, which became a subordinate goal to a higherorder goal of decorating her apartment and making her first home (Becker et al., 2020): “It becomes like a hunt,” and “I get caught in a spiral,”Josefin said to explain an intense session of navigating between different e-commerce stores, trying different key search terms and visiting both secondhand platforms and e-commerce stores. Early in November 2020, when Josefin activated the phone metering technology on her smartphone, her customer journey to find a sofa had been going on for a while. The events described here mark

the final actions of a customer journey that Josefin had self-reportedly been performing for a while.

Josefin's trace data shows that she is performing broad exploration. She phrases her searches using the terms "sofa" (*soffa*) or "site-built sofa" (*platsbyggd soffa*) and moves around between both commercial and secondhand sites: Jysk, Jotex, Sweef, Hemtex, Blocket (secondhand), and IKEA. In the interview, she explains:

> Maybe you find a sofa, and then you start to think "what would match with this." It becomes a hunt! I wanted a good quality sofa, and that's why I jumped around, I think I had seen an expensive one earlier and began to try and find one at IKEA or Mio but couldn't find one. Instead, I pivoted to Facebook Marketplace and Blocket. (Interview with Josefin)

The day after her exploration was metered, Josefin reactivates Safari and searches on Blocket using the term "sofa." She specifically visits a listing titled "Green and Comfortable Sofa" (*grön och skön sofa*) on Blocket. However, her customer journey is then temporarily deactivated. It is reactivated 3 days later, when she once again enters Blocket and explores various listings by other consumers selling sofas. Josefin also engages in a mutually reinforcing customer journey action by visiting an online store that sells posters. Two days later, an interconnection action creates mutual reinforcement for yet another customer journey, as Josefin initiates a search for "marble plastic rolls" (data previously discussed in Chapter 4). These customer journeys are intertwined with the aim to furnish and decorate her apartment.

Three days later, Josefin visits IKEA's online platform and adds several items to her wish list. This action is made in anticipation of a potential visit to an IKEA store. In the follow-up interview, Josefin mentions having ordered wardrobes online as an act of purchasing. However, she also admits that her earlier visit to IKEA was primarily for entertainment, explaining, "I think it's quite fun to go to IKEA."

A day later, Josefin initiates a search by browsing bathroom cabinets on the IKEA website. Subsequently, she reactivates her customer journey related to finding a sofa. This time, her engagement in the journey is more extensive. She later shares her intention in an interview, stating, "I wanted to begin to decide on the sofa and, as I have trouble making up my mind, I began with a broader search." It becomes evident that Josefin acknowledges the need to make decisions as a pivotal factor affecting her purchasing process. On her quest for the perfect sofa, Josefin's determination leads her to multiple searches and explorations, each contributing to her evolving main customer journey.

After IKEA, Josefin navigates to Blocket, conducting searches related to “sofa.” Her persistence becomes evident as she spends approximately 15 minutes exploring various options. Her curiosity draws her to trademax.se, where she becomes intrigued by a velvet sofa. Subsequent searches, including specific queries such as “the heights velvet sofa” (*the heights sammet soffa)* and “govinda velvet sofa 3-seater,” (*govinda sammet 3-sits*) signify her evolving goal and interest in a specific style of sofa.

After viewing the velvet sofa, the data traces show Josefin expanding her search. She conducts a more comprehensive search by entering “sofas” and exploring multiple websites, including soffadirekt.se, jotex.se, royaldesign.se, and chilli.se. However, despite these actions, Josefin makes no definitive decision; once again, her activity goes idle.

The following day, Josefin resumes exploring. She visits IKEA and Chilli, searching for “fårlöv 2-seater” (*fårlöv 2-sits*) on IKEA’s e-commerce site. Her actions indicate a transition toward narrowing her options. Once she starts exploring delivery options, her actions can be interpreted as a move toward purchasing. However, the trace data show no indication of a purchase. Instead, Josefin transitions into a series of mutually reinforced customer journeys: She begins exploring categories related to sofas. Josefin expands her customer journey by exploring carpet, coffee table, and painting options, reinforcing her engagement with interior decoration.

In Josefin’s trace data, anything sofa-related suddenly disappears, and there is no apparent activity related to the sofa purchase. However, on the last day of active phone metering, Josefin renews her search for a sofa. She navigates various websites, such as chilli.se, ellos.se, furniturebox.se, and cdon.se, while searching for a “wilks velvet sofa 3-seater beige.” This shift in focus suggests an interruption in her sofa search, which she later contextualizes during the follow-up interview.

In the interview, Josefin clarifies that she did indeed purchase a sofa during the period highlighted in the trace data. She explains that she bought the sofa from Facebook Marketplace, followed by the acquisition of a coffee table from chilli.se. Interestingly, the search for coffee tables and interior design items commenced almost 2 hours after she obtained the Facebook Marketplace sofa. This timing reflects a mutual reinforcement of Josefin’s customer journeys, emphasizing the interconnected nature of her overarching quest for home furnishings.

Josefin’s final search for a sofa toward the end of the month provides insight into her agential capability. She acknowledges that the Facebook Marketplace sofa initially

served as a temporary solution, costing only 500 Swedish krona. This purchase relieved her from the pressure to acquire a more expensive sofa. However, Josefin's evolving preferences and the good quality of the Facebook Marketplace sofa ultimately led her to retain it. Subsequently, her continued research for sofas, as reflected in her searches, exemplifies the extension of mutual reinforcement between her past, current, and future customer journeys.

Unlike Titti's sequentially interrelated customer journeys, where one journey is put on hold while waiting for additional information from or actions in another, intertwined, customer journey, Josefin's many customer journeys augment each other. Josefin's ambition to create coherent interior decoration in the apartment causes her to deactivate and reactivate several simultaneous customer journeys, mixing different performances of entertainment, exploration, and purchasing.

All the customer journeys are aimed at purposefully providing interior design to Josefin's apartment, a goal that brought Josefin's different customer journeys together as an assemblage. The process is notably different from Titti's sequentially interrelated customer journeys, which were connected through reactivation to allow Titti to buy from a single online retailer. Josefin's customer journeys are intertwined in mutual reinforcement, probably because the items emerging from the journey are aimed at the higher-order goal of creating a nice apartment, rather than hinging on a single e-commerce store.

5.3.3 Interference

The third and final type of intertwinement is defined by (Geiger & Kjellberg, 2021, p. 454) as follows: "This [interference] is manifest when one subprocess disturbs or counteracts developments in another subprocess." That is, interference occurs when one journey disrupts or hinders developments in another. In the context of this study, such interference became evident in the interaction between customer journeys. When this type of interference occurred, the agential capacity was pulled away from one customer journey and concentrated on the other. In the example below, Fia's customer journey for a digital smartwatch is interfered with by Fredrik, who is the one that finally makes the purchase.

The trace data related to Fia's purchase of a health-tracker wearable watch only captured some of the events that took place during the phone metering period. The customer journey for this device extended over a minimum of 1 year and 3 months, with the purchase finally occurring in February of 2022.

> Related data surfaces in the trace data for the first time on November 14. In the morning, Fia reactivates a customer journey by exploring a specific product, “fitbitversa 2,” on Google. She stays engaged on Google, altering the search to “fitbit versa 2 limited edition.” After performing the second search, Fia navigates onto one of the results, proshoppen.se, where she views a campaign related to the wearable device. Suddenly, she deactivates the customer journey. On November 20 at 0.33 am, Fia reactivates the journey by searching for “fitbitversa 2.” She enters webbhallen.se and views an embedded YouTube video featuring the device. Fia’s customer journey deactivates at this point and then reactivates 6 days later, when she again performs a search for “fitbit versa 2” and then “fitbit versa 2 pricerunner.” She then enters teknikproffset.se and prisjakt.se. Fia returns to Google, searching “fitbit versa 2”; she then alters it to “fitbit versa 2 special edition.” She enters elgiganten.se and views an embedded YouTube video featuring the wearable device. The day after, on November 27, she reactivates the journey and performs a search on Google for “fitbit versa 2.” On November 29, she reactivates the journey yet again and performs a search for “apple watch” on Google; however, she does not enter any external site. On November 30, the metering of the phones stops.

Much later, I learned that Fia did eventually purchase a wearable device in the form of a watch, but the purchase was neither a Fitbit nor an Apple watch; it was an Amazfit. From a text message conversation with Fia in February 2022, I learned that Fia did not end up purchasing the watch herself; it was bought by Fredrik, who performed an interfering customer journey as Fia’s joint decision-maker.

> Patrik: Did you end up buying a fitbit?
> Fia: Haha! I’ve been scouting a watch for 2 years now. Fredrik got fed up with my stinginess of buying for myself and ordered J. So, it arrived this week actually.
> Patrik: Oh my God, is it true? Did you get a fitbit?
> Fia: Amazfit. You should see my activity now … I’ve been looking at a night light for 3 months …
> Patrik: Actually, completely normal, if you ask me. Is it like a project for you?
> Fia: That’s good to hear … pjuuhhh … Yeah, kind of, but it takes a lot of time. But I need to find the perfect one … You should see my Marketplace J J J
> Patrik: On facebook?
> Fia: Yeaahh …
> Patrik: What does it look like?
> Fia: I write to people. Then I regret it, as if I’m reserving things.
> Patrik: I see …

Much like other instances in their relationship, Fia and Fredrik perform customer journeys as a collective hybrid, dividing actions and events between themselves. In the later text message conversation, I learn that the style in which Fia performs customer journeys extends to how she routinely behaves when contacting sellers of products on secondhand platforms selling products on secondhand platforms. Fia reports that she tends to contact sellers on Facebook Marketplace but instantly regrets it, ending up making what she calls "reservations" for items she will never purchase. This process amounts to a routine of activating and deactivating customer journeys that never amount to a purchase.

In another, earlier follow-up interview, Fredrik explains the reason for many of their joint customer journeys: "Fia can't make up her mind, so then I say—'let's just buy this!'" Fia fills in: "Fredrik is like that with me, because when I can't make up my mind, as you may notice [refers to the trace data], then Fredrik simply orders, because he gets fed up with my shillyshallying." Fredrik expresses uncertainty when directing a question to Fia in the interview: "Sometimes I don't know if you're mentioning what you're thinking of buying because you want me to order it, or if you simply can't make up your mind."

Although this last example is analytically straightforward, it is complex due to Fia and Fredrik's joint style of performing customer journeys. Interference is a form of intertwinement that can occur when several consumers interfere in a customer journey. In this case, Fia's lengthy process that mixes exploration and entertainment causes Fredrik to interfere by performing the purchasing. In the interviews with Fia and Fredrik, the two informants reflect on their process of augmenting each other's customer journeys. Although this is a routine they have developed over the years, Fredrik still expresses some hesitancy regarding knowing for sure when Fia expects him to go through with a purchase. Despite their practice of performing customer journeys in which they share or take turns performing the different modes suggested by the analysis, the intertwinement of Fia's and Fredrik's customer journeys still requires them to communicate in order to confidently know when interference can happen, should happen, or is even expected to happen.

5.4 Chapter summary

Chapter 5 focuses on the complexities of how customer journeys unfold, highlighting the impact of smartphones and social and material elements. It challenges traditional views of customer journeys as linear and sequential, instead proposing a more dynamic and intricate understanding. This chapter addresses the second research question, "*In*

what ways does the smartphone, as part of the socio-material hybrid actor, enable how customer journeys unfold?", examining the initiation, interruption, resumption, enablers, and interrelations of customer journeys.

In Section 5.1, the analysis shows that customer journeys are frequently initiated and then paused—a finding that challenges the notion of seamless, linear journeys. The analysis emphasizes that these interruptions are not solely due to service failures but can also be pauses introduced by consumers as a way of managing the complexity of daily life or to await better pricing opportunities. This chapter introduces the concepts of "activation," "deactivation," and "reactivation" to describe how smartphones influence the progression of customer journeys, showing that consumers often divide their journeys over time.

In Section 5.2, the analysis explores the roles of products, brands, and social others in shaping customer journeys. It illustrates how different enablers—such as product-specific characteristics, brand relationships, and social influences—interact with the consumer's use of a smartphone to guide the journey. These enablers not only direct the customer journey but also influence the decision-making and purchasing processes, demonstrating the multifaceted and dynamic nature of smartphone-enabled customer journeys.

In Section 5.3, the chapter addresses how different customer journeys intersect and intertwine. It suggests that customer journeys—instead of being isolated—are often interconnected in various ways due to digital technologies. This section discusses the concepts of sequential interrelations, mutual reinforcement, and interference, providing insights into how different customer journeys affect each other, whether by triggering subsequent actions, reinforcing each other, or causing disruptions.

This chapter provides an exploration of smartphone-enabled customer journeys as they unfold and problematizes traditional linear models, presenting a processual perspective of dynamic complexity as customer journeys unfold in relation to daily life and the rich variety of elements consumers can access through their smartphone. The chapter reveals how smartphones enable consumers to exert greater control over their customer journeys, allowing them to break their journeys into parts over time. It also shows how products, brands, and social influences shape these customer journeys and illustrates their intertwinement. This understanding of customer journeys, shaped by socio-material interactions, provides insights into the customer journey being a truly elaborate process.

Chapter 6. Findings, contributions, and future research

The aim of this research was to develop a socio-material approach in order to explore and conceptualize how smartphone-enabled consumers perform customer journeys and how these journeys unfold. By recognizing the smartphone as an integral component of a socio-material hybrid actor and making use of trace ethnography, I aspired to contribute to customer journey research by describing and explaining how customer journeys play out in consumers' daily life, enabled by digital technologies. My inquiry was guided by the following research questions: (1) *How do smartphone-enabled consumers perform customer journeys?* and (2) *in what ways does the smartphone, as part of the socio-material hybrid actor, enable how customer journeys unfold?*

This chapter accomplishes four objectives. Firstly, it provides a summary of the study's key findings and discusses how these findings answer the research questions. Secondly, it synthesizes these findings to present a consolidated result that encapsulates the study's overarching insights. Thirdly, the chapter situates the contributions of this research within the context of the existing literature, outlining how this study extends the literature. Fourthly, the chapter suggests future research directions.

6.1 How do smartphone-enabled consumers perform customer journeys?

The findings from this study provide a multifaceted view of the smartphone-enabled customer journey. Addressing the research question, *How do smartphone-enabled consumers perform customer journeys?*, the data shows three primary modes in which consumers act: exploration, entertainment, and purchasing. Each mode represents a unique repertoire of the customer journey, facilitated and enhanced by the pervasive use of smartphones.

Exploration, driven by the sophisticated use of search engines, has evolved from simple product searches to complex, detail-oriented online interactions. In the exploration phase, consumers often start with vague product searches on search engines. This process evolves into more specific queries as they sift through information, demonstrating a sophisticated approach to sorting data that leaves detailed online traces.

Entertainment is no longer a passive experience but a part of self-marketing that influences customer engagement and extends beyond mere purchase intent. It plays a pivotal role in the customer journey, which is no longer just about leisure; entertainment has become an integral part of self-marketing.

Purchasing behavior has become a dynamic and adaptive process in which global markets are navigated with ease and pricing is no longer static. This is thanks to the ubiquitous presence of smartphones, which enable access to discounts, coupons, and international market platforms. Consumers are now empowered to fluidly navigate global markets and utilize discounts and coupons to influence pricing, which has resulted in a dynamic shift in how purchasing decisions are made. The search engine's role as a pivotal technology in this ecosystem is clear: It not only retrieves information but actively guides the consumer, suggesting a deeper level of interaction between technology and agency.

Beyond its role in supporting these three modes, the smartphone is a gateway that enables touchpoints to transform into fluid scenes assembled at will by consumers for various purposes—that is, entertainment, exploration, or purchasing—thereby challenging the traditional consistency expected of touchpoints. This study sheds light on the concept of these fluid "marketing scenes," which consist of multiple touchpoints with varying cross-firm ownerships. Consumers weave together various touchpoints to create scenes that cater to their need for exploration, entertainment, or purchasing. This finding challenges the traditional perception of touchpoints as isolated interactions.

6.2 In what ways does the smartphone, as part of the socio-material hybrid actor, enable how customer journeys unfold?

In response to the second research question, *In what ways does the smartphone, as part of the socio-material hybrid actor, enable how customer journeys unfold?*, the findings suggest that the smartphone acts not only as a tool but also as an integral component of the customer journey. The intertwined nature of customer journeys, as highlighted by interactions with brands, products, and social others, further illustrates the complexity of the consumer's path. The smartphone facilitates this interconnectedness, serving as a linchpin for the multi-actor-centric experiences that unfold. Thus, in answer to the second research question, customer journeys play out in a manner that is active, dynamic, and multifaceted. The smartphone itself critically enables these journeys in the process, thereby enabling a symbiotic relationship between consumers and the digital market infrastructure, which ultimately results in a smartphone-enabled agential

capacity. Moreover, the initiation and pausing of customer journeys indicate a sophisticated use of the smartphone's functionalities, enabling consumers to integrate these journeys into their daily lives more seamlessly. The findings of this study offer a perspective on customer journeys, particularly regarding how they are initiated and paused. It challenges the traditional notion of journey abandonment by suggesting that pausing a customer journey is often a decision made by consumers, rather than a sign of disinterest.

There are several significant findings in this study. Three key actors were found to enable how customer journeys unfold: brands, products, and social others. The interactions between these actors underscore the collective work that goes into facilitating the customer journey, highlighting the importance of each actor in influencing consumer decisions and experiences. Moreover, this research uncovers the complexities of customer journeys by identifying three distinct ways in which they intertwine. This finding adds depth to the current understanding of customer journey progression by showing that these journeys are not linear or isolated but are instead interconnected in various intricate ways via numerous different elements. This insight brings a new level of nuance to the field of customer journey literature, enhancing the comprehension of how smartphone-enabled consumers navigate through several customer journeys simultaneously and how this particular unfolding is enabled by the smartphone.

6.3 Synthesis of the findings

This research emphasizes the pivotal role of technology—particularly smartphones—in shaping agency and ultimately transforming how customer journeys are performed. It demonstrates how consumers and smartphones symbiotically navigate complex digital market infrastructures. The study also underscores the bidirectional relationship between consumers and technologies, such as the way in which consumers use search engines while simultaneously accepting them as co-navigators. This research showcases how a variety of different commercial platforms, such as e-commerce sites, not only provide information about products but also become integrated into the customer journey for purposes other than purchasing, thus allowing a specific agential capacity to emerge.

Another significant overarching result of this study is its recognition of the central actors within customer journeys, which include brands, products, and social peers. By acknowledging their involvement, this research reveals that customer journeys are not exclusively driven by sole-individual-consumer agency but are influenced by a broader

network of actors in what can be understood as a form of agencing. The findings align with the literature that views customer journeys as part of wider contexts such as consumer daily life, while challenging traditional views that primarily consider the consumer as the sole decision-maker; instead, this work offers empirical insights that further highlight the customer journey as a dynamic process.

In addition to its findings, this study introduces phone metering as an effective methodological tool for collecting data on customer journeys, thereby offering researchers a powerful tool for exploring and understanding consumer behavior within the digital landscape. When used together with interviews, phone metering addresses the challenges of informant recall bias and provides detailed insight into the actions consumers perform during smartphone-enabled customer journeys. By adopting a socio-material interpretation and pairing it with trace ethnography, I have been able to reveal intricate empirical patterns that emerged due to the careful tracing of the heterogeneous elements that participated to different degrees in how customer journeys unfolded. By considering how various elements—including social interactions, digital tools, brands, and products—interacted with and shaped the outcome of journeys, I have provided a comprehensive understanding of the dynamics of customer journeys performed by smartphone-enabled consumers.

In conclusion, this study deepens our comprehension of customer journeys by demonstrating their multifaceted nature, the role of technology, the influence of various actors, and the applicability of research methods that utilize traces of data to develop knowledge of consumers' online activities. It reaffirms and advances the research that views customer journeys as dynamic socio-material processes poorly captured by linear and sequential models, and underscores the need for businesses to adopt a similar process and holistic view of customer journeys and to adapt their strategies to accommodate a dynamic and complex digital landscape. With an ever-evolving digital market, the ways in which consumers perform customer journeys will continue to change. This study shows that researchers and businesses alike ultimately need to stay on top of this development and continue to dare to explain customer journeys as complex and elaborate processes that evolve in correspondence with technological development, instead of continuing to view customer journeys as sequential and consisting of phases and isolated touchpoints.

6.4 Contributions

This study challenges the conventional view of customer journeys as linear, seamless processes. Instead, it reveals that customer journeys are dynamic and multifaceted,

often involving various modes such as exploration, entertainment, and purchasing. This complexity highlights the need for research to adopt a more nuanced approach in understanding and enabling customer journeys. Therefore, this thesis potentially offers several contributions that may collectively enrich our understanding of the customer journey in a nuanced and multidimensional way, building upon and expanding previous research.

6.4.1 Addressing criticism of the customer journey

This study addresses criticism from Rokka (2021), Thomas et al. (2020), and Hamilton and Price (2019), among others, who argue that the customer journey framework is excessively centered on individualistic consumer behavior. By acknowledging the interplay of broader collective influences, this study provides an integrated perspective that recognizes the intertwined nature of consumer actions and decisions. It applies a perspective of distributed agency to analyze smartphone-enabled customer journeys, thereby providing valuable insights into the involvement of multiple actors in the process. This approach reveals the customer journey to be more than just an emotional or experiential process. The empirical findings—backed by a socio-materially inspired theoretical framework and methodology—highlight the benefits of moving beyond the traditional notion that consumers have inherent agential capacity. The approach taken in this study not only unveils new modes but also empirically enriches and theoretically advances the present-day theorizations aimed at explaining the intricate dynamics of customer journeys.

6.4.2 Enhancing customer journey research through distributed agency and multi-actor-centric perspectives

This research elucidates the modalities through which consumers perform their customer journeys enabled by smartphones and the subsequent unfolding of these journeys in the presence of smartphone technology and a digital market infrastructure. Consequently, this work substantiates the assertion by Thomas et al. (2020) that adopting a multi-actor-centric perspective enhances the field of customer journey research. Moreover, it progresses the socio-material theoretical approach within this domain, aligning with the frameworks proposed by Thomas et al. (2020), de Bellis and Venkataramani Johar (2020), and Novak and Hoffman (2019), by emphasizing the integral role of multiple elements—in this case, specifically smartphones—as co-constructors of the customer journey.

This study also contributes to the existing literature on search engines and their role in customer journeys by demonstrating their function as proactive entities through which agency is distributed. Humphreys et al. (2021) suggest that phrasing is indicative of the consumer's mindset. Building on this, the present research underscores how search engines go further by actively guiding the consumer through personalized suggestion algorithms and adaptive outputs. This dynamic indicates a partnership in which consumers not only seek but also receive direction, often viewing the influence of the search engine's recommendations as beneficial and unproblematic. Such insights mark an expansion of earlier research that predominantly focused on how users initiate searches and their predictiveness to sales (Duan & Zhang, 2021), highlighting a more collaborative interaction, as suggested by Haider and Sundin (2019), between technology and user.

6.4.3 The theoretical concept of agencing and self-marketing in the customer journey

This thesis advances the field of customer journey literature by employing the theoretical concept of agencing (Araujo & Kjellberg, 2016) to illuminate the complex roles and assemblages of materials and technologies within a customer journey; in particular, it emphasizes the formative influence of smartphones, as articulated by Cochoy (2012, 2015a, 2015b). This work contributes significantly to a previously underexplored area, as noted by Tueanrat et al. (2021), by detailing how digital devices—more specifically, smartphones—are not mere facilitators but become active agents that shape the trajectory and experience of the customer journey, ultimately becoming part of what can be termed agencing.

Cochoy's concept of self-marketing frames the contemporary dynamic perspective on the study of customer journeys, particularly those facilitated by smartphones. This thesis's combined use of agencing, self-marketing, and the marketing scene mark another contribution to the customer journey literature, as these concepts are used jointly to conceptualize the evolving nature of consumer behavior in the digital era, in which individuals partly curate their consumption experiences via smartphone interactions. By emphasizing the agential role of consumers in navigating their own journeys, Cochoy's notion of self-marketing offers an intellectual space for understanding how consumers leverage technology, not just as a tool but as an integral part of their decision-making process, thereby enriching the discourse on customer journey research. Self-marketing is aptly poised to be a holistic frame for the emerging literature examining the evolving role of technology in shaping specific consumer agency in the era of smartphones and other smart technologies.

The findings from this study illuminate the multifaceted ways in which consumers partly curate their own moments of private marketing. This active consumer behavior contrasts sharply with the managerial perspective advocated by Edelman and Singer (2015), which posits that retailers can direct the customer journey through the design of seamless and positive experiences; to put it bluntly, this view implies that the more managers know about the customer journey, the better they can steer the customer. In contrast, the present research contributes to the customer journey literature by highlighting the limitations of perceived managerial omnipotence and emphasizing the consumer's capacity for self-directed navigation and decision-making, as enabled by smart technology, within the customer journey.

6.4.4 Introducing the marketing scene as a concept

This research contributes to the customer journey literature by challenging the conventional notion of touchpoints as firm-owned constructs—unlike the conventional notion of touchpoints as firm-owned constructs, which has been reinforced by Towers and Towers (2022). By conceptualizing touchpoints as components of consumer-created marketing scenes, this study demonstrates how the multi-actor-centric perspective can unlock new understandings of the consumer journey. It contrasts with the prevailing firm-centric view by demonstrating that consumers actively assemble touchpoints from various sources to form dynamic, context-dependent scenes. This approach critically examines and extends the understanding of touchpoints beyond the traditional boundaries of ownership and control, suggesting that the consumer's smartphone-enabled agency plays a pivotal role in shaping the customer journey landscape.

Furthermore, the introduction of the "marketing scene" as a concept in this study represents a contribution to the lexicon of customer journey research. By delineating various modes of consumer engagement, such as entertainment, exploration, and purchasing, this research not only enriches the conceptualization of the marketing scene but also extends the terminological tapestry that characterizes the field (Følestad & Kvale, 2018). This advancement in terminology reflects a more granular understanding of consumer interactions, situating the "marketing scene" as a potential concept that captures the essence of consumer experience within the customer journey discourse beyond what is permitted by the term "touchpoint" (Towers & Towers, 2022).

6.4.5 Intertwined customer journeys

This study advances customer journey research by delineating three distinct modes through which customer journeys are interwoven: sequential, mutual reinforcement, and interference. By employing established terminologies of market processes, this research reveals patterns that are consistent across consumer behaviors as consumers navigate their purchasing paths. These insights are instrumental in understanding that the interconnection of customer journeys is not merely incidental but a fundamental characteristic of their progression. By uncovering the nuanced ways in which consumers intertwine their journeys with daily life, this research contributes to a more detailed understanding of consumer agency and the dynamic nature of the customer journey. It extends the work of Bettencourt et al. (2022) by explicating the mechanisms of how consumer journeys both contain intertwining elements and themselves intertwine with other journeys, thereby providing a richer picture of how consumers orchestrate their engagement with brands in a way that is both empowered and individualized. This contribution adds a new dimension to the customer journey literature, emphasizing the complexity of these experiences and functions as an alternative pathway—compared with interdependence theory, as suggested by Hollebeek et al. (2023)—for understanding the multiplicity of customer journeys.

The findings in this study bring empirical clarity to previous research exploring social and collective dimensions in the customer journey (Thomas et al., 2020; Hamilton et al., 2021). This study uses an empirically based approach to understand the social and collective dimensions of customer journeys. Through the trace ethnography method, the interviews provided context to the digital trace data, unveiling how customer journeys are directly intertwined to contexts in which social others play an influencing role. Through its theoretical framework, this thesis also adds empirical clarity regarding how bidirectionality is expressed in customer journeys by introducing non-human elements into the proposition that consumers influence each other's customer journeys (Hamilton et al., 2021). For example, one of the main arguments in this study is that bidirectionality does not exclusively occur between humans but can also involve many more actors, both human and non-human, such as brands, products, and social others.

6.4.6 Methodological contribution of trace ethnography

While trace ethnography is still an under-used methodology within the domain of digital ethnography, it holds considerable potential for advancing customer journey research. Its application has been somewhat constrained, with few studies successfully

integrating this method to yield data that complements traditional ethnographic techniques. This limitation may stem in part from a lack of detailed methodological guidance in the seminal work of Geiger and Ribes (2011), which contrasts with the more prescriptive tool-oriented suggestions offered by other methods similar to trace ethnography (cf. Audy Martínek et al., 2022). This study provides methodological tools for conducting trace ethnography, emphasizing the value of integrating digital trace data with consumer interviews and—if possible—observations. This approach offers a deep understanding of online consumer behavior, uncovering complexities that cannot be elucidated by trace data alone.

With this study, I aspire to contribute to the field by highlighting the importance of contextualizing trace data for a comprehensive analysis of consumer interactions in digital environments. This contribution is twofold: It not only enriches the methodological toolkit available for customer journey research but also extends its applicability to broader marketing research interests. By detailing the process of phone metering, this research provides a guide for future studies to trace the digital phenomena that shape consumer behaviors, offering a valuable complement to the existing ethnographic toolkit. Lastly, the data collection facilitated by phone metering in this thesis has been instrumental in addressing recall bias, by enabling informants to accurately revisit and articulate experiences from the distant past. Importantly, this approach confirms Ekström's (2022) view by showing that having access to their own trace data can grant informants an enhanced understanding of their behaviors, fostering depth of reflection and comprehension.

This study's contribution to the field of online ethnography (Nascimento et al., 2022) is underscored by its use of phone metering in conjunction with trace ethnography to produce qualitative insights from a large set of digital data. This combination is affirmed as a potential approach for qualitative interpretive research that harnesses digital trace data, particularly within the context of consumer behavior and the customer journey. This research offers a methodological pathway for future scholarly inquiries into consumer research and customer journey analysis, emphasizing the efficacy of an outside-in approach in the digital research landscape.

6.5 Future research directions

The future research landscape in customer journey studies is particularly promising when considering two pivotal areas: the tracing of customer journeys across a variety of technologies and the expansion of research to include a broader spectrum of marketing phenomena.

In regard to the relation between consumers and technology, the focus extends beyond smartphones. Emerging technologies such as smart home devices, wearables, and Internet of Things (IoT) platforms are becoming increasingly integral to consumers' lives, and investigating how these technologies intertwine and collectively influence consumer decisions and behaviors could unveil new insights. For example, understanding how a wearable device interacts with a smartphone and how this interaction influences purchasing decisions or brand loyalty could be particularly revealing. In addition, examining the role of virtual and augmented reality in these journeys could develop fresh perspectives on consumer engagement and decision-making processes.

The integration of generative AI and advanced algorithms in this mix presents an especially fruitful area for exploration. These technologies are rapidly transforming how consumers interact with brands and products, from personalized product recommendations to AI-driven customer service experiences. Researching how these AI and algorithm-driven interactions affect consumer choices and journey trajectories can provide profound insights into the evolving nature of consumer behavior.

The seamless integration of digital interfaces with physical spaces also merits close examination, as it is reshaping the traditional boundaries of consumer interactions with brands and products. By analyzing how consumers move between online and offline environments, and how this transition influences their purchasing decisions, researchers can gain a deeper understanding of the modern consumer experience. This understanding is crucial in an era where the digital and physical realms are increasingly interconnected.

Turning to the broader range of marketing phenomena, applying the principles of trace ethnography to a wider array of marketing contexts, especially in sustainable consumption practices, presents an exciting avenue for exploration. This method, which is known for capturing nuanced consumer behaviors in real time, can be instrumental in understanding complex consumer interactions in various settings. For example, the application of trace ethnography to studies of consumer behaviors in sustainable and ethical consumption can provide critical insights into how consumers make choices that align with their values and the impact of these choices on marketing strategies.

In conclusion, these two areas of focus—tracing customer journeys across multiple technologies and expanding research to encompass a broader range of marketing phenomena—not only align with the socio-material perspective on consumer behavior

but also pave the way for innovative methodologies and ethical considerations in the study of consumer behavior. They offer rich opportunities for future research, promising to enhance our understanding of the complex and dynamic nature of consumer journeys in today's technology-driven world.

Chapter 7. Managerial implications

In this chapter, I offer a discussion and a series of strategic questions, rather than providing specific solutions. This is an active choice; as a researcher and educator, my role is to present to managers new ways of thinking and to inspire critical thinking. Hence, the primary contribution of this research is to stimulate managers in the retail industry to reevaluate their understanding of the customer journey and to begin to consider the socio-material dynamics of customer journeys. I look forward to seeing what managers will make of the findings and contributions of this study.

For the manager, the intricate interchangeability between modes in a customer journey means that it cannot be assumed that progression from one practice will feed into the next. The modes identified in this study do not resemble the phases typically described for a customer journey (Lemon & Verhoef, 2016); instead, they should be understood as temporary states of doing. This perspective is elucidated by showing that consumers may enter and/or exit any practice irrespective of previous actions. In particular, as the results of this dissertation clearly demonstrate, the consumer may initiate and then stop specific actions over time, only to pick them up at a later time because the smartphone enables the consumer to easily do so. Moreover, practices are performed interchangeably and sometimes even in direct proximity to each other. Therefore, according to the perspective of this study, it must be assumed that a consumer may enter an e-commerce store to perform a purchase without having done any prior exploration; contrariwise, a consumer may carry out extensive exploration but make no purchase.

It is also necessary to realize that the entertainment and exploration modes are not necessarily trajectories aiming toward a purchase; rather, consumers engage with touchpoints to create marketing scenes that enable entertainment or exploration. This insight presents a new way of considering the elements influencing and shaping customer journeys. One method could be to introduce marketing scenes that are scripted not for a purchase but for entertainment and exploration. The consumer would benefit from a device-enabled experience with the aim of allowing for this logic of leisure and surprises. Retailers can begin to realize that their touchpoints provide these moments and may question what style content they can provide to consumers in order to align these practices more effectively.

The concept of entertainment touchpoints would allow the intricate and elaborate customer journey to be understood less as a complex and hard-to-follow process when the devices producing data representing behavior resist the assumption that the consumer is moving toward a purchase and instead show the consumer becoming

engaged in entertainment (cf. Thomas et al., 2020). Therefore, the consumer is not to be "managed," as such; instead the consumer is assisted in a personal transformation from being bored to being entertained.

This study presents a novel approach to conceptualizing the customer journey as comprising bidirectional connections between modes. The managerial approach I propose also draws inspiration from viewing the world as socio-material, emphasizing complexity over sequential phases. Consequently, managers need to be receptive to the idea that consumers engage in the various actions of the customer journey under the influence and facilitation of numerous elements that collectively contribute to the outcomes. While it may be challenging to perceive the consumer within such a network of elements, doing so can yield valuable insights. It is essential for managers to train in using a multi-actor-centric perspective, recognizing that a brand, a retailer, a product, or a salesperson in a store is just one of many elements in this context that enable customer journeys. Adopting such a perspective may end up being a humbling experience, as it uncovers numerous layers of dynamic associations and relations that constitute the progression of a customer journey. Ultimately, I hope that this study will inspire a fresh perspective on how to assist consumers in their journeys, by shifting the focus from managing the customer journey to empowering consumers throughout their journeys to seek out the pleasures that appeal to them in moments of private marketing (Cochoy, 2012).

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Appendix

Tables

Table A1. Overview of the informants and their participation in phone metering, interviews, and observations

Pseudonym	Age	Participated in phone metering	Participated in interviews	Participated in observations
Mimmi* (living with Hasse)	Early 30s	Yes	Yes	Yes
Titti (living with Jocke)	Mid 50s	Yes	Yes	Yes
Sanna	Early 40s	Yes	Yes	No
Fia (living with Fredrik), recruited in fall of 2020	Mid 30s	Yes	Yes	No
Josefin*	Early 20s	Yes	Yes	Yes
Björn (living with Jonas)	Early 60s	Yes	Yes	No
Jonas (living with Björn)	Mid 60s	Yes	Yes	No
Fredrik (living with Fia), recruited in the fall of 2020	Early 30s	Yes	Yes	No
Hasse	Early 30s	No	Yes	Yes

(living with Mimmi)				
Jocke (living with Titti)	Mid 50s	Yes	Yes	Yes

*Indicates key informants.

Table A2. Overview of the interviews conducted for this thesis

Informant (pseudonyms)	**Interview date**
Mimmi & Hasse	6/2/2020
Josefin	12/2/2020 (interview during observation)
Mimmi & Hasse	20/2/2020 (interview during observation)
Björn & Jonas	21/2/2020
Sanna	21/2/2020
Titti & Jocke	24/2/2020
Björn & Jonas	30/3/2020
Josefin	31/3/2020
Sanna	1/4/2020
Titti & Jocke	1/4/2020
Mimmi & Hasse	7/4/2020
Titti	8/10/2020
Jocke	12/10/2020
Mimmi	15/10/2020
Titti & Jocke	16/10/2020 (interview during observation)
Mimmi	**5/11/2020**
Josefin	**5/11/2020**
Sanna	**9/11/2020**
Fredrik	**11/11/2020**
Mimmi	**18/11/2020**
Sanna	**19/11/2020**
Josefin	**22/11/2020**

Fia	**23/11/2020**
Titti	**25/11/2020**
Jocke	**25/11/2020**
Jonas	8/3/2022
Björn	9/3/2022
Josefin	9/3/2022
Titti & Jocke	10/3/2022
Fia & Fredrik	14/3/2022
Josefin	15/3/2022
Mimmi	16/3/2022
Josefin	16/3/2022
Titti	22/2/2023

Note: Dates in bold font signify the period of phone metering.

Table A3. Number of interviews and observations with each informant

Informant (pseudonyms)	**Number of times interviewed/observed**
Mimmi*	7/1
Titti	7/2
Josefin*	7
Sanna	4
Jocke	4/2
Björn	3
Jonas	3
Fredrik	2
Hasse	2/1
Fia	2

*Indicates key informants.

Table A4. Overview of the data traces collected by Reality Mines

Each row constitutes an action (a click) performed by an informant on a smartphone (e.g., opening an application on the phone registers as one row, then opening another application 3 minutes later produces a second row; the same translates to browsing, as one row may be a search input or opening an e-commerce store). A total of 65 896

actions were collected. On Nov. 21, no actions were registered, probably due to a malfunction within Reality Mines.

Date	**Rows in spreadsheet from RealLife App**	**Rows in spreadsheet from Real Life Web**
03-nov	1339	630
04-nov	1849	391
05-nov	2282	557
06-nov	2055	529
07-nov	2136	438
08-nov	1974	642
09-nov	2373	526
10-nov	2066	449
11-nov	2296	340
12-nov	1984	563
13-nov	1856	319
14-nov	1812	563
15-nov	1279	319
16-nov	1797	563
17-nov	1869	277
18-nov	2462	481
19-nov	2575	464
20-nov	1936	504
21-nov	NO DATA	NO DATA
22-nov	1722	280
23-nov	1974	420
24-nov	2200	540
25-nov	2192	369
26-nov	2325	665
27-nov	1682	677
28-nov	1722	397
29-nov	1758	411
30-nov	1889	258
	53 404	**12 492**
TOTAL		**65 896**

Strategic managerial questions and marketing opportunities

In this section, I propose questions that managers can ask themselves in order to challenge notions stemming from the sequential and linear paradigm of customer journeys. The themes cover retention and engagement, the design and management of touchpoints, customer behavior, the influence of brand and algorithms, and long-term goals and social belonging.

How effectively do you engage with and retain your customers in their smartphone-enabled customer journeys?

In this study, the informants tended to deactivate and activate their customer journeys for several reasons. It may seem arbitrary to retain customers to continue to perform customer journeys, but the key may be in the ability to engage—that is, keeping customers interested and dependent on the specific practice they perform.

Customer retention and engagement vary significantly depending on whether a customer is exploring products or seeking entertainment. For retailers, delivering the right experience hinges on understanding the customer's current actions rather than conforming to traditional phase-based models. To address this issue, retailers must accurately determine the customer's current mode within their journey. This entails leveraging advanced analytics to comprehend online behavior, including clicks, links, and the specific themes that pique customer interest. Factors like the time of day also play a role. With this insight, retailers can tailor online interactions to align with the logic of each specific mode, ultimately enhancing the customer's online engagement.

Do customers choose your brand when seeking entertainment or exploration?

In this study, the brand was identified as a central enabler in the customer journey, such as when the informants used a brand to narrow their search on the search engine, as inspiration, or for its common discounts. This study shows, therefore, that the brand matters greatly in the online customer journey. This finding contrasts with early research that envisioned brands as being secondary online, and bargain hunting as the main driver. Even though discounts and price were the prime focus for many of the informants, the brand remained salient. This should inform managers that the brand continues to have a significant position, as its relationship with the consumer shapes the way in which it enables customer journeys to unfold. Thus, managers should explore how effectively the brand experience caters to consumers in different modes of practice and evaluate new points of interaction based on the various actions consumers

take. This strategic approach can lead to more successful customer experiences and interactions.

How are your touchpoints perceived when they compete for attention alongside other brands?

A main finding in this study is the way in which consumers assemble marketing scenes as they navigate online. This finding provides managers with a perspective to begin exploring how their brand's touchpoints are experienced alongside others. For both operational effectiveness and strategic success, companies should consider viewing their touchpoints grouped into marketing scenes and make efforts to map and understand which touchpoints from other firms compete with or contribute to the holistic context in which the consumer performs a customer journey. For example, while managers may have a deep understanding of their touchpoints individually, they should now focus on gaining insights into how these touchpoints perform within a marketing scenario that incorporates touchpoints from competitors. This broader view can lead to more informed and effective decision-making for optimizing the customer journey.

To what extent does algorithmic influence guide customers within your industry?

This study shows how search engines provide guidance in the customer journey, which should invoke managerial curiosity to better understand how algorithms embedded in the market infrastructure may or may not perform to the advantage of the firm. In several instances, the informants simply did not mind being led by the search engine. With little consideration, they accepted its recommendations and alterations. In this study, this acceptance was framed as a distribution of agency; thus, in practice, it can be considered that retailers do not market only to humans but also to non-human actors such as search engines. In the future, managers should take an even bigger interest in this dynamic and diversify and develop strategic marketing to adapt to a future in which it is likely that algorithms will be making an increasing number of decisions, either with or on behalf of the human actor.

How thoroughly do you understand your customers' overarching, long-term objectives?

A general trend in the data showed that individual customer journeys aligned under a common, overarching goal. Usually, the perspective of the customer journey assists managers in mapping and designing on the basal level of individual interactions; however, introducing the notion that customer journeys are connected and move

toward a goal emphasizes that managers should better understand these long-term goals and how consumers go about achieving them by performing multiple customer journeys.

Developing analytics and metrics, or using zero-party data (i.e., directly interacting with and asking consumers about their needs) can aid managers in detecting opportunities to add value through partnerships with other retailers as well as other stakeholders, such as lifestyle brands, food brands, or any other brand consumers align with their long-term goals.

How does your customer journey foster a sense of social belonging and community among your audience?

The study presented in this thesis clarifies that customer journeys are seldom a project performed by a solo-travelling, individual consumer. I acknowledge that such a notion is fundamentally flawed from the socio-material and flat ontology perspective; however, in this thesis, I have provided empirical data that solidifies the idea that customer journeys should be viewed as collective accomplishments. To embrace the idea that customer journeys are social and collective endeavors, retail managers should question what constitutes a successful customer journey. If a retailer's touchpoints, membership programs, or other consumer-facing interactions contribute to a sense of social belonging among families, friends, or other collectives, can this be considered a successful outcome? Ultimately, this study encourages a more comprehensive evaluation of the retail experience by demonstrating how a multi-actor-centric perspective of customer journeys may unlock new opportunities for managers to continue to explore.

This doctoral thesis explores the transformation of the customer journey – that is, the direct and indirect interactions between a customer and retailer over time – in the smartphone era. Utilizing "trace ethnography," which includes phone metering and interviews, this research reveals how customer journeys are performed in daily life.

Highlighting smartphone-enabled consumers as hybrid actors, this work challenges conventional views of customer journeys, by making use of the notion of "self-marketing" where consumers partly curate personal marketing experiences. The thesis underscores the significant role of smartphones in enabling customer journeys, illustrating a complex web of interactions facilitated by digital technology.

In summary, this thesis posits that customer journeys are elaborate. While emotions and experiences continue to play essential roles in customer journeys, the findings show that the actions taken are partly shaped by the digital device and the digital market infrastructure, which are accessed daily. It offers a socio-material perspective on customer journeys, enriching our understanding and providing valuable insights for both academics and businesses alike.

Electronic version: http://urn.kb.se/resolve?urn=urn:nbn:se:hb:diva-30919
ISBN 978-91-89833-31-9 (printed)
ISBN 978-91-89833-32-6 (PDF)
ISSN 0280-381X, Skrifter från Högskolan i Borås, nr. 146

Contact the author?
Scan the QR-code