Analysing Customer Contact Sequences During the Pre-Purchase Phase for Consumer Durables in Germany

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Abstract

This thesis investigates the customer experience, a critical field in marketing, by focusing on the customer journey from a process-based perspective. This approach aligns with contemporary research that emphasises the significance of understanding dynamic customer interactions over time. Within the domains of omnichannel and multichannel marketing, the concept of customer contact sequences was introduced, which provides a way to examine distinct customer journey stages systematically.

This thesis explores customer contact sequences in the context of consumer durables, specifically automobile purchases in Germany. It examines how potential customers seek information and make purchase decisions, paying special attention to both company-controlled and non-company-controlled contact points, the sequence of these interactions, and the overall length of the customer contact sequence. These insights enhance the theoretical frameworks that are used to design seamless customer journeys and contribute to the academic discourse in customer experience research.

A mixed-methods approach guided by a critical realist paradigm addressed four key research gaps. This included a qualitative exploratory study to inform a longitudinal quantitative explanatory study, marking a novel methodological contribution to the field and responding to recent academic calls for robust longitudinal research designs. The findings revealed that dealer visits (a company-controlled contact point) and word of mouth (a non-company-controlled contact point) are the most influential contact points, and they often function in a hybrid manner. Medium-length sequences with repeated interactions of the same contact point foster seamless customer experiences. Additionally, sequences that evoke high positive emotional arousal significantly increase the likelihood of a purchase. These results underscore the importance of strategically designing customer contact sequences that effectively integrate company-controlled and non-company-controlled contact points, thus facilitating the acquisition of consumer durable products.

Keywords

Customer Contact Sequences, Customer Journey, Customer Journey Mapping, Customer Experience, Information Search, Purchase Behaviour

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1 Introduction

This chapter provides an overview of the research area, objectives, gaps, relevance for theory and practice, and the researcher's personal motivation, as well as an outline of all chapters.

1.1 Research area and objective

The thesis primarily explores customer experience research, a crucial area of study that remains a top priority for science and managers. Customers seek to purchase experiences rather than just products (Zhang *et al.*, 2024). The customer experience is a complex concept that encompasses cognition, emotion, behaviour, senses, and society (Lemon and Verhoef, 2016). It can be viewed from different angles, including an outcome-based perspective that emphasises the overall experience as a result of a process and a process-based perspective that highlights the sequential experiences involved in purchasing a product (Klaus *et al.*, 2023).

The customer journey, a process-based perspective, is a significant theme in the customer experience research (Wang *et al.*, 2024). It involves potential customers interacting with a company through various contact points within the purchase cycle (Lemon and Verhoef, 2016). To manage the customer experience, a company often uses customer journey mapping, which depicts a customer's decision path and interactions with a brand from awareness to post-purchase (Berman, 2020). Customer journey mapping considers all contact points and reveals how customers progress from one contact point to the next (Berman, 2020). Understanding consumer behaviour through this perspective is crucial for decision-making across different industries.

In the realm of omnichannel and multichannel marketing, an intriguing sub-concept of the customer journey has emerged from Steinmann (2011). This concept – known as customer contact sequences – is designed to analyse specific customer journey stages systematically. This thesis focuses on the pre-purchase phase. To better understand customer contact sequences, it is helpful to break them down into two key components:

contact points and sequence. Contact points, also known as marketing channels or (customer) touchpoints, refer to every interaction or contact a customer has with a brand, all of which are important (Steinmann, 2011; Følstad and Kvale, 2018). Meanwhile, sequence refers to the specific order in which these contact points occur (Abbott, 1995). This thesis focuses on three critical areas of customer contact sequences (Steinmann, 2011):

1. The type of contact points used (e.g. salesperson, website);
2. The order of contact points used (e.g., TV commercial → website → online car configurator → online auto blog → dealer visit → test drive → talking to family and friends → salesperson → salesperson);
3. The length of customer contact sequences (e.g., nine overall contact points in the sequence).

Studying the customer journey through their contact points is essential to enhance and manage the overall customer experience. As Berman (2020) and Tueanrat, Papagiannidis and Alamanos (2021) have highlighted, this endeavour has become a top priority for scholars and practitioners. Focusing on the contact point interactions within each customer contact sequence is crucial to gain in-depth knowledge about the customer journey. By identifying repeatable patterns and dependencies, we can define customer contact sequences that lead to optimal outcomes, such as purchasing a consumer durable (Meyer and Schwager, 2007; Steinmann, 2011).

The literature on customer contact sequences, particularly customer journeys and contact points (Følstad and Kvale, 2018), is expanding. According to a meta-analysis of the customer journey literature by Tueanrat, Papagiannidis and Alamanos (2021), it grew more than sevenfold from 2013 to 2021. Industry statistics reveal that poorly managed customer contact sequences result in a 45% reduction in consumer spending (Marketing Charts, 2020) and a loss of 35.3 billion U.S. dollars (USD) per year in the United States of America (USA) alone. In contrast, well-managed customer contact sequences boost company profitability threefold. In 2022, it was forecasted that globally, companies would spend 641 billion US dollars in optimising customer

contact sequences by utilising new technology, an increase of 130 billion USD from 2019 (Emplifi, 2021).

Customer contact points (or touchpoints) play a vital role in customer contact sequences. This thesis uses the phrase ‘types of contact points’ to align with the customer contact sequence literature (Steinmann, 2011). Contact points encompass all customer interactions with a product or brand throughout the customer journey. They create diverse experiences (Roggeveen and Rosengren, 2022), emotions, and even moments of delight (Zou *et al.*, 2023), which shape the overall customer experience. Contact points offer various values to customers, including support for information gathering, advice, payments, and/or services. Hence, depending on where the customer uses them in the journey, contact points should be treated differently regarding their purpose (Lundin and Kindström, 2023). Several categorisations have been developed over the last 25 years to help companies manage contact points. Most researchers have divided them into brand owned, partner owned, customer owned, and social/external/independent (Lemon and Verhoef, 2016).

According to Lemon and Verhoef (2016), these categorisations aid companies in effectively managing their contact points by identifying crucial moments of truth to provide customers with the optimal customer journey. In this thesis, the contact point categories developed by Roggeveen and Rosengren (2022) are used to condense the contact points into two critical categories: company controlled (brand owned) and non-company controlled (partner owned, customer owned, social/external/independent). This categorisation is based on the level of influence companies have on the contact points. According to Kuss and Tomczak (2007) and Zimmermann, Weitzl and Auinger (2022), contact points that are either owned or paid for by a company fall into the category of company controlled, while those that are not are known as non-company controlled. For this thesis, the company in question is a car company. These two categories are useful to group contact points and thus to analyse customer contact sequences, which can shed light on the degree of influence the car company has in these interactions. Within this thesis, the two categories are used to structure the information for the reader.

The literature on the customer journey and customer contact sequences is primarily discussed within the service marketing tradition. Influential studies by Zomerdijk and Voss (2010) and Lemon and Verhoef (2016) in the marketing field, and Meyer and Schwager (2007) in the business field have made notable contributions. Additionally, the omnichannel and multichannel literature has contributed to customer journey research, mainly focusing on the retail business. The overarching aim of research in this area aligns with the growing customer-centric philosophy (Tueanrat, Papagiannidis and Alamanos, 2021). Folstad and Kvale (2018) suggested that the consumer behaviour theory literature should focus on engaging new developments, as the most frequently cited studies are outside the field. This thesis primarily focuses on the marketing and service marketing literature but acknowledges that studying customer contact sequences can help better understand consumer behaviour.

The overarching objective of this thesis is to examine customer contact sequences related to the acquisition of consumer durables, specifically the purchase of cars in Germany. The central aim is to understand how potential customers seek out information and ultimately purchase a consumer-durable product. An essential aspect of this investigation is to identify which contact points are utilised throughout this process, the sequence in which contact points are used, and the sequence length (Steinmann, 2011; Barwitz and Maas, 2018).

The research objective of this thesis addresses four significant gaps in the academic literature. First, there is the need for a comprehensive understanding of creating a seamless customer journey (Lemon and Verhoef, 2016). Second, the interplay between company-controlled and non-company-controlled contact points within the customer contact sequence must be fully understood (Wetzels *et al.*, 2023). Third, further research is needed to understand the significance of emotions at different customer contact points (Grewal and Roggeveen, 2020). Fourth, most studies in the field have been cross-sectional, potentially leading to less accurate findings. To improve the accuracy of the results, experts recommend using longitudinal field data (Klein and Ford, 2003; Verhoef, Neslin and Vroomen, 2007; McColl-Kennedy *et al.*, 2015;

Yumurtacı *et al.*, 2017; Tueanrat, Papagiannidis and Alamanos, 2021; Wang *et al.*, 2024).

This thesis focuses on the purchasing behaviour of German buyers of new cars. This choice was made based on several key factors. First, purchasing a vehicle is a complex process that requires a highly structured approach throughout the customer journey (Marutschke and Gournelos, 2020). Second, car buyers are heavily invested in the decision-making process due to the product's high cost and the complexity of the purchase process. This means they can recall details about the purchase process even after a significant period between contact point usage and participating in the study, resulting in higher-quality results (Marutschke and Gournelos, 2020). Third, new car purchases tend to involve a more structured approach from the customer than purchasing a used car. In Germany, used car purchases often rely on private sales between individuals, making them less structured and less conducive to finding frequent contact point combinations (Deutsche Automobil Treuhand [DAT], 2023). Finally, Germany is the largest car market in Europe and one of the most significant globally (Germany Trade and Invest Gesellschaft für Außenwirtschaft [GTAI], 2022). This factor increases the likelihood of achieving a valid sample size.

1.2 Research gaps and relevance for theory and practice

As noted in Chapter 1.1, this thesis addresses four research gaps. This first critical research gap is the need for a comprehensive understanding of creating a seamless customer journey (Lemon and Verhoef, 2016). To provide an exceptional customer experience, it is crucial to understand a customer's path to purchase through customer journey mapping (Lemon and Verhoef, 2016). According to Abbasi *et al.* (2020), it is essential to comprehend the most valuable channels, contact points, and common contact point usage sequences within each customer journey stage. By analysing the most frequent customer contact sequences during the pre-purchase phase, this thesis provides valuable insights that can lead to the design of an optimal seamless customer journey (Lemon and Verhoef, 2016). Previous studies have focused on the customer journey as a whole, examining the outcome of the customer experience especially (e.g.,

Lemon and Verhoef, 2016). This can be referred to as the outcome-based perspective of the customer journey (Klaus *et al.*, 2023). However, researchers have shifted from an outcome-based perspective to a process-based perspective, highlighting single contact points, sequences, and portions of the customer journey, which is significant for customer experience research (Barwitz and Maas, 2018; Suh and Moradi, 2023). This thesis shares the process-based view and intends to develop it further.

Of note, there are limitations to the past research on the process-based view, as it has tended to focus on only a few contact points. Moving forward, it is essential to take a more comprehensive approach and to analyse multiple contact points throughout the customer journey (Abbasi *et al.*, 2020). While research on this topic is generally scarce, it is especially limited regarding consumer durables, such as cars (Steinmann, 2011; Tueanrat, Papagiannidis and Alamanos, 2021). There is still much to learn about the sequence in which different contact points are utilised (Klein and Ford, 2003).

Since the late 1990s, numerous sources have highlighted the importance of further research in this area (Peterson, Balasubramanian and Bronnenberg, 1997; Rangaswamy and van Bruggen, 2005; Steinmann, 2011). Nevertheless, the research gap persists due to a need for a sharper focus (Panzera *et al.*, 2017; Berman, 2020). Fortunately, since 2017, there has been a steady increase in the volume of research on the subject. In their meta-analysis, Tueanrat, Papagiannidis and Alamanos (2021) revealed that 50% of the significant studies on the customer journey have been published since 2017. However, as technology has evolved, the research gap has widened, as there are now even more contact points to consider (Marutschke and Gournelos, 2020). While some studies have mapped parts of the customer contact sequence, such as the first three contact points, others have only analysed the first (Hauser, Urban and Weinberg, 1993; Van Rijnsoever, Castaldi and Dijst, 2012).

Steinmann (2011) provided one of the most comprehensive studies on customer contact sequences. He explored them from a multichannel perspective in the consumer electronics and tourism decision-making processes. The findings varied significantly between the industries. He concluded that it is imperative to conduct additional studies

in other decision-making categories, especially for high-value consumer durables, such as cars, to develop the literature and theories and to learn more about high-value purchases.

In addition to earlier research, two recent studies have focused on analysing customer contact sequences. Abbasi *et al.* (2020) examined six digital contact points within a sequence for hedonic and utilitarian product purchases. The findings showed that all six contact points are frequently used before a purchase. Product page views and retailer website visits increased during the middle and late stages of the journey. At the same time, search engines and social media are used together frequently, indicating a clear interdependency between these contact points. The authors also looked at the effect of customer contact sequences in both purchase and non-purchase situations. In the purchase situation, social media usage as well as visits to the retailer's website increase significantly. Although this study advanced research in the field, the authors acknowledged that due to data limitations, they could not capture some essential contact points that this thesis aims to address (Abbasi *et al.*, 2020).

The goal of the study by Hu and Tracogna (2020) was to provide insights into how companies can manage contact point synergies during the shopping journey. By understanding the customer journey, businesses can effectively engage with customers and optimise their value. Researchers have debated whether the customer journey is strictly linear or whether customers move back and forth between the stages. The researchers incorporated five contact points to map the customer contact sequence and analysed sequence length and the most critical contact points. They found that for insurance purchases, the insurance agent is the most vital purchase contact point, while the company website and price search websites are the most important sources of information. The study also revealed that specific contact points are used repeatedly throughout the customer contact sequence and that customers often begin their search online before purchasing through a personal agent called webrooming. While this study made significant progress, it did not include all critical contact points, which may have led to gaps in understanding the customer journey.

In addition to its value for academics, the customer contact sequence could be useful for practitioners to understand how to build the optimal customer journey. Executives, particularly marketing managers, recognise the critical importance of a customer-centric approach to a company's success (Reinartz, Krafft and Hoyer, 2004; Emplifi, 2021). Therefore, a deeper understanding of customer contact sequences can help managers better comprehend the customer journey. With this knowledge, they can identify the most important contact points in a sequence, gain insights into the optimal length of a customer contact sequence, and understand how to create compelling combinations of contact points (Steinmann, 2011). These findings can help bridge the gap in management decision-making, enabling managers to allocate budgets to specific contact points and, most importantly, efficiently orchestrate the customer journey to facilitate a purchase decision (Naik and Peters, 2009).

To summarise, while the literature on customer journey research has made significant strides, there is still a gap in understanding how to design the optimal seamless customer journey. One key factor is the need for more detailed consideration given to the customer contact sequence and specific contact points, as previous studies have yet to account for all crucial contact points in a given purchase stage. This thesis aims to address the gap by thoroughly analysing contact sequences when purchasing a car. This endeavour involves an examination of a wide range of contact points and an investigation of their type, order (sequence), and length of customer contact sequences. In addition, it is possible to define customer contact sequences which lead to an optimal outcome (purchase of a consumer durable; Lemon and Verhoef, 2016), to examine contact point interaction across channels (Kannan and Li, 2017), and to understand synergies between contact points (Wind and Findiesen Hays, 2016).

The second significant research gap is connected to the first one. It pertains to the need for greater comprehension of the interplay between company-controlled and non-company-controlled contact points within the customer contact sequence. The impact that companies have on these contact points should be utilised strategically. Although researchers have categorised contact points to streamline the customer journey, enhancing channel integration and contact points for a seamless omnichannel

experience is vital. Gao, Currim and Dewan (2022) emphasised the importance of effective integration, and companies can use several categorisations of contact points to manage them.

In the academic discourse, there has been clear categorisation of contact points. Lemon and Verhoef (2016) identified four categories: brand owned, social/external, customer owned, and partner owned. When examining these categories, it is essential to consider whether companies have control over the contact point.

Roggeveen and Rosengren (2022) introduced a new direction in this discussion. Rather than concentrate on online and offline contact points, they followed Lemon and Verhoef's (2016) classification and divided contact points into those that are controlled and not controlled by the company, a categorisation that this thesis supports. However, the interaction between company-controlled and non-company-controlled contact points throughout the customer journey remains poorly understood (Lemon and Verhoef, 2016; Thomas, Epp and Price, 2020; Suh and Moradi, 2023). While a company has complete control over brand-owned contact points, their control over social/external, customer, and partner-owned contact points such as customer reviews and online communities is limited or non-existent. Combining both categories of contact points will benefit the academic discourse by understanding how to seamlessly improve the overall customer experience (Wetzels *et al.*, 2023) and creating a synergy between both categories (Gao, Currim and Dewan, 2022).

Previous studies have mainly concentrated on analysing the impact of online versus offline contact points, with a focus solely on offline contact points (e.g., Khan *et al.*, 2020) or online contact points (Barari *et al.*, 2020), or the relationship between both and how they influence each other throughout the customer journey (Suh and Moradi, 2023). The combination of online and offline channels has resulted in two essential behaviours: showrooming (browsing offline and purchasing online) and webrooming (browsing online and purchasing offline; Hu and Tracogna, 2021).

According to a meta-analysis of customer journey research, there might be other channel behaviours beyond online and offline that warrant further exploration (Tueanrat, Papagiannidis and Alamanos, 2021). However, this thesis explores contact points within the customer contact sequence from the viewpoint of both company-controlled and non-company-controlled contact points. This approach aligns with the suggestions of Lemon and Verhoef (2016) and Roggeveen and Rosengren (2022). Therefore, this study does not scrutinise online and offline contact points specifically, as they have already been studied extensively.

The concept discussed here holds immense value for practitioners in various industries. Practitioners can leverage this knowledge to craft an ideal customer journey, utilising strategic sequences of customer contacts through company-controlled contact points. Managers can create a seamless customer journey by identifying the most common non-company-controlled contact points and their expected placement within the customer contact sequence (Gao, Currim and Dewan, 2022).

To summarise, a sophisticated classification system that distinguishes between contact points that are controlled and not controlled by the company can significantly enhance our comprehension of the customer experience and offer novel avenues to improve it, especially in the realm of contact point synergies. This thesis addresses this research gap by closely scrutinising the interaction between company and non-company-controlled contact points. It investigates the customer contact sequences for both categories to understand their interplay comprehensively.

The third research gap this thesis addresses is the need to understand the significance of emotions at different customer contact points (Grewal and Roggeveen, 2020). While emotions have been extensively studied in consumer behaviour theory, such as for product and advertising evaluation (e.g., Hagtvedt, 2015; Bettiga, Lamberti and Noci, 2017), and in service marketing literature, particularly for physical service environments (De Nisco and Warnaby, 2014; Lunardo and Roux, 2015; Caruelle *et al.*, 2024), Lemon and Verhoef (2016) incorporated emotions as a critical component of the customer experience definition. According to Mehrabian and Russell (1974),

positive emotions, including valence and arousal, are crucial in eliciting positive customer responses, such as purchasing.

The current academic debate has been built around significant research efforts in the customer journey literature to focus on cognitive evaluation rather than emotions. Cognitive evaluation has been the primary focus, and emotional aspects have been rarely analysed (Kuuru and Närvänen, 2019). However, in the past there has been a call for scholars to delve deeper into the development of emotions and the resulting behavioural response, particularly in today's rapidly evolving technological landscape (Grewal and Roggeveen, 2020).

Moreover, there is a growing debate in marketing and customer experience research about measuring emotions at only one point, typically at the end of the customer journey, resulting in a relatively static view. However, a customer's emotional state varies significantly throughout the different contact points during their customer journey because of varying stimuli, a phenomenon that has been missed in prior research. As a result, researchers study emotions as a global emotional state rather than a dynamic, changing state, an approach that might lead to flawed customer experience assumptions. Consistently, Caruelle *et al.* (2024) discovered that emotional arousal levels differed over depending on the service encounters of the customers. Nevertheless, researchers have not found which kind of emotions trigger positive outcomes for the customer. Within this academic debate, some researchers support the position of the peak-end rule and trends in emotional episodes.

The peak-end rule favours the most intense emotional state at any specific contact point during the customer contact sequence and the emotional arousal at the last contact point. The trend favours emotions that increase over the course of the customer contact sequence (Kahneman, 2000). The findings for both positions vary. Some authors have found insignificant results for the trend (Dubé and Morgan, 1996; Verhoef, Antonides and De Hoog, 2004), while other have reported significant outcomes (Hansen and Danaher, 1999). Regarding the peak-end rule, authors have demonstrated that a higher peak favoured a positive outcome but lacked substantial

effects for the end contact point (Verhoef, Antonides and De Hoog, 2004). Both the peak-end rule and trend have not yielded precise results to favour either approach. Other researchers have proposed the use of the mean emotional arousal level of contact points within the sequence.

According to the recent academic discourse, mean methods measuring emotions at each contact point might be more accurate than measuring emotional arousal as a global state one time after the purchase. This thesis advances the findings of global state measures of emotional arousal that have been used mostly in the past without the mixed results of peak-end rule and trend research (Caruelle *et al.*, 2024).

In addition to providing valuable contributions to the literature, a deeper understanding of emotions within customer contact sequences can help marketers create an optimal customer journey. This can be achieved by incorporating emotional content into each contact point to increase the overall customer experience. By viewing the customer journey as a story with different chapters (i.e., contact points), marketers can craft an engaging purchase narrative that invokes emotions and creates a seamless buying experience (Zomerdijk and Voss, 2010). Csikszentmihalyi (1991) studied this flow-like situation, which can favour a purchase.

In summary, it is apparent that while there has been progress in customer behaviour theory, emotions still need to be thoroughly explored within the context of customer experience theory, even though emotions are a crucial component of the customer experience (Lemon and Verhoef, 2016). There are numerous methods to measure emotions, including a global measurement at the end of the customer journey, the peak-end rule and trend, and means from each contact point within the customer contact sequence. This thesis aims to fill this research gap and to enhance the academic discourse by employing the mean method to measure and analyse emotions at each contact point during the customer sequence. By doing so, this thesis provides a more nuanced understanding of the importance of emotions in the customer experience literature.

The fourth gap is the preponderance of cross-sectional studies in customer journey research. There are two stances regarding how to measure the customer journey: measure it at one time (cross-sectional) or at different points over time (longitudinal). Most studies have been conducted cross-sectionally, potentially leading to less accurate findings. To improve the accuracy of the results, experts have recommended using longitudinal field data (Klein and Ford, 2003; Verhoef, Neslin and Vroomen, 2007; McColl-Kennedy *et al.*, 2015; Yumurtacı *et al.*, 2017; Tueanrat, Papagiannidis and Alamanos, 2021; Wang *et al.*, 2024). Conducting longitudinal studies of customer contact sequences is crucial because each customer's selection of contact points affects subsequent contact points (Abbasi *et al.*, 2020). Additionally, compared with cross-sectional studies, longitudinal field data provide more accurate results and capture a customer's actual experiences based on interviews shortly after contact point usage (Wang *et al.*, 2024). Hence, this thesis employs the longitudinal approach.

Besides its academic significance, longitudinal field data can be used by professionals to analyse customer contact sequences in market research. This detailed understanding of the customer journey enables marketers to design an optimal path that guides the customer from one contact point to the next until they complete the final purchase (Lemon and Verhoef, 2016).

This study aims to enhance the research approach for customer journey mapping by collecting precise longitudinal field data. This will advance the academic debate by providing more in-depth data about the sequential order of contact points, thus enriching the customer experience literature. Specifically, the participants will be interviewed three times over a 6-month period during the purchase process. This duration has been intentionally selected as it aligns with the typical car purchase process timeline for customers (DAT, 2023).

1.3 Research questions and design

This thesis aims to address the four aforementioned research gaps by answering the main research question: *what are the characteristics of customer contact sequences*

and their respective contact points during the purchase of high-value consumer durables? To answer this question effectively, a series of sub-questions about various aspects of the customer contact sequence must be addressed, as described below.

The primary focus of this thesis is on customer contact sequences in general. It is essential to comprehend the different types of contact points involved in a sequence, especially the interaction between company-controlled and non-company-controlled contact points. The length and order of the contact points are also important. The first two research questions address the first research gap regarding how to create a seamless customer journey, as identified by Lemon and Verhoef (2016), as well as the second research gap by examining the interplay between company-controlled and non-company-controlled contact points within the customer contact sequence (Wetzels *et al.*, 2023).

1. *Which customer contact sequences regarding type, order, and length are present?*
2. *How do company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence?*

The second topic addresses the emotional experiences at each contact point in a customer contact sequence and how these emotions impact the outcome of a purchasing process. This raises the third research question, which aims to address the need for further research on the significance of emotions across various contact points within a customer contact sequence (Grewal and Roggeveen, 2020).

3. *To what extent does emotional arousal elicited at each customer contact sequence contact point influence their purchase decision?*

It is also essential to analyse the influential factors that affect the usage of company-controlled and non-company-controlled contact points. Product, channel, personal, and situational involvement all play a role in selecting and utilising contact points throughout the customer contact sequence (Suboh, Razak and Alshurideh, 2023; Lee, Choi, and Kim, 2024). This raises the fourth research question:

4. *What factors influence the structure of a customer contact sequence?*

The final topic refers to the research methodology for customer contact sequences, exploring whether multiple customer interviews conducted throughout a customer contact sequence yield superior outcomes compared with cross-sectional studies. The fifth research question addresses the fourth research gap.

5. *Is a longitudinal design more advantageous than a cross-sectional design for evaluating customer contact sequences?*

A mixed-methods design combining a qualitative exploratory and quantitative study will be employed to answer the research questions. The research is briefly outlined below, and Figure 1 summarises the goal of both studies.

1. Review the literature;
2. Define the initial pre-conceptual framework and assumptions on possible outcomes;
3. Design and conduct a qualitative exploratory study;
4. Analyse the findings of the qualitative exploratory study;
5. Build a conceptual framework and related hypotheses based on the findings of the literature review and the findings of the qualitative exploratory study;
6. Design and conduct the quantitative research based on the qualitative exploratory study to answer the hypotheses;
7. Analyse the findings of the quantitative research;
8. Data synthesis of the overall findings of both studies.

Figure 1: Aims of the qualitative and quantitative studies

Study 1: Qualitative study	**Study 2:** Quantitative study
Role: Theory building	**Role:** Contributory
Nature: Exploratory study investigating the underlying conditions of customer contact sequences	**Nature:** Explanatory study to investigate the underlying mechanisms of customer contact sequences
Aims • Exploration of contact points in general. Are the right contact points integrated into the study? • Exploration if an interplay of company and non-company-controlled contact points is present. • Exploration of the most important influencing factors of customer contact sequences.	**Aims** • In-depth analysis of customer contact sequences (type, length, and order) on a large sample size. • Analysis of the interplay of company and non-company-controlled contact points on a large sample size. • Analysis of emotions during the customer contact sequence at each contact point. • Validation of a longitudinal study as a research design for customer contact sequences.
Related research questions 1) Do company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence? 2) Which factors influence the structure of a customer contact sequence?	**Related research questions** 1) Which customer contact sequences regarding type, order and length are present? 2) Which company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence and favour a purchase? 3) How strong is the influence of involvement on the structure of a customer contact sequence? 4) To what extent does emotional arousal elicited at each contact point influence their purchasing decision? 5) Is a longitudinal research design more advantageous than cross-sectional studies for evaluating customer contact sequences?
Procedure • n=20 • Qualitative in-depth interviews (~ 60 min.) • Qualitative content analysis	**Procedure** • n=528 • Longitudinal online survey • Sequential analysis etc.

1.4 Personal motivation

The researcher's motivation is based on their education and persistent and long-term interest in consumer behaviour, especially regarding information search and purchase behaviour across customer journeys. This interest was broadened when customer experience and journey topics were further discussed within the marketing literature; detailed customer journeys fascinated the researcher. By utilising knowledge of every contact point used in a purchase decision, a new aspect of theory can be incorporated into existing models of information search behaviour. In the researcher's opinion, past purchases and information search behaviour models require a more thorough investigation by using contact points, an endeavour that has been ignored and that could generate significant knowledge.

That interest motivated the researcher to begin a career in the communications strategy department of a leading car manufacturer in Germany. The researcher utilised targeted communication measures based on customer behaviour and, more specifically, detailed information search behaviour. Customer journey knowledge for the car

purchase could not be utilised because it was almost non-existent. Thus, companies would spend money on communication measures without the ability to make informed decisions. This phenomenon led to the researcher's motivation to understand the customer journey while undertaking a car purchase.

1.5 Overview of this thesis

This thesis is divided into 10 chapters. Chapter 1 is the general introduction. Chapter 2 is a critical review of the customer experience and journey literature. This lays the groundwork for the theory of customer contact sequences, which is essential from the company and customer perspectives within the context of the customer experience and journey. The company perspective assesses how companies manage the customer experience and journey, while the customer perspective introduces the stimulus organism response (SOR) framework. It comprises (S) influential factors, such as product involvement and the customer contact sequence, including all contact points, which affect (O) cognitive and emotional responses, ultimately impacting (R) the purchase decision. The chapter concludes with an evaluation of studies in this context, with a particular focus on the research area of car purchase that is the subject of this thesis.

Chapter 3 focuses on understanding company-controlled and non-company-controlled contact points. It explains how these contact points are crucial in providing customers with information throughout their interaction with a company. The chapter critically explores the existing literature on customer contact sequences, examining the types of contact points, their order, and the overall sequence length. Finally, it concludes by identifying the research gaps and related questions that emerged from the literature review.

Chapter 4 discusses the research philosophy of this thesis, including ontology, epistemology, and the critical realist paradigm. Moreover, the overall research design, including the aims of the qualitative exploratory study and the quantitative study, is presented.

Chapter 5 presents the qualitative exploratory study. It starts by explaining the methodology of participant selection, data collection, and the interview guide, which is informed by theory. Chapter 6 uses the qualitative study findings to develop the research hypotheses and the conceptual framework.

Chapter 7 describes the research design of the quantitative study. It provides the research sample, data sources, data collection methods, questionnaire design, and operationalisation of variables. It also presents the data analysis methods for the hypotheses and contact point aggregation as a necessary step for analysis. Chapter 8 presents the findings of the quantitative study.

Chapter 9 critically discusses the combined qualitative and quantitative findings and compares them with the findings from the literature. Lastly, Chapter 10 concludes with the results regarding their academic and practical implications. It also addresses the limitations of the thesis and suggests future directions for researchers.

2 A review of the customer experience and journey

This thesis is rooted in customer experience research, an essential area of study and remains a top priority for managers. The customer experience is a multifaceted concept involving cognition, emotion, behaviour, senses, and society (Lemon and Verhoef, 2016). Cognition involves how customers perceive functional information about the product, service, or price to assess potential purchases. Meanwhile, emotion encompasses the affective aspect of the customer experience and focuses on pleasure and engagement, incorporating all senses during the shopping process (Gao, Currim and Dewan, 2022). A positively perceived customer experience can result in beneficial outcomes for a company, such as purchases, high customer satisfaction, and increased repurchase intention (Gao, Currim and Dewan, 2022). Society pertains to all external factors from the environment that influence the customer (Lemon and Verhoef, 2016). In summary, the customer experience is an accumulation of positive and negative experiences throughout the customer journey (Lemon and Verhoef, 2016).

It is clear that the concept of the customer experience is closely linked to the SOR framework, which encompasses factors that influence the customer (Albarq, 2021). The stimulus (S) consists of marketing activities and social or political factors, which represent the societal and customer contact points within customer experience research. The organism (O) comprises affective factors (emotions, etc.) and cognitive factors (information processing, etc.), which may prompt the customer to respond to the stimulus. The response (R), resulting from the organism's reaction, can involve purchasing a product (Zhu, Kowatthanakul and Satanasavapak, 2020), a significant component of the customer experience. Overall, the SOR framework illustrates the stimulation of the customer's cognitive and emotional state, leading to a particular behavioural outcome (Chan, Cheung, and Lee, 2017). The SOR framework is commonly used as a conceptual framework in customer experience research, as will be the case in this thesis (Gao, Currim and Dewan, 2022; Gibson, Hsu and Zhou, 2022; Klaus *et al.*, 2023).

The customer experience can be approached from different viewpoints. One is the outcome-based perspective, which emphasises the overall experience resulting from a process. This approach offers a holistic view of the customer experience, focusing on the end result and its impact, but it may overlook specific contact points and interactions (Klaus *et al.*, 2023). On the other hand, the process-based perspective delves into the sequence of experiences involved in purchasing a product, providing a detailed understanding of the customer journey, including specific contact points and interactions. However, it may place less emphasis on the overall impact and outcome of the customer experience (Klaus *et al.*, 2023). This thesis adopts the process-based perspective via a thorough investigation to better understand the various stages and contact points of the customer journey. This approach provides valuable insights into decision-making processes and can help identify areas for improvement to optimise the overall customer experience (Klaus *et al.*, 2023).

The customer journey is a significant focus in current customer experience research (Wang *et al.*, 2024). It is the foundation for comprehending the customer experience and encompasses a series of contact points (Holmlund *et al.*, 2020). It involves potential customers engaging with a company through various contact points at different stages within the purchase cycle (Lemon and Verhoef, 2016).

Evaluation of the customer journey encompasses multiple perspectives rather than a single universally recognised viewpoint. This diversity leads to significant inconsistencies. Some scholars consider that the customer journey comprises well-defined service processes with distinct start and end points, which may oversimplify the complex nature of customer interactions but help collect focused data. Meanwhile, others view the customer journey as a series of open-ended processes, potentially lacking a clear structure and direction (Lemon and Verhoef, 2016). Emphasising contact points as fundamental elements provides valuable insights, but it may overlook the holistic nature of the customer experience. Additionally, solely focusing on the customer journey as reporting and visualising user research is an explicit limitation of its impact. Moreover, generative design activities only lead to a customer journey based on the managerial view rather than considering actual data. This lack of

coherence in the literature makes it challenging to derive comprehensive and cohesive conclusions (Holmlund *et al.*, 2020, Wang *et al.*, 2024).

A company's primary goal in utilising the customer journey is to create a meaningful series of contact points that effectively guide customers by offering valuable opportunities throughout their journeys (Holmlund *et al.*, 2020). Customer journey mapping is commonly used by companies to manage the customer experience. This approach illustrates a customer's decision-making process and interactions with a brand from the initial awareness to post-purchase (Berman, 2020). This mapping considers all contact points and highlights the progression of customers from one contact point to the next (Berman, 2020). On the other hand, customers seek emotional experiences and relevant information at appropriate times, utilising contact points throughout the customer journey (Wang *et al.*, 2024). The cognitive and emotional responses to contact point stimuli form a complex decision-making process. Furthermore, external factors, such as the influence of friends and family, shape the customer journey (Holmlund *et al.*, 2020).

It is worth noting that the customer journey, SOR framework, and customer experience all share a common characteristic: they aim to simplify the complex sequence of contact points involved in a purchase decision (Suh and Moradi, 2023). However, some studies have only focused on the outcome of the customer journey. In contrast, others have analysed only a limited number of contact points, thus missing the entire sequence, leading to limited findings (Abbasi *et al.*, 2020). Designing studies in this area is challenging because customers utilise a range of contact points, with cognition and emotions coming into play at each one and external factors influencing the entire process. It is clear that these simplifications, in theory, only offer a partial view of the real-world actions that shape the overall customer experience (Gibson, Hsu and Zhou, 2022).

This chapter provides a thorough discussion of the company and customer perspectives, both of which are critical for the customer experience and journey. This discussion elucidates company strategies for crafting valuable experiences throughout

the customer journey and examines customer responses to these stimuli during their information search. The chapter concludes with a discussion on the car purchase context.

2.1 The company perspective

Given that information search and decision-making are becoming increasingly intricate and customer expectations continue to rise, companies are confronted with managing multiple channels rather than adhering to a traditional single-channel approach throughout the customer journey (Faulds *et al.*, 2018). The coordination of numerous channels (e.g., online and customer service) and contact points (e.g., websites and magazines) poses a significant challenge for companies. Companies are expanding channels and contact points to add value and to enhance the likelihood of customer engagement to improve customer acquisition and retention (Tueanrat, Papagiannidis and Alamanos, 2021). The objective is not to create as many channels or contact points as possible for the customer. Instead, the goal is to integrate these channels and contact points into a seamless customer journey. It is essential to examine the various customer journey stages to comprehend channel management fully (Berman, 2020).

When a customer makes a purchase, they progress through various phases of the customer journey (Berman, 2020), including pre-purchase (including search), purchase, and post-purchase. This process is ongoing and evolving (Tueanrat, Papagiannidis and Alamanos, 2021). Companies must manage these phases within channel management. The distinct stages of the customer journey are outlined below.

The pre-purchase phase is the most essential part of this study (Berman, 2020). This phase involves the customer's interaction with a company, other products within the same category, and the overall environment. Although it is extensively included in consumer research, it is often lacking in service marketing research, which tends to focus on the purchase and post-purchase phases (Lemon and Verhoef, 2016).

During this phase, customers become aware of a problem or product, seek recognition, gather information, and develop their consideration set to minimise the risk of making a wrong decision (Van Rijnsoever, Castaldi and Dijst, 2012; Lassila, Heikka and Nätti, 2023). This involves decision-making that ultimately leads to a purchase, starting with a comprehensive set of brands and then narrowing it down (Fuller *et al.*, 2023). Heavy information search and interactions with different contact points are standard in the pre-purchase phase (Van Rijnsoever, Castaldi and Dijst, 2012). It encompasses the entire experience and all contact points leading up to the purchase (Lemon and Verhoef, 2016).

Companies must provide a diverse array of contact points to engage effectively with customers and to address their specific needs. This implies that customers have the option to utilise various contact points, which offers flexibility for their purchases. However, this strategy also demands substantial investment in staffing, technology, and training (Lassila, Heikka and Nätti, 2023). Managing multiple contact points poses challenges in maintaining consistent customer experiences throughout the entire journey, potentially resulting in customer confusion (Lemon and Verhoef, 2016).

According to Fuller *et al.* (2023), most studies on the pre-purchase phase have overlooked brand awareness building, which involves a customer's ability to recognise or recall a specific brand or product. Once brand awareness is established, customers incorporate the brand and product into their considered set for purchase.

In the pre-purchase phase, important contact points include word of mouth (WoM; Lassila, Heikka and Nätti, 2023), product websites (Abbasi *et al.*, 2020), advertising, and physical stores. Hence, a company is faced with multiple management of channels as customers use digital contact points, advertising, and personal interactions (Steinmann, 2011). Family conversations (WoM) during the pre-purchase phase tend to decrease the reliance on other contact points, particularly interactions with salespeople within this phase (Steinmann, 2011).

Abbasi *et al.* (2020) categorised the pre-purchase phase into early, middle, and late, with the latter defined as 0–1 days before the actual purchase. Their study revealed a consistent increase in search activities from early to late. Towards the end of the pre-purchase phase, activities related to competitor products, such as visiting their websites, decrease compared with the favoured product's website, indicating a consumer lock-in and narrowing down relevant purchase options (Abbasi *et al.*, 2020). Companies aim to minimise hurdles in the pre-purchase phase, as these hurdles could lead a customer to switch to competitors. This phase is crucial in the customer journey as it involves extensive information gathering and various contact points (Cocco and Demoulin, 2022).

The purchase phase encompasses all customer interactions during the purchasing process. During this stage, the customer selects the final product, completes the order, and processes the payment. Although the purchase phase is the briefest of the three phases, the shopping experience offered by a company (Baker *et al.*, 2002) is significant. Indeed, it can be a determining factor (Lemon and Verhoef, 2016), making it an essential consideration in this thesis.

The post-purchase phase encompasses all customer interactions with a brand following the purchase. These interactions include product usage, consumption, service requests, and post-purchase engagement. Particularly crucial during this stage are the consumption experience (Hirschman and Holbrook, 1982), re-purchase behaviour (Bolton, 1998), and activities such as WoM communication and other forms of customer engagement. Researchers have also delved into the loyalty loop (Lemon and Verhoef, 2016). Although this thesis does not centre on the post-purchase phase, it does impact the pre-purchase phase, especially in cases where a product is purchased again.

2.1.1 Customer journey mapping

To enhance the overall customer experience and to strategically incorporate channel management within the company, businesses use customer journey mapping to gain

insights and to plan the path to purchase for their customers during the pre-purchase phase. The objective is to identify standard customer journeys and their variations across channels and contact points (Følstad and Kvale, 2018). The contemporary literature includes diverse interpretations of customer journey mapping. A widely accepted notion is that a customer journey map encompasses the contact points customers utilise throughout their purchasing process, including distinct phases such as pre-purchase, purchase, and post-purchase. Data can be collected from customers, management, or both (Følstad and Kvale, 2018). Typically, maps are utilised to visualise the customer journey and its associated data.

The customer journey mapping literature has both strengths and weaknesses. First, there is debate about the depth of analysis. Mangiaracina, Brugnoli and Perego (2009) provided specific insights by analysing the path to purchase on a single e-commerce website, offering a focused and detailed understanding of customer behaviour in this specific context but potentially missing essential contact points in the customer journey. On the other hand, studies that have included multiple channels, contact points, or both have contributed to a broader understanding of the customer journey, accounting for the complexities of omnichannel experiences (Lee, 2010; Patricio *et al.*, 2011; Crosier and Handford, 2012).

The diverse research approaches have introduced confusion and inconsistency, making it challenging to draw overarching conclusions and to identify the best practices that are applicable across various industries and contexts. Standardisation and clarification regarding the scope of contact points and the depth of analysis are urgently needed to prevent stagnation in the field and to provide comprehensive and actionable insights for businesses seeking to optimise the customer journey (Lemon and Verhoef, 2016). This thesis aims to address this need by providing a comprehensive analysis that considers various channels and numerous contact points, moving away from a narrow focus.

Second, there is an ongoing debate about whether the channels and contact points in the customer journey map are linear (Tueanrat, Papagiannidis and Alamanos, 2021).

Some scholars have argued for a linear progression, suggesting that it provides a clear understanding of the purchase path for companies and makes it easier to create targeted marketing strategies. However, others have pointed out that a linear representation may oversimplify the actual customer journey, potentially leading to missed opportunities for engagement and not accounting for the complex and sometimes erratic nature of customer behaviour (Lee, Jeong and Oh, 2018) or a repeating circle (Court *et al.*, 2009). This thesis favours a linear representation, as it facilitates a clear understanding of the purchase path for companies. However, customers may move between channels and contact points in a non-linear manner, and the linear representation can accommodate this by visualising repeated channels and contact points throughout the customer journey map (Tueanrat, Papagiannidis and Alamanos, 2021).

Third, there is currently no widely used method for customer journey mapping (e.g., Lemon and Verhoef, 2016). The primary method for mapping the customer journey is service blueprinting or service mapping, which involves mapping the entire service, from internal processes to customer-facing interactions (Følstad and Kvale, 2018; Tueanrat, Papagiannidis and Alamanos, 2021). Service mapping becomes more complex and essential as the number of contact points used during the customer journey increases (Richardson, 2010). However, a common weakness of this method is its focus on the internal company process perspective rather than the customer perspective, leaving it with a limited view and possibly incorrect insights (Lemon and Verhoef, 2016).

Based on a thorough evaluation, this thesis adopts the following working definition of customer journey mapping as a framework. Customer journey mapping serves as a strategic tool for analysing, identifying, and visualising standard customer journeys and their variations (Følstad and Kvale, 2018). It encompasses all customer interactions across multiple channels and contact points (Patricio *et al.*, 2011). It is structured based on a linear representation of contact points throughout all customer journey phases. This visualisation is achieved through a map-like representation (Tueanrat, Papagiannidis and Alamanos, 2021).

Regarding measurements within customer journey mapping, an ideal method should measure the overall customer experience throughout the customer journey, the customer experience at each stage of the customer journey (e.g., pre-purchase), and the customer experience at each contact point (Lemon and Verhoef, 2016). Attribution or path-to-purchase models can meet these requirements and are mainly used to allocate budgets for online marketing activities (Lemon and Verhoef, 2016). However, a significant area for improvement in these models is the use of the same contact point by customers in different phases of the customer journey, potentially leading to incorrect performance assumptions. Indeed, customers often use contact points in multiple phases of the customer journey due to the variety of information and purchase options they provide. Therefore, measurements must consider this phenomenon and thoroughly analyse the functions the contact points fulfil for the customer (Lemon and Verhoef, 2016). Similarly to attribution and path-to-purchase models, other methods evaluate data to calculate conversion rates (Li and Kannan, 2014). These are primarily used for online purchases but are challenging to use to measure offline contact points.

In summary, there is no definitive method for mapping the customer journey, but customer journey mapping encompasses consumption states, contact points, customer responses, and experiential variables (Tueanrat, Papagiannidis and Alamanos, 2021). Based on a critical assessment, measuring each contact point poses a challenge, and existing models cannot measure the combination of different contact points to provide comprehensive insights into the entire customer journey (Lemon and Verhoef, 2016). To simplify the measurement of the customer journey, one significant approach is to focus on the 'moments of truth' within the customer journey. These are the most crucial contact points within the customer journey: they exert the most significant influence on the purchase decision and are frequently and prominently utilised throughout the customer journey (Lemon and Verhoef, 2016). While this method aims to reduce measurement complexity, it is not endorsed in this thesis because it is crucial to analyse each contact point in a customer journey. Otherwise, the findings from moments of truth research may be limited in their ability to depict the entire customer

journey. Hence, it is vital to understand all details related to the customer journey and the most crucial aspects concerning contact points (Steinmann, 2011).

The increasing prevalence of 'big data' suggests that more advanced methods for measuring all aspects of the customer journey may become feasible (Tueanrat, Papagiannidis and Alamanos, 2021). However, companies must grapple with technical challenges and they encounter organisational hurdles in measuring and managing data from various departments (Kuehnl, Jozic and Homburg, 2019). This thesis aligns with Steinmann's (2011) perspective on customer journey measurement and adopts an approach encompassing all contact points, even if a single contact point is utilised repeatedly. The measurement process should involve gathering 'fresh' aspects, such as emotional arousal, by seeking input from customers who are closely engaged with the contact point.

The academic debate on measuring the customer journey also revolves around two key stances: measuring it at a single point in time (cross-sectional) or at various points over time (longitudinal). The majority of studies in the field have been conducted cross-sectionally (e.g., Steinmann, 2011), prompting researchers to raise concerns about the limited scope of customer journey mapping. This has led to calls for more targeted research (Klein and Ford, 2003; Verhoef, Neslin and Vroomen, 2007; McColl-Kennedy *et al.*, 2015; Yumurtacı et al., 2017; Tueanrat, Papagiannidis and Alamanos, 2021; Wang *et al.*, 2024). Conducting longitudinal studies is beneficial, as each customer's choice of contact points influences subsequent interactions in the customer journey (Abbasi *et al.*, 2020). Additionally, unlike cross-sectional data, longitudinal field data yield more accurate results and capture the actual experiences of customers because they are interviewed shortly after using contact points (Wang *et al.*, 2024). On the contrary, conducting longitudinal studies can be resource intensive and time-consuming. Retaining participants over an extended period and accounting for external factors such as market changes can also pose challenges and potentially impact the validity of the collected data. Despite these obstacles, the in-depth insights gained from a longitudinal approach can significantly enhance our understanding and enhancement of the customer journey (Abbasi *et al.*, 2020).

As stated above, measuring the customer journey and individual contact points and evaluating the overall customer experience when a customer completes the entire journey is essential. There is no comprehensive method for measuring the overall customer experience. Indeed, measurement of the customer experience is still in its early stages, particularly regarding the development of scales (Lemon and Verhoef, 2016; Hermes and Riedl, 2020).

One existing approach is the model proposed by Brakus, Schmitt and Zarantonello (2009), which considers sensory, affective, intellectual, and behavioural factors and their impact on satisfaction, brand personality, brand experience, and loyalty. This offers a comprehensive view of the different facets of the customer experience but completely misses out on the usage of contact points (Lemon and Verhoef, 2016). Klaus and Maklan (2012, 2013) also utilised various methods, such as measuring peace of mind, moments of truth, outcome focus, and product experience. This provides a comprehensive view of the customer experience but only partially integrates contact points in the measurement. However, more superficial measurement scales that predominantly focus on customer satisfaction are widely used today, although they only capture some aspects of the customer experience (Lemon and Verhoef, 2016). Most of these scales originate from customer satisfaction and its behavioural consequences, are easily understandable and, therefore, widely adopted, and continue to be effective today. Although these scales have been used for almost 50 years, they are still extensively researched and have become a standard practice, recognised as a crucial measure of customer experience (Lemon and Verhoef, 2016) and for this thesis.

In summary, there is no single scale that is currently available to measure the entirety of the customer experience. Consequently, researchers suggest combining multiple metrics to obtain all the necessary insights to measure the customer experience (Lemon and Verhoef, 2016), a practice that is applied in this thesis.

2.1.2 Company strategies to enhance the customer experience by optimising the customer journey

Businesses are constantly seeking to enhance the customer experience through a variety of strategies by incorporating the use of customer journey mapping. A critical method involves cultivating a customer-centric culture, a concept studied in the realm of customer experience (Lemon and Verhoef, 2016). This approach gained prominence between 2000 and 2010, highlighting the significance of addressing interdisciplinary and organisational challenges to effectively oversee the customer experience (Lemon and Verhoef, 2016). This business philosophy ensures that all company actions are guided by customer demands, placing the customer at the forefront of decision-making processes. Understanding the needs and journey of the customer is vital for a company's success (Dash, 2024). Studies have demonstrated that a high degree of customer-centricity significantly enhances a firm's services and products (Bhatnagr, Rajesh and Misra, 2024) and positively impacts a firm's financial performance (Scheinbaum and Wang, 2018).

Organisations must embrace a broader ecosystem perspective when aiming for customer centricity by placing customers at the core. It is vital to co-create experiences with customers to ensure their needs are met and to align these experiences with marketing strategies (Wang *et al.*, 2024). Moreover, companies should actively monitor their efforts towards achieving complete customer centricity. Customer journey mapping is valuable for this purpose (Tueanrat, Papagiannidis and Alamanos, 2021).

The main advantages of customer centricity are that it can lead to increased customer loyalty, a competitive advantage, improved products, and enhanced brand reputation (Wang *et al.*, 2024). A customer-centric organisation lets the company focus holistically on the customer journey and all channels and contact points. This approach empowers employees to craft experiences and to design the customer journey across all contact points in an omnichannel manner, allowing customers to transition

seamlessly between online and offline channels throughout the customer journey (Zheng and Li, 2024).

The main barrier to creating a customer-centric organisation is the presence of silos that hinder collaboration towards a common goal and where managers prioritise their interests over customer needs. Company silos, entrenched for decades, resist organisational changes (Gao, Currim and Dewan, 2022). This can be addressed by establishing a clear company vision and mission, fostering customer-oriented behaviour, and providing employee training (Wang *et al*, 2024). Additionally, focusing solely on customer needs can lead to increased costs from restructuring and cause long-term profitability to be overlooked (Wang *et al.*, 2024). When critically evaluating the factors that hinder companies from improving their customer experience, it is evident that establishing a customer-centric organisation is the crucial first step.

The second key strategy for improving the customer experience involves creating a seamless customer journey. According to Zheng and Li (2024), who analysed customer journey design from an omnichannel marketing perspective, the seamless transition between different customer contact points is essential for success, as it harnesses channel synergies (Rudkowski *et al.*, 2020). This concept refers to the ease with which customers can move from one contact point to another. Companies that deliver a seamless customer journey experience with minimal obstacles can reduce investments in finances and time. In contrast, low seamlessness leads to decreased control and increased customer choice, necessitating higher company investments (Zheng and Li, 2024). Ultimately, businesses aim to align their objectives, design, and implementation across channels and contact points to create synergies and to provide benefits to customers (Cocco and Demoulin, 2022).

There are three strategies for combining channels and contact points to create a seamless customer journey: vertical, horizontal, and omnichannel integration. The level of coordination differs between online and offline contact points and across the pre-purchase, purchase, and post-purchase phases. Horizontal integration combines

online and offline contact points within the same channel. Meanwhile, vertical integration allows customers to easily switch between online and offline contact points and purchase phases. The highest level of coordination occurs in omnichannel integration, often called the complete strategy, where all contact points align to offer the best customer journey. Omnichannel integration is the foundation for successfully guiding customers through the journey leading to a purchase (Neslin, 2022).

From a customer experience perspective, there is little room for not implementing a seamless omnichannel experience, as 73% of global customers utilise multiple channels when purchasing (Sopadjieva, Dholakia and Benjamin, 2017). Although 91% of all global retailers already prioritise providing seamless experiences, only 8% feel they have achieved it (Brightpearl and Multichannel Merchant, 2017). While a seamless customer experience has numerous advantages, such as enhanced customer satisfaction and increased sales, there are challenges in creating it (Neslin, 2022). The challenges stem from the need for companies to effectively handle complex data and information technology (IT) systems; to efficiently manage service operations across various company divisions, marketing mix components, and channel content quality; and to seamlessly handle logistics and fulfilment across all channels and contact points. This remains a hurdle that most companies have yet to overcome successfully, potentially resulting in substantial initial investments, organisational and cultural issues, and employee training requirements (Cocco and Demoulin, 2022).

A seamless customer journey delivers a consistent and continuous experience across various customer channels and contact points (Cocco and Demoulin, 2022). Gao, Currim and Dewan (2022) emphasised the importance of consistent and continuous experiences for achieving a seamless customer journey. These aspects are commonly cited as integral components of a seamless journey (Cocco and Demoulin, 2022). However, there is no consensus on a single definition, as other authors have introduced additional criteria, such as availability, visibility, flexibility, convenience, and personalisation (Jaakkola and Terho, 2021; Chang and Li, 2022; Gao, Currim and Dewan, 2022). Moreover, some authors have used different terms to describe similar concepts, such as substituting simplicity for convenience (Zheng and Li, 2024).

Overall, consistent and continuous experiences are fundamental for achieving seamlessness (Cocco and Demoulin, 2022).

Consistency is key in ensuring that customers receive uniform information and benefits at every contact point, regardless of the channel they use. All channels and contact points must be aligned in terms of product, price, and promotion. The goal is to provide customers with a seamless experience across all contact points, fostering trust and credibility and ultimately enhancing customer satisfaction throughout their journey. A continuous, seamless experience occurs when customers can easily switch between channels and contact points. Companies need to guide customers through their journey and smoothly navigate them from one contact point to another. This can lead to increased customer satisfaction and loyalty. However, many companies face challenges in delivering consistent experiences because different departments oversee various contact points, leading to potential inconsistencies, particularly in pricing. Achieving consistency may require a more resource-intensive working model, both in terms of people and finances. Furthermore, an overly consistent experience may become monotonous for customers and potentially reduce the element of surprise (Cocco and Demoulin, 2022). If transitioning between contact points is challenging, then purchasing a product becomes cumbersome and time-consuming, leading to a disjointed customer experience and potential loss of sales. This practice is seldom carried out by companies today, but those that do it effectively can gain a competitive advantage in the marketplace (Cocco and Demoulin, 2022).

According to Cocco and Demoulin (2022), there needs to be a greater understanding of how to create a seamless customer journey that prevents a customer from switching to competitors, keeps them engaged, and increases their spending. Content at all contact points can be coordinated to deliver consistent and continuous experiences, creating a seamless customer journey. Companies must recognise this is an ongoing process as technology, customer expectations, and competition evolve (Cocco and Demoulin, 2022). It is essential to gather knowledge about the order of contact points within the customer journey, particularly during the pre-purchase phase. Researching factors such as time pressure that affect seamlessness is crucial. This understanding

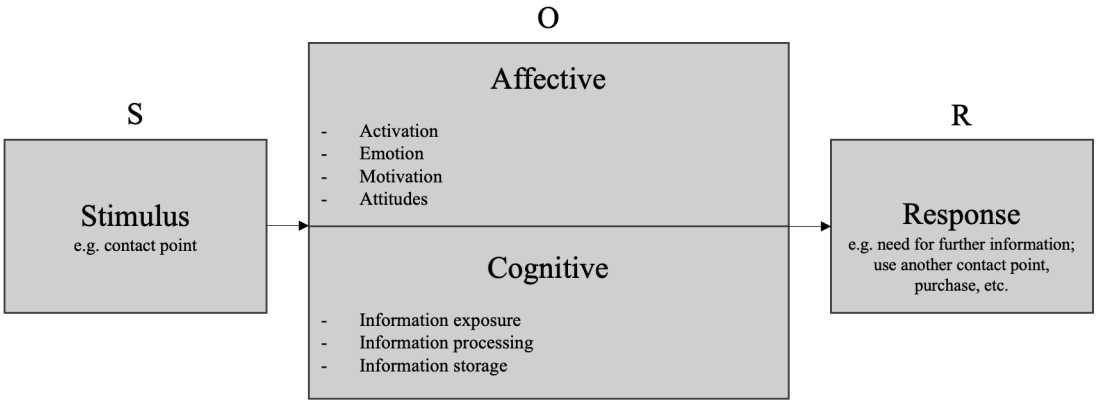
will equip managers with the information to craft a seamless customer journey (Cocco and Demoulin, 2022). Zheng and Li (2024) also emphasised the need for more knowledge on how to design high-quality combinations of contact points within the customer journey.

2.2 The customer perspective

After exploring the company's perspective on customer experience and the customer journey, this chapter discusses the customer's viewpoint. The goal is to use the SOR framework to comprehensively analyse the customer experience with products or services as well as the customer journey.

The SOR framework, developed by Mehrabian and Russell (1974), is widely acknowledged and extensively utilised in consumer behaviour and customer experience research (Pradel, 2001; Gao, Currim and Dewan, 2022; Gibson, Hsu and Zhou, 2022; Klaus *et al.*, 2023). It remains relevant today in explaining purchase decisions and is referenced by numerous scholars (e.g., Demangeot and Broderick, 2016; Lucia-Palacios, Pérez-López and Polo-Redondo, 2016; Zhu, Kowatthanakul and Satanasavapak, 2020; Albarq, 2021). The framework, visually depicted in Figure 2, offers a clear representation of its components (Kroeber-Riel and Weinberg, 2003, pp. 30).

Figure 2: The stimulus organism response framework (Kroeber-Riel and Weinberg, 2003)



This framework comprises three key components: stimulus, organism, and response (Albarq, 2021). Influencing factors such as involvement and contact points represent the stimulus. In contrast, the emotional and cognitive responses to the stimuli, including emotions and cognitive processes within a customer journey, such as information search, constitute the organism. Finally, the response is the culmination of progressing through the customer journey and making a purchase decision (Zhu, Kowatthanakul and Satanasavapak, 2020).

When applying this general knowledge of the SOR framework to customer experience and journey research, consider the following example: first, a potential customer encounters a stimulus, such as seeing a TV ad for a new product. Second, this interaction prompts a response in the customer (i.e., the organism), including emotional reactions like joy and cognitive assessments like high-quality information. Third, these reactions lead to a specific response, such as making a purchase.

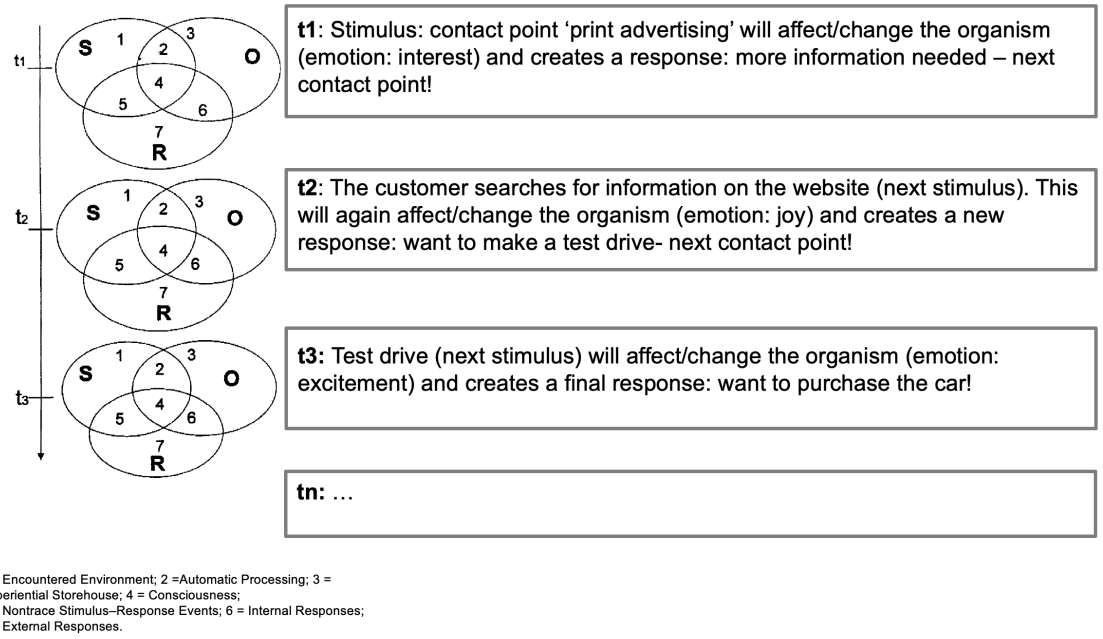
Jacoby (2002) expanded the SOR framework, introducing specific variations applicable to customer experience research. Departing from the standard SOR framework, which evaluates decisions as a whole, Jacoby (2002) employed an approach in which SOR was not treated as a single linear construct, but rather as a constantly evolving process replayed over time. This repetition entails customers progressing through multiple SOR framework processes when purchasing. In this

context, a contact point can be viewed as a stimulus that initiates cognitive evaluation (Chen *et al.*, 2022), triggering specific emotions and culminating in a particular response.

Understanding the impact of each contact point on the overall decision is crucial for identifying a well-performing customer journey (Chen *et al.*, 2022). One possible approach is to develop scores for emotions and cognition for each contact point in the customer journey, which can then be aggregated to form a total emotional or cognitive evaluation of the customer journey (Chen *et al.*, 2022). Following cognition and emotion, the response could determine the utilisation of the following contact point in the customer journey, leading to a new stimulus.

Figure 3 presents the SOR framework proposed by Jacoby (2002). It aligns with the process-based perspective of the customer experience and journey by providing an in-depth understanding of contact points and their recurrent impact on the customer journey. However, its detailed approach may pose challenges when examining the complexity of customer experience, potentially leading to ambiguous research findings.

Figure 3: An example of a customer journey in the stimulus organism response framework (Jacoby, 2002)



1 = Encountered Environment; 2 =Automatic Processing; 3 = Experiential Storehouse; 4 = Consciousness;
5 = Nontrace Stimulus–Response Events; 6 = Internal Responses;
7 = External Responses.

2.2.1 Analysis of stimuli within customer experience and journey research

Belk (1975) provided a comprehensive definition of a stimulus. It can be broken down into 'object' and 'situation', which can be explained through involvement theory proposed by Storey and Larbig (2018). Involvement relates to the perceived importance of the purchase process to an individual, influencing customer behaviour. This theory is the focus of this chapter (Lee, Choi and Kim, 2024).

The 'object' is based on product and channel involvement (Belk, 1975). Product involvement depends on the pleasure or benefits a customer gains from a specific product category (Belk, 1975; Lang, Lim and Guzmán, 2022). From the customer experience perspective in purchases, some customers are highly engaged with the product and, therefore, highly involved (Lang, Lim and Guzmán, 2022). Various product-related factors play a significant role, and this level of involvement can impact the frequency of purchases. Depending on the product involvement, the duration of the purchase process may vary (Kroeber-Riel and Weinberg, 2003; Lee, Choi and Kim, 2024).

It is important to note that among the factors that influence product involvement, product-related factors play a crucial role in prompting replacement or re-purchase (Suboh, Razak and Alshurideh, 2023). These factors encompass product malfunctions and technological advancements, such as new safety features (Minkenberg, 2013; Kandaswami and Tiwari, 2014; Suboh, Razak and Alshurideh, 2023). According to Suboh, Razak and Alshurideh (2023), these factors influence 35% of purchases. Additionally, 25% of consumers purchase new products precisely to avoid malfunctions. Moreover, research has shown that heightened reliability is pivotal in decision-making (Kandaswami and Tiwari, 2014).

When considering the length of the customer journey, it is essential to note that replacing a malfunctioning product will likely shorten it. Malfunctions create time pressure, leading to a shorter purchase period, making them a significant variable for this thesis. It is worth mentioning that there is a need for specific studies within the customer experience literature to critically examine the influence of product-related factors on the utilised contact points (Suboh, Razak and Alshurideh, 2023).

It is important to recognise the impact of product involvement, which has advantages and disadvantages. Regarding the advantages, when consumers are heavily involved with a product, they tend to make more informed purchase decisions by carefully evaluating available options. This can ultimately lead to higher satisfaction with their purchases. Moreover, companies benefit from increased customer loyalty and repeat business when customers are deeply involved with their products (Kandaswami and Tiwari, 2014). On the other hand, there are potential drawbacks to high product involvement. For example, it can lead to decision fatigue, where buyers feel mentally drained from the extensive considerations involved in the purchase process. Moreover, excessive product involvement may prolong the decision-making process, potentially leading to a customer becoming overwhelmed or frustrated (Suboh, Razak and Alshurideh, 2023).

As defined by Belk (1975), object refers to channel or contact point involvement. This definition holds particular significance in the customer journey (Ehrlich, 2011). When purchasing a product, the complexity of choosing contact points is crucial due to the multitude of channels and contact points available. Therefore, each contact point in a customer journey can be seen as a stimulus (Ehrlich, 2011). The decision-making process for customer channel selection is intricate, as customers continuously evaluate their options as they progress through the journey. Consequently, channel preferences vary depending on the phase of the journey, influenced by channel involvement (Tueanrat, Papagiannidis and Alamanos, 2021). Channels play a vital role in shaping the overall customer experience within the customer journey, encompassing various contact points such as stores and websites, among others. Customers assess channels based on utility, search costs, effort, and risk (Li and Kannan, 2014). To minimise effort and risk, customers often tend to favour familiar channels (Hickman, Kharouf and Sekhon, 2019).

Given that businesses have increasingly emphasised the integration of channels in an omnichannel environment to deliver seamless experiences, customers now have the freedom to engage with various channels and contact points across their customer journey (Tueanrat, Papagiannidis and Alamanos, 2021). This shift has led to new channel behaviours such as research shopping, showrooming, and webrooming, whereby customers leverage online and offline channels for gathering information and making purchases (Hu and Tracogna, 2021). Recent research indicates that our current grasp of channel behaviours may be limited, thus underscoring the need to explore additional behaviours beyond showrooming and webrooming (Hu and Tracogna, 2021). Moreover, the traditional distinction between online and offline channels has been challenged, necessitating the development of new channel typologies and contact points for future research (Tueanrat, Papagiannidis and Alamanos, 2021). This brings us to a research gap that this thesis aims to address.

The behaviours exhibited in these channels can result in spillover effects, where one channel can intentionally or unintentionally influence subsequent interactions in the customer journey (Suh and Moradi, 2023). Moreover, positive experiences with

previous channels can decrease interaction costs, facilitate learning effects, and reduce customer risks (Li and Kannan, 2014; Tueanrat, Papagiannidis and Alamanos, 2021). On the other hand, conflicting information across channels can frustrate customers, leading to disengagement from the customer journey (Anderl *et al.*, 2016). Customised customer journeys are crucial to address this, requiring companies to comprehend and coordinate the various contact points to deliver an outstanding experience (Tyrväinen and Karjaluoto, 2019).

The evolution of contact point technologies has the potential to significantly impact channel behaviour and involvement, leading to companies offering a wide range of channels (known as channel proliferation) and more intricate customer journeys (Hu and Tracogna, 2021). While this abundance of interaction options may provide customers with diverse choices, it could also complicate the decision-making process due to the sheer number of options available. There is a need for an enhanced research emphasis on channel behaviour to clarify how customers can seamlessly navigate channel choices amidst the overwhelming array of possibilities offered by companies (Tueanrat, Papagiannidis and Alamanos, 2021).

When considering channel involvement, it is essential to consider the subjective norm. A product can be obtained for personal use, for a family member, for a third party (e.g., in a business context), or by helping a friend make a purchase decision. Information search and the customer journey unfold across these different scenarios (Balasubramanian, Rajagopal, and Vijay, 2005). Of note, these scenarios can intersect with one another. For example, assisting a friend in purchasing could lead to one's own decision (Jain, Dixit and Shukla, 2023).

The private communication between customers, known as WoM (Kroeber-Riel et al., 2009; López, Sicilia and Verlegh, 2022), exerts significant influence, particularly within family dynamics and especially for high-value products (Davis, 1975). WoM can be a powerful tool in the customer journey, offering advantages and disadvantages. Among the former, WoM can build trust and credibility, as recommendations from friends and family are often perceived as more authentic and reliable than traditional

advertising. Positive WoM can also increase brand awareness and customer loyalty (Kessler, 2021). However, negative WoM can spread rapidly, potentially damaging a company's reputation. Furthermore, in today's digital age, WoM can quickly escalate through social media and online reviews, making it even more crucial for businesses to focus on providing exceptional customer experiences to encourage positive WoM (López, Sicilia and Verlegh, 2022).

The impact of a spouse in these dynamics is particularly noteworthy (Kuss and Tomczak, 2007). Steinmann (2011) argued that increased family discussions regarding purchases reduce additional contact points, especially personal interactions with salespeople. This effect is most prominent in the pre-purchase phase and shortens the customer journey. WoM is the primary trigger for a purchase decision (Unger, 1998; Steinmann, 2011; Harting *et al.*, 2017; Jain, Dixit and Shukla, 2023). Expanding conversations to friends, colleagues, and other social circles may further amplify its influence (Kessler, 2021; López, Sicilia and Verlegh, 2022).

Remember that the number of interactions is not the only thing that matters: even a single conversation can significantly impact the customer journey. The key lies in the trusted content shared during these discussions, as it is perceived to be honest and from independent sources. At present, many conversations occur online in blogs or forums (López, Sicilia and Verlegh, 2022). It is important to note that while extensive research has been conducted on WoM and electronic word of mouth (eWoM), especially in terms of their influence on individual purchase decisions, there is still a lack of clarity on how WoM influences the length of the customer journey and its impact on other contact points. Furthermore, the role of WoM as a contact point in the customer journey is not fully understood (López, Sicilia and Verlegh, 2022).

The importance of channel involvement correlates directly with the effort of contact point selection, which plays a significant role in the customer journey (McGregor, Azzopardi and Halvey, 2023). The choice of contact points is influenced by the customer's preference for convenience (Schoenbachler and Gordon, 2002; Zaharia, 2006) and can be divided into search and access convenience. The former refers to the

ease and speed of obtaining information, while the latter is related to the availability of customer contact points (Kaufman-Scarborough and Lindquist, 2002). Access convenience, primarily determined by the contact point itself, is the most significant factor influencing the choice of contact points. This involves the location and timing of contact points and is closely associated with the proximity of store locations to the customer's residence (Nicholson *et al.*, 2002). Previous research has illustrated the influence of distance on the willingness to use offline and online contact points (Teltzrow, Günther and Pohle, 2003; Johnson *et al.*, 2006; McGregor, Azzopardi and Halvey, 2023).

It has been argued that customers are more likely to conduct online searches when the distance between the shop's location and their residence is greater, allowing fast and cost-effective access to information (Inman, Raghubir and Grande, 2004). On the contrary, other studies have presented different findings, suggesting that closer shop locations are more likely to result in online purchases due to the reduced subjective risk for customers, as it makes handling services and complaints more convenient (Verhoef and Donkers, 2005; Lemon and Verhoef, 2016). It is important to note that prior research has not clarified the impact of shop distance or the subjective effort required to use a specific contact point on the customer journey (McGregor, Azzopardi and Halvey, 2023).

Consequently, when customers must exert considerable effort to select the most suitable contact point, they may experience frustration and confusion and form a negative opinion of the company. This dissatisfaction could lead them to seek help from competitors who provide a more streamlined experience. Conversely, when customers find it easy to select a contact point, they are likely to enjoy a seamless experience, leading to greater satisfaction, improved perception of the company, and potentially increased loyalty (McGregor, Azzopardi and Halvey, 2023).

In revisiting Belk's (1975) definition of stimulus, it is crucial to delve deeper into the concept of 'situation'. Once again, involvement becomes a critical factor in understanding the situation. This involvement is shaped by both personal and

situational influences (Cancela, Briñol, and Petty, 2021). Personal involvement is influenced by various factors, including personality, attitudes, life circumstances, and experiences (e.g., gender, age, and income; Cancela, Briñol, and Petty, 2021). Research has shown that demographic variables, in particular, significantly impact the customer journey (Kroeber-Riel and Weinberg, 2003; Albarq, 2021).

It is essential to clearly identify the specific variable that has the most significant impact on the use of each channel and contact point. The lack of clarity may be due to differences in studies across various product categories and many factors related to personal involvement. Dealing with numerous variables can introduce complexity and challenges in interpretation. It can be difficult to determine which demographic variables are truly influential and how they interact with each other. In-depth analysis of multiple demographic variables can also result in sparse data, especially when dealing with smaller subgroups within each variable. This can make it challenging to draw statistically significant conclusions or generalisations about the entire customer base (Lee, Choi and Kim, 2024).

One of the most influential personal involvement factors is age. This crucial factor in the customer journey offers the advantage of targeted marketing and product development tailored to specific segments. However, businesses should be wary of the disadvantages of age, including the risk of stereotyping, the dynamic nature of age-based preferences, and the exclusion of non-traditional consumers (Bewicke, 2023).

According to Steinmann (2011), age strongly impacts the length of the customer journey. Younger customers generally seek more information than their older counterparts (Klein and Ford, 2003; Kulkarni, Ratchford and Kannan, 2012; Keikhosrokiani and IGI Global Publisher, 2022). This is likely because younger customers with less purchasing experience are more willing to invest additional time in their information search. Moreover, younger customers often face budget constraints that lead to extensive use of contact points to finalise their purchase decisions. Individuals under the age of 35 years are expected to make the most extensive use of contact points (Bewicke, 2023). However, there are indications from

some studies that higher age may lead to longer customer journeys (Klein and Ford, 2003), which warrants empirical examination.

The type of contact points used is influenced by age, with older customers showing a greater inclination for personal interaction with salespeople and using online contact points less frequently than younger customers (Steinmann, 2011). Younger customers are more likely to rely on the opinions of family and friends (i.e., WoM; DAT, 2012; Van Rijnsoever, Castaldi and Dijst, 2012). They are more inclined to engage in mixed searches within a personal contact point, which leads to a purchase (Hu and Tracogna, 2021). In contrast, older customers rely more on customer reviews at the beginning of their customer journey, with no other contact points being influenced by age (Abbasi *et al.*, 2020). The results reported by Khan *et al.* (2020) support the idea that age does not affect the selection of contact points.

Given that an in-depth analysis of the findings regarding age as an influential factor and the customer journey length have yielded contradictory results, there is a need for a clear direction for future research. Furthermore, there has been insufficient research on contact points, leading to conflicting findings, although there is a suggestion that younger customers tend to utilise more online contact points (Von Böhlen and Šimberová, 2023).

Another important personal involvement factor is gender. Research indicates that the gender of the customer can have a significant impact on their customer journey. Using gender as a variable in customer journey research has advantages and disadvantages. An advantage is the valuable insights into how gender influences consumer preferences and decision-making processes. This information can be critical for businesses in tailoring their marketing strategies to specific gender demographics. However, the use of gender may lead to the reinforcement of gender stereotypes, and it may oversimplify the complexity of consumer behaviour, overlooking other important factors that contribute to the customer journey (Kessler, 2021).

There have been inconsistent findings on the customer journey length (Ratchford, Talukdar, and Lee, 2007). Some studies suggest that women tend to have fewer contact points compared with men (3.45 and 3.56, respectively; DAT, 2012), while others have found that women have a higher number of contact points than men (Steinmann 2011; Van Rijnsoever, Castaldi and Dijst, 2012). Conversely, Kessler (2021) found no significant impact of gender on the customer journey. Some evidence suggests that men rely less on external contact points and more on their product knowledge (Van Rijnsoever, Castaldi and Dijst, 2012).

The types of contact points used differ between men and women. Women are inclined to use more advertising contact points and are more likely to seek input from family and friends (WoM) when making a purchase decision (Steinmann, 2011; Ratchford, Talukdar and Lee, 2007). On the other hand, men have a greater interest in test reports and social media (Ratchford, Talukdar and Lee, 2007; DAT, 2012; Abbasi *et al.*, 2020). However, some studies suggest no significant difference in how men and women use online contact points (Von Böhlen and Šimberová, 2023). In conclusion, gender can influence the customer journey. Nonetheless, further research is needed to gain deeper insights as contradictory conclusions might arise from studies involving multiple product categories (Steinmann, 2011).

The impact of income, another personal involvement factor, on the customer journey has been extensively studied. The advantage of using this variable is that income levels can provide valuable insights into consumer behaviour and purchasing power. Businesses can use this information to tailor their marketing and sales strategies to specific income segments, potentially increasing their effectiveness and return on investment. However, using income as a variable can oversimplify consumer behaviour, overlooking other important factors that influence purchase decisions. Additionally, relying solely on income may lead to stereotyping and may not fully capture the complexities of the customer journey. Therefore, while income can be a valid variable, researchers and businesses must consider its limitations and complement it with other relevant factors for a more comprehensive understanding of the customer journey (Von Böhlen and Šimberová, 2023).

The distinction between utilitarian and hedonic customer behaviours is critical in personal involvement influencing the customer journey. Utilitarian behaviour is task oriented and rational (Batra and Ahtola, 1991), focusing on efficient product selection and purchase, often associated with a sense of work (Hirschman and Holbrook, 1982; Barbin, Darden, and Griffin, 1994; Liu *et al.*, 2020). On the positive side, focusing on utilitarian aspects allows businesses to cater to customers' functional needs, leading to high satisfaction and loyalty. Companies can enhance the overall customer experience and build trust by addressing practical concerns such as efficiency and usability. However, a potential downside of emphasising utilitarian behaviour is the risk of overlooking the emotional and experiential aspects of the customer journey. This could result in missed opportunities to create strong emotional connections with customers and differentiate the brand from competitors (Liu *et al.*, 2020).

On the other hand, hedonic behaviour is centred on enjoyment, with emotions and entertainment playing a significant role (Bellenger, Steinberg and Stanton, 1975; Hirschman and Holbrook, 1982; Liu *et al.*, 2020) and leading to heightened emotional arousal, increased engagement, perceived freedom, and fantasy fulfilment (Bloch and Richins, 1983). Emphasising hedonic experiences can lead to strong emotional connections, brand differentiation, and enhanced customer satisfaction. By catering to customers' emotional needs and desires, businesses can create memorable and enjoyable experiences, fostering loyalty and positive WoM. However, there is a potential drawback: the focus on seeking pleasure and entertainment may cause important efficiency and usability considerations to be overlooked, potentially impacting overall customer satisfaction and brand credibility (Liu *et al.*, 2020).

In the context of the customer journey, hedonic behaviour leads to a more substantial use of social media compared with utilitarian behaviour, particularly regarding the customer journey. Furthermore, hedonic behaviour leads to higher usage of company websites at the start of the customer journey, signalling a more in-depth information search. This suggests that companies can benefit from creating more appealing and engaging content to capture initial interest (Abbasi *et al.*, 2020). In comparison,

utilitarian behaviour relies more on customer reviews and visiting competitors' websites. As the customer journey progresses, utilitarian behaviour involves searching for specific deal websites, which forces companies to ensure they have competitive pricing and promotions to attract these customers (Abbasi *et al.*, 2020). While existing researchers have emphasised the impact of utilitarian and hedonic behaviour on the customer journey, additional insights are necessary, especially concerning the length of the customer journey (Von Böhlen and Šimberová, 2023).

Pre-knowledge is crucial in personal involvement, particularly in the customer journey (Court *et al.*, 2009; Zhang *et al.*, 2020). Pre-knowledge, as defined by Punj and Staelin (1983), encompasses the insights gathered by a customer, including previous channel experiences before initiating the actual customer journey (Thomas and Sullivan, 2005; Gensler, Leeflang and Skiera, 2007; Ansari, Carl, and Neslin, 2008). Understanding a customer's pre-knowledge in their customer journey has advantages and disadvantages. As an advantage, pre-knowledge enables the delivery of personalised experiences and effective communication. However, the major drawback lies in the quality of the data. Comprehensive analysis of customer data is essential to gauge the extent of pre-knowledge, and some aspects of pre-knowledge may be impossible to analyse (Zhang *et al.*, 2020).

Positive pre-knowledge reduces the likelihood of making incorrect decisions, leading to trust-based purchase decisions (Schramm-Klein, 2003). Furthermore, customers with strong brand loyalty leverage their knowledge of past purchases, resulting in an optimised search strategy (Chestnut *et al.*, 1976). Customers with significant pre-knowledge of past purchase experiences rely on internal knowledge rather than extensive external information search, making their process more efficient. Research indicates that customers with extensive pre-knowledge utilise fewer contact points, especially when repurchasing the same product (Newman and Staelin, 1972; Zhang *et al.*, 2020). Ultimately, well-informed customers are acquainted with the products, various contact points, and the brand, leading to a shortened customer journey. These findings indicate that customers may be less influenced by company-controlled contact

points when they have high pre-existing knowledge (Steinmann and Silberer, 2009; Zhang *et al.*, 2020).

However, there are conflicting findings regarding the impact of high pre-knowledge on the length of information search in the customer journey (Sanchiz *et al*., 2019). Pre-knowledge increases the likelihood of using personal contacts, such as salespeople, while decreasing advertising contact points (Steinmann, 2011). Moreover, having a wealth of prior information leads to increased usage of company-controlled contact points (Utkarsh, Sangwan and Agarwal, 2019). Researchers also suggest that a high number of contacts with a specific contact point (contact point pre-knowledge) enhances the positive relationship with that contact point (Lawer and Knox, 2006; Gensler, Leeflang and Skiera, 2007). For example, a customer who has effectively utilised offline contact points to meet their purchasing needs is likely to continue using the same category of contact point in the future (Verhoef and Donkers, 2005).

In summary, research on pre-knowledge has revealed its significant impact on the customer journey, particularly its length. However, conflicting study findings have made the effect of pre-knowledge on extending or shortening the journey inconclusive (Steinmann and Silberer, 2009; Flavián, Ibáñez-Sánchez and Orús, 2019).

After discussing personal involvement, the following section explores situational involvement, which is influenced by specific circumstances that a customer experiences with a purchase. This type of involvement can impact customer behaviour (Hsia *et al.*, 2020). For example, significant life events like pregnancy can lead to heightened situational involvement when shopping for family products, especially when influenced by media such as TV commercials (Kroeber-Riel and Weinberg, 2003). Situational involvement significantly shapes a customer's expectations and their overall experience with a product or service (Lee, Choi and Kim, 2024).

It is crucial to consider purchase frequency when analysing situational involvement. Purchase frequency refers to the regular intervals at which customers use a product and make subsequent purchases. This pattern may be influenced by personal, financial,

or leasing factors when buying a product (Lee, Choi and Kim, 2024). The frequency of purchases correlates directly with the effort a consumer is willing to invest in acquiring a new product. Shorter purchase cycles increase familiarity with the purchasing process and influence future decisions (Unger, 1998). These purchasing cycles may indicate a shorter customer journey. Short repurchase cycles in the customer journey can benefit businesses as they can lead to increased customer engagement and facilitate a rapid feedback loop. However, it is important to be mindful of potential drawbacks, such as customer fatigue, when the customer has to make frequent purchase decisions for the same product (DAT, 2023).

It is important to consider different levels of involvement, particularly high and low (Santosa, 2021). High involvement is characterised by strong emotions and a willingness to invest significant cognitive effort. In contrast, low involvement typically involves minimal cognitive investment and little emotional attachment during purchase (Santosa, 2021). This thesis focuses on high-involvement scenarios, such as purchasing consumer durables, which demand substantial emotional engagement and significant financial investment, thus necessitating customers to dedicate more cognitive resources (Kroeber-Riel and Weinberg, 2003). In terms of the overall customer experience, companies must create meaningful and valuable encounters that engage customers, leading to increased involvement and a more dedicated purchase process (Lee, Choi and Kim, 2024).

While the approach of high-involvement scenarios may lead to more dedicated purchase processes and increased customer engagement, it also presents potential disadvantages. For example, such scenarios may exert a significant cognitive load on customers, potentially leading to decision fatigue and increased stress. Additionally, the higher financial investment required in these scenarios can increase buyer remorse if expectations are unmet. Furthermore, the complexity of high-involvement purchases may also lead to higher post-purchase dissonance if the product or service does not fully meet the customer's expectations. Therefore, while high-involvement scenarios offer the potential for deeper customer engagement, companies must also be cognizant of these potential drawbacks (Lee, Choi and Kim, 2024).

Table 1 provides a comprehensive overview of the factors that affect purchase decisions related to product, channel, personal, and situational involvement. The criteria for selecting studies are based on three aspects. First, the studies must investigate a specific influential factor within product, channel, personal, or situational involvement. Second, the research must be in the field of customer experience. Third, these influential factors must demonstrate an impact on the length of the customer journey and the contact points used.

One notable issue with the selected studies is that most of them did not specifically focus on the customer journey and contact points when assessing the impact of these factors. Instead, they examined the overall effects of the influential factor on the customer experience. Furthermore, the studies encompass a variety of product categories, which may lead to diverse outcomes (Lee, Choi and Kim, 2024). To address this limitation, this thesis includes a comprehensive qualitative exploratory study to identify significant, influential factors, followed by a detailed analysis of these factors in a quantitative survey on car purchase decisions.

Table 1: Factors influencing the customer journey length and the contact points used

Product involvement	
Product-related factors	Minkenberg, 2013; Hu and Tracogna, 2020; Grewal and Roggeveen, 2020; Suboh, Razak and Alshurideh, 2023.
Channel involvement	
Effort of contact point selection	Kaufman-Scarborough and Lindquist, 2002; Nicholson *et al*., 2002; Schoenbachler and Gordon, 2002; Teltzrow, Günther and Pohle, 2003; Johnson *et al*., 2006; Zaharia, 2006; Hu and Tracogna, 2020; McGregor, Azzopardi and Halvey, 2023.
Subjective norm	Davis, 1975; Balasubramanian, Rajagopal, and Vijay, 2005; Kuss and Tomczak, 2007; Steinmann, 2011; Harting *et al*., 2017; Kessler, 2021; López, Sicilia and Verlegh, 2022; Jain, Dixit and Shukla, 2023.
Personal involvement	
Age	Steinmann, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Abbasi *et al*., 2020; Hu and Tracogna, 2020.
Gender	Steinmann, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Abbasi *et al*., 2020; Hu and Tracogna, 2020; Banik and Gao, 2023; Von Böhlen and Šimberová, 2023.
Income	Newman and Staelin, 1972; Raffée and Silberer, 1981; Klein and Ford, 2003; Kulkarni, Ratchford and Kannan, 2012; Abbasi *et al* 2020; Von Böhlen and Šimberová, 2023.
Pre-knowledge	Punj and Staelin, 1983; Schramm-Klein, 2003; Thomas and Sullivan, 2005; Lawer and Knox, 2006; Gensler, Leeflang and Skiera, 2007; Ansari, Carl, and Neslin, 2008; Steinmann and Silberer, 2009; Court *et al.*, 2009; Utkarsh, Sangwan and Agarwal, 2019; Sanchiz *et al*., 2019; Zhang *et al*., 2020; López, Sicilia and Verlegh, 2022.
Psychological influence	Pooler, 2003; Hu and Tracogna, 2020; Dhiman, Jamwal and Kumar, 2023.
Utilitarian versus hedonic behaviour	Hirschman and Holbrook, 1982; Barbin *et al*., 1994; Abbasi *et al*., 2020; Liu *et al*., 2020.
Situational involvement	
Purchase frequency	Unger, 1998; Sue and Moradi, 2023.

In essence, the stimuli encompass influential product, channel, personal, and situational involvement factors, which impact the selection and utilisation of a contact point throughout the customer journey. Involvement, combined with utilising a specific contact point, gives rise to cognitive and emotional responses within the individual, as detailed in the subsequent chapter (Lee, Choi and Kim, 2024).

Understanding the combination of involvement, contact points, and emotional responses is crucial for comprehending three of the research gaps addressed in literature: how a seamless customer journey is crafted (Lemon and Verhoef, 2016), how company-controlled and non-company-controlled contact points interact

(Wetzels *et al.*, 2023), and how significant emotions are at various customer contact points (Grewal and Roggeveen, 2020).

2.2.2 Analysis of organism within customer experience and journey research

Within the SOR framework, the organism comprises cognitive and emotional factors (Zhu, Kowatthanakul and Satanasavapak, 2020), which play a crucial role in the customer experience. Customer responses represent the cognitive and emotional evaluations of the customer experience at various contact points throughout their journey (Tueanrat, Papagiannidis and Alamanos, 2021). Gao, Currim and Dewan (2022) indicated that customers pursue cognitive and emotional objectives while shopping. This chapter critically explores cognitive and emotional evaluations within the customer experience literature.

Cognition

In the customer experience, cognition refers to how effectively customers purchase products and services. It encompasses all the information, such as price, that customers require to evaluate and buy a product (Gao, Currim and Dewan, 2022). It is a critical component of the customer experience (Banik and Gao, 2023). Understanding cognition involves discussing essential elements, including information search, processing, evaluation, and storage, all of which influence decision-making. The entire process can be likened to the thinking process involved in making a decision (Weinberg and Besemer, 2002).

Information search entails seeking more information about a product, which can range from a passive role with greater attention to, for example, advertising or reading articles, to a very active role where customers engage with friends, explore the internet, or visit retail stores (Howard and Sheth, 1969; American Marketing Association, 2023; The-definition.com, 2023). Information search at specific contact points can be diverse and explained by the function of the contact point. The nature of information search

varies based on whether it involves general or specific information about a product, support and advice, details about the price, or product comparison (Steinmann, 2011).

Information can be categorised into ‘information need’, ‘actual information inquiry’, and ‘information offering’. Information need refers to the need for more specific knowledge to make a confident decision. The actual information inquired about should fulfil this need for information. Information offerings are necessary for a customer’s decision-making process. However, the information can vary from product to product (Fu and van Oostendorp, 2020).

In general, there are four fundamental questions to consider when it comes to information (Kuss and Tomczak, 2007; Fu and van Oostendorp, 2020): how much information is required and received? What sources of information are utilised? What type of information is used? In what sequence is information gathered? This thesis primarily focuses on the utilised information sources (contact points used) and the sequence of information gathered (the order of contact points within the customer journey). The primary advantage of focusing on these is the potential to enhance the overall customer experience. By understanding the contact points used and the order in which they are accessed, businesses can optimise the customer journey to ensure a seamless experience for their customers. This deeper understanding can result in improved customer satisfaction, increased loyalty, and higher retention rates. A potential drawback, however, is the complexity involved in analysing and managing the diverse sources of information and the sequence of contact points. This approach may require significant resources and expertise to gather, process, and interpret the data effectively. Additionally, there is the risk of information overload, where businesses may struggle to prioritise and act on the insights obtained from the analysis (Steinmann, 2011).

There are several theories that shed light on information search; they offer various perspectives that are crucial for customer journey research. One fundamental theory is the cost-benefit approach (McGregor, Azzopardi and Halvey, 2023), in which information gathering is equated with costs. Customers weigh the quality of the

information gathered (Kerr and Kelly, 2019) against the effort or costs required to obtain it (Hertrich, 1985; McGregor, Azzopardi and Halvey, 2023). A customer may adopt a strategy to seek an optimal amount of information or a strategy that minimises costs (Ratchford, 1982). Information is sought when the expected benefit equals or exceeds the expenses incurred (McGregor, Azzopardi and Halvey, 2023).

The realisation that customers strive to optimise their search is relevant for customer journey research. Each contact point in the customer journey is carefully selected by considering the costs the customer must invest in time, effort, or money (McGregor, Azzopardi and Halvey, 2023). As stated in the first research gap, scholars have not yet used this understanding to clarify customer experience research on which contact points customers are likely to utilise in a seamless customer journey. This issue has only been addressed briefly based on a discussion of media richness (Wu, Wong and Lin, 2021).

Media richness pertains to a communication channel's ability to convey information effectively. A communication channel is rich when it can transmit diverse information in real-time, across different languages, and in a personalised manner for each customer. Within this framework, face-to-face interactions, such as visiting a store, are particularly well-suited, especially in the context of high-value and explanatory products (Wu, Wong and Lin, 2021). Consequently, these personal contact points are crucial for the customer journey (Wu, Wong and Lin, 2021).

Media richness theory has several advantages. It emphasises the capacity of different communication channels to convey information effectively, helping organisations choose the most appropriate communication methods for specific messages. Additionally, it acknowledges the role of non-verbal cues in communication, allowing for a more nuanced understanding of interactions. However, one potential downside is that the theory may overlook the rapid evolution of digital communication platforms, which can offer rich media experiences that challenge traditional categorisations of media richness. Furthermore, it may not fully consider individual differences in

interpreting and utilising rich media, potentially limiting its applicability in diverse contexts (Wu, Wong and Lin, 2021).

A critical evaluation suggests that online interactions may be the preferred initial source of information, as customers can quickly browse the internet using their smartphones. However, the media richness of such interactions is less potent than personal contact points, but gathering information online requires minimal customer effort (Harting *et al.*, 2017). In contrast, contact points like visiting a physical store demand considerable customer effort, such as the cost of transportation and time investment, particularly when faced with issues like traffic congestion (Zaharia, 2006).

It is essential to consider that customer risk reduction plays a significant role in determining the appropriate contact points in the customer journey (Hickman, Kharouf and Sekhon, 2019). The theory of risk orientation (risk reduction) is essential to gauge the cost and outcome of information gathering (Balsarini *et al.*, 2021). This approach is based on risk (uncertainty) and the perceived consequences of decisions (perceived risk; Ross, 1975). When a potential customer is highly risk averse, they will adopt a strategy to mitigate risks (Hertrich, 1985; Balsarini *et al.*, 2021). Risk can be assessed regarding the likelihood of potential downsides, such as financial loss or wasted time. Utilising reliable information contact points in a customer journey (e.g., test reports) can mitigate this risk (Yang, Ramsaran and Wibowo, 2022). By leveraging these contact points, the customer aims to reduce the overall risk of their purchase (Hertrich, 1985). Based on the literature review, it remains to be seen whether risk avoidance affects only the contact points used or the length of the customer journey. Customers can use numerous contact points to decrease the level of risk further (Steinmann, 2011).

Risk assessment is influenced by the consumer's preference for competitor products, which, in turn, is affected by brand loyalty (Yang, Ramsaran and Wibowo, 2022). In customer journey research, brand loyalty is characterised by the consistent repurchase behaviour of a specific brand or product (Court *et al.*, 2009). Typically, minimal information is sought after the customer has made multiple purchases from the brand.

This reduced information search can be attributed to the diminishing returns of gathering information, as the customer's extensive knowledge about the product enables them to make the final purchase decision (Hertrich, 1985; Court *et al.*, 2009). A limited information search and an abbreviated customer journey are critical considerations in studying the impact of various influential factors that drive the customer's purchase decisions (Meffert, Burmann and Kirchgeorg, 2008).

The thesis also highlights the significance of the consistency theory approach (Hertrich, 1985) in understanding information search within customer experience research. According to this approach, customers have a cognitive limit and respond to increasing complexity in their environment by gathering information up to a certain point (Strojny, Kossowska and Strojny, 2016). Once their cognitive capacity is exhausted, their information gathering decreases, a phenomenon that resembles a reverse U-shaped curve (Hertrich, 1985). The cognitive limit on the attention and processing capacity of the customer can lead to difficulties in multitasking, memory recall, and decision-making. These limitations can impact efficiency, productivity, and overall cognitive performance. Additionally, cognitive overload can result in stress and reduced mental well-being (Strojny, Kossowska and Strojny, 2016). It is crucial to grasp when customers reach their cognitive limit and how it impacts their journey. A limited cognitive capacity could lead to a purchase with a minimal number of contact points, delayed decision-making, or even abandonment of the purchase process (Strojny, Kossowska and Strojny, 2016).

The concept of information sharing, as a theory of information search, is a crucial aspect to consider (Raffée and Silberer, 1981; López, Sicilia and Verlegh, 2022). This theory encompasses the idea of personal influence, illustrated through information sharing within groups, often referred to as information networks, and the presence of opinion leaders (Raffée and Silberer, 1981). Different groups exhibit distinct size, intensity, climate, and situational factors such as shared interests. For example, talking to family and friends (WoM) impacts the information search process (Raffée and Silberer, 1981). In addition to WoM, recent studies in the customer experience literature have also explored eWoM (e.g., Azer and Ranaweera, 2022; López, Sicilia

and Verlegh, 2022). Like WoM, eWoM includes customer insights regarding products, recommendations, complaints, and usage experiences. However, eWoM may encompass more comprehensive content, is easily accessible, and is utilised more frequently than traditional WoM (Kannan and Li, 2017).

Information sharing is rooted in the principles of advising and communication motives of individuals (Azer and Ranaweera, 2022). Advising motives involve product interest and involvement (expert status), the intrinsic desire to assist others, and specific information interests, such as novel news (Raffée and Silberer, 1981). Communication motives encourage individuals seeking information to utilise unbiased or independent sources (López, Sicilia and Verlegh, 2022). Furthermore, during the information-gathering process, there is a perceived necessity for customers to engage with experts who possess specialised knowledge and, more importantly, personal experiences that they can share. The contact point talking to family and friends (WoM) is viewed by potential customers as highly trustworthy and competent (Raffée and Silberer, 1981; López, Sicilia and Verlegh, 2022). However, the extent to which WoM influences the customer journey has not yet been thoroughly researched.

The significance of information sharing is underscored by the distinct impact of family dynamics, which can be categorised into three forms (Raffée and Silberer, 1981; Chiang *et al.*, 2022): the influence of individual family members, the purchase process within the family, and the repercussions of involvement in the decision-making process when family members have differing decision strategies. The sociology of consumption provides insights into this phenomenon.

Social class, family roles, and communication structure significantly influence information sharing. In-depth communication occurs within a family when a substantial ‘consumption result’ is anticipated or when a strong ‘achievement motivation’ is present (Raffée and Silberer, 1981; López, Sicilia and Verlegh, 2022). Moreover, there is intensive communication when the decision-making context deviates from typical family roles, decision-making authority varies, household

responsibilities are unclear, external influences are minimal, and the purchase holds high importance for the family (Raffée and Silberer, 1981).

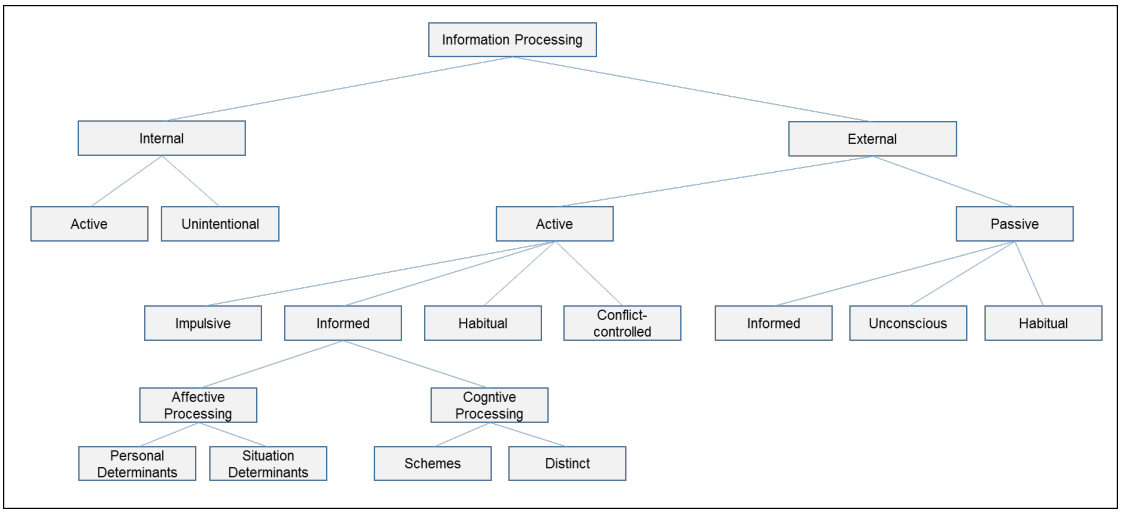
Information sharing plays a crucial role in customer and customer journey research because conversations with family and friends (i.e., WoM) can be one of the most pivotal contact points during the purchase decision. When customers share information with each other during their customer journey, it can be beneficial as it fosters a sense of community and trust. A customer often relies on peer reviews, recommendations, and shared experiences to make informed decisions. This organic information sharing can significantly influence purchase decisions and influence brand advocacy. However, there are also potential drawbacks to customer-to-customer information sharing, such as the spread of misinformation or negative feedback, which can impact a company's reputation. Businesses need to monitor and facilitate customer interactions to ensure that the shared information aligns with their values and desired customer experience. Overall, the customer journey literature has not fully explored the role of talking to family and friends (López, Sicilia and Verlegh, 2022).

Once a customer completes their information search, they must process their findings. Typically, they assess a product and are influenced by how they process information. They evaluate factors such as the time or effort required to gather information (Baker *et al.*, 2002), perceived channel price (monetary and non-monetary; Yu, Niehm and Russell, 2011), psychic costs (Baker *et al.*, 2002), the ease of the search (Morrin and Chebat, 2005), the effectiveness of the search (Punj and Staelin, 1983), and accessibility (Berger and Fitzsimons, 2008). It is essential to consider the decision-making process for selecting contact points (channel selection) for active and passive information search (Kroeber-Riel and Weinberg, 2003). The decision for contact point selection can be active only by chance or because of another contact point (Gao, Currim and Dewan, 2022).

Information processing can be divided into external and internal (Zadelaar *et al.*, 2021). The former, based on long-term storage, is particularly influential in the purchase decision-making process. An extensive external information search is

unnecessary when enough internal information is available, as it can fulfil the needed information. Figure 4 clarifies the difference between internal and external information (Kroeber-Riel and Weinberg, 2003). This figure illustrates the significance of external information processing, serving as the interface for seeking information through contact points such as WoM communication with friends and family or visiting stores (Zadelaar *et al.*, 2021). While there are other components of external information search, they are not explored in this thesis.

Figure 4: Internal and external information processing (Kroeber-Riel and Weinberg, 2003)



External information processing can be active or passive (Zadelaar *et al.*, 2021). Active information processing can be impulsive, habitual, conflict controlled, or informed (Kuss and Tomczak, 2007). Similarly to these four types of information processing, the purchase behaviour theory also defines four fundamental types of purchase decision: extensive purchase behaviour (Anderson, Sweeney, and Williams, 2019), habituated or routine purchase behaviour (Kantona, 1966; Dhir *et al.*, 2021), limited purchase behaviour (Howard and Sheth, 1969; Kuss and Tomczak, 2007), and impulsive purchase behaviour (Weinberg and Gottwald, 1982; Kuss and Tomczak, 2007; Ahn and Kwon, 2022). It is important to discuss these four types of decisions to illuminate the varying degrees of information processing that are necessary to make a purchase. These types differ in the amount of cognitive control the consumer exerts, consequently influencing their approach to information search. Extensive purchase

decisions involve the highest cognitive control, while habitual and impulsive purchase behaviours involve the lowest. Involvement is crucial in distinguishing between these purchase decisions (Liu *et al.*, 2020).

Extensive purchase behaviour is infrequent and typically occurs when customers encounter new problems. It involves thorough information search and high customer involvement. It is typically observed in consumer durable purchases, leading to a longer customer journey due to the complexity of the decision and the need for a comprehensive information search (Voramontri and Klieb, 2018). Extensive purchase behaviour leads to well-informed decision-making and satisfaction with the chosen product or service. However, it can be time-consuming and lead to decision fatigue and a higher potential for post-purchase regret if expectations are not fully met (Anderson, Sweeney, and Williams, 2019).

Limited purchase behaviour relies on past purchase experiences and established decision criteria, with minimal adaptation when necessary. Customers remain highly involved in these decisions (Kuss and Tomczak, 2007). Limited purchase behaviour can lead to quicker decision-making and give customers confidence due to their familiarity with past purchases and established decision criteria. However, this approach may result in missed opportunities to explore new products or brands, as minimal adaptation can limit the ability to adapt to changing preferences or market trends, and customers may overlook better options due to sticking with established decision criteria (Anderson, Sweeney, and Williams, 2019).

Habitual or routine purchase behaviour involves daily purchase routines, usually re-purchases of familiar products or services. There is little information search or selection between alternatives, and the customer is in a low-involvement situation (Dhir *et al.*, 2021).

Finally, impulsive purchase behaviour is characterised by low cognitive involvement and is often driven by high emotional stimuli. The decision is unplanned and occurs immediately when the customer experiences a need (Ahn and Kwon, 2022).

Due to the significant expense and complexity involved, the customer journey for consumer durables eliminates impulsive and habitual purchase behaviour (Kuss and Tomczak, 2007). This narrows down the focus to extensive and limited purchase decisions. Given the high level of customer involvement while purchasing consumer durables, the thesis emphasises information search and purchase theory, which are linked to high involvement (Liu *et al.*, 2022; Anderson, Sweeney, and Williams, 2019). More research is needed on the correlation between individual customer behaviour and extensive and limited purchase behaviour methods. The customer journey is typically very long or short, raising the question of where medium-length customer contact sequences fit (Voramontri and Klieb, 2018).

Passive information processing is just as crucial as active information processing within the customer journey, as it is based on unconscious actions (Trommsdorff and Teichert, 2011; Gao, Currim and Dewan, 2022). Although not extensively researched, Gao, Currim and Dewan (2022) argued that passive processing significantly influences overall information processing and may even outweigh active information processing. Passive information processing can lead to effortless customer decision-making. Individuals can reduce cognitive effort and conserve mental resources by passively absorbing information without actively seeking it. This can be especially beneficial when the decision is routine, allowing individuals to make quick and efficient choices without expending significant mental energy. Passive information processing also has several disadvantages. When individuals passively absorb information without actively engaging with it, they are less likely to retain or comprehend it, perhaps resulting in forgetfulness and a deficiency in critical thinking. Additionally, passive information processing may hinder the ability to draw connections between different pieces of information, resulting in superficial rather than profound understanding (Gao, Currim and Dewan, 2022).

Passive information processing occurs in response to stimuli, such as advertising, and can be conscious, automatic, or habituated (Kroeber-Riel and Weinberg, 2003). Of particular interest to sellers is automatic and habituated passive information processing: it can be influenced and is not solely based on passive reactions to visual

stimuli. Habituated passive information processing is learned. For example, reading a book page differs from processing a newspaper advertisement (Kroeber-Riel and Weinberg, 2003; Gao, Currim and Dewan, 2022). Attention is central to passive information processing and is influenced by the vividness and salience of the message (Smith and Taylor, 2004).

In conclusion, unconscious actions are significant in information search and the customer journey. However, researching unconscious actions presents a more substantial challenge due to the customer's limited awareness of the information they are gathering. Conducting a longitudinal study with multiple questionnaires for each customer while noting passively used contact points, such as advertising, could provide valuable insights. It is essential to regularly survey participants to capture their experiences with these contact points, even when passively engaged (Gao, Currim and Dewan, 2022).

Another crucial aspect to consider in the context of customer experience and journey research is information evaluation. Indeed, it is essential to understand how a contact point within the customer journey is evaluated and how the entire journey is assessed on a cognitive basis. A customer evaluates the contact point, considering its informational or experiential value to the product purchase. They consider variables such as perceived channel attractiveness (Ehrlich, 2011) and perceived channel quality (including service and merchandise quality; Yu, Niehm and Russell, 2011) when assessing the contact point holistically. A critical factor is the level of stress a customer experiences when using the contact point, known as the information rate (Wang *et al.*, 2024). A customer seeks the optimal level of stress or stimulation (Milgram, 1970; Wang *et al.*, 2024) during their interactions. According to customer experience and omnichannel research, if the information gathered across different channels and contact points is inconsistent, then it can increase the customer's stress. Even a superior customer experience at a specific contact point can result in overall customer discomfort (Suh and Moradi, 2023).

The product experience at the contact point is also evaluated based on variables such as its importance or relevance to the purchase decision and the information's engaging, believable, informative, and comprehensible nature (Han, Kim and Srivastava, 1998). Consequently, specific contact points may be inconsequential, while others play a decisive role in purchasing.

In critiquing previous research, it is notable that studies focusing on the customer journey have yet to successfully integrate information evaluation for each contact point and the customer journey as a whole. It is necessary to understand the interaction among different contact points in the customer journey and how this influences the purchase decision (Steinmann, 2011).

The next aspect of cognition is information storage. Atkinson and Shiffrin (1968) proposed a multi-store model, also known as the modal model, and it provides a framework for understanding information storage. This model comprises the sensory register, the short-term store, and the long-term store (Tripathy and Ögmen, 2018). In the context of this thesis, the long-term store holds significant importance as it stores all previously acquired internal information relevant to decision-making. Drawing upon the long-term store allows customers to streamline their information search by utilising previously evaluated information (Tripathy and Ögmen, 2018), often referred to as pre-knowledge, as discussed in Chapter 2.2.1 (Atkinson and Shiffrin, 1968).

The final aspect of cognition relevant to this thesis is decision-making (Copley, 2004). Decision-making can be understood in the context of purchase behaviour. Hägerstrand (1970) described purchase behaviour as a series of independent actions carried out over a specific period. It is analogous to using contact points in a specific order within a particular timespan, highlighting its connection to the customer journey (Steinmann, 2011). Purchase behaviour encompasses problem recognition, information search, alternative evaluation, purchase decision, and post-purchase decision (Li *et al.*, 2020; Copley, 2004), reflecting the customer's steps when purchasing.

Purchase behaviour is a complex construct involving numerous variables that have not been fully explained scientifically (Kuss and Tomczak, 2007). Efforts to understand purchase behaviour rely on hierarchical models (De Pelsmacker, Geuens, and van den Bergh, 2007). Hierarchical models depict purchase behaviour as a stepwise chain of reactions a customer goes through when buying products in any category (Fortenberry and McGoldrick, 2020). These models help elucidate the purchase process and the steps involved in it. They share many similarities with cognitive evaluations and the phases of the customer journey (Fortenberry and McGoldrick, 2020). Hierarchical models trace their origins back to the attention, interest, desire, and action (AIDA) model (Bongard, 2002; Fortenberry and McGoldrick, 2020). It was developed in the early 1900s by Frank Hutchinson Dukesmith or St. Elmo Lewis (the original developer is not entirely clear today) to understand the theory of personal shopping. This model is heavily employed in marketing research (Yeshin, 2003; Fortenberry and McGoldrick, 2020).

The AIDA model outlines the customer journey step by step from initial attention to the ultimate action, such as purchasing. The customer progresses through various phases throughout the four steps of this model, with each phase requiring different contact points. For example, the attention phase relies on contact points like advertising. However, a fundamental limitation of the AIDA model is that it assumes customers must move linearly through all phases without the possibility of revisiting previous stages (De Pelsmacker, Geuens, and van den Bergh, 2007), and the interplay between the steps remains ambiguous (Santos and Gonçalves, 2021). There is insufficient empirical evidence to indicate that potential customers consistently experience all steps. It does not demonstrate whether individuals move back and forth between phases or skip certain ones altogether. This oversimplification does not adequately represent the complex, non-linear nature of many purchase processes (De Pelsmacker, Geuens, and van den Bergh, 2007; Santos and Gonçalves, 2021).

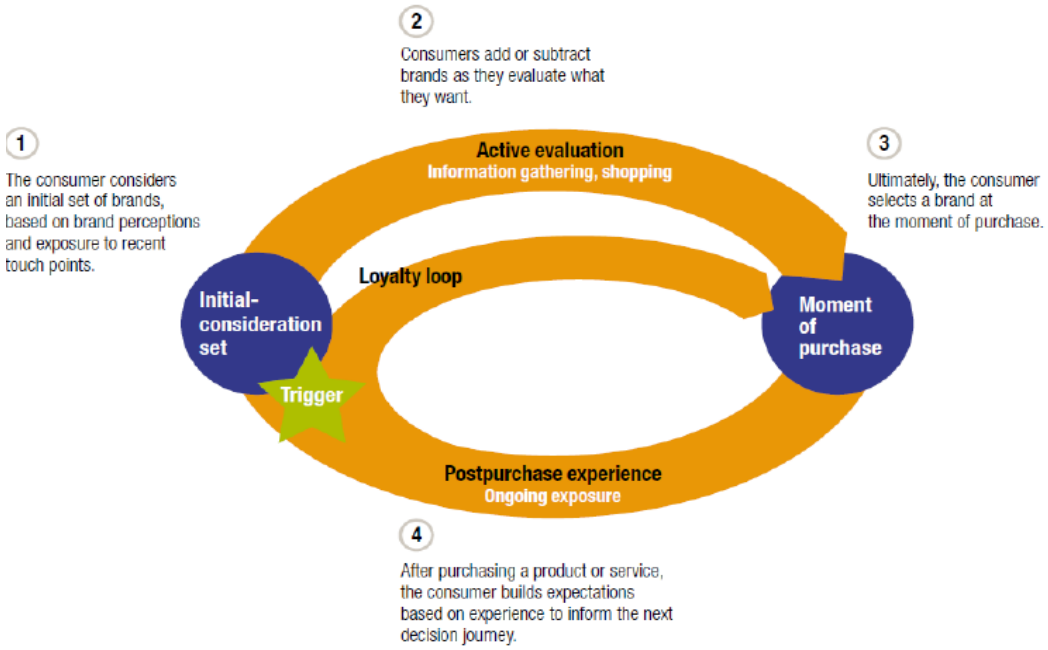
Studies have shown that in the digital environment, certain phases of the buying process can be expedited or omitted altogether (Edelman and Singer, 2015; Santos and Gonçalves, 2021). Customers rely on online search engines and customer reviews

rather than being influenced by the seller to kick-start the purchasing process. Additionally, a purchase may be prompted by something as simple as encountering a social media post (Kanan and Hongshuang, 2017).

Of note, the AIDA model does not specify whether customers transition actively or passively through the phases of the customer journey, which can significantly impact the overall experience. Furthermore, it concludes with the purchase itself, neglecting post-purchase effects such as product usage, which can substantially influence future purchase decisions (Santos and Gonçalves, 2021). The criticism regarding the absence of a product usage phase has been addressed in the models proposed by Pepels (2005) and Fortenberry and McGoldrick (2020). The former includes attention, interest, conviction, purchase, purchase review, customer contact, and reactivation, while the latter integrates retention into the AIDA model, producing the AIDAR model. In contrast to the AIDA model, reactivation or retention is the decisive factor in both of these modified models because it is hypothesised that, based on the positive experience of customers while using a product, a shortened re-purchase journey is likely (Pepels, 2005; Fortenberry and McGoldrick, 2020). Contact points such as social media should be utilised to keep customers close to the brand (Santos and Gonçalves, 2021). The model still incorporates all previous critiques; however, customer journey research must add positive past experiences with a product/brand as a variable (Fortenberry and McGoldrick, 2020).

An alternative to the AIDA-based models is the consumer decision journey model (Court *et al.*, 2009). The customer journey is not a stepwise approach; rather, it can be represented as a circle of activities (Figure 5), which could be considered a new approach when introduced (Court *et al.*, 2009). A circle provides a more appropriate visualisation of the purchase process itself because it includes the repetition of purchases from the first purchase to the next purchase, which is a constantly repeating process. It focuses on a sequence of stages in the purchase cycle (Berman, 2020; Santos and Gonçalves, 2021).

Figure 5: The consumer decision journey (Court *et al.*, 2009)



The consumer decision journey differs significantly from the AIDA-based models in that brands within the consideration set are not necessarily eliminated during the search. New brands or products can be added to the consideration set during active evaluation. For example, in the case of consumer durables, an average of 2.2 new brands are added to the consideration set during active evaluation. This figure exceeds the number of brands for purchase decisions in other product categories, indicating a high likelihood of an extensive information search during the purchase process (Court *et al.*, 2009).

A potential customer is viewed as an active information seeker. Research on the consumer decision journey has shown that two thirds of the information search is carried out actively (e.g., internet reviews, WoM, visiting a dealership, etc.). At the same time, one third of all contact points are passive and controlled by the companies (e.g., advertising; Court *et al.*, 2009). Unlike the previously discussed models that assumed potential customers only acted as active recipients with great attention, the customer decision journey model addresses the active involvement of potential customers in the decision-making process (Brosius and Jenzowsky, 1998).

The consumer decision journey model has been criticised for primarily focusing on adding brands to the consideration set without explicitly addressing the contact points used within the different loops. This approach overlooks the intricacies of consumer behaviour and the various influences that affect the decision-making process. By not fully accounting for the complexities of consumer interactions with brands and contact points, the model may oversimplify the consumer journey, potentially leading to ineffective marketing strategies and oversight of crucial factors that can impact consumer decisions (Court *et al.*, 2009).

Fehler! Verweisquelle konnte nicht gefunden werden. provides an overview of the h ierarchical models that have been discussed above and are relevant to this thesis. It illustrates the different steps involved, arranged in order of the total number of steps (Pradel, 2001; Bongard, 2002; Copley, 2004; Scheer, 2008; Meffert, Burmann and Kirchgeorg, 2009; Fortenberry and McGoldrick, 2020; Santos and Gonçalves, 2021). This aids in understanding how this research stream has evolved, such as by naming or determining the number of phases.

Table 2: Summary of the hierarchical models relevant to this thesis

Author	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
4 Step Models							
Lewis, 1900	Attention	Interest	Desire	Action			
Court *et al.* , 2009	Initial Consideration Set	Active Evaluation	Moment of Purchase	Post Purchase Experience			
5 Step Models							
Blackwell, Miniard and Engel, 2006; Lemon and Verhoef, 2016	Problem Recognition	Information Search	Evaluation of Alternatives	Purchase	Post Purchase		
Fortenberry and McGoldrick, 2020	Attention	Interest	Desire	Action	Retention		
7 Step Models							
Pepels, 2005	Attention	Interest	Conviction	Purchase	Purchase Review	Customer Contact	Reactivation

Emotional reactions to stimuli

The preceding section highlighted the need for more emphasis on emotions in decision-making for customer journeys, a critical study area as emotions are a vital component of the SOR framework and integral to the customer experience (Albarq, 2021). Lemon and Verhoef (2016) emphasised that emotions are a critical element of the definition of customer experience. Although emotional and cognitive reactions are

distinct aspects of the customer experience, they are inherently interconnected. However, the customer research literature has focused predominantly on cognitive reactions (Kuuru and Närvänen, 2019; Tueanrat, Papagiannidis and Alamanos, 2021). This is primarily because firms excel at managing the functional aspects of products that elicit cognitive responses over emotional experiences (Caruelle *et al.*, 2024). In cases where firms cannot gain a competitive advantage through product quality, inadequately managed emotional experiences can result in customer loss (Caruelle *et al.*, 2024).

Emotions are immediate responses to stimuli (e.g., joy after experiencing a product for the first time). These triggered emotions can be so potent that they significantly influence the decision-making process, often more so than cognitive reactions to stimuli (Ozcelik and Arslan-Ari, 2024), as emotions mould customer attitudes and behaviours (Caruelle *et al.*, 2024). The emotional aspect of the customer experience is deeply rooted in the pleasure and enjoyment felt when interacting with a brand. Neglecting to incorporate emotions into the customer journey can result in missed opportunities to forge strong emotional connections with customers. It may also lead to a failure to effectively address and resolve emotional pain points, potentially diminishing customer satisfaction and loyalty. Failing to grasp and capitalise on emotional triggers in purchase decisions could result in missed sales opportunities. Furthermore, a business may run the risk of coming across as cold and impersonal, ultimately leading to a negative brand perception (Gao, Currim and Dewan, 2022).

Emotions can be categorised by arousal and valence (Ozcelik and Arslan-Ari, 2024). Arousal pertains to the activation level, ranging from high to low. For example, stimuli with high arousal are more effectively retained in memory (Cahill and McGaugh, 1996; Kensinger, 2009; Ozcelik and Arslan-Ari, 2024). Contact points that elicit high arousal may play a more critical role in the purchase decision as they are more easily retrieved from the customer's memory (Ozcelik and Arslan-Ari, 2024). Valence refers to the pleasantness of a stimulus, ranging from negative to neutral to positive (Kensinger, 2009; Ozcelik and Arslan-Ari, 2024). Memory performance is better for negative or positive items than for neutral items (Kensinger and Corkin, 2003).

However, contact points that evoke positive valence are more memorable to the customer than those with neutral or negative valence (Lemon and Verhoef, 2016). Emotions can be positive, such as joy, or negative, such as fear (Caruelle *et al.*, 2024).

In summary, a combination of high arousal and positive valence is the most advantageous for supporting the purchase decision. As Caruelle *et al.* (2024) suggested, managers should strive for frequent occurrences of high-arousal experiences compared with low-arousal experiences and aim to achieve the highest arousal level at some point during the customer journey. Hence, the primary focus of this thesis is to investigate the contact points involving this combination (Ozcelik and Arslan-Ari, 2024). The main criticism in customer experience research today is that arousal is often viewed as a singular overall state resulting from repeated exposure to stimuli. In contrast, researchers have discovered that the customer journey consists of multiple stimuli, each of which generates individual emotional responses that interact with one another (Caruelle *et al.*, 2024).

To understand emotions comprehensively, it is crucial to outline the methods used to measure them and to determine which emotions are suitable for research. Popular measures include Izard's (1977) ten fundamental emotions based on the differential emotions theory and Plutchik's (1980) eight basic emotion categories. These emotional categories are further elaborated upon in the context of the work of other influential authors in this field.

- The Differential Emotions Scale (DES; Izard, 1977) includes interest, enjoyment, surprise, distress (sadness), anger, disgust, contempt, fear, shame/shyness, guilt;
- Plutchik's (1980) eight basic emotions are fear, anger, joy, sadness, acceptance, disgust, expectancy, surprise;
- The Discrete Emotions Questionnaire (Harmon-Jones, Bastian and Harmon-Jones, 2016) includes anger (Ag), wanting (Dr), dread (Ax), sad (S), easy-going (R), grossed out (Dg), happy (H), terror (F), rage (Ag), grief (S), nausea (Dg), anxiety (Ax), chilled out (R), desire (Dr), nervous (Ax), lonely (S), scared (F), mad (Ag), satisfaction (H), sickened (Dg), empty (S), craving (Dr), panic

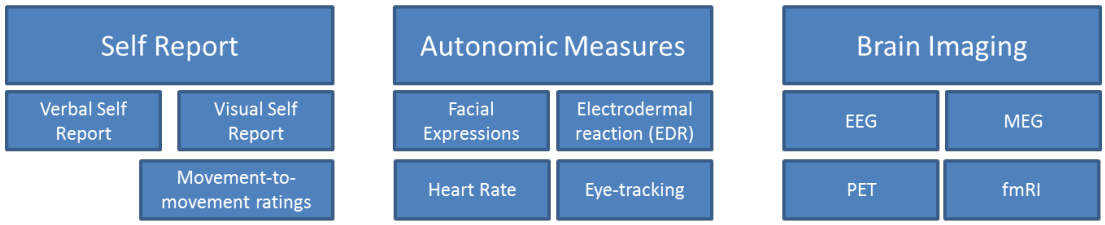
(F), longing (Dr), calm (R), fear (F), relaxation (R), revulsion (Dg), worry (Ax), enjoyment (H), pissed off (Ag), and liking (H).

The DES (Izard, 1977) and Plutchik's (1980) eight basic emotion categories are commonly used in psychology to evaluate and measure emotions. However, a significant criticism is that both approaches tend to oversimplify complex emotional experiences by classifying them into a few distinct, independent emotions. This method may not fully capture the intricate and interconnected nature of human emotions, which are often intertwined. Additionally, some argue that both methods may not adequately account for cultural and individual differences in emotional experiences, potentially limiting their relevance across diverse populations (Schaefer *et al.*, 2010). Upon critical analysis, it becomes evident that other sets of emotions, such as those proposed by Izard (1977) and Plutchik (1980), lack the necessary detail and may yield only limited findings for customer journeys.

Based on the aforementioned limitations, the Discrete Emotions Questionnaire represents the most sophisticated tool and is used in this thesis because it builds upon previous scales and is validated by a reasonable sample size (Harmon-Jones, Bastian and Harmon-Jones, 2016). Additionally, classifying emotions such as fear and anger facilitates a deeper understanding of emotions for researchers. This enables the creation of emotional clusters that could elucidate the impact of emotions on various customer journeys.

Figure 6 indicates the techniques that can be utilised to measure emotions (Sørensen, 2008; Schouteten, 2021).

Figure 6: Measurement of emotions



EEG: Electroencephalogram PET: Brain positron emission tomography

MEG: Magnetoencephalography fmRI: Functional magnetic resonance imaging

Self-reporting is prevalent in customer experience research due to the lower associated research costs. Critiques of emotions measured by self-report methods often centre on issues of accuracy and subjectivity. Critics argue that self-reported emotions may be influenced by factors such as social desirability, mood at the time of reporting, or cognitive biases. Additionally, some researchers question the reliability of self-reported emotional experiences, noting that individuals may have difficulty accurately recalling and articulating their emotions. As a result, there are concerns about the validity of emotional data obtained solely through self-report measures, particularly in situations where more objective measures, such as physiological indicators, may provide a clearer picture of emotional responses (Hermes and Riedl, 2020; Schouteten, 2021). Emotions in self-reports are often assessed using semantic differential or Likert scales (Sørensen, 2008).

While methods involving autonomic measures or brain imaging to gauge emotions have their advantages as objective, clinical assessments, there are also drawbacks. These methods can be quite costly to implement due to the need for specialised equipment and trained professionals, which may limit their widespread use. Additionally, some individuals may perceive these measures as intrusive, potentially affecting the accuracy of the emotional responses that are measured. Access to the necessary equipment and expertise may be limited in certain research settings, further constraining their accessibility. Finally, interpreting the data from these methods to accurately infer emotions can pose challenges, necessitating careful validation and interpretation. These disadvantages can lead to small sample sizes and increased expenses (Sørensen, 2008).

Emotions play a crucial role in engaging in critical analysis of the customer journey. Despite their significant impact on customer experience theory, detailed research on emotions in this context is still needed (Lemon and Verhoef, 2016). In decision-making, emotions are the primary determining factor (Sharma *et al.*, 2023). In the past, customer experience researchers have taken a static approach to emotions, often measuring them once, usually after a purchase. Consequently, emotions are studied as a general emotional state rather than a dynamic, evolving one, leading to potentially

flawed customer experience assumptions (Caruelle *et al.*, 2024). This approach fails to consider that emotions can fluctuate in type and intensity throughout the customer journey, making it imperative to measure them at each contact point, a focus of this thesis. A recent study by Caruelle *et al.* (2024) demonstrated this by uncovering emotional arousal levels across customer service encounters.

While some researchers have attempted to elucidate the importance of measuring emotions more than once throughout the customer journey, they have not definitively identified which specific emotions lead to positive outcomes for the customer. In this scholarly discourse, researchers advocate for the peak-end rule and trends in emotional episodes (Caruelle *et al.*, 2024). The peak-end rule emphasises the most intense emotional state at any contact point during the customer journey and the emotional arousal at the final contact point. On the other hand, trend theory suggests that emotions that increase throughout the customer journey are favourable (Kahneman, 2000).

The findings for both theories are inconsistent: some researchers have reported insignificant results for the trend (Dubé and Morgan, 1996; Verhoef, Antonides and De Hoog, 2004), while others have found significant outcomes (Hansen and Danaher, 1999). Regarding the peak-end rule, studies have shown that a higher peak emotional experience is associated with positive outcomes, but the effects at the end contact point are insignificant (Verhoef, Antonides and De Hoog, 2004). The inconsistent results regarding the peak-end rule and trend theory have raised questions about their effectiveness. As an alternative, researchers suggest using the mean emotional arousal level of contact points within the customer journey because it is more accurate than measuring emotional arousal as a global state at a single point in time (Caruelle *et al.*, 2024). This thesis builds on previous research by examining mean measures of emotional arousal, providing clarity without the inconsistent findings associated with peak-end rule and trend research.

Apart from contributing to the existing literature, gaining a more comprehensive understanding of emotions within customer journeys can aid marketers in designing

an optimal customer experience. Incorporating emotional content into each contact point can enhance the overall customer journey. By treating the customer journey as a narrative with different chapters (contact points), marketers can construct an engaging purchase story that evokes emotions and ensures a seamless buying experience (Zomerdijk and Voss, 2010; Sykora *et al.*, 2022). Csikszentmihalyi (1991) explored this flow-like situation, which can influence a purchase decision.

This thesis addresses a gap in the existing literature by incorporating emotions as a critical element in the research framework. It is essential to consider which specific emotions are experienced, the intensity of these emotions at each contact point, and their influence on the overall purchase decision (Sharma *et al.*, 2023). Furthermore, this thesis examines emotions as emotional experiences throughout the customer journey at each contact point, rather than as a singular overall state (Caruelle *et al.*, 2024). This approach will help to bridge the research gap by shedding light on emotional arousal during the customer journey at various contact points (Grewal and Roggeveen, 2020; Tueanrat, Papagiannidis and Alamanos, 2021).

Interaction between cognition and emotion

It is essential to address the sequential nature of cognitive evaluation and emotions. The interaction between the two remains ambiguous, particularly within the customer journey. Stemming from hierarchy-of-effect models such as AIDA (Strong, 1925), emotions typically arise following the processing and assessment of information. Conversely, Zajonc (1980) stated that emotions precede cognition. There is even debate about whether emotions exist independently of cognition (Sørensen, 2008). In summary, there are two distinct streams in the literature: one follows the appraisal theory of emotions (Lazarus, 1991, 2001), which posits that emotions necessitate cognitive appraisal, and the other follows the biologically oriented theory of emotion (Zajonc, 1980), which suggest that emotions are primarily rooted in arousal.

This thesis explicitly adopts the appraisal theory of emotions, wherein emotions necessitate cognitive appraisal and manifest following cognitive evaluation due to

their association with the concept of the customer journey and the processing of information at various contact points before the occurrence of emotions (Hardecker, 2020). The variability of emotions and cognitive evaluations throughout the customer journey is essential for this thesis (Jacoby, 2002). It is crucial to define each contact point in the customer journey as a new stimulus in the SOR framework, leading to changes in cognition and emotions in the individual, thereby eliciting a unique response. Pivotal insights of the customer journey can be attained and understood comprehensively by employing Jacoby's (2002) suggested approach to the SOR framework (see Figure 3).

2.2.3 Analysis of response within customer experience and journey research

A customer makes their final choices after navigating the customer journey and evaluating products from the consideration set (Copley, 2004; Zhu, Kowatthanakul and Satanasavapak, 2020). According to the customer experience literature, responses can manifest in various forms, such as purchase intent, customer satisfaction, revisit intention, customer engagement, customer loyalty, attitudes towards a product, awareness, and actual purchase (Voorhees *et al.*, 2017; Albarq, 2021; Chen *et al.*, 2022; Gibson, Hsu and Zhou, 2022; Tuguinay, Prentice and Moyle, 2022; Rahman *et al.*, 2023). The response is the outcome of both the stimulus and the subsequent reaction within the organism (cognition and emotion; Chen *et al.*, 2022).

Moreover, there has been an extensive exploration of various response variables related to contact points, particularly in the marketing literature. These variables encompass repurchase probability (Santos, Flecha and Lopez, 2020), brand recall (Confer and McGlathery, 1991), ad/brand credibility (Chang and Thorson, 2004), brand favourability (Havlena, Cardarelli and de Montigny, 2007), image (Briggs, 2002), intent on taking action (Briggs, 2002), willingness to purchase, subjective purchase risk, subjective trust, brand recommendation, and willingness for additional purchases (Steinmann, 2011). However, the critical responses in the customer journey include purchase (Albarq, 2021), discarding purchase intention (Darpy, 2000), and

postponement of the purchase decision (Parfenova and Romashova, 2020). These variables are based on the direct actions of the customer and not just changes in attitudes or awareness.

Using purchase as a variable to measure the outcome of the customer journey has the advantage of providing a tangible and measurable indication of successful conversion and financial impact. It also offers actionable insights into the effectiveness of a contact point. However, this approach may present a limited view of the customer journey by neglecting non-monetary actions and post-purchase behaviour, potentially overlooking other significant aspects of customer experience and satisfaction (Albarq, 2021).

While purchase is a self-explanatory variable, discarding purchase intention and postponing the purchase decision are less so (Albarq, 2021). These can be better explained through consumer procrastination, that is, a customer's tendency to slow down or postpone a purchase decision (Parfenova and Romashova, 2020). This phenomenon happens when the customer thoroughly evaluates all alternatives and struggles to decide (Darpy, 2000).

The characteristics of consumer procrastination are indecision and avoidance (Darpy, 2000). Indecision is the inability to decide on a specific time frame because customers desire to spend more time on the evaluation than they originally had intended (Frost and Shows, 1993; Parfenova and Romashova, 2020). Indecisive customers utilise great cognitive effort to compare all product features and alternatives by using excessive decision strategies (Ferrari and Dovidio, 2000). Furthermore, they are frightened by challenging situations (Rassin and Muris, 2005) and often postpone their decision in stressful environments (Darpy, 2000).

Avoidance prevents customers from conflicting or stressful situations (Janis and Mann, 1977; Darpy, 2000). It is described as an unnerving feeling of being evaluated by their environment, which results in task avoidance (Burka and Yen, 1983). The inability to make a swift decision results in avoidance or passing the decision to others

(Ferrari, 1991; Darpy, 2000; Parfenova and Romashova, 2020). The reasons for consumer procrastination include, among others, negative shopping attitude, deadlines, high risk, low self-esteem, price consciousness or hesitation (Burka and Yuen, 1983; Ferrari, 1993; Greenleaf and Lehmann, 1995; Darpy, 1999, 2000; Hamelin, 2003; Parfenova and Romashova, 2020).

The abovementioned factors were researched thoroughly and considered carefully while developing the conceptual framework that guides this thesis. However, as detailed in this chapter, numerous variables must be considered when analysing the customer journey. Therefore, this thesis focuses on empirical evidence, such as actual purchases, to examine the effectiveness of customer interaction sequences.

2.3 The car purchase context

The passenger car manufacturer market comprises producers of motor vehicles with at least four wheels, primarily used for transporting passengers with a maximum of eight seats. Cars are categorised as cars, pickups, sports utility vehicles (SUVs), and multipurpose vehicles (MPVs), ranging from mini to luxury or sport models. The market reached 1,184.4 billion USD in sales in 2022, with an expected global increase of approximately 85 million more vehicles by 2027. The prominent trend in the industry is the shift towards fully electric and fully connected cars. Sales are most substantial in the Asia–Pacific region, accounting for around 60%, followed by Europe with 16% and the USA with 13%. The largest car manufacturers are Toyota Group, which holds roughly 23% of the market; Volkswagen Group, which has 20%; and Hyundai Kia Automotive Group, which has 13% (MarketLine, 2023).

The primary focus of this study is to analyse the customer journey of German consumers when purchasing new passenger cars to gather insights into constructing a seamless customer journey (Lemon and Verhoef, 2016). The decision to focus on this area is based on several important factors. First, purchasing a car is a multifaceted process that demands a carefully structured approach throughout the customer journey (Marutschke and Gournelos, 2020). Additionally, car buyers are deeply involved in

the decision-making process due to the significant cost of the product and the complexity of the purchase process. As a result, they can recall details about the purchase process even after a considerable period between their interactions and participation in the study, leading to higher-quality results (Marutschke and Gournelos, 2020).

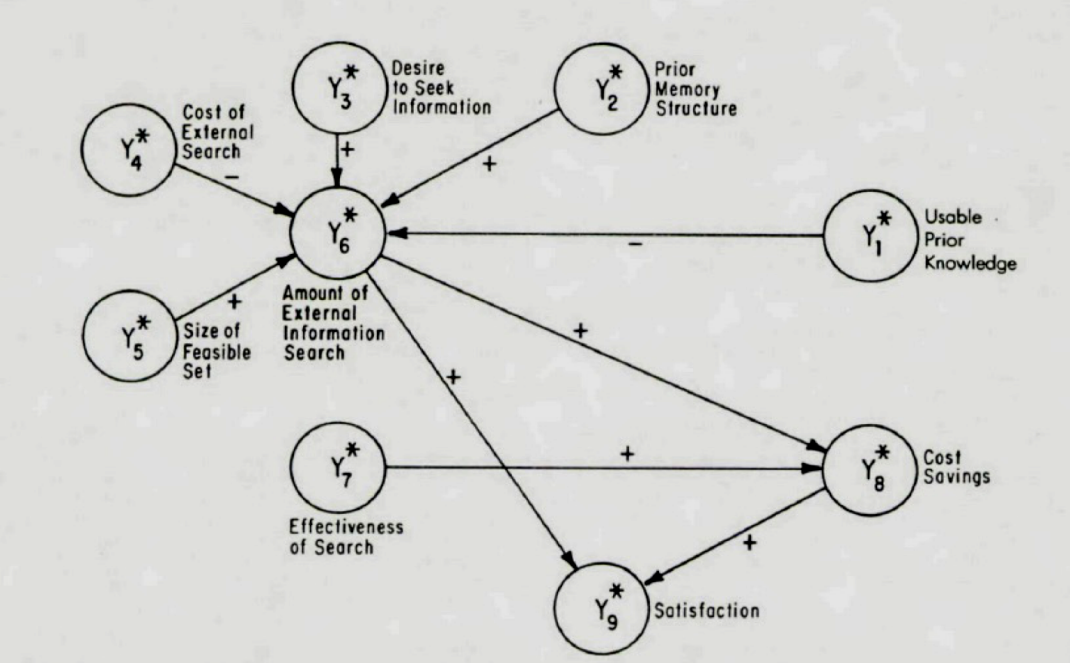
Second, this thesis concentrates explicitly on purchasing new cars, as these transactions typically necessitate a more structured approach from the customer than purchasing used vehicles. In Germany, purchasing used cars often involves private sales between individuals, making the process less structured and less amenable to identifying frequent contact point combinations within a journey (DAT, 2023).

Lastly, Germany boasts the largest car market in Europe and stands as one of the most significant globally (GTAI, 2022). This element increases the probability of obtaining a valid sample size.

In consumer behaviour and customer experience research, scholars have explored the factors that influence customer car purchase decisions. In numerous studies, the authors have focused on specific influential factors and aimed to elucidate the overall purchase decision. While this chapter had discussed general stimuli, particular findings related to car purchases are highlighted below.

The most influential model for the car purchase decision, proposed by Punj and Staelin (1983) and presented in Figure 7, continues to be relevant today due to its specific focus on the product and the inclusion of variables such as desire to seek information (Akram *et al.*, 2021). The primary focus of this research is the extent of external information search, including the type and number of contact points used. Other essential variables include pre-knowledge, the benefits of conducting external information searches, the costs associated with searching (such as the effort required to reach a dealer through traffic), customer-specific factors, the size of the consideration set, and the effectiveness of the customer's search efforts (Punj and Staelin, 1983).

Figure 7: A model of information search for cars (Punj and Staelin, 1983)



This model suggests that several variables play a role in influencing the length of the customer journey during the car purchase. Specific pre-knowledge (usable prior knowledge) reduces the extent of information search, while general knowledge (prior memory structure) prolongs the search (Punj and Staelin, 1983). Pre-knowledge encompasses all of a customer's prior knowledge about the car purchase or cars in general. This includes every piece of information gathered by a customer about vehicles or the buying process (previous channel experience) before starting the actual customer journey or information search (Punj and Staelin, 1983). In addition, the number of brands and products under consideration for purchase is crucial. According to this model, a more extensive set of feasible brands and products leads to a more comprehensive information search (Punj and Staelin, 1983). Therefore, an information search may become more intensive if the feasible set includes more brands or products.

The model proposed by Punj and Staelin (1983) offers a valuable framework for understanding and analysing the factors that influence consumer behaviour. Its systematic approach provides insights into customer decision-making processes. However, a potential drawback of this model is its focus on cognitive decision-making processes while neglecting the influence of emotions on consumer behaviour. This

limitation could lead to oversimplification of the complex nature of consumer decision-making and might result in incorrect assumptions about the customer journey. As a result, the model's applicability in real-world marketing situations could be hindered by its failure to account for the role of emotions in the information search process (Lemon and Verhoef, 2016; Akram *et al.*, 2021).

This thesis addresses a research gap by focusing on creating a seamless customer journey. It emphasises the influence of the pre-knowledge of a customer on the car purchase process and specific contact points, reinforcing the earlier findings in this chapter (Akram *et al.*, 2021).

The Engel–Blackwell–Kollat model (Engel, Blackwell and Kollat, 1978) focuses on pre-knowledge and other influencing variables. It remains relevant and is currently utilised in customer experience research, as it offers a clear and comprehensive framework with a strong emphasis on active information seeking (Zhang *et al.*, 2020).

One of the main advantages of the Engel–Blackwell–Kollat model is its holistic view of the customer decision-making process, which spans from problem recognition to post-purchase evaluation. This breadth allows researchers to gain insights into multiple stages of consumer behaviour. Additionally, the Engel–Blackwell–Kollat model emphasises the influential role of psychological and sociological factors, offering a comprehensive framework for understanding consumer behaviour. However, a potential drawback of the model is its complexity, which can make it challenging to apply in specific research contexts. Additionally, the model's age – it was introduced more than four decades ago – may limit its applicability to contemporary consumer behaviour, as consumer culture and technology have evolved significantly (Zhang *et al.*, 2020).

According to the Engel–Blackwell–Kollat model, during the initial stages of the purchasing process, customers are influenced by various stimuli, including marketer-dominated sources such as media advertising and non-marketer-dominated sources like WoM. The model posits that stimuli may not be pivotal in all purchase decisions,

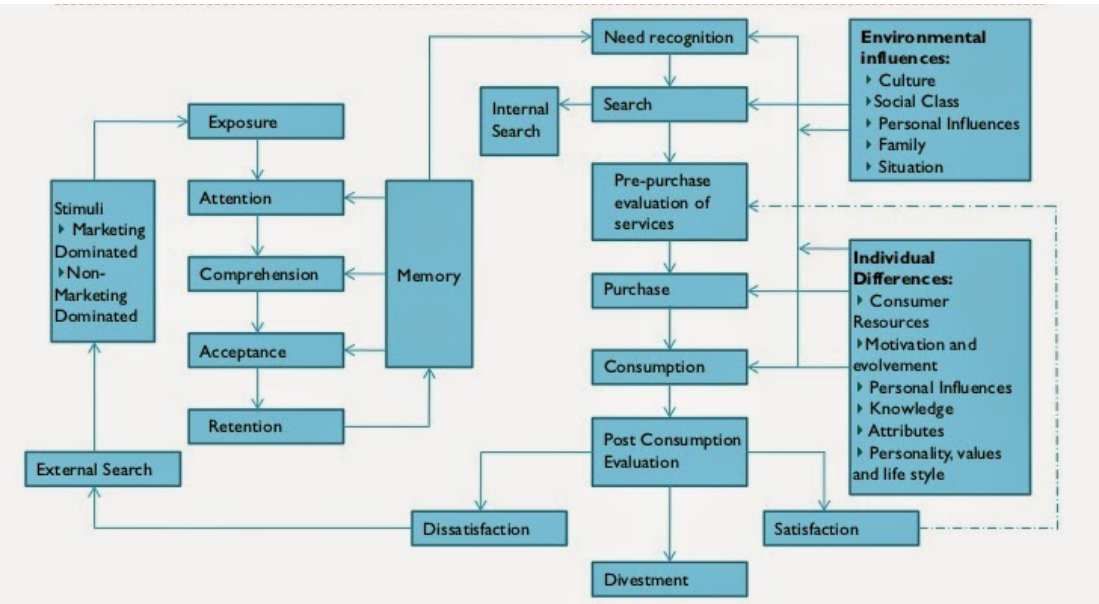
and this idea is critically examined in this thesis. Stimuli could play a significant role in initiating the purchase process, particularly during the initial information search stages. In the context of this thesis, it is crucial to emphasise that the Engel–Blackwell–Kollat model differentiates between marketer-dominated and non-marketer-dominated contact points. This distinction aligns with the research that pertains to the interaction between company-controlled and non-company-controlled contact points throughout the customer journey (Zhang *et al.*, 2020).

The Engel–Blackwell–Kollat model also proposes that potential customers might rely on internal search, using learned behaviour, personal experiences, and pre-knowledge to supplement external information search (Zhang *et al.*, 2020). The authors emphasised that the level of pre-knowledge a potential customer possesses is inversely related to their likelihood of conducting an extensive information search (Engel, Blackwell and Kollat, 1978). In this context, pre-knowledge encompasses prior experience with previous cars and general knowledge about cars. This finding is closely linked to repeat purchase behaviour (Katona, 1964; Newman and Staelin, 1972), which occurs when a customer buys the same brand or model of the car again. However, it is essential to note that the research needs to address how internal and external information searches interact when purchasing a product through different contact points.

The Engel–Blackwell–Kollat model also underscores the significance of personal, family-oriented, situational, social, and demographic attributes. For example, customers with specific social attributes may require more information during a purchase than those with different social attributes (Zhang *et al.*, 2020). It has been observed that customers with higher social status (e.g., high-income earners) require less information (Zhang *et al.*, 2020), while customers under the age of 35 years and a with moderate income conduct the most extensive information searches (Hempel, 1969; Engel, Blackwell and Kollat, 1978; Zhang *et al.*, 2020). Further research is needed to thoroughly examine the influencing variables, especially concerning car purchases. Essential factors such as life changes (e.g., having a child) are not considered.

Blackwell, Miniard and Engel (2006) expanded upon the model, as illustrated in Figure 8. Although the Engel–Blackwell–Miniard model was not explicitly developed for car purchases, it has been extensively studied regarding this decision-making process.

Figure 8: The Engel–Blackwell–Miniard model (Blackwell, Miniard and Engel 2006)



The previously discussed models play a crucial role in this thesis as they provide a way to comprehensively understand consumer purchase behaviour and information search patterns for car purchases. These models illustrate the process of customers seeking information and making a purchase. Despite their enduring significance, it is essential to note that the numerous variables in these models cannot be feasibly researched collectively (Bongard, 2002). Only a few variables can be studied in a single research endeavour, resulting in limited findings in this area and difficulty generalising these findings (Voorhees *et al.*, 2017).

Given this limitation, this thesis incorporates the most pivotal variables from these models in the customer journey, including marketing and non-marketing stimuli (company-controlled and non-company-controlled contact points) and the distinction between internally held knowledge and information obtained during an information

search (Li *et al.*, 2020). Critics have also noted the lack of emphasis on emotional arousal in these models, which raises questions about the validity of their assumptions (Lemon and Verhoef, 2016). Although no direct findings from these models can be integrated into the conceptual framework of this thesis, their assumptions can be tested within the context of the customer journey.

This chapter has discussed the customer experience and journey, focusing on the pre-purchase stage of the car buying process from both the company's and the customer's viewpoints. The next chapter explores contact points more thoroughly, divided into company controlled and non-company controlled (i.e., the customer has more influence). It also examines the combination of contact points within the customer journey, known as customer contact sequences.

3 Contact points and customer contact sequences

This chapter focuses on contact points and customer contact sequences during the pre-purchase phase of the customer journey. It explores both company-controlled and non-company-controlled contact points and their significance as sources of information (the types of contact points). Additionally, it discusses the current state of research on customer contact sequences, covering the order and length of the sequences. The chapter concludes with an overview of the research gaps identified in the existing literature and the research questions proposed in this thesis to address these gaps.

According to Steinmann (2011), customer contact sequences are a compelling sub-concept of the customer journey within the domain of omnichannel and multichannel marketing. Customer contact sequences are used to analyse distinct parts of the customer journey systematically. This thesis emphasises explicitly the pre-purchase phase.

A customer contact sequence is defined as a specific order of company-controlled and non-company-controlled contact points (Abbott, 1995). Analysing the customer contact sequences is particularly important for complex purchase decisions, such as buying a car, where multiple contact points are utilised (Steinmann, 2011; Følstad and Kvale, 2018; Koch and Hartmann, 2022). During the pre-purchase phase, every customer interaction with a brand is significant. The customer seeks price information, compares competitors, evaluates product attributes, seeks consultation, makes purchases, or arranges replacements (Steinmann, 2011).

The concept of the customer contact sequence revolves around three key elements (Lemon and Verhoef, 2016; Steinmann, 2011): the types of contact points utilised, the sequential order of these contact points, and the sequence length. By analysing the most common customer contact sequences during the pre-purchase phase, this thesis can provide valuable insights that can contribute to designing an optimal seamless customer journey (Lemon and Verhoef, 2016). In previous studies, researchers have focused on the customer journey as a whole, with a focus on the outcome of the

customer experience (e.g., Lemon and Verhoef, 2016). Over time, there has been a shift from an outcome-based perspective to a process-based perspective, highlighting single contact points, sequences, and portions of the customer journey, which is significant for customer experience research, as highlighted by Barwitz and Maas (2018) Suh and Moradi (2023). This thesis shares the process-based view and intends to develop it further.

To clarify the understanding of a customer contact sequence, consider the following brief example of a car purchase. At the beginning of a purchase decision for a car, a customer comes into contact with advertising of a specific car brand (e.g., a TV commercial). Stimulated by the advertising, the customer actively searches online and, more specifically, on a website and configures the car with the help of the online car configurator. A detailed search on an internet auto blog follows to discover positive and negative experiences from trustworthy buyers. After completing this activity, the customer visits the nearest dealer to see and touch the car and to conduct a test drive. After a chat with a family member, they are almost ready to buy the vehicle; therefore, another dealer visit occurs where a bargaining discussion with a salesperson is conducted. After several days of considering the purchase decision, the final purchase is made with the salesperson. The following subchapters elaborate on this example.

3.1 Types of contact points

Contact points play a vital role in customer contact sequences. These contact points are marketing channels, customer touchpoints, and moments of truth in literature. This thesis uses the term type of contact points to align with customer contact sequence literature (Steinmann, 2011). Contact points are important because they encompass all customer interactions with a product or brand throughout the customer journey. They create diverse experiences (Roggeveen and Rosengren, 2022), emotions, and even moments of delight (Zou *et al.*, 2023), which shape the overall customer experience. Contact points offer various values to customers, such as supporting information gathering, advice, payments, or services. Hence, depending on where the customer

uses them in the journey, contact points should be treated differently regarding their purpose (Lundin and Kindström, 2023).

In this chapter, it is crucial to explore the reasons behind a customer's choice of contact point. The customer's motivation drives the decision on which contact point to use (Steinmann, 2011). Consequently, not all contact points are considered equally, as they depend on the stage of the customer journey. Various motives come into play, such as risk aversion, preference for convenience (favouring easy-to-use channels), or seeking variety (utilising multiple channels; Steinmann, 2011). These motives significantly influence the customer journey and can elucidate the choice of a specific contact point. According to this theory, the frequently used contact points may vary, depending on whether they are used at the beginning or end of the customer journey (Marutschke and Gournelos, 2020).

Several categorisations have been developed over the last 25 years to help companies manage contact points. Most researchers have divided contact points into brand owned, partner owned, customer owned, and social/external/independent (Lemon and Verhoef, 2016).

- Push vs. pull contact points: Push contact points are pushed to the customer by a company (e.g., TV advertising). Pull contact points are pulled from the customer (e.g., helpful content in social media; Bruhn, 2009).
- Actively and passively used contact points: Actively used contact points are used with the customer's real intention (e.g., visiting a website to search for a product). Passively used contact points are only consumed passively by the customer (e.g., out-of-home advertising such as poster in a subway; Kroeber-Riel and Weinberg, 2003).
- Direct/company-controlled or neutral contact points: Direct/company-controlled contact points are wholly owned and controlled by a company (e.g. car configurator). Neutral contact points are from third parties (e.g. test reports of a car; Kuss and Tomczak, 2007; Zimmermann, Weitzl and Auinger, 2022).
- Firm-initiated or customer-initiated contact points: Firm-initiated contact points are comparable to the aforementioned push contact points, wherein

customer-initiated contact points can be compared to pull contact points (De Haan, Wiesel and Pauwels, 2015).

- Brand-owned, partner-owned, customer-owned, and social/external/independent contact points: Brand-owned contact points are comparable to company-controlled contact points. Partner-owned contact points are a company's joint efforts with its partners, such as showrooms of sales partners. Customer-owned contact points are based on the content created by a customer (e.g., YouTube test reports of a car produced by a customer). Finally, social, external, and independent contact points refer to external, neutral information like WoM (Lemon and Verhoef, 2016; Zimmermann, Weitzl and Auinger, 2022).

According to Lemon and Verhoef (2016), these categorisations aid companies in effectively managing their contact points by identifying crucial moments of truth to provide customers with the optimal customer journey. Depending on the product purchased, the strength of the contact point, or its significance to the customer, these categories and individual contact points can be utilised at any stage during the customer journey.

In this thesis, the contact point categories developed by Roggeveen and Rosengren (2022) are used to condense contact points into two critical categories: company controlled (brand owned) and non-company controlled (partner owned, customer owned, and social/external/independent). This categorisation is based on the level of influence companies have on the contact points. According to Kuss and Tomczak (2007) and Zimmermann, Weitzl and Auinger (2022), contact points that are either owned or paid for by a company fall into the category of company-controlled, while those that are not are known as non-company-controlled. For this study, the company in question is a car company.

Company-controlled contact points, such as the company's official website, are created and managed by the company to ensure consistent and controlled communication with customers. In contrast, non-company-controlled contact points,

like online blogs or WoM, are places where customers discuss the products without direct involvement or control from the company. Monitoring and managing both types of contact points is crucial for gaining a comprehensive understanding of customer interactions and perceptions. These categories are valuable for analysing the customer journey and understanding the extent of the company's influence in these interactions (Roggeveen and Rosengren, 2022). In the literature, researchers have primarily focused on company-controlled contact points rather than non-company-controlled contact points (De Keyser *et al.*, 2020; Koch and Hartmann, 2022).

Condensing contact points into two critical categories offers both benefits and drawbacks. Among the benefits, it simplifies the analysis by distinguishing between company-controlled and non-company-controlled contact points. This simplification can lead to a more efficient and focused analysis, enabling a targeted approach to improve customer interactions. However, considering only two categories of contact points may oversimplify the complexity of customer–company interactions and potentially overlook nuanced aspects of the customer experience. This oversimplification could result in a lack of granularity in the analysis, potentially missing important insights and opportunities for improvement (Zimmermann, Weitzl and Auinger, 2022).

Previous studies have mainly concentrated on analysing the impact of online versus offline contact points, with a focus on offline contact points (e.g., Khan *et al.*, 2020), online contact points exclusively (Barari *et al.*, 2020), or the relationship between online and offline contact points, and how they influence each other throughout the customer journey (Suh and Moradi, 2023).

There is limited understanding of the interaction between company-controlled and non-company-controlled contact points throughout the customer journey (Lemon and Verhoef, 2016; Thomas, Epp and Price, 2020; Suh and Moradi, 2023). Combining both categories of contact points will benefit the academic debate by increasing the understanding of how to seamlessly improve the overall customer experience (Wetzels *et al.*, 2023) and to create synergy between the categories (Gao, Currim and Dewan,

2022). Studies on online and offline contact points have produced well-recognised results, revealing compelling evidence of how these interactions impact each other (Suh and Moradi, 2023). The combination of online and offline channels has resulted in two essential behaviours: showrooming (browsing offline and purchasing online) and webrooming (browsing online and purchasing offline; Hu and Tracogna, 2021).

According to a meta-analysis of customer journey research, there might be other channel behaviours beyond online and offline that warrant further exploration (Tueanrat, Papagiannidis and Alamanos, 2021). However, this thesis intends to explore contact points within the customer contact sequence from the viewpoint of both company-controlled and non-company-controlled contact points to close this research gap.

To gain an overview of the essential contact points for car purchases during the pre-purchase phase of the customer journey, Tables 3 and 4 present studies that have examined company-controlled and non-company-controlled contact points, respectively. There are numerous contact points potential customers encounter during the pre-purchase phase of buying a car. Different combinations of these contact points can significantly impact the final purchase decision (Steinmann, 2011).

Table 3: Company-controlled contact points

Contact Point	References
TV commercials	Ratchford, Talukdar and Lee, 2007; Kuss, 2007; Ehrlich, 2011; Steinmann, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Li, 2019; Yang *et al.*, 2022; Zimmermann, Weitzl and Auinger, 2022
Direct mailing	Silberer and Mau, 2005; Vafainia, Breugelmans and Bijmolt, 2019; Lesscher, Lobschat and Verhoef, 2021
Radio commercials	Ratchford, Talukdar and Lee, 2007; Ehrlich, 2011; Steinmann, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Kang, Hong and Hubbard, 2020
Brochures	Silberer and Mau, 2005; Steinmann, 2011; DAT, 2012; Cardow, 2022
Print advertising (magazines etc.)	Unger, 1998; Silberer and Mau, 2005; Ehrlich, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Trivedi, Teichert and Hardeck, 2020
Cinema advertising	Lemon and Verhoef, 2016; Yuan, 2018
Out of home (print advertising)	Lemon and Verhoef, 2016; De Keyser *et al.*, 2020; Zimmermann, Weitzl and Auinger, 2022; Wilson, 2023
Online banners	Diez, 2006; DAT, 2012; De Keyser *et al.*, 2020; Beuckels *et al.*, 2021
Car configurator	Naik and Peters, 2009; García Sánchez, Cardona, and Martín, 2022
Corporate website	Ratchford, Talukdar and Lee, 2007; Klein and Ford, 2003; J.D. Power and Associates, 2008; Silberer and Mau, 2005; Ehrlich 2011; DAT, 2012; Jeon, Ok and Choi, 2018; Lee, Jeong and Oh, 2018; Koch and Hartmann, 2022; Zimmermann, Weitzl and Auinger, 2022
Corporate social media	Ehrlich, 2011; Lee and Park, 2022; Zimmermann, Weitzl and Auinger, 2022
Mobile app	Taylor, Voelker and Pentina, 2011; Brügner, 2012; Park and Park, 2020
Events	Diez, 2006; Juska, 2022
Dealer (salesperson)	Ratchford, Talukdar and Lee, 2007; Ehrlich, 2011; Steinmann, 2011; DAT, 2012; Van Rijnsoever, Castaldi and Dijst, 2012; Borchardt *et al.*, 2018; Souza et al., 2020; Yavorsky, Honka and Chen, 2021; Zimmermann, Weitzl and Auinger, 2022
Test drive	Kuss and Tomczak, 2007; Ratchford, Talukdar and Lee, 2007; DAT, 2012; Degirmenci and Breitner, 2017; Yavorsky, Honka and Chen, 2021
Trade shows	Alberca, Parte, and Rodríguez, 2018; Lee, Park and Kim, 2021

Table 4: Non-company-controlled contact points

Contact Point	Literature
Family and friends (word of mouth)	Ratchford, Talukdar and Lee, 2007; Ehrlich, 2011; Steinmann, 2011; DAT, 2012; Van Rijnsoever, Castaldi and Dijst, 2012; Azer and Ranaweera, 2022; López, Sicilia and Verlegh, 2022; Jain, Dixit and Shukla, 2023
Test reports (online/offline, e.g., YouTube	Kuss and Tomczak, 2007; Ratchford, Talukdar and Lee, 2007; DAT, 2012; Bi, Zhang, and Ha, 2019; De Keyser *et al.*, 2020; Gibson, 2020; Silaban *et al.*, 2022
Car blogs	Ratchford, Talukdar and Lee, 2007; Schwickal, 2010; De Keyser et al., 2020; Junior, Mainardes and Da Cruz, 2022; Van Heerden, 2022
Car portals (e.g., used cars)	Ratchford, Talukdar and Lee, 2007; Brügner, 2012; Wayland, 2018; Von Böhlen and Šimberová, 2023
Social media dialogues	Ehrlich, 2011; De Keyser *et al.*, 2020; Cao *et al.*, 2021; Lipschultz, 2021

In the example presented at the start of this chapter, the purchase of the car involved the following types of contact points: TV commercial (company controlled), website (company controlled), online car configurator (company controlled), internet auto blog (non-company controlled), dealer visit (company controlled), test drive (company controlled), WoM recommendations from family and friends (non-company controlled), and interaction with the salesperson (company controlled). Most contact points, such as TV commercials, websites, online car configurators, dealer visits, test drives, and interactions with salespeople, are company controlled. Meanwhile, two contact points are not company controlled: internet auto blogs and WoM recommendations from family and friends. Below, an exploration of these contact points from the initial example and the tables is presented, analysing their roles in the pre-purchase phase of the customer journey.

In the realm of company-controlled contact points, advertising plays a pivotal role in engaging potential customers and shaping their perceptions. Various advertising contact points, such as TV commercials, radio commercials, and print advertising in magazines, are crucial in the customer journey. Each contact point has unique advantages and drawbacks, influencing how companies connect with their target audience. This discussion explores the impact of these advertising contact points on

the customer journey and the challenges they present in today's rapidly evolving digital landscape.

The first contact point to consider is TV commercials. During the pre-purchase phase of the customer journey, TV commercials play a crucial role in raising awareness and generating interest in a product or service. They can shape customer attitudes and preferences and catalyse initiating the customer journey (Hanssens *et al.*, 2014; Baxendale, Macdonald, and Wilson, 2015). One of the primary advantages of TV commercials is their ability to reach a broad audience and make a powerful visual and auditory impact. They have the potential to leave a lasting impression, to evoke emotions, and to establish brand recognition. Moreover, TV commercials can effectively communicate the features and benefits of a product, influencing consumer perceptions (Yang *et al.*, 2022). The drawbacks are they can be costly to create and air, and it can be challenging to reach a specific audience. Additionally, in today's digital age, many consumers are turning to streaming services, which can reduce the impact of TV commercials (Zimmermann, Weitzl and Auinger, 2022). Studies have also indicated that TV commercials have limited influence on the car purchase decision process (Van Rijnsoever, Castaldi and Dijst, 2012).

The next contact point is radio commercials, which play a crucial role in the pre-purchase phase of the customer journey by reaching a broad audience and creating brand awareness. They can effectively engage potential customers during daily routines, such as commuting to work or running errands. Radio commercials also offer a cost-effective way to convey messages to specific demographics by selecting the appropriate time slots and radio stations (Kang, Hong and Hubbard, 2020).

Even with the aforementioned benefits, there is a challenge in accurately measuring the impact of radio commercials on the customer journey. Compared with online advertising, radio ads lack precise targeting and tracking capabilities, making it difficult to measure their effectiveness. While digital ads can be tracked through clicks and conversions, assessing the direct impact of radio ads on driving consumer actions is more challenging. This can make it harder for companies to evaluate the success of

their radio campaigns and make informed decisions for future marketing efforts. Furthermore, with the rise of streaming services and digital music, the reach of radio commercials may be limited among specific customer segments who have shifted away from traditional radio consumption (Kang, Hong and Hubbard, 2020). Moreover, Van Rijnsoever, Castaldi and Dijst (2012) indicated that radio commercials weakly influence the customer journey when purchasing a car.

In contrast to the challenges of effectively targeting customers through radio advertising, print advertising, especially in magazines, can reach specific audiences interested in the publication's topics. Print advertising is a vital means of engaging with customers, playing a significant role in the pre-purchase phase by capturing the attention of potential customers and providing them with essential information and emotionally engaging content about products or services. Print ads in magazines have a longer shelf life than digital ads, as they can be revisited multiple times (Trivedi, Teichert and Hardeck, 2020).

However, a potential drawback of magazine advertising is its relatively high cost, especially in popular publications with a wide readership. Magazines with a large readership typically charge higher rates for ad placement due to the exposure and potential reach that advertisers can gain. Additionally, the production costs for high-quality print ads can contribute to the overall high cost of magazine advertising. Furthermore, it is more challenging to measure the direct impact and effectiveness of print ads compared with digital advertising, making it difficult to assess the return on investment (Trivedi, Teichert and Hardeck, 2020).

When analysing company-controlled contact points, cinema advertising is essential. It engages potential customers during the pre-purchase phase by capturing their attention with visually compelling, emotional content. Indeed, it serves as an initial contact point to kickstart the customer journey. One of its main advantages is its ability to reach a broad and diverse audience, including demographics that are often hard to target through other advertising channels. Additionally, the immersive experience of watching a movie in a theatre can have a powerful impact on viewers, making it an

effective way to raise brand awareness and spark interest in products or services (Yuan, 2018). However, the high production and airing costs of cinema ads can be a significant drawback. Additionally, the inability to target specific audience segments and the need for more flexibility in ad placement and timing are substantial limitations of cinema advertising (Yuan, 2018).

Compared with the rigid placement and timing of cinema ads, out-of-home advertising offers the flexibility to reach a broad and diverse audience. It targets people outside their homes in various locations such as transit stations, shopping centres, and roadside billboards without any timing restrictions, ensuring 24/7 ad exposure. This extensive reach helps create widespread brand exposure and piques the interest of potential customers. Out-of-home advertising plays a significant role in the pre-purchase phase of the customer journey by boosting brand awareness and influencing potential customers as they go about their daily activities (Wilson, 2023). Furthermore, it allows for creative and visually impactful messaging that can make a lasting impression on passersby (Zimmermann, Weitzl and Auinger, 2022).

However, a fundamental limitation of out-of-home advertising in the pre-purchase phase is the difficulty of tracking its direct impact on the customer journey. It can be challenging to measure the effectiveness of these ads in driving immediate conversions. Moreover, the potential for message overload and the fleeting nature of exposure to out-of-home ads can make it challenging for brands to convey detailed or complex information to customers within this phase of the customer journey (De Keyser *et al.*, 2020).

Direct mailing is an essential factor when considering company-controlled contact points. Direct mailings significantly engage potential customers during the pre-purchase phase of the customer journey. They provide tangible and personalised marketing materials directly to the target audience's physical mailboxes, grabbing attention and creating a sense of importance. Direct mailings allow for the presentation of detailed information about products or services in a visually appealing and impactful way. Additionally, they can be highly targeted, enabling companies to tailor their

message to specific demographics or consumer segments (Vafainia, Breugelmans and Bijmolt, 2019). However, direct mailings can be costly to design, print, and distribute, and it can be challenging to accurately measure their effectiveness. Furthermore, in an increasingly digital world, some recipients may perceive direct mailings as outdated or environmentally unfriendly, potentially diminishing their impact (Lesscher, Lobschat and Verhoef, 2021).

Brochures are often included in direct mailings or available for customers to pick up at dealerships or stores. They play a crucial role in the pre-purchase phase of the customer journey by providing comprehensive information about products or services and helping potential customers make well-informed decisions. One of the main advantages of brochures is their physical nature, allowing customers to engage with the information physically. They can be conveniently distributed in various locations, reaching a broad audience. Furthermore, brochures can be designed to be visually appealing, captivating, and persuasive, effectively highlighting the benefits and details of the product or service (Cardow, 2022).

A potential drawback of brochures is their limited space, which may restrict the amount of information that can be included, or the effectiveness of the limited space can be compromised by including too much information. Furthermore, brochures can be expensive to produce and distribute, and their effectiveness may be difficult to measure compared to digital marketing materials (Cardow, 2022).

Beyond offline advertising options, online advertising includes online banners and ads, which play a crucial role in the pre-purchase phase of the customer journey by effectively targeting potential customers as they engage with digital content and conduct product research (Beuckels *et al.*, 2021). One of the primary advantages of online banners and ads in this phase is their ability to reach specific and segmented audiences based on their online behaviour and interests, thereby increasing the likelihood of influencing purchase decisions. Additionally, these digital ads enable precise tracking and measurement of their impact, providing valuable insights into consumer engagement and conversion rates (De Keyser et al., 2020). However, a

significant limitation is the potential for ad fatigue and banner blindness, as consumers may become resistant to or overlook these ads due to oversaturation and repetitive exposure. Moreover, privacy and data security concerns have increased scrutiny of online advertising practices, potentially impacting consumer trust and receptiveness to these ads within the pre-purchase phase (Beuckels *et al.*, 2021).

Next, the focus shifts from online advertising to online contact points, beginning with the corporate website, which plays a pivotal role in the customer journey, serving as a primary contact point for potential buyers to access essential information and engage with the brand. The corporate website is one of the top three contact points in German car buying. Indeed, 75% of all car buyers use the corporate website during the purchase process to educate themselves before visiting the dealer (Harting *et al.*, 2017). It is a platform for presenting products or services, providing comprehensive descriptions, images, and specifications to inform and engage customers (Lee, Jeong and Oh, 2018). A well-crafted corporate website has the potential to enhance brand credibility and trust, serving as a valuable resource for customers to conduct research and compare options before making a purchase decision (Jeon, Ok and Choi, 2018).

However, during the pre-purchase phase, the corporate website may overwhelm a customer with excessive information, navigation complexities, and the challenge of providing an engaging, emotional, and personalised experience for each visitor (Jeon, Ok and Choi, 2018). Nevertheless, when executed effectively, a corporate website can significantly influence a customer's purchase decision and build a positive brand perception (Koch and Hartmann, 2022).

The car configurator found on a car company's website is an extension of the corporate website. It represents the next natural step in the customer journey following an initial exploration of the company's offerings. It lets potential buyers personalise and visualise their ideal vehicle, cultivating deeper engagement and a more intimate connection with the brand. This tool is crucial in the customer journey when purchasing a car. Similar product configurators are also utilised in other industries, such as furniture, allowing customers to customise their products according to their

preferences (Naik and Peters, 2009). By providing an interactive platform to explore various options for colours, trims, and additional features, the car configurator delivers a personalised and immersive experience. Virtual design tools such as the car configurator can significantly influence purchase decisions and create excitement about the brand's offerings (García Sánchez, Cardona, and Martín, 2022).

A potential downside of the car configurator is the risk of overwhelming customers with an excessive number of choices or providing options that are not feasible, which could lead to decision fatigue or dissatisfaction if the final product fails to meet their expectations. Additionally, discrepancies between the virtual representation and the actual product may raise concerns about managing customer expectations. Nevertheless, when implemented effectively, the car configurator can enhance the pre-purchase phase and foster a solid emotional connection between customers and the brand (García Sánchez, Cardona, and Martín, 2022).

When evaluating online contact points, it is essential to consider social media, which plays a vital role in the pre-purchase phase of the customer journey by offering a platform for direct interaction and engagement with potential buyers. This platform enables a company to showcase its products and services, to share customer testimonials, and to provide real-time updates, which can impact purchase decisions. The benefits of corporate social media include reaching a broader audience, facilitating two-way communication, and creating a sense of community around the brand (Lee and Park, 2022).

While corporate social media offer numerous benefits, their drawbacks include the rapid spread of misinformation, difficulties in controlling brand image and messaging, and the potential impact of negative feedback on potential buyers' perceptions. Moreover, the influence of social media may be weaker than other forms of peer review contact. In addition, the effects on the customer journey have yet to be widely documented (Lemon and Verhoef, 2016). However, when effectively managed, corporate social media sites can provide valuable opportunities for companies to

engage with customers and influence their purchase decisions (Zimmermann, Weitzl and Auinger, 2022).

In contrast to social media's focus on two-way communication, mobile apps can deliver specialised content to promote a brand or a specific product. They provide a convenient platform for potential buyers to explore products or services, to read reviews, and to make informed decisions (Brügner, 2012). The advantages of mobile apps include offering a personalised and tailored shopping experience, providing easy access to product information, enabling seamless transactions, and delivering push notifications for promotions and updates (Park and Park, 2020). On the other hand, mobile apps require users to download and install them, involve potential security and privacy concerns, must stand out among the numerous available apps, and have high costs in terms of development and maintenance. Despite these drawbacks, mobile apps can significantly enhance the overall customer experience and influence purchase decisions when designed effectively (Park and Park, 2020).

In addition to company-controlled online contact points, there are personal contact points. From engaging events to the pivotal role of dealers and salespeople and the crucial test drive experience, each element plays a distinct role in shaping the customer journey. These contact points are essential in providing customers with a tangible and immersive experience, facilitating valuable interactions, and ultimately influencing their purchase decisions.

A critical contact point is events, which offer a unique opportunity for potential customers to engage with a brand in a hands-on and immersive manner. These events may encompass product launches or promotional activities, providing customers with a direct experience of the brand's offerings. They can take place at company facilities or in public venues. One of the primary benefits of events during the pre-purchase phase is their capacity to create a memorable and impactful brand experience, leading to heightened brand awareness and increased customer engagement. Additionally, events facilitate direct customer interaction, enabling brands to gather valuable feedback and insights (Juska, 2022). However, organising events can be resource-

intensive and costly, and the success of an event may heavily depend on factors such as attendance and overall execution. Furthermore, accurately measuring the impact of events on individual purchase decisions can take time and effort, making it difficult to assess their return on investment (Juska, 2022).

Trade shows are special events that typically occur yearly at a specific location within a country. They offer potential buyers the opportunity to interact directly with products and representatives from various companies. This hands-on experience allows customers to gain in-depth knowledge about the features, quality, and performance of the products they are interested in, which can significantly influence their purchase decisions. Additionally, trade shows provide a platform for customers to compare different options and gather valuable insights from industry experts (Lee, Park and Kim, 2021).

Although there are clear benefits to trade shows, they can be time-consuming and expensive for customers and companies. Customers may feel overwhelmed by the multitude of options and information available, making it difficult to make a well-informed decision (Lee, Park and Kim, 2021). Furthermore, trade shows are held at specific times, making it less likely for customers to be at the right stage in their customer journey to benefit from the experience. Finally, potential customers may attend trade shows out of curiosity rather than intending to purchase (Alberca, Parte, and Rodríguez, 2018).

In addition to events, the dealer and salesperson play crucial roles as primary contact points between the customer and the brand in the pre-purchase phase. According to Hauser, Urban and Weinberg (1993), Diez (2006), and Marutschke and Gournelos (2020), the dealer is the most critical contact point for the car purchase decision. Steinmann (2011) confirmed this view for the tourism purchase decision. The dealer and salesperson can address various customer needs throughout the customer journey, from general information searches to actual purchases.

Marutschke and Gournelos (2020) suggested that other contact points, such as websites, can supplement the dealer and salesperson. This indicates that customers educate themselves before visiting the showroom (Schwickal, 2010; Harting *et al.*, 2017). Moreover, consumer behaviour is evolving. Accenture (2016) found that potential car buyers would consider purchasing online and exclusively using digital channels for advice if these channels were neutral. This finding is supported by a recent study indicating that 17% of car buyers in the USA made a purchase online or planned to do so (Content Engine, 2022).

Engaging with a dealer offers distinct advantages, including personalised guidance and expertise. Dealers aid customers in navigating product options and making well-informed purchase decisions. Dealers can also promptly address customer concerns, fostering trust and rapport. Additionally, the opportunity for customers to physically experience the product is a significant benefit (Zimmermann, Weitzl and Auinger, 2022). Nevertheless, a potential downside is that the salesperson's approach may be biased towards promoting specific products or upselling, potentially influencing the customer's decision based on the dealer's incentives rather than the customer's best interests (Souza *et al.*, 2020). Additionally, the quality of the customer experience heavily relies on the individual salesperson's knowledge, skills, and customer service, which can vary widely across different interactions. Consequently, while dealers can provide personalised support, there is a risk of potential conflicts of interest and inconsistent customer experiences (Yavorsky, Honka and Chen, 2021).

A test drive is the natural next step after visiting a dealership. Many customers come to a dealership specifically to schedule a test drive. This pivotal part of the pre-purchase phase in the customer journey provides potential buyers with the opportunity to get a firsthand experience of the vehicle before making a purchase. According to Diez (2006) and DAT (2023), a test drive is among the top three crucial contact points in German car buying. During a test drive, a customer can evaluate the vehicle's comfort, handling, and performance, and explore new technologies such as autonomous driving. This firsthand experience allows a customer to assess whether the vehicle's features meet their specific requirements and can create an emotional

connection with the product, potentially increasing the likelihood of a purchase (Degirmenci and Breitner, 2017).

Despite these benefits, a test drive can be time-consuming for the customer and the salesperson, especially when considering multiple vehicles. It is also an expensive investment for a dealership, so customers need a high level of interest in purchasing. One major challenge is that test drive vehicles in specific configurations are often not readily available, which can frustrate potential buyers. Additionally, vehicles must be well-maintained and thoroughly cleaned to ensure the best possible experience (Yavorsky, Honka and Chen, 2021).

The above discussion of company-controlled advertising, online, and personal contact points has shed light on how companies can shape customer journeys. By leveraging these contact points, companies can influence perceptions, emphasise product features, and deliver personalised customer experiences. However, there are contact points that are beyond a company's control; they are discussed below.

WoM, a non-company controlled contact point, exerts crucial influence during the pre-purchase phase of the customer journey. Positive recommendations and referrals from friends and family, whether shared offline or online, significantly impact a consumer's perception of a product or service, fostering trust and confidence in their purchase decision (López, Sicilia and Verlegh, 2022). WoM serves various purposes in the customer journey, from initial information gathering to confirming the purchase decision (Azer and Ranaweera, 2022). Several studies have identified it as the most critical contact point (Kuss and Tomczak, 2007), often outweighing the influence of traditional advertising (Baxendale, Macdonald, and Wilson, 2015). Notably, for car purchases, Van Rijnsoever, Castaldi and Dijst (2012) and DAT (2023) found that talking to family and friends (WoM) was the most frequently used contact point.

The advantages of WoM include its ability to build credibility and trust, as personal recommendations are often perceived as more genuine and reliable than traditional marketing messages. Additionally, WoM can reach a wider audience through online

review platforms, amplifying its impact (Jain, Dixit and Shukla, 2023). However, a potential disadvantage is the company's lack of control over the information that is shared, as negative reviews or misinformation can quickly spread and damage a brand's reputation. Moreover, WoM can be unpredictable and difficult to measure or manage as part of a marketing strategy (López, Sicilia and Verlegh, 2022).

It is essential to remember that WoM interactions can occur on social media platforms such as Facebook, X (formerly known as Twitter), and Instagram, where potential buyers share their experiences, seek recommendations, and express their opinions about products and services. These organic conversations often take place without direct company involvement, unlike on official corporate social media pages where interactions are monitored by social media teams (De Keyser *et al.*, 2020). These social media dialogues can influence other consumers' purchase decisions by providing authentic insights, reviews, and recommendations. Furthermore, social media dialogues enable customers to engage directly with brands, ask questions, and receive immediate feedback, fostering community and trust (Lipschultz, 2021).

It is important to recognise that social media dialogues can be susceptible to fake reviews, biased opinions, and misinformation, which may lead to misleading perceptions and decisions. Additionally, the abundance of information on social media can sometimes overwhelm customers, making it difficult to distinguish genuine feedback from promotional content and spam (Cao *et al.*, 2021).

In social media, expert-authored car blogs play a crucial role during the pre-purchase phase of the customer journey. They offer potential buyers valuable information, expert opinions, and real-life experiences related to car models, features, performance, and overall ownership (Harting *et al.*, 2017). These blogs often provide in-depth reviews, comparison articles, and user-generated content, empowering consumers to make informed decisions when purchasing a vehicle (Junior, Mainardes and Da Cruz, 2022).

There are numerous advantages of car blogs during the pre-purchase phase. They grant access to detailed and unbiased reviews, allow for comparison of different car models, and offer the opportunity to engage with the car community to seek advice and to ask questions. Moreover, car blogs provide insights into industry trends, technological advancements, and upcoming vehicle releases, ensuring customers are well-informed about the automotive market (De Keyser et al., 2020). However, there is a risk of encountering biased or sponsored content that may not accurately reflect a vehicle's performance or quality (Van Heerden, 2022). Additionally, the abundance of information available on car blogs can be overwhelming, making it challenging for consumers to sift through the content and identify reliable sources. Furthermore, the subjective nature of user-generated content means that individual experiences and opinions may not always align with the broader market consensus, potentially leading to conflicting information for consumers (De Keyser et al., 2020).

Compared with car blogs, an even more advanced way to gather information is by reading test reports from reputable car magazines. During the pre-purchase phase, these reports provide potential buyers with comprehensive and independent evaluations of different car models. According to researchers, they are among the top three most important sources of information when purchasing a car (Hauser, Urban and Weinberg, 1993; Diez, 2006). They often include detailed assessments of performance, safety features, comfort, technology, and overall driving experience, offering valuable insights for customers considering a vehicle purchase (Gibson, 2020).

Relying on test reports from trusted car magazines has advantages such as access to thorough and unbiased expert evaluations, the ability to compare different cars based on standardised criteria, and the assurance of reliable and professional assessment of the vehicles (Silaban *et al.*, 2022). Additionally, these reports can help customers stay informed about the latest industry trends, innovations, and technological advancements in the automotive market (Gibson, 2020). Nevertheless, there is a limited number of vehicles covered in each report, subjective opinions may influence the evaluations, and sponsored content or advertising has the potential to influence the

reporting. Additionally, customers should consider that individual preferences and needs may not always align with the evaluations provided in these reports (Bi, Zhang, and Ha, 2019).

The final non-company controlled point of contact relevant to this thesis pertains to car portals catering to the sale of used cars. These platforms offer an extensive selection of vehicles for potential buyers to peruse, providing a convenient means to compare different makes, models, and prices from the comfort of their own homes (Von Böhlen and Šimberová, 2023). One of the critical advantages of utilising car portals is the access to a diverse array of vehicles from various sellers in one location, saving both time and effort. Moreover, these platforms often furnish comprehensive vehicle details, including photos, price, mileage, and specifications, enabling customers to make more informed decisions (Wayland, 2018). However, there is the potential for outdated or misleading information and the absence of a physical inspection, which could result in unforeseen issues post-purchase. Furthermore, the sheer volume of options available on these platforms can sometimes overwhelm buyers, making it challenging to narrow their choices (Von Böhlen and Šimberová, 2023).

In summary, the most critical contact points highlighted in the literature include family and friends (WoM; non-company controlled), the showroom, including salespeople(company controlled), test reports (non-company controlled), corporate websites (company controlled), test drives (company controlled), and car blogs (non-company controlled; Steinmann, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Harting *et al.*, 2017; Kannan and Li, 2017; De Keyser *et al.*, 2020; Marutschke and Gournelos, 2020).

A critical assessment of the literature has revealed a lack of research on real-life product interaction (Fedorenko, 2018). Additionally, there is limited knowledge about WoM: while it is evident that WoM plays a crucial role in car purchases, its particular role in the customer journey remains unclear (López, Sicilia and Verlegh, 2022; Jain, Dixit and Shukla, 2023). Furthermore, the existing studies on contact points only

ascertain their importance, leaving a research gap in understanding when a contact point is utilised in the customer journey, which customer information needs are fulfilled, and how frequently a contact point is used (Steinmann, 2011).

All of the contact points discussed in this chapter serve various roles as information sources during the pre-purchase phase of the customer journey. This emphasises the importance of this thesis in exploring the limited understanding of the interaction between company-controlled and non-company-controlled contact points throughout the customer journey. Businesses must understand how these different contact points influence each other and the overall customer journey to enhance their customer experience effectively (Wetzels *et al.*, 2023).

3.2 Order of contact points

This chapter discusses the order of contact points. Examining this order can further explain how company-controlled and non-company-controlled contact points interact.

Returning to the example presented at the beginning of this chapter, the sequence of contact points is as follows: TV commercial (company controlled) → website (company controlled) → online car configurator (company controlled) → internet auto blogs (non-company controlled) → dealer visit (company controlled) → test drive (company controlled) → WoM recommendations from family and friends (non-company controlled) → dealer visit (company controlled) → salesperson (company controlled). Note that several company-controlled contact points are connected but interrupted by non-company-controlled contact points, which could significantly influence the customer's decision.

These sequences are analysed through customer journey mapping, as discussed in Chapter 2.1.1. Customer journey mapping considers all contact points and reveals how customers transition from one contact point to the next (Berman, 2020). Certain combinations within the sequence are essential (e.g., a test drive is not possible without visiting a dealer). However, numerous interesting combinations occur by chance (e.g.,

a test drive and conversations with friends and relatives where a friend was not actively sought out as an expert) and others that are driven by customer choices (e.g., using an online car configurator and reading an internet auto blog without a direct connection to the website of the car brand; Steinmann, 2011; Berman, 2020).

The order of contact points in the customer contact sequence shapes the customer experience and influences purchase decisions. The sequence typically begins with initial contact points such as advertisements and social media posts, followed by more actively used contact points such as websites and dealer visits. This sequence guides the customer through awareness, consideration, and decision-making stages (Berman, 2020). Companies can influence customer behaviour by providing a clear path. The goal is to identify the ideal customer contact sequences in the pre-purchase phase for the car purchase decision, upon which companies can build their marketing strategy (Steinmann, 2011).

A well-analysed and well-crafted customer contact sequence gives businesses a strategic advantage: they can engage with customers at various contact points, thereby increasing the likelihood of conversion. Analysing the entire path from initial contact to purchase is valuable, but dissecting specific segments can yield meaningful insights (Steinmann, 2011). Whether examining the sequence of multiple contact points or just two, focusing on individual interactions can reveal crucial patterns that shape the customer journey.

By identifying previously unknown synergies among contact points, companies can predict the following contact point a customer will use (Berman, 2020). This approach surpasses isolated analysis of single contact points or general findings on the overall customer journey. It also sheds light on the interplay between different types of contact point categories, whether company controlled or not, or the interaction between digital and personal contact points, which is particularly beneficial for retail research (Steinmann, 2011).

It is advantageous to analyse the initial contact point in a sequence, the middle contact points, and the final deciding contact point before the actual purchase (Steinmann, 2011). This ability allows companies to provide the appropriate information in a customer contact sequence at the right time, leading to clarity and transparency. This, in turn, can improve efficiency and accuracy in reaching the customer and guiding them through the customer journey (Berman, 2020).

Within a sequence, contact points can be used once at a specific moment or multiple times throughout a customer interaction, such as at the beginning and end. These insights offer companies and researchers valuable knowledge about the tasks a contact point should fulfil and the essential information it needs to convey during the purchase process. This can range from providing general information and explaining specific technical features to physically engaging with the product (Koch and Hartmann, 2022). Hence, understanding customer contact sequences empowers companies to navigate customers through their customer journey. Companies can use this information to cultivate stronger customer relationships by delivering personalised and attentive experiences. They can also foster positive and memorable interactions by comprehending and meeting customer needs at each contact point (Steinmann, 2011).

While analysing the order of contact points in a sequence can provide valuable insights, there are also potential disadvantages. Overemphasis on specific contact points or sequences may lead to tunnel vision, causing companies to overlook the broader customer experience. Additionally, focusing solely on the order of contact points might neglect the significance of individual interactions and unique preferences. Moreover, rigid adherence to a predefined sequence may hinder adaptability to evolving customer behaviours and market dynamics. Therefore, it is essential to balance the analysis of contact sequences with a holistic understanding of the customer journey to avoid these potential drawbacks (Koch and Hartmann, 2022).

According to Lemon and Verhoef (2016), it is crucial to analyse and map the customer journey from the customer's perspective. Previous studies have only minimally examined the customer journey by mapping specific customer contact sequences. In

the past, researchers have tended to focus on only a few contact points. Moving forward, it is essential to take a more comprehensive approach and to analyse multiple contact points throughout the customer journey (Abbasi *et al.*, 2020). There is still much to learn about the sequence in which different contact points are utilised (Klein and Ford, 2003).

There has been a call for further research in this area since the late 1990s (Peterson, Balasubramanian and Bronnenberg, 1997; Rangaswamy and van Bruggen, 2005; Steinmann, 2011). Nevertheless, a greater focus is still required (Panzera *et al.*, 2017; Berman, 2020), although there has been a steady increase in the volume of research on the subject since 2017. In their meta-analysis, Tueanrat, Papagiannidis and Alamanos (2021) revealed that 50% of the significant studies on the customer journey have been published since 2017. However, as technology evolves, the research gaps widen, as there are now even more contact points to consider (Marutschke and Gournelos, 2020). While some studies have mapped parts of the customer journey, such as the first three contact points, others have only analysed the first (Hauser, Urban and Weinberg, 1993; Van Rijnsoever, Castaldi and Dijst, 2012).

Despite these research gaps, in the context of this thesis, Steinmann's (2011) work can be considered cutting edge. He examined intricate sequences in consumer electronics and tourism industries. Given the divergence between these two industries, the research findings naturally varied quite significantly. Thus, he concluded that additional studies in other sectors are vital, particularly in the influential automobile industry. The following paragraphs provide a brief summary of his findings.

Steinmann (2011) found that the most common combinations of two contact points related to consumer electronics during the pre-purchase phase include advertising (company controlled) → advertising (company controlled), advertising (company controlled) → store (company controlled), and other websites/own website (company controlled) → store (company controlled). The transition rates between contact points supported the findings. Additionally, he noted that there is a high likelihood of the

store (company controlled) being followed by contact with the salesperson (company controlled), which is often a logical progression.

The most common contact point combinations for travel bookings include salesperson (company controlled) → catalogue (company controlled), catalogue (company controlled) → travel documents (company controlled), catalogue (company controlled) → salesperson (company controlled), and online contact points (website, etc.; company controlled) → travel documents (company controlled). It is also crucial to consider combining a website (company controlled) with another contact point. Steinmann (2011) reported high transition rates from advertising (company controlled) to catalogue/website/salesperson (all company controlled).

In summary, Steinmann (2011) deeply analysed customer contact sequences, mainly focusing on specific combinations of contact points. This approach represents a significant advancement for the theory. However, a drawback is that the most critical combinations only encompass company-controlled contact points. This limitation arises from the exclusion of non-company-controlled contact points in the research design, a crucial flaw. The omission of these non-company-controlled contact points may have hindered the ability to comprehensively understand customer interactions and experiences, potentially impacting the practical application of the findings in real-world situations.

Van Rijnsoever, Castaldi and Dijst (2012) conducted a study on automobile purchase behaviour in the Netherlands. According to their findings, the most common first contact point for car purchases is the car dealer (company controlled), followed by talking to family and friends (WoM; non-company controlled) as the most frequent second contact point, and independent websites (non-company controlled) as the third most frequent contact point. This study's strength lies in including company-controlled and non-company-controlled contact points in the research design. However, the authors only focused on the first three contact points, whereas typical customer contact sequences are often longer, as evidenced by Steinmann (2011). The authors also missed the opportunity to consider the possibility of customers using the same contact

point multiple times during a customer contact sequence. Furthermore, it is essential to consider potential variations in customer contact sequences between German and Dutch customers, which may influence the availability of specific contact points.

Two recent studies have also focused on analysing customer contact sequences. In the first, Abbasi *et al.* (2020) examined six digital contact points within a sequence for hedonic and utilitarian product purchases. The findings showed that all six contact points are frequently used before a purchase. Product page views (company controlled) and retailer website visits (company controlled) increase during the middle and late stages of the journey. At the same time, search engines (non-company controlled) and social media (non-company controlled) are used together frequently, indicating a clear interdependency between these contact points. The authors also looked at the effect of customer contact sequences in both purchase and non-purchase situations. In the purchase situation, they noted a marked increase in social media usage (non-company controlled) as well as visits to the retailer's website (company controlled). While this study made significant strides in the field by including both company-controlled and non-company-controlled contact points in the sequences, the authors noted that, due to data limitations, they were unable to capture specific crucial contact points that this thesis seeks to explore.

In the second study, Hu and Tracogna (2020) aimed to provide insights into how companies can manage contact point synergies during the shopping journey. By understanding the customer journey, businesses can effectively engage with customers and optimise their value. The authors incorporated five contact points to map the customer journey and analysed the sequence length and the most critical contact points. They found that the insurance agent (company controlled) is the most vital purchase contact point for insurance purchases. In contrast, the company website (company controlled) and price search websites (non-company controlled) are the most important sources of information. The study revealed that specific contact points are used repeatedly throughout the customer contact sequence and that customers often begin their search online before purchasing through a personal agent called webrooming. Although the authors made considerable strides in elucidating this

concept, they did not evaluate all of the vital contact points in the process, potentially leading to gaps in comprehending the customer contact sequence. Hence, the study might not have thoroughly explored additional aspects of the customer's decision-making process.

The two aforementioned studies specifically concentrated on customer contact sequences. Although other researchers have explored this area, they have not examined contact points as sequences, thus highlighting the necessity for further research. Nonetheless, their findings remain pertinent. For example, Hauser, Urban, and Weinberg (1993) exclusively investigated the initial contact point used in automobile purchases but did not consider all other contact points in a customer contact sequence. Similarly, a DAT (2012) report on the German automobile market analysed key contact points but did not integrate customer contact sequences. Klein and Ford (2003); Ratchford, Talukdar and Lee (2007); and Kulkarni, Ratchford, and Kannan (2012) conducted studies on the usage of online and offline contact points, demonstrating extensive utilisation of both during the purchase process. However, their findings did not provide a detailed explanation of customer contact sequences, as they categorised contact points into two overarching groups without analysing each contact point. Finally, Marutschke and Gournelos (2020) examined correspondence with the car seller in various forms but did not consider every contact point in a customer contact sequence. These studies underscore the need to analyse a broader range of contact points.

When deciding to buy a car, Klein and Ford (2003) observed that individuals typically interacted with various contact points before visiting the dealer (company controlled). In a study on the research–shopper phenomenon, Verhoef, Neslin and Vroomen (2007) found that the most common sequence of contact points used was an internet search (company controlled) followed by a purchase from a dealer (company controlled). This revealed cross-channel synergy effects and highlighted the tendency of individuals to make purchases at different contact points than where they initially gathered information. The research shopper phenomenon was identified in 76% of cases, even when customers engaged in brief contact sequences.

The abovementioned studies emphasise the importance of examining sequences of two consecutive contact points, which is the focus of this thesis. However, these studies overlooked longer sequences of three or four contact points. Incorporating longer segments of the customer contact sequence into the analysis can lead to a more comprehensive understanding of the customer journey. Analysing longer sequences can unveil patterns, trends, and insights that may not be evident when only considering two consecutive contact points. This broader perspective can help identify areas for improvement, optimise customer interactions, and enhance the overall customer experience (Verhoef, Neslin and Vroomen, 2007).

In addition, researchers have also analysed the beginning and end of a customer contact sequence. Searching for product attributes is crucial at the start of a customer contact sequence, but this changes once a consideration set of products or brands is established. During this phase, a customer often needs more information about the product (Marutschke and Gournelos, 2020). Multiple contact points are used, which decrease when the consideration set is established. This suggests that the customer contact sequence may start without a clear structure and become more organised as it progresses. The contract negotiations contact point (company controlled) is especially crucial at the end to prevent customers from abandoning the purchase process if it takes too long. One of the advantages of the study by Marutschke and Gournelos (2020) is its specific focus on the beginning and end of the customer journey. This sheds light on where customers start and end their sequence, highlighting the two most crucial contact points for companies to manage the customer journey. However, this study lacked a detailed focus on explaining important contact points at the beginning of a sequence. The authors provided a more general finding: various contact points may be utilised to initiate the customer journey.

It is crucial to note that contact points within customer contact sequences can influence one another, and understanding these influences can provide various benefits. Ratchford, Talukdar and Lee (2007) demonstrated that online contact points (company controlled) can replace the need for third-party contact points (non-company

controlled) and visits to car dealerships (company controlled). Additionally, online contact points (company controlled) can enhance the likelihood of engaging with advertising (company controlled) and utilising the talking to family and friends (WoM; non-company controlled). The different interactions between company-controlled and non-company-controlled contact points enables businesses to refine their marketing strategies by prioritising high-impact, company-controlled contact points in the customer journey. This understanding also helps companies allocate resources more efficiently by focusing on moments where non-company-controlled contact points disconnect the sequence of company-controlled contact points.

There are also potential unintended negative consequences when various contact points influence each other. This is particularly important when contact points beyond the company's control are utilised instead of the company's contact points. Substituting company-controlled contact points with non-company-controlled ones can result in a loss of decision-making control. Therefore, businesses must consider these potential challenges (Ratchford, Talukdar and Lee, 2007).

Harting *et al.* (2017) explored the significance of customer contact sequences and identified crucial contact points during various phases of the car purchasing process. They found that in the information phase, WoM (online; non-company controlled), journals/magazines (non-company controlled), advertising (company controlled), and trade shows (company controlled) are essential. Subsequently, during the contact phase, dealer visits (company controlled) and test drives (company controlled) are prominent. Finally, contract negotiation (company controlled) and contract signing (company controlled) are the critical steps in the purchase phase. This study highlights the significance of non-company controlled contact points, particularly in the initial phase of customer interaction (information phase), a perspective not previously offered by other studies. However, it is essential to note that this approach presents challenges as it only analyses the use of contact points in a specific phase rather than the order of contact points throughout the customer contact sequence.

3.3 Length of customer contact sequences

The example provided at the beginning of this chapter includes nine contact points, with three visits to the salesperson. The length of a customer contact sequence is determined by the number of contact points used rather than the duration of each contact point or the duration of the whole sequence. It explains how many different contact points are necessary when purchasing a product, as the length of a customer contact sequence may vary between product categories and also for various customers, such as when they repurchase the brand or if it is their first purchase of a particular product (Steinmann, 2011). It is crucial to discover how different influential variables – such as gender, age, and income – affect the length of a customer contact sequence. With this knowledge, it might be possible to reveal similarities in customer behaviour based on customer contact sequences (Steinmann, 2011).

There are several reasons why the customer contact sequence length is important. A more extended sequence involves multiple contact points with the customer, potentially increasing the likelihood of making a sale or nurturing a more substantial relationship (Steinmann, 2011). It also provides ample opportunities to understand the customer's needs and preferences and address any concerns, especially when dealing with a customer seeking information. Such customers can reduce risk by using many contact points to decide (Hickman, Kharouf and Sekhon, 2019). A shorter sequence can minimise customer fatigue and annoyance, as fewer contact points are used. It can also reduce the costs for the customer, requiring less time and resources for each contact point, which is favourable from a cost-benefit perspective of information search behaviour (McGregor, Azzopardi and Halvey, 2023).

There are potential downsides to a lengthy customer contact sequence. If not managed effectively, it could result in customer fatigue or annoyance, ultimately leading to a delayed or cancelled purchase decision. Additionally, a prolonged sequence may be ineffective for the customer if the final contact points do not add value and are perceived as a waste of time (McGregor, Azzopardi and Halvey, 2023). Furthermore, there are potential drawbacks to a shorter customer contact sequence. With fewer

contact points, opportunities for building a stronger relationship with the customer and understanding their needs and preferences may be missed. This could limit the chances of making a sale or addressing any concerns (Steinmann, 2011). Moreover, a shorter sequence may not provide a sufficient number of contact points for customers who are extensively seeking information, potentially leading to a less informed decision-making process (Hickman, Kharouf and Sekhon, 2019).

The customer contact sequence length has received relatively little research attention. Steinman (2011) found that the consumer electronics industry utilised an average of 6.22 contact points, while the travel industry utilised an average of 9.63. This notable disparity between the two sectors could be attributed to the prominent role of catalogues in travel booking transactions, because catalogues are readily accessible once obtained. This raises the question of managing prominent contact points in the customer contact sequence in this thesis. A similar dominance may be present in car purchases, where the salesperson and the car dealer may exert significant influence.

Gawronska (2022) examined products with a dominant online presence and found that the average customer contact sequence length was 14 contact points. In contrast, according to a report from the DAT (2012), the average number of contact points used when purchasing a new automobile is 3.52. Of note, that report did not allow for the repeated use of a single contact point, which may have shortened the customer contact sequence length. This aligns with the findings reported by Newman and Staelin (1972), who suggested that a comprehensive search for information is unlikely and that very few contact points are typically used when purchasing a car – sometimes just a single dealer visit during the entire purchase process. However, the customer contact sequence length can be tailored for each customer, indicating that short and long sequences can lead to positive outcomes, depending on the customer's preferences. There is a need for more specific insights into analysing sequences that lead to a purchase (Marutschke and Gournelos, 2020).

Klein and Ford (2003) provided intriguing insights regarding the customer contact sequence and the frequency of contact points used during an information search. Their

findings indicated that 39% of car buyers visited the dealer two times or less, and only 20% utilised two different contact points during their information search. However, 20% of buyers searched extensively for information (Klein and Ford, 2003; Accenture, 2016).

Taken together, previous studies have demonstrated significant variations in the length of a potential customer contact sequence, ranging from 3 to 14 contact points. Researchers have emphasised that study designs should allow for multiple uses of contact points to accurately assess the impact of the length of the customer contact sequence (Steinmann, 2011; Gawronska, 2022).

3.4 Conclusions, research gaps, and research questions

As noted previously, the thesis aims to contribute to the existing literature by addressing four significant gaps: (1) the need for a comprehensive understanding of how to create a seamless customer journey, (2) a more profound exploration of the interactions between company-controlled and non-company-controlled contact points, (3) the emotions experienced across various contact points in the customer journey, and (4) the underutilisation of longitudinal field data in customer journey research.

For the first gap, it is imperative to give more detailed consideration to the customer contact sequence and specific contact points, as previous studies have yet to account for all crucial contact points (see Chapter 3.2). Closing this research gap is necessary to deliver an exceptional customer experience. Lemon and Verhoef (2016) advocated for a transition from an outcome-based to a process-based perspective, emphasising individual contact points, sequences, and segments of the customer journey. This shift holds particular significance for customer experience research, as evidenced by the findings reported by Barwitz and Maas (2018) and Suh and Moradi (2023). This thesis aligns with the process-based perspective and seeks to advance it further. Through this framework, it becomes feasible to delineate customer contact sequences that culminate in optimal outcomes, such as the purchase of consumer durables (Lemon and Verhoef, 2016), while also elucidating the synergies among contact points (Wind and Findiesen

Hays, 2016). This study investigates a wide range of types of contact points, their order, and the length of the customer contact sequence. This leads to the first research question: *Which customer contact sequences regarding type, order, and length are present?*

For the second research gap, combining company-controlled and non-company-controlled contact points will benefit the academic debate by understanding how to seamlessly improve the overall customer experience (Wetzels *et al.*, 2023) and creating synergy between both categories (Gao, Currim and Dewan, 2022). As presented in Chapter 3.1, there is a need to fully understand the impact of a company on these contact points and to leverage them strategically. Gao, Currim and Dewan (2022) emphasised the importance of effective integration, and companies can use various categorisations of contact points to manage them. The existing research has primarily focused on analysing the impact of online and offline contact points separately. However, according to a meta-analysis of customer journey research, there may be other channel behaviours beyond online and offline that warrant further investigation (Tueanrat, Papagiannidis and Alamanos, 2021), as the interaction between company-controlled and non-company-controlled contact points throughout the customer journey is still not understood (Lemon and Verhoef, 2016; Thomas, Epp and Price, 2020; Suh and Moradi, 2023). This study includes all relevant contact points from both categories and thoroughly investigates their effects. This leads to the second research question: *How do company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence?*

The third research gap is addressed by focusing on the significance of emotions across various contact points within a sequence (Grewal and Roggeveen, 2020). This thesis enhances the academic debate by using the mean method to measure and analyse emotions at each contact point during the customer sequence, providing a more nuanced understanding of the significance of emotions in the customer experience literature (Caruelle *et al.*, 2024).

As presented in Chapter 2.2.2, emotions are crucial to the customer experience, but researchers have predominantly focused on cognitive evaluation rather than emotions (Lemon and Verhoef, 2016). There is a growing debate in marketing and customer experience research regarding measuring emotions at only one point, typically at the end of the customer journey, resulting in a relatively static view. A customer's emotional state varies significantly throughout the different contact points in the customer journey due to varying stimuli, a phenomenon that is often overlooked in current studies. Consequently, studying emotions as a global emotional state rather than a dynamic, changing state may ignore the distinct emotional arousal levels over different service encounters and lead to flawed customer experience assumptions (Caruelle *et al.*, 2024). This thesis critically examines the emotions experienced at each contact point within the customer contact sequence and their subsequent influence on the purchase decision. This inquiry culminates in the third research question: *To what extent does emotional arousal elicited at each customer contact sequence contact point influence their purchase decision?*

The influential factors that affect company-controlled and non-company-controlled contact point usage (see Chapter 3.1) must be analysed to address the first three research gaps. Product, channel, personal, and situational involvement all play a role in selecting and utilising contact points, influencing the order of contact points and the customer contact sequence length. Based on the literature review, there have been mixed results regarding the influence of the abovementioned types of involvement (e.g., Abbasi *et al.*, 2020; Liu *et al.*, 2020; López, Sicilia and Verlegh, 2022; Jain, Dixit and Shukla, 2023; Suboh, Razak and Alshurideh, 2023; Lee, Choi and Kim, 2024), raising the fourth research question: *What factors influence the structure of a customer contact sequence?*

The prevalence of cross-sectional studies in customer journey research highlights the fourth research gap that this thesis seeks to address. Longitudinal data collection will enhance academic discourse by offering more comprehensive insights into the sequential order of contact points, ultimately benefiting the customer experience literature. Longitudinal studies are essential to examine customer contact sequences,

as a customer's choice of contact points impacts subsequent interactions (Abbasi *et al.*, 2020). Moreover, longitudinal field data provide precise results and capture authentic customer experiences by conducting interviews shortly after contact point usage, unlike cross-sectional studies (Wang *et al.*, 2024).

As demonstrated in Chapter 2.1.1, the predominance of cross-sectional studies may lead to less accurate findings in customer journey research. Experts advocate for the utilisation of longitudinal field data to improve the accuracy of the results (Klein and Ford, 2003; Verhoef, Neslin and Vroomen, 2007; McColl-Kennedy *et al.*, 2015; Yumurtacı *et al.*, 2017; Tueanrat, Papagiannidis and Alamanos, 2021; Wang *et al.*, 2024). Hence, this thesis enhances the research approach for customer journey mapping by gathering precise longitudinal field data and interviewing the participants several times during their customer journey. This leads to the fifth research question: *Is a longitudinal design more advantageous than a cross-sectional design for evaluating customer contact sequences?*

4 Research design

This chapter discusses the foundational elements of the research design, outlining the philosophical underpinnings that guide the researcher's choices. It explores key concepts such as research philosophy, ontology, and epistemology, and examines the various types of research available. Furthermore, this chapter highlights the significance of both qualitative and quantitative approaches in conducting thorough and reliable research. This comprehensive discussion serves as a roadmap for understanding the intricacies of the research process and underscores the rationale behind the methodological decisions made throughout the studies.

4.1 Introduction and research plan

As demonstrated in the preceding chapters, the literature review did not reveal a comprehensive research framework for customer contact sequences, particularly in the context of consumer durables, such as automobiles. Consequently, a mixed-methods design will be incorporated to address the four research gaps and the research questions. This design combines a qualitative exploratory study and a quantitative explanatory study. A critical realist paradigm guides both. There are eight parts to the research plan:

1. Review the literature;
2. Define the first pre-conceptual framework and assumptions regarding possible outcomes;
3. Design and conduct a qualitative exploratory study;
4. Analyse the findings of the qualitative exploratory study;
5. Build a conceptual framework and related hypotheses based on the findings of the literature review and those of the qualitative exploratory study;
6. Design and conduct the quantitative research based on the qualitative exploratory study to answer the hypotheses;
7. Analyse the findings of the quantitative research;
8. Synthesise the overall findings from both studies.

4.2 Research philosophy

‘There is no such thing as philosophy-free science; there is only science whose philosophical baggage is taken on board without examination’ (Dennet, 1995, p. 21). One of the most significant aspects of any research is identifying the appropriate philosophical paradigm within the discipline and carefully selecting one’s own paradigm. It provides rules for researchers and serves as the basis for reviewers’ evaluations. Assumptions and perceptions regarding ontology (what is?) and epistemology (what it means to know?) are highly important for identifying one’s own *Weltanschauung* or paradigm (Crotty, 1998).

4.2.1 Ontology

Ontology encompasses the inquiry into the nature of reality, specifically focusing on being and existence. Fundamental inquiries within this domain include existential questions such as, ‘Does a higher being (God) exist?’ and ‘What constitutes reality?’ (Hammond, 2017). Consequently, within the framework of this research, the question ‘What is reality?’ posited by the researcher (Easterby-Smith, Thorpe and Lowe, 2004) serves as a foundational element.

In social science, ontology pertains to the nature of social reality (Hammond, 2017). It is characterised by two distinct perspectives: objective and subjective reality. Objective reality adheres to a scientific framework, asserting that phenomena are measurable and governed by universal laws, irrespective of the observer (Burrell and Morgan, 1979). Conversely, subjective reality is contingent upon the observer’s interpretations and is inherently socially constructed; it shifts the focus from identifying universal laws to comprehending individual perceptions. Thus, while objective reality is structured around established physical laws, subjective reality emerges from individuals’ personal beliefs and interpretations regarding their world (Burrell and Morgan, 1979).

4.2.2 Epistemology

Epistemology is fundamentally the theory of knowledge, encompassing the general principles that guide our understanding of the world. It is crucial to elucidate the processes through which we acquire knowledge and the mechanisms by which it is constructed. Within social science, epistemology delineates what is regarded as substantial and innovative knowledge and the researcher's role in co-creating said knowledge (Collis and Hussey, 2013). Researchers come from diverse educational, cultural, and experiential backgrounds, so their perspectives can vary significantly (Easterby-Smith, Thorpe and Lowe, 2004). These divergent viewpoints profoundly impact the choice of research methodologies and methods, ultimately influencing the generation and interpretation of knowledge (Burrell and Morgan, 1979).

As discussed previously, epistemology and ontology collectively form the research foundation, shaping the researcher's beliefs. Both frameworks yield distinct interpretations of the same phenomenon. The synthesis of a researcher's various assumptions and the specific research topic culminates in establishing a research paradigm (Lincoln and Guba, 2000).

4.2.3 Research paradigms

A research paradigm is a foundational framework that guides researchers in executing their studies, grounded in their assumptions about reality and knowledge (Collis and Hussey, 2013). These paradigms are critical in establishing the structural basis of a research project, influencing the formulation of research questions, selection of measurement tools, and application of analysis methodologies (Ulz, 2023).

According to Creswell (2009), Malhotra, Birks and Nunan (2017), and Ulz (2023), two predominant paradigms in both general research and marketing science are positivism and interpretivism. These paradigms represent opposing poles within the spectrum of research paradigms, with positivism emphasising an objective understanding of reality, while interpretivism focuses on a subjective interpretation.

Additionally, other paradigms have emerged, including (critical) realism, which occupies a middle ground between these two extremes (Creswell, 2009). When selecting the most suitable paradigm for their research, scholars consider these paradigms, each of which provides unique and valuable perspectives on customer contact sequences.

Positivism

Positivism is deeply rooted in empiricism (such as the tabula rasa concept) and rationalism (illustrated by the idea of *Ding an sich* [a thing-in-itself]). It denotes a mathematically formulated scientific world that contrasts with the everyday experiences of humans. This scientifically abstract realm is systematic and organised meticulously. Importantly, this abstraction does not confine the scope of findings within its framework (Crotty, 1998). The ontology of positivism is grounded in objective realism, asserting a reality that exists independently of social actors (Saunders, Lewis and Thornhill, 2012).

The epistemology of positivism contends that only observable phenomena can produce credible data (Astley, 1985). In this paradigm, the researcher is viewed as a value-free observer of reality, distilling phenomena to their most fundamental elements (Saunders, Lewis and Thornhill, 2012). Furthermore, this theoretical perspective applies the principles of natural sciences to social sciences, aiming to formulate laws or law-like generalisations about reality (Giddens, 1987).

Regarding methodology and methods, the process of law creation involves developing conceptual frameworks and identifying critical variables that exhibit measurable relationships with one another (Saunders, Lewis and Thornhill, 2012). There are substantial efforts focused on developing scaling techniques and testing hypotheses (Fleetwood, 2005). Deduction serves as a means of reinforcing theory as well as a method to test a hypothesis (Crotty, 1998). In positivist research, the findings are deemed acceptable when objective, reliable, and valid (Saunders, Lewis and Thornhill, 2012).

A prevalent error in scientific inquiry is the tendency to oversimplify a paradigm by limiting it to its methodological approaches. This reductionist view neglects the nuanced dichotomy between quantitative and qualitative methodologies (Saunders, Lewis and Thornhill, 2012). The research on customer contact sequences has predominantly relied on quantitative data. Scholars have concentrated on two primary avenues: the impact of customer contact sequences as independent variables on purchase behaviour and the influence of various determinants, such as income, on these sequences as dependent variables. This approach simplifies the complex landscape of customer contact sequences to formulate generalised laws of reality. Furthermore, prior studies have focused exclusively on conceptual frameworks characterised by a limited number of operationalised variables based on hypotheses, thereby neglecting significant contact points and precluding the examination of repeated occurrence of contact points within a sequence.

Interpretivism

Interpretivism is grounded in asserting that the social sciences differ fundamentally from the natural sciences. The principles governing the natural sciences cannot be directly compared with those of the social sciences, which present a more significant challenge in comprehension. Social reality is shaped by its inhabitants' actions, beliefs, and experiences, positioning it as a field that requires understanding from within. Consequently, interpretivism critiques the positivist paradigm and proposes an alternative research approach (Blaikie, 2007; Collis and Hussey, 2013). The ontology of interpretivism is rooted in subjective reality (Creswell, 2003). In this context, interpretivism posits that the researcher is an integral component of the research process. The researcher's beliefs, experiences, and interests influence the study, indicating that research findings are inherently subjective rather than objective (Easterby-Smith *et al.*, 2018).

Interpretivism employs a methodology grounded in observation rather than measurement. An inductive approach generates new knowledge from a relatively small yet highly specific sample size within a brief timeframe. By interpreting these findings,

the researcher can draw conclusions; identify patterns; and, through theoretical abstraction, contribute to the knowledge base within the research domain (Easterby-Smith *et al.*, 2018). The researcher is unaware of studies investigating customer contact sequences using this methodological approach.

The paradigm for this thesis: critical realism

Critical realism represents a post-positivist framework commonly employed within management and marketing sciences (Easton, 2002). Proponents of critical realism prioritise ontology over other metaphysical considerations, such as epistemology (Ackroyd, 2014). This ontological perspective is grounded in an objective reality that persists independently of human beliefs but is comprehended through social conditioning (Saunders, Lewis and Thornhill, 2012). More specifically, critical realism asserts the existence of one reality that can be interpreted in multiple ways (Fleetwood, 2007). This ontology encompasses what is real, actual, and empirical (Bhaskar, 2008).

The real represents a conceptual framework that hypothesises mechanisms capable of generating phenomena that, while not directly visible, nonetheless remain observable. The actual is constituted by these phenomena, which may be categorised as either observable or unobservable. Empirical entities are events experienced through the lens of causality that are amenable to observation by researchers (Bhaskar, 2008). Consequently, the paramount factors are the causal mechanisms, which can be elucidated by asking ‘What instigates this occurrence?’ or ‘What generates it?’ (Sayer, 1992).

The epistemology of critical realism is rooted in the premise that observable phenomena yield substantial data for analysis. Critical realism is characterised by its lack of a singular theoretical perspective; instead, it aims to illuminate the underlying mechanisms that govern the social world. Any theory that aids in elucidating the complexities of the social domain is considered applicable (Saunders, Lewis and Thornhill, 2012).

Adopting a critical realism approach is pertinent to research customer contact sequences that mirror real-world scenarios, emphasising the analysis of complex contexts (Saunders, Lewis and Thornhill, 2012). Unlike a positivist paradigm that reduces phenomena to a limited set of variables, the entirety of customer contact sequences must be examined. The researcher posits that identifying a singular, definitive customer contact sequence that ultimately culminates in purchasing a new vehicle is unfeasible. Nevertheless, it may be feasible to uncover the underlying causal mechanisms influencing the interactions of contact points within a sequence (Danermark, Ekström, and Karlsson, 2019) that lead to specific outcomes, such as a purchase, despite the challenges associated with observing these causal mechanisms (Bygstad and Munkvold, 2011).

Critical realism provides a framework for understanding our experiences, the events that transpire, and the underlying processes that lead to occurrences in the real world (Bygstad and Munkvold, 2011). When interpreting the cognitive and emotional dimensions of customer contact sequences, it is nearly impossible to eliminate the influence of the researcher's emotions, as a positivist approach might seek to do. This difficulty arises from inherent biases that a researcher has due to their diverse worldview and experiences, which inevitably shape their findings (Saunders, Lewis and Thornhill, 2012). Moreover, the researcher's extensive practical knowledge of customer contact sequences significantly impacts the broader scope of this research.

Concerning methodology and methods, critical realism underscores the advantages of employing multilevel data, or methodological pluralism, to understand customer contact sequences comprehensively (Ackroyd, 2004). This research framework predates abduction or retroduction rather than deduction (Ackroyd, 2014). Abductive reasoning relies on observations that may be incomplete yet facilitate the construction of a mechanism offering the most accurate predictions. This approach strives for simplicity in explanations and the most probable conclusions. Conversely, retroduction endeavours to transition from the detailed description of specific phenomena to understand the underlying mechanisms that generate them.

The significance of longitudinal data collection is underscored in this context (Bhaskar, 2009). Consequently, this thesis necessitates a distinctive methodological framework. A mixed-methods approach is appropriate because it aligns seamlessly with the principles of critical realism. The insights gleaned from the qualitative phase will be integrated into the questionnaire for the quantitative study, enhancing the overall rigour of the quantitative research. Therefore, the qualitative method informs the design of the quantitative method (Greene, Caracelli and Graham, 1989); however, the findings are validated based on a larger sample size as opposed to the interpretivist approach. In this thesis, the quantitative research follows a longitudinal design, uncovering real-world data over a more extended period. Thus, more complex structures of customer contact sequences can be analysed, providing knowledge of factors that are missing in the literature. However, the outcome is much less certain than in positivism because the structures of customer contact sequences are likely to be highly complex (Saunders, Lewis and Thornhill, 2012).

In contrast to positivism, critical realism permits researchers to explore the broader context of customer contact sequences within a more authentic real-world framework rather than confining the analysis to a limited set of variables. Metaphorically, this can be likened to utilising multiple torches in a darkened room. Positivism employs only one torch to yield insights into customer contact sequences. Conversely, critical realism employs numerous torches, allowing for a more comprehensive understanding of customer contact sequences. Consequently, the research objective is to achieve a representation that closely mirrors real-world conditions. Additionally, critical realism is favoured over interpretivism because the reliance on a small sample size in research fails to provide sufficient evidence over an extended period, information that is essential to elucidate the underlying mechanisms of customer contact sequences in a general context (Saunders, Lewis and Thornhill, 2012).

4.2.4 Types of research

In general, the types of research can be categorised based on the objectives of a research project and the data collection method. Regarding objectives, three main

types of research are commonly discussed in the literature: exploratory, descriptive, and explanatory. Researchers can choose from qualitative, quantitative, or mixed methods when considering data collection methods. These viewpoints are closely linked when determining the appropriate type of research to employ (Sue and Ritter, 2012).

Exploratory research aims to identify issues, define concepts, and develop initial hypotheses. This form of research often begins with a review of existing literature, focus group discussions, or in-depth interviews. Unlike traditional surveys, the purpose of exploratory research is not to analyse a random sample of the population. Instead, it focuses on engaging individuals with specific knowledge or expertise on a given topic or process. The primary objective is to generate hypotheses rather than to test them. As a result, data collected during exploratory studies are typically qualitative in nature (Sue and Ritter, 2012).

Descriptive research operates within defined parameters to deliver detailed insights into individuals, products, or circumstances. It often involves posing one or more research questions, though it is not necessarily tied to specific hypotheses. This approach aims to characterise populations by gathering data from samples, typically through probability sampling techniques such as simple random sampling. The collected data can be either qualitative or quantitative (Sue and Ritter, 2012).

The primary aim of explanatory research is to clarify phenomena and predict future occurrences. Such studies are designed around hypotheses that specify the nature and direction of relationships among the variables under examination. Explanatory research typically relies on probability sampling, as its purpose is to generalise the outcomes to the broader population from which the sample is derived. The data collected are predominantly quantitative and often involve statistical testing to validate the identified relationships (Sue and Ritter, 2012).

In the literature, the studies on customer contact sequences are primarily explanatory quantitative studies (Steinmann, 2011; Van Rijnsoever, Castaldi and Dijst, 2012;

Abbasi *et al.*, 2020; Hu and Tracogna, 2021). In these studies, the authors developed and tested hypotheses and ensured they used an appropriate sample size. The studies are predominantly based on cross-sectional data, measuring contact point usage at a single point in time. To improve the accuracy of results, experts recommend the use of longitudinal field data, measuring at multiple points during the customer contact sequence (Klein and Ford, 2003; Verhoef, Neslin and Vroomen, 2007; McColl-Kennedy *et al.*, 2015; Yumurtacı *et al.*, 2017; Tueanrat, Papagiannidis and Alamanos, 2021; Wang *et al.*, 2024).

There are limitations to the literature. It lacks qualitative studies on customer contact sequences, which could provide deeper insights into using contact points in a sequence (e.g., why specific contact points are used). The predominant focus on explanatory quantitative studies may limit understanding of the complex factors influencing customer contact sequences across a diverse range of contact points (Abbasi *et al.*, 2020).

In the context of this thesis, a critical realist worldview suggests that there is no ultimate or definitive truth (Westhorp, 2014). Therefore, the researcher must consider different values when using and combining various methods to gather the experiences and perspectives of social actors (Sobh and Perry, 2006). The incorporation of methods assumes a singular reality ('real'), and the use of diverse sources aims to produce a range of insights ('family of answers') that can enrich our understanding of the complexities of reality (Mukumbang, 2023). Hence, the critical realist paradigm of this thesis advocates for a mixed-methods design that integrates qualitative and quantitative research methods, encompassing exploratory and explanatory research. In the social sciences, the combination of qualitative and quantitative approaches in research is mainly influenced by Peircean pragmatism (Mukumbang, 2023).

Conducting rigorous research from a critical realist perspective requires comprehensive and systematic methods to cover aspects of observation (demi-regularities), mechanisms, and structures at the empirical level. This approach involves extensive qualitative methods and intensive quantitative methods that use

representative samples to potentially generalise the findings (Danermark, Ekström, and Karlsson, 2019), which this thesis employs. Specifically, the process involves forming abductive hypotheses and then testing them through deductive and inductive methods. This approach is primarily used to comprehensively investigate overarching, intricate, and multifaceted phenomena (Mukumbang, 2023).

Critical realist research involves employing a scientific method to develop models and theories. The primary method, which is confirmatory, entails moving from a theoretical concept to empirical testing of hypotheses to confirm the theory. This approach consists of three phases: theory gleaning, refinement, and consolidation (Manzano, 2016).

Theory gleaning involves developing a preliminary or tentative theory. This process aligns with the recommendation of Sobh and Perry (2006) to establish a conceptual framework that addresses the underlying mechanisms of the phenomenon. Existing knowledge and data can be utilised during this phase (Mukumbang, 2023). In this thesis, such insights are drawn from a systematic review of the literature (see Chapters 2 and 3).

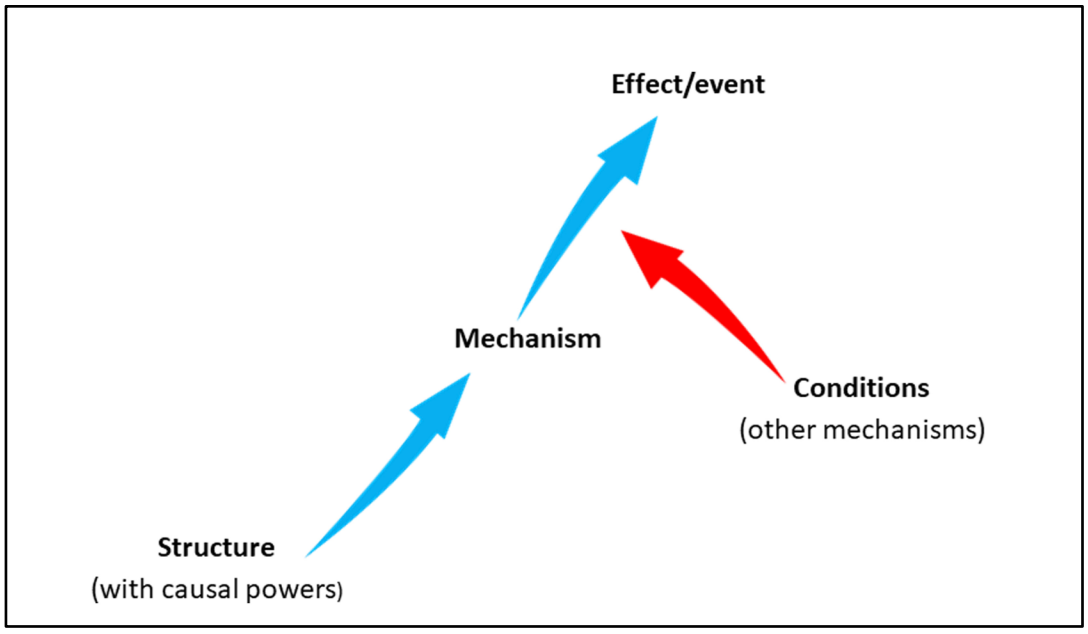
Theory refinement, or theory construction, focuses on creating a conceptual framework by synthesising information from various approaches. This can include qualitative, in-depth research combined with quantitative methods, using structured data collection and analysis techniques to support and enhance the developing theory. These methods align with the mixed-methods approach employed in this research. The refinement process involves testing the preliminary theory through specific studies (Koenig, 2009). This approach seeks to validate, challenge, and improve the initial conceptual framework by applying comprehensive research methods, ensuring it is robust and well-supported (Mukumbang, 2023).

Finally, consolidation includes further refinement and adjustment of the initial theory by comparing all the data gathered during the research process to obtain a more polished theory (Danermark, Ekström, and Karlsson, 2002; Mukumbang *et al.*, 2018).

4.3 The nature and roles of the qualitative and the quantitative studies

As discussed previously, this thesis employs a mixed-methods approach that integrates a qualitative exploratory study with a quantitative explanatory study. Within the context of realist research, it is essential to acknowledge that mechanisms alone cannot fully explain the occurrence of observed phenomena. Critical realists highlight that the influence of generative powers depends significantly on the surrounding context and is further shaped by the interplay of other structures and conditions that also possess generative potential. The context, therefore, is critical as it can shape outcomes by either enabling or suppressing these generative powers (Wong et al., 2013). This perspective underscores the idea that mechanisms may not consistently produce identical results across different contexts, a principle referred to as contingent causality, a defining feature of open systems (Smith, 2012). Consequently, critical realist approaches typically address the structures and mechanisms at play, the potential impacts or outcomes they produce, and the contextual factors that facilitate or hinder their operation (Figure 9; Sayer, 2000; Mukumbang et al., 2018).

Figure 9: Research within the critical realist paradigm (Sayer, 2000)



The first study uses qualitative methods and in-depth interviews to gather data, as critical realist researchers prefer this approach (Mukumbang *et al.*, 2018). It is exploratory, aiming to investigate the underlying conditions within customer contact sequence research. Previous research has primarily focused on the order of contact points without considering influential factors such as involvement that interact with these sequences (e.g., Abbasi *et al.*, 2020). These influential factors have only been examined in other research contexts or have yielded varying findings, making it challenging to determine which ones should be included in the explanatory quantitative study. Additionally, this study is cross-sectional. In-depth interviews allow for a comprehensive analysis of the entire customer journey, even if data is not collected at multiple points in time.

To guarantee that the entire customer journey is covered, parts of the in-depth interviews are carried out in the form of narrative interviews, with a primary emphasis on collecting stories, which can mainly allow the participants to recount their experiences and, consequently, capture the outcomes from the participants' perspectives (Allen, 2017). According to Brönnimann (2021), interviewers who follow a realist approach should begin the interview process by asking about events and social entities that are directly associated with the phenomenon being studied.

In this thesis, the critical realist paradigm utilises qualitative content analysis for qualitative data. This method involves qualitative analysis of data through different levels of interpretation (Vaismoradi and Snelgrove, 2019). It is used to identify patterns and regularities by creating labels (codes) to categorise the data into meaningful groups for analysis and interpretation. These may be utilised to establish demi-regularities (Blair, 2015; Mukumbang *et al.*, 2018).

The role of the qualitative exploratory study in this thesis is to elucidate specific aspects of customer contact sequences that are currently unclear. This will help develop the conceptual framework for this thesis, which can be further explained and tested in the quantitative study. This study aims to analyse three essential elements pertinent to this thesis in the context of customer contact sequence research. These

elements include the types of contact points, the influential factors that affect these points, and the distinction between company-controlled and non-company-controlled contact points.

The first element – the types of contact points utilised during car purchasing – is explored to ascertain whether the appropriate contact points identified in the literature review are the focal point of the research before proceeding with a quantitative study involving a larger sample to determine the sequence of contact points. Failure to include the correct contact points in the appropriate aggregation (e.g., TV and radio advertising versus advertising in general) could undermine the mechanisms or effects identified based on the selected contact points.

When examining the conditions that influence the impact of customer contact sequences, influential factors related to product, channel, personal, and situational involvement must be considered. The qualitative exploratory study aims to identify which involvement factors are critical for the subsequent quantitative study. Failing to do so beforehand could lead to irrelevant factors being included in the study design or essential factors being overlooked. According to the literature, these influential factors can significantly impact the customer sequence (e.g., Lang, Lim and Guzmán, 2022).

The third element is identifying a condition or underlying mechanism that influences the choice of contact points and determining whether it is crucial for customers if company-controlled or non-company-controlled contact points are used in a sequence. The current literature does not definitively state whether customers interact more with company-controlled or non-company-controlled contact points. Many studies have not included non-company-controlled contact points in their research designs (Steinmann, 2011).

This analysis will provide an initial understanding of distinguishing between company-controlled and non-company contact points to determine whether this differentiation is meaningful. Although the literature review did not give a clear answer, researchers consider it crucial for the customer contact sequence (Roggeveen

and Rosengren, 2022). In addition, it is possible to inform the quantitative study about how vital the differentiation between company and non-company-controlled contact points is in terms of study design and analysis.

The insights obtained from the qualitative study will aid in the development of the conceptual framework. Drawing from two sources, the literature review and the qualitative study, will enrich the hypothesis development and thus inform the quantitative study design. In addition, the qualitative study will provide initial answers to two research question: *How do company-controlled and non-company-controlled contact points influence each other in creating a seamless customer contact sequence?* and *What factors affect the structure of a customer contact sequence?*

The second study is quantitative. Its most significant characteristic is its nature as a longitudinal study: the participants are interviewed three times during their ongoing purchase phase while gathering information through various contact points throughout the customer contact sequence. The duration of 6 months was selected because the targeted car purchase process for a customer typically takes up to 6 months (DAT, 2023). Thus, the selected time allows the contact point usage of the participants to be closely monitored during the interview process. This methodology will yield valid findings because participants will be better able to recall their experiences, such as those at the car dealer, when the time between the actual experience and filling out the questionnaire is as close to real-time as possible.

In previous studies, researchers have primarily relied on single questionnaires administered after a customer's purchase was finalised (e.g., Steinmann, 2011). Additionally, there has been a lack of detailed investigation into customer contact sequences, and most studies did not account for the possibility of using a single contact point multiple times during a customer contact sequence. This study addresses these limitations.

The quantitative study is explanatory in nature and mainly aims to investigate the underlying mechanisms and their effects, such as the sequence of contact points, which

is a fundamental aspect of critical realist research. In critical realist research, the validity of quantitative methods hinges on the interpretation of statistics and their role in advancing theoretical development rather than on the methods' intrinsic qualities (Zachariadis, Scott and Barrett, 2013). Surveys will be utilised in the quantitative study; they are commonly employed as a data collection method in critical realist research to depict events in the studied scenario (Mukumbang *et al.*, 2018).

Inductive quantitative methods, including regression analysis, are essential for identifying and categorising contextual elements, proposing mechanisms, and classifying outcomes to comprehensively understand the entities and relationships characterising the phenomena under investigation (Ron, 2002; Westhorp, 2014). Regression analysis, in particular, is valuable for establishing causal mechanisms while considering other potential influences (Ron, 2002).

This thesis utilises a diverse array of methods to analyse customer contact sequences. These methods range from descriptive statistics, such as t-tests, to specific sequential analyses designed to determine the order of contact points and inferential statistics, including regression analysis and analysis of variance. Kazi (2003) noted that inferential statistics can be instrumental in identifying potential causal mechanisms, while statistical significance and related indicators can elucidate connections between mechanisms (Mukumbang *et al.*, 2018).

The role of the quantitative study is to contribute to the existing body of knowledge and theory by providing new insights and validating prior findings from the literature review and the qualitative study. It is essential to incorporate all relevant contact points into the research design to address all of the research questions. The design must allow for the selection of each contact point multiple times, and a robust sample size of customer contact sequences is necessary to yield valid findings and to facilitate the application of various statistical methods. The anticipated outcome is the identification of frequently utilised combinations of contact points within customer contact sequences, ensuring that the sample size remains sufficiently large. The quantitative study examines four primary components: a thorough analysis of customer contact

sequences, an explanation of the interaction between company-controlled and non-company-controlled contact points, a comprehensive assessment of emotional responses, and the initial validation of a longitudinal research design.

The first component involves the use of a large sample size to perform a rigorous analysis of customer contact sequences, encompassing their type, order, and length of customer contact sequences. Researchers have overlooked several critical characteristics in this domain. Notably, there are no existing studies that have examined all pertinent company-controlled or non-company-controlled contact points (e.g., Abbasi *et al.*, 2020). Some authors have limited their focus to only a few contact points in a sequence, for example, the initial three contact points (regarding the order of contact points; e.g., Van Rijnsoever, Castaldi and Dijst, 2012). In contrast, only Steinmann (2011) employed a similar approach to comprehensively assess the order of contact points. Furthermore, the length of customer contact sequences has been neglected in several studies (e.g., Hu and Tracogna, 2021); however, researchers who have considered it have gained promising insights (e.g., Gawronska, 2022). The quantitative study aims to integrate all of the abovementioned characteristics to develop a comprehensive understanding of customer contact sequences.

The second component involves analysing the interplay between company-controlled and non-company-controlled contact points across a substantial sample size. There are two reasons for this approach. First, non-company-controlled contact points have predominantly been excluded from prior research (e.g., Steinmann, 2011). Second, the classification of contact points into company-controlled and non-company-controlled categories and their mechanisms have not been extensively researched, although this approach has been endorsed by Roggeveen and Rosengren (2022). Most existing studies have focused on the interplay between physical and digital contact points, uncovering significant mechanisms such as webrooming (Hu and Tracogna, 2021). This highlights the need for a more thorough investigation into the mechanisms governing company-controlled and non-company-controlled contact points (Tueanrat, Papagiannidis and Alamanos, 2021).

The third component involves a comprehensive analysis of emotional responses throughout the customer contact sequence at each contact point. In the literature, there has been a predominant emphasis on cognitive reactions (Kuuru and Närvänen, 2019; Tueanrat, Papagiannidis and Alamanos, 2021). A prevalent critique in contemporary studies pertains to the tendency to regard emotional arousal as a singular overall state resulting from repeated exposure to specific stimuli. Conversely, Caruelle *et al.* (2024) indicated that the customer journey encompasses a multitude of stimuli, each of which elicits interrelated emotional responses. Consequently, the quantitative study seeks to quantify emotional arousal at each contact point, ultimately generating an average emotional score for the entire sequence. This approach is anticipated to yield more precise insights regarding the role of emotions in the customer journey, suggesting that a higher emotional score correlates positively with purchasing behaviour.

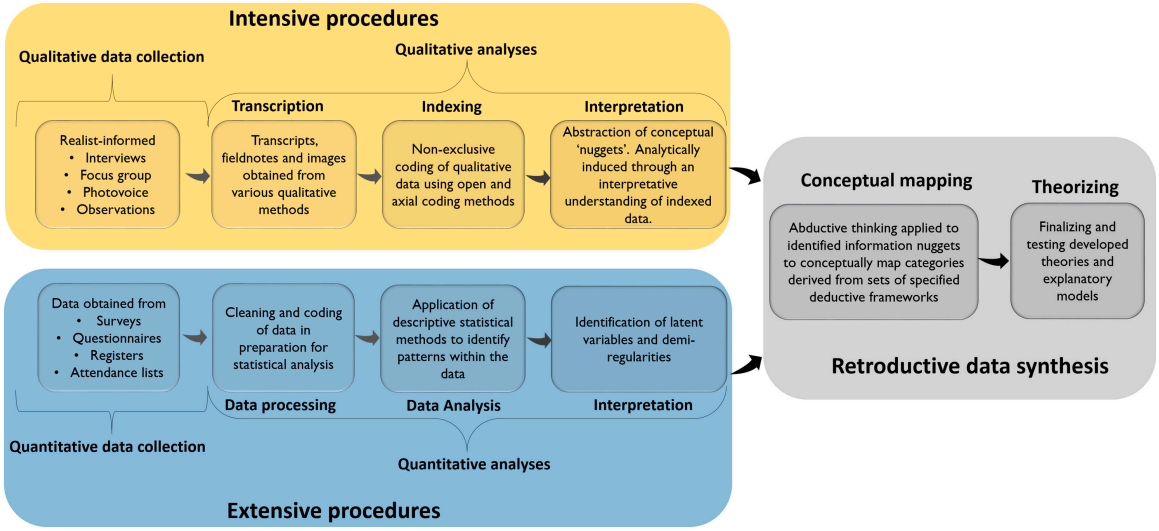
The final component presents the inaugural validation of a longitudinal research design focused on customer contact sequences. Historically, most studies have adopted a cross-sectional design, which may yield less accurate results. To improve the precision of findings, experts advocate for the utilisation of longitudinal field data (Klein and Ford, 2003; Verhoef, Neslin and Vroomen, 2007; McColl-Kennedy *et al.*, 2015; Yumurtacı *et al.*, 2017; Tueanrat, Papagiannidis and Alamanos, 2021; Wang *et al.*, 2024). Thus, this thesis aligns with this demand, allowing for comparison with prior cross-sectional studies. Nevertheless, it is essential to note that this thesis does not extensively analyse the comparative aspects of both data collection methods, as the primary focus is to present the initial longitudinal research data on customer contact sequences and the customer journey.

The insights gathered from the quantitative study will enhance the findings of the qualitative study by examining them on larger sample sizes. Additionally, this research will contribute to the existing literature by addressing four of the research questions: *Which customer contact sequences regarding type, order, and length are present?*, *How do company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence?*; *How strong is the influence of involvement on the structure of a customer contact sequence?*; *To what extent does*

emotional arousal elicited at each customer contact sequence contact point influence their purchase decision?; and *Is a longitudinal design more advantageous than a cross-sectional design for evaluating customer contact sequences?*

As mentioned previously, within a critical realist worldview, a mixed-methods approach is preferred in a single research project to fully comprehend the structures and mechanisms that can be experienced or observed. This endeavour implies the use of intensive and extensive procedures to perform retroductive data synthesis (Figure 10; Mukumbang *et al.*, 2018).

Figure 10: Data synthesis in critical realism (Mukumbang *et al.*, 2018)



Retroductive data synthesis involves the identification of an analytical framework, the crucial mechanisms, and the interconnections between key components. In critical realist thinking, analytical frameworks are constructed from various elements, including context (such as social structures), interventions, and structures that can generate mechanisms leading to specific outcomes (Mukumbang *et al.*, 2018).

While there is no defined method for identifying the pivotal mechanism, these mechanisms are often concealed and challenging to uncover, as they may not be immediately evident within empirical data (Bygstad, Munkvold and Volkoff, 2015). A

possible approach to finding these mechanisms is to examine both positive and negative effects (Mukumbang *et al.*, 2018).

The interconnection of key components relies on the elements of the analytical framework to link them together to formulate a coherent theory (Hedström and Ylikoski, 2010). The emphasis is not on accounting for every detail in the observations, but rather on identifying the most significant elements that contribute to the theoretical framework. Irrelevant observations are intentionally excluded to maintain focus (Mukumbang *et al.*, 2018).

Moreover, meta-abduction can associate each identified mechanism with its corresponding outcome, forming overarching theories (mechanism–outcome links; Mukumbang *et al.*, 2018). This process allows for the development of sub-theories, where it is imperative to remain vigilant in evaluating rival theories, assessing them in terms of their comparative strength in elucidating the 'real' (Bhaskar, 2009)

To summarise, Figure 11 presents an overview of the qualitative and quantitative studies, including their objectives, the research questions they address, the methodologies employed, and their nature and roles. This will give the reader insight into the rationale for the selected mixed-methods approach.

Figure 11: Aims of the mixed-methods approach

Study 1: Qualitative study	**Study 2:** Quantitative study
Role: Theory building	**Role:** Contributory
Nature: Exploratory study investigating the underlying conditions of customer contact sequences	**Nature:** Explanatory study to investigate the underlying mechanisms of customer contact sequences
Aims • Exploration of contact points in general. Are the right contact points integrated into the study? • Exploration if an interplay of company and non-company-controlled contact points is present. • Exploration of the most important influencing factors of customer contact sequences.	**Aims** • In-depth analysis of customer contact sequences (type, length, and order) on a large sample size. • Analysis of the interplay of company and non-company-controlled contact points on a large sample size. • Analysis of emotions during the customer contact sequence at each contact point. • Validation of a longitudinal study as a research design for customer contact sequences.
Related research questions 1) Do company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence? 2) Which factors influence the structure of a customer contact sequence?	**Related research questions** 1) Which customer contact sequences regarding type, order and length are present? 2) Which company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence and favour a purchase? 3) How strongly is involvement's influence on the structure of customer contact sequences? 4) To what extent does emotional arousal elicited at each contact point influence their purchasing decision? 5) Is a longitudinal research design more advantageous than cross-sectional studies for evaluating customer contact sequences?
Procedure • n=20 • Qualitative in-depth interviews (~ 60 min.) • Qualitative content analysis	**Procedure** • n=528 • Longitudinal online survey • Sequential analysis etc.

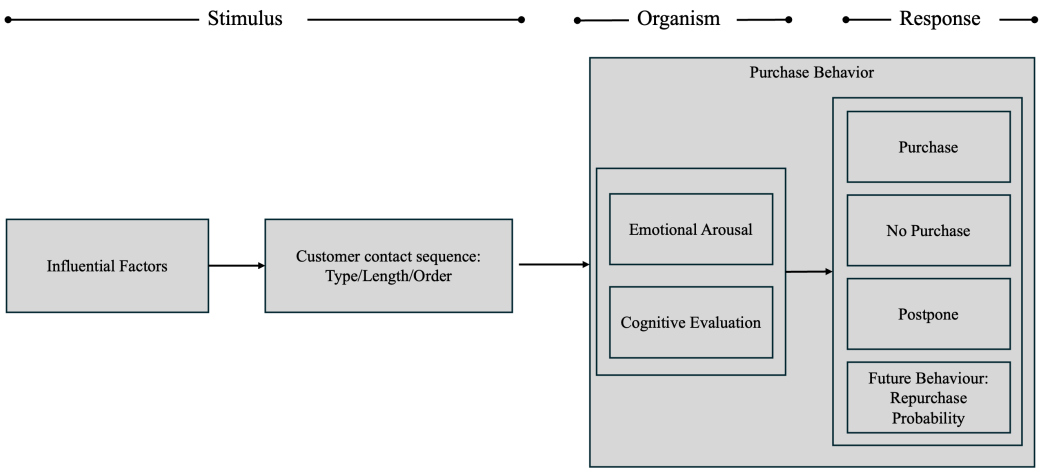
5 Qualitative exploratory study

This chapter addresses the qualitative exploratory study. It commences with the pre-conceptual framework and proceeds with an overview of the methodology employed, including the interview guide. Additionally, the methods used for analysis are delineated, culminating in a presentation of the findings and their implications for the field.

5.1 Pre-conceptual framework

Figure 12 presents the pre-conceptual framework developed after the comprehensive literature review described in Chapters 2 and 3. It comprises three primary components: stimulus, organism, and response.

Figure 12: Pre-conceptual framework



Influential factors and customer contact sequences define the stimulus. The literature review revealed an abundance of ambiguous directions regarding the influential factors (involvement, see Chapter 2.2.1). This qualitative study aims to generate findings that will facilitate the integration of critical variables recognised as influential factors into the final conceptual framework. Furthermore, customer contact sequences – encompassing the types of customer points, the customer contact sequence lengths, and the order of contact points – are essential elements of the stimulus. According to

the literature review presented in Chapter 3.1, a useful categorisation may involve distinguishing between company-controlled and non-company-controlled contact points. This distinction is explored within the qualitative study.

Based on the literature review in Chapter 2.2.2, the organism comprises emotional arousal and cognitive evaluation. This thesis examines these elements in conjunction with pertinent customer contact sequences and their subsequent effects on response variables.

Finally, as discussed in Chapter 2.2.3, the response component represents the aggregation of various variables within the conceptual framework. This component demonstrates the outcomes derived from integrating influential factors, customer contact sequences, emotional arousal, and cognitive evaluation throughout the consumer's purchasing process for consumer durables. Consequently, it elucidates which customer contact sequences facilitate a purchase.

5.2 Overview of the methodology

This qualitative study takes an exploratory approach to examine the underlying conditions in customer contact sequence research. Its main aim is to clarify certain aspects of the theory related to customer contact sequences that are still unclear. This clarification will aid in further developing the conceptual framework presented in the last section, which can then be articulated and tested empirically in the quantitative study.

The qualitative study examines three critical elements related to this thesis concerning research into customer contact sequences: contact points, the factors that influence them, and the significant interaction between company-controlled and non-company-controlled contact points. It is grounded in the pre-conceptual framework and its three primary components. Of note, the stimulus component is the main focus, not the organism and response variables.

This investigation seeks to survey 20 recent car purchasers across various automotive brands in Germany regarding their most recent vehicle acquisition. The aim is to elicit preliminary responses to two research questions: *Which factors affect the structure of a customer contact sequence?* and *Do company-controlled and non-company-controlled contact points influence each other in creating a seamless customer contact sequence?*

To address the study's objectives, in-depth interviews were conducted in Germany to elucidate customer contact sequences. A semi-structured questionnaire was meticulously developed, guided by existing theory. This study adhered to a scientific methodology that conceptualises knowledge as a dynamic dialogue between theoretical preconceptions derived from literature and empirical insights garnered through research (Altheide, 1996) rather than as a strictly linear process. The interplay between these two components is reciprocal throughout the research process (Dausien, 1996). Within this framework, the researcher must possess both theoretical understanding and practical sensibilities, which are informed by personal experiences throughout their life.

The researcher interviewed the participants and refined the questionnaire throughout the research process. In a complementary manner, both the principal researcher and an independent neutral researcher executed the analysis autonomously to enhance the robustness of the findings. The methodological approach provided a way to understanding customer contact sequences better. This is especially important given that the literature has not provided a research framework for the stimulus variable.

Participant selection

The qualitative exploratory study included 20 participants. The theoretical sampling method outlined by Altheide (1996) was employed, focusing on private car buyers in Germany who have purchased a new vehicle within the last 3 months. The objective was to select participants deemed significant for developing new theories, continuing

this process until data saturation was achieved. This approach allowed for a flexible and iterative sampling method. Three principles guided participant selection.

1. Private customers were the central focus of the research. Contrast sampling may yield beneficial insights in specific contexts (Altheide, 1996). As a result, two business customers were interviewed to investigate variations in customer contact sequences. It is hypothesised that compared with private customers, business customers demonstrate distinct strategies when acquiring a company vehicle.
2. Germany is the largest car market in Europe and ranks among the largest globally (GTAI, 2022). Consequently, the qualitative and quantitative studies were conducted in this country.
3. Car buyers must recall their most recent purchase. Research indicates that customers can recall their purchase decisions for up to 6 months (Winkielman *et al.*, 2006). To guarantee that participants demonstrated a clear and vivid recollection of the purchasing process, individuals whose purchases occurred more than 3 months prior were excluded from the questionnaire.

The qualitative study employed a randomised selection methodology to identify potential participants from customer databases provided by 15 distinct automotive dealerships representing various brands across Germany. The researcher accessed these databases due to a well-established network within the automotive industry acquired during prior employment with a car manufacturer.

The 15 dealerships were selected strategically to encompass a comprehensive range of automotive segments, including both volume and luxury brands, across all regions of Germany – namely, the north, south, west, and east. Recruiting 15 dealers was deemed necessary to ensure a sufficiently large sample of participants willing to engage in a 60-minute face-to-face interview, enhancing the rigour and validity of the findings.

Access to the complete customer database was not attained. The pertinent data required from participants comprised an identification (ID) number, brand and product, purchase time, and geographical location. Data were collected from the involved

retailers by utilising a snowball sampling method, wherein connections were established sequentially from one sales representative to another.

The database designated for selection included 15,000 potential participants; however, only a subset of this population was deemed necessary for the study. Each retailer transacted approximately 5,000 new vehicle sales annually, culminating in 1,000 sales over the preceding 3 months. Ultimately, the database consisted of 15,000 viable candidates from 15 participating retailers.

The candidates were strategically diversified to encompass a range of products across various price segments, thereby addressing the need to consider low- to high-income groups. Furthermore, the individuals were systematically categorised according to the geographical locations of the dealers, ensuring a comprehensive distribution across northern, eastern, western, and southern Germany to avoid any geographical biases in the representation.

The participants were randomly selected from a compiled list using Microsoft Excel as a data manipulation tool. Initially, a new column was introduced in the spreadsheet to generate a random value for each participant by applying the RAND function, which produced a set of random values. Subsequently, all rows were sorted based on these random values in ascending order. Then, the contacts for the participants were made sequentially from the top of the sorted list, constituting a randomised sample (Manohar *et al*., 2017).

Sales representatives were instructed to initiate contact on behalf of the researcher, as they possessed the requisite permissions. After the participants provided informed consent, their contact details were provided, allowing further communication with the researcher. This process was enhanced by the strong rapport that the sales representatives maintained with their clients. Among the 20 interviewed participants, 70 were initially contacted, resulting in a 30% participation rate.

Data collection methods

Face-to-face qualitative in-depth interviews were conducted from 24 April 2015 to 30 June 2015 by the researcher. Each interview was approximately 60 minutes. The interviews were meticulously video recorded, and transcripts, alongside analytical memos, were utilised to document the research process, thereby enhancing the validity of the findings (Strübing, 2014). The interview guide was developed based on insights derived from a comprehensive literature review, the analysis of interview guides from comparable studies (e.g., Harrison and Rouse, 2014), and the formulation of various hypothetical response scenarios. Nevertheless, the questionnaire was refined throughout the entirety of the interview period as deemed necessary. A primary challenge encountered with this methodological approach was to elicit from the participants a detailed account of their customer contact sequence and how they navigated the purchase process. This inquiry was essential to identify all pertinent contact points during the customer journey. Consequently, the participants had to accurately recall the chronological order of their contact points during the transaction.

Visual aids were employed to complement the interviews and to enhance the robustness of the findings (Harrison and Rouse, 2014). The participants were presented with meaningful pictorial cards representing various contact points to facilitate their understanding of the options available during the purchasing process. This strategy helped participants recall the contact points they had utilised.

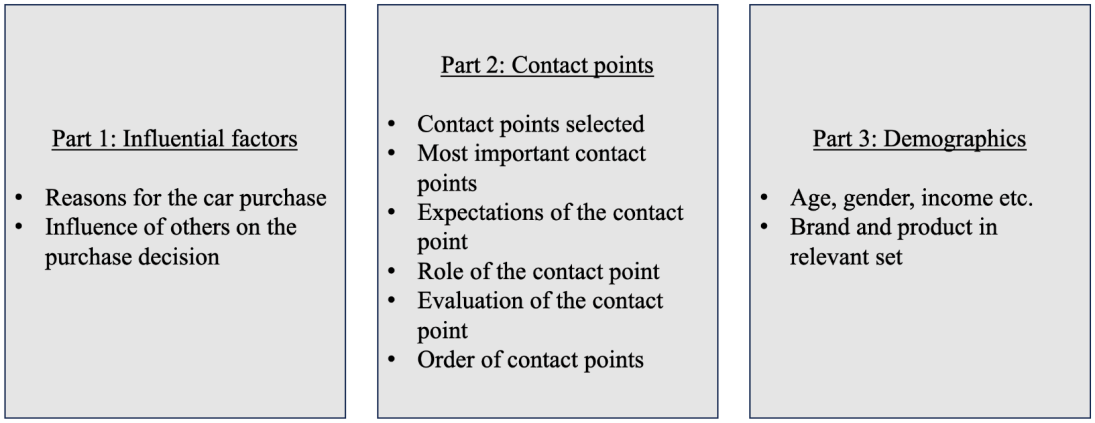
The interviews were conducted in German. After a thorough analysis, a professional translator translated the salient aspects of the participants' responses into English (Ojala and Tyrväinen, 2006).

5.3 Interview guide and operationalisation of variables

This chapter details the methodology employed to construct the semi-structured interview guide for the in-depth interviews, highlighting the influence of the existing literature review on its development. The semi-structured interview guide was

systematically organised into three distinct components, each of which is integral to the logical sequencing of questions throughout the interview process (Figure 13).

Figure 13: Structure of the interview guide



Part 1 examined the influential factors that initiate the purchasing process and impact the contact point selection.

Influential factors (for starting the customer contact sequence). Influential product, channel, personal, and situational involvement factors were assessed based on the studies by Pooler (2003); Steinmann (2011); Storey and Larbig (2018); Liu *et al.* (2020); Zhang *et al.* (2020); Cancela, Briñol, and Petty (2021); López, Sicilia and Verlegh (2022); Suboh, Razak and Alshurideh (2023); and Von Böhlen and Šimberová (2023). The goal was to identify the factors contributing to initiating customer contact sequences.

Expectations about the purchase process. Expectations about the purchase process were assessed based on suggestions from Lemon and Verhoef (2016). The goal was to analyse how expectations related to the purchase process are formed regarding general contact points and information searches.

In part 2, the participants were asked about how the contact points were involved in the purchase process.

Contact points. The contact points were investigated based on suggestions from Gensler, Leeflang and Skiera (2007); Ansari, Carl, and Neslin (2008); Steinmann and Silberer (2009); Koch and Hartmann (2022); and Yang *et al.* (2022). The goal was to describe these contact points to the participants and ask which ones they used during this purchase.

In addition, the participants were instructed to construct a sequential order of the designated contact points. The interviewer employed contact point picture cards (Harrison and Rouse, 2014) representing all pertinent contact points, which participants were encouraged to review and arrange in the usage sequence. Furthermore, dummy cards for 'other' contact points were provided, allowing participants to denote any additional contact points not included in the supplied list.

The list of the contact points included the following (see Tables 3 and 4 for the references):

Company controlled:

- TV commercials
- Direct mailing
- Radio commercial
- Brochures
- Print advertising
- Cinema advertising
- Out-of-home advertising
- Online advertising
- Car configurator
- Corporate website
- Corporate social media
- Mobile app
- Events
- Salesperson
- Test drive

- Trade shows

Non-company controlled:

- Family and friends (WoM)
- Test reports (online/offline)
- Car blogs
- Car portals (used cars)
- Social media dialogues

Importance of contact points for the purchase process (cognitive evaluation). The importance of contact points in the purchase process was examined based on ideas from Kroeber-Riel and Weinberg (2003) and Fu and van Oostendorp (2020). The goal was to analyse their significance in the purchase itself. The participants were asked which contact point they considered the most important and whether they used a specific contact point multiple times during the purchase.

Expectations for contact point usage (cognitive evaluation). Lemon and Verhoef (2016) suggested measuring expectations for contact point usage. The goal was to analyse the participants' expectations before using the contact point. This study focused not on expectations related to the car, but rather on expectations regarding the information search.

Reasons for contact point usage (cognitive evaluation). The reasons for using contact points were investigated by following the suggestions of Kroeber-Riel and Weinberg (2003) and Fu and van Oostendorp (2020). Specifically, the researcher determined whether the participants selected a contact point actively, by chance, or as a result of another contact point. The goal was to analyse how the participants chose a contact point to understand their movement through the customer contact sequence.

Contact point function (cognitive evaluation). Steinmann (2011) proposed the concepts for measuring the contact point function. The goal was to determine which

information, such as general or specific information about the car, the contact point needed to satisfy.

Overall cognitive evaluation of a contact point (cognitive evaluation). This topic was explored by using ideas from Zaichkowsky (1994). The goal was to analyse how the contact point was rated during the customer contact sequence. The participants were asked if they received all the information they sought and what they liked most and least about the contact point.

Finally, part 3 of the interview focused on the demographic variables of the participants and the purchased brand or product.

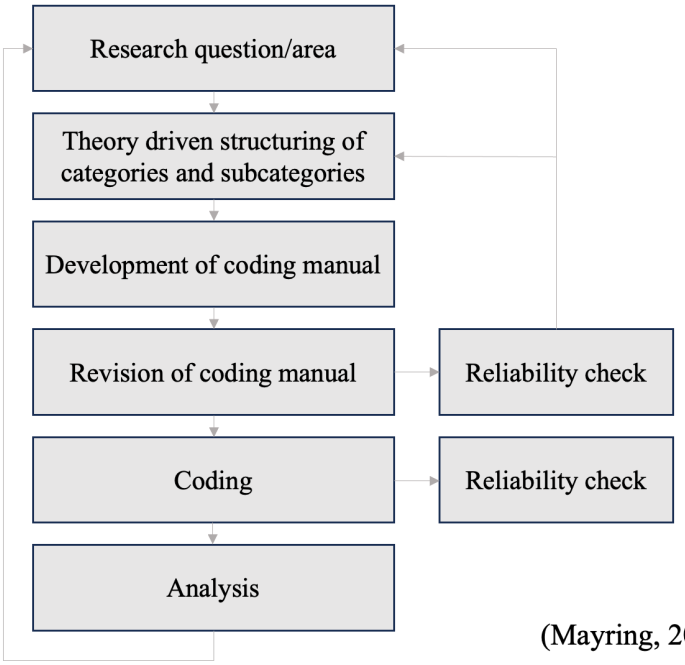
Demographics. All demographics – age, gender, occupation, education, and income – were assessed by following Kantar's (2018) procedures.

Brand/product. The participant's relationship with the brand/product was measured by following the suggestions of Bove and Robertson (2005) and Steinmann and Silberer (2009).

5.4 Data analysis methods

Data analysis relies on qualitative content analysis (Mayring, 2000). Figure 14 provides an overview of this process.

Figure 14: Qualitative content analysis



(Mayring, 2000)

The initial phase of the research involved thoroughly delineating the research domain and formulating precise research questions. Subsequently, a systematic methodology for category construction was employed to delineate the primary categories (themes) and their associated subcategories (subthemes) pertinent to the study. This methodology was grounded in an extensive examination of the literature (see Chapters 2 and 3) rather than the empirical data derived from the study. The analysis identified three principal themes extrapolated from the literature: influential factors, company-controlled contact points, and non-company-controlled contact points (Table 5).

Table 5: The themes and subthemes identified in the literature

Theme	Subtheme	References
Influential factors	Product related (product involvement)	Suboh, Razak and Alshurideh, 2023; Hu and Tracogna, 2021; Grewal and Roggeveen, 2020; Minkenberg, 2013

	Purchase frequency (situational involvement)	Sue and Moradi, 2023; Unger, 1998
	Subjective norm (channel involvement)	Jain, Dixit and Shukla, 2023; López, Sicilia and Verlegh, 2022; Kessler, 2021; Harting *et al.*, 2017; Steinmann, 2011; Kroeber-Riel *et al.*, 2009; Kuss and Tomczak, 2007; Balasubramanian, Rajagopal, and Vijay, 2005; Davis, 1975
	Manufacturers influence (channel involvement)	McGregor, Azzopardi and Halvey, 2023; Hu and Tracogna, 2021; Johnson et al., 2006; Zaharia, 2006
	Psychological influence (personal involvement)	Pooler, 2003; Hu and Tracogna, 2021; Dhiman, Jamwal and Kumar, 2023
Company-controlled contact points	TV commercials	Ratchford, Talukdar and Lee, 2007; Kuss, 2007; Ehrlich, 2011; Steinmann, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Li, 2019; Yang *et al.*, 2022; Zimmermann, Weitzl and Auinger, 2022
	Direct mailing	Silberer and Mau, 2005; Vafainia, Breugelmans and Bijmolt, 2019; Lesscher, Lobschat and Verhoef, 2021

	Radio commercials	Ratchford, Talukdar and Lee, 2007; Ehrlich, 2011; Steinmann, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Kang, Hong and Hubbard, 2020
	Brochures	Silberer and Mau, 2005; Steinmann, 2011; DAT, 2012; Cardow, 2022
	Print advertising	Unger, 1998; Silberer and Mau, 2005; Ehrlich, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Trivedi, Teichert and Hardeck, 2020
	Cinema advertising	Lemon and Verhoef, 2016; Yuan, 2018
	Out of home	Lemon and Verhoef, 2016; De Keyser *et al.*, 2020; Zimmermann, Weitzl and Auinger, 2022; Wilson, 2023
	Online banners	Diez, 2006; DAT, 2012; De Keyser *et al.*, 2020; Beuckels *et al.*, 2021
	Car configurator	Naik and Peters, 2009; García Sánchez, Cardona, and Martín, 2022
	Corporate website	Ratchford, Talukdar and Lee, 2007; Klein and Ford, 2003; J.D. Power and Associates, 2008;

		Silberer and Mau, 2005; Ehrlich 2011; DAT, 2012; Jeon, Ok and Choi, 2018; Lee, Jeong and Oh, 2018; Koch and Hartmann, 2022; Zimmermann, Weitzl and Auinger, 2022
	Corporate social media	Ehrlich, 2011; Lee and Park, 2022; Zimmermann, Weitzl and Auinger, 2022
	Mobile apps	Taylor, Voelker and Pentina, 2011; Brügner, 2012; Park and Park, 2020
	Events	Diez, 2006; Juska, 2022
	Dealer (salesperson)	Ratchford, Talukdar and Lee, 2007; Ehrlich, 2011; Steinmann, 2011; DAT, 2012; Van Rijnsoever, Castaldi and Dijst, 2012; Borchardt *et al.*, 2018; Souza et al., 2020; Yavorsky, Honka and Chen, 2021; Zimmermann, Weitzl and Auinger, 2022
	Test drive	Kuss and Tomczak, 2007; Ratchford, Talukdar and Lee, 2007; DAT, 2012; Degirmenci and Breitner, 2017; Yavorsky, Honka and Chen, 2021

	Trade shows	Lee, Park and Kim, 2021; Alberca, Parte, and Rodríguez, 2018
Non-company-controlled contact points	Family and friends (word of mouth)	Ratchford, Talukdar and Lee, 2007; Ehrlich, 2011; Steinmann, 2011; DAT, 2012; Van Rijnsoever, Castaldi and Dijst, 2012; Azer and Ranaweera, 2022; López, Sicilia and Verlegh, 2022; Jain, Dixit and Shukla, 2023
	Test reports (car magazines)	Kuss and Tomczak, 2007; Ratchford, Talukdar and Lee, 2007; DAT, 2012; Bi *et al.*, 2019; De Keyser *et al.*, 2020; Gibson, 2020; Silaban *et al.*, 2022
	Car blogs	Ratchford, Talukdar and Lee, 2007; Schwickal, 2010; De Keyser et al., 2020; Junior, Mainardes and Da Cruz, 2022; Van Heerden, 2022
	Car portals	Ratchford, Talukdar and Lee, 2007; Brügner, 2012; Wayland, 2018; Von Böhlen and Šimberová, 2023
	Social media dialogues	Ehrlich, 2011; De Keyser *et al.*, 2020; Cao *et al.*, 2021; Lipschultz, 2021

The coding manual was formulated to encompass the identified categories and subcategories. It then underwent revision and rigorous reliability checks, assessing the alignment of the categories and subcategories with the participants' responses. Subsequently, two researchers independently executed the coding process to enhance reliability. Both final coding sets were rigorously assessed for consistency, followed by a qualitative analysis conducted by the two researchers.

The insights gleaned from each customer contact sequence were compiled systematically to achieve an overarching understanding of the influential factors, contact points, and customer contact sequences. Additionally, the findings for each contact point (e.g., car configurator) were analysed meticulously to derive comprehensive insights. The findings were analysed and documented with NVivo, a robust tool for qualitative data analysis.

5.5 Findings

This chapter describes the qualitative exploratory study findings, which enriched the understanding of the overarching domain of customer contact sequences within automobile purchasing processes. These findings contributed substantively to the quantitative study's development. Furthermore, they were utilised to formulate the research hypotheses and the final conceptual framework and to provide initial insights for addressing the research questions.

A qualitative content analysis was performed to answer the following research question: *Which factors affect the structure of a customer contact sequence?* The numerous factors that might influence consumer purchasing behaviours related to consumer durables were identified systematically. The second part of this analysis addressed the following research question: *Do company-controlled and non-company-controlled contact points influence each other in creating a seamless customer contact sequence?* The aim was to elucidate which contact points are employed throughout a

customer contact sequence and the rationale behind their usage. Finally, the salient findings crucial for advancing the quantitative study were compiled.

Overview

Of the 20 participants, 15 were male and 5 were female. The age range was 24–64 years (mean = 41.1 years). Three participants bought a car from Porsche, eight from Mercedes-Benz, two from Audi, and seven from Volkswagen. Additionally, two business customers were interviewed for contrast sampling purposes.

Part 1: influential factors

As noted above, qualitative content analysis was employed to identify the most significant influential factors. The coding process was influenced by various product, channel, personal, and situational involvement factors, as delineated in Chapter 2.2.1.

Product involvement encompasses considerations of product malfunctions and technological advancements, including introducing novel safety features (Minkenberg, 2013; Kandaswami and Tiwari, 2014; Suboh, Razak and Alshurideh, 2023).

Channel involvement includes various contact points, but this analysis focused on the channels that initiate customer interactions, influenced by the surrounding environment and social factors. Products can be acquired for personal use, family, third parties (e.g., in business), or to help a friend with a purchase decision (Balasubramanian, Rajagopal, and Vijay, 2005). These scenarios can overlap; for example, assisting a friend may also impact one's own purchasing choices (Jain, Dixit and Shukla, 2023).

Personal involvement is shaped by various factors, including personality traits, attitudes, life circumstances, and experiential elements such as gender, age, and income (Cancela, Briñol, and Petty, 2021). However, this study did not prioritise demographic variables such as age or gender, as they pose challenges for qualitative

research due to typically limited sample sizes. Instead, such demographic considerations were addressed in the quantitative study. The qualitative study predominantly emphasised psychological factors, particularly life circumstances, as critical determinants of personal involvement.

Situational involvement is characterised by the specific circumstances that a customer encounters during the purchasing process (Hsia *et al.*, 2020). Substantial life events may amplify situational involvement, particularly when shopping for particular products (Kroeber-Riel and Weinberg, 2003). According to Lee, Choi and Kim (2024), situational involvement is critical in shaping consumer expectations and influencing their experiences with a product or service.

Table 6 presents a comprehensive overview of the exemplary codes, including their subcategories, subthemes, and overarching themes. This evidence demonstrates how the codes derived from the in-depth interviews contributed to formulating the central theme.

Table 6: Codes supporting the theme 'influential factors'

Exemplary codes	**Subcategory**	**Subtheme**
'Looking for a new car didn't really work out through the dealership at first, but then the salesperson called me back several months later' // 'My decision to buy a new car was influenced by another recent car purchase I made for my company.'	Another car purchase	Product related (product involvement)
'The car started having problems, maybe electronic ones, as those kinds of issues tend to come up.' // 'My old car had been facing several problems that only seemed to increase over the past year, so I decided to start looking for something more reliable.'	Old vehicles malfunction	

‘I found it incredibly frustrating that my old car didn’t have Google Maps.’ // ‘I had an old car, and I wanted a slightly bigger engine for better performance. It was clear to me that it definitely had to be a 3.0-liter engine because they’re just smoother to drive.’	Current car outdated	
‘I established a routine where I always choose a leasing period of 36 months. After that, I like to buy a new car.’ // ‘I generally go for a 48-month lease because it tends to be more cost-effective compared to the shorter 24- or 36-month options.’	End of lease	Purchase frequency (situational involvement)
‘Because I actually buy cars regularly.’ // ‘I have a personal rule that I always buy a new car every six years.’	Regular purchase interval	
‘The trigger point was that I bought a car for my sister, and the salesperson approached me.’ // ‘I was helping a friend who doesn’t know much about cars, but while we were at the dealership, I fell in love with the newest model.’	Assisting a friend/relative	Subjective norm (channel involvement)
‘My wife really wanted a new car; she kept saying it was time for an upgrade.’ // ‘My wife wanted a station wagon because she felt we needed more space for all the kids’ stuff.’	Started the purchase because of someone else	
‘The salesperson has really become somewhat of a friend over time. Whenever he finds a good deal or an offer that might fit what I’m looking for, he always makes sure to reach out to me.’ // ‘I’ve known the	Relationship with salesperson	Manufacturer’s influence (channel involvement)

salesperson for several years now, and I completely trust his judgment.'		
'I saw a TV ad, and it sparked my interest in getting a new car, so I decided to visit the dealership.'// 'I saw a magazine ad that really caught my attention.'	Saw advertising	
'No, it was actually more about the interest in something new, just a bit of variety—the desire for something fresh.' // 'After experiencing a life-changing event, I felt a strong urge for a fresh start in many areas of my life, including with my car.'	Wanted a change	Psychological influence (personal involvement)
'After receiving my job promotion, I decided to reward myself with a new car.'// 'Having changed companies and landed my first management job, I felt it was the perfect time to reward myself.'	Job promotion	

The analysis identified five primary influential factors that significantly impact customer contact sequences. These factors include product-related factors (denoting product involvement), purchase frequency (reflecting situational involvement), subjective norm (associated with channel involvement), manufacturer's influence (also linked to channel involvement), and psychological influence (personal involvement). These determinants are critical for initiating a customer contact sequence when procuring consumer durables like automobiles.

Product-related factors, specifically those pertaining to product involvement, demonstrated significant relevance in initiating a customer contact sequence. This study identified three subcategories: another car purchase, old car malfunctioning, and current car outdated.

The another car purchase subcategory is predicated on the observation that a customer previously searched for a vehicle, which prompted a renewed purchasing initiative. This recurrence is frequently ascribed to the lack of access to a particular model during the initial inquiry phase, which leads the customer to seek an alternative vehicle purchase. Consequently, as Respondent D indicated, this situation is a significant catalyst for re-engagement.

> *Six months ago, I was searching for a new car, but the model with the engine I wanted wasn't available. I got really frustrated and decided to hold off on the purchase. Then, 12 months later, I saw that exact car was finally available, so I bought it!*

The old vehicles malfunction subcategory is essential for starting a customer contact sequence, creating urgency for the consumer. When someone depends on their vehicle for commuting, they may need to buy a new one quickly. This aligns with the conclusions provided by Kandaswami and Tiwari (2014). A malfunction could happen anytime, prompting the customer to consider a new purchase. Alternatively, the customer might act early, expecting future malfunctions and choosing to invest in a new vehicle before any issues occur. These behaviours are reflected in the participants' reactions:

> *Buying a new car wasn't a real decision for me; my current car had a major engine failure, and the repair costs were just too high. Since I rely on my car for work, I had to move quickly to find a replacement that would keep me on the road.* (Respondent T)

> *My old car had been facing several problems that only seemed to increase over the last year. It became clear to me that it was time for a new car, so I decided to start looking for something more reliable.* (Respondent E)

The current car outdated subcategory refers to new technological features that a customer is missing. These features can be entertainment, safety, or general

advancements in new products. This is in line with the findings reported by Suboh, Razak and Alshurideh (2023).

> *I found it incredibly frustrating that my old car didn't have Google Maps; getting lost became a regular occurrence without that essential navigation.* (Respondent A)

The subsequent subtheme purchase frequency, which is categorised as situational involvement, encompasses the subcategories end of lease and regular purchase interval.

End of lease describes the financing and leasing options available to consumers when acquiring a vehicle. These options usually last from 36 to 48 months. When this period ends, customers receive offers from sales representatives or can choose to switch to a different brand.

> *I've established a routine where I always choose a leasing period of 36 months. After that, I like to buy a new car. This allows me to enjoy the latest technology and features, and it keeps my driving exciting. I appreciate having that fresh start every three years, making sure I always have a reliable vehicle.* (Respondent G)

The regular purchase intervals subcategory is similar to the end of lease subcategory. However, the critical difference is that it is not the length of the financial leasing period that influences the acquisition of a new vehicle; rather, it is a timeframe defined by the consumer. The identified purchase interval ranges from 2 to 3 years or from 7 to 8 years. These findings align with Unger (1998), who indicated that shorter purchase cycles enhance familiarity with the purchasing process and influence future buying decisions.

> *I have a personal rule that I always buy a new car after seven years. It gives me enough time to really enjoy the vehicle while also ensuring I stay updated with the latest advancements.* (Respondent L)

The next influential factor identified was the subjective norm (within channel involvement). The subjective norm can be perceived as an integral component of channel involvement in customer contact sequences. It emphasises explicitly the 'human' channel within the customer's environment, which is grounded in two variations: assisting a friend or relative and starting the purchase because of someone else.

Regarding the assisting a friend or relative subcategory, Jain, Dixit and Shukla (2023) demonstrated that aiding a friend in purchasing can catalyse a purchase decision. This observation aligns with the findings of the current study. Such occurrences are prevalent when one customer possesses expertise in a particular domain, thus serving as a credible resource for a friend making a significant financial decision that requires careful consideration.

> *I was helping a friend who doesn't know much about cars, guiding them through the process of looking for a vehicle. But while we were at the dealership, I fell in love with the newest model of the Audi A5 and ended up buying it for myself!* (Respondent B)

The started the purchase because of someone else subcategory primarily pertains to intimate familial relationships, particularly those involving a spouse. Within the framework of this study, the wife expressed a desire for a more spacious vehicle, prompting the husband to commence the purchase process. An illustrative example is:

> *My wife wanted a station wagon because she felt we needed more space for all the kids' stuff. With their gear and everything that comes with family outings, having that extra room would make our trips so much easier.* (Respondent F)

Another critical factor in channel involvement is the concept of manufacturer influence, which refers to how an automotive company can initiate the purchase phase for potential customers. This study delineated two subcategories: relationship with the salesperson and saw advertising.

The relationship with the salesperson subcategory is pivotal, as numerous participants in the study highlighted its significance. Generally, a salesperson's primary objective is to foster a long-term connection with the customer. However, several participants expressed that their relationship with the salesperson resembled a friendship. This interpersonal connection was predominantly rooted in a foundation of trust, which can substantially affect the consumers' decision-making process.

> *I've known the salesperson for several years now, and I trust his judgment completely. When he suggests that its time to replace my old car, I know it's worth considering.* (Respondent C)

The saw advertising subcategory was also referenced by the participants, although its influence appeared to be comparatively weaker than that associated with the relationship with the salesperson. Kessler (2021) suggested that advertising has diminishing efficacy. However, some of the participants acknowledged the impact of advertising:

> *I saw a TV ad for a new Mercedes and it sparked my interest in getting a new car. So, I decided to visit the dealership to check out the new model for the first time, and I really liked it. It felt like the perfect fit for what I had been looking for!* (Respondent H)

The final significant influential factor identified was psychological influence, a component of personal involvement. This subtheme prominently highlighted the customer's intrinsic motivations. Two primary subcategories emerged: wanted a change and job promotion, which align with Wegier and Spaniol's (2015) findings regarding the theory of self-reward shopping. Customers tend to self-reward in

recognition of notable achievements or found themselves in specific life circumstances that necessitated change, consequently influencing their purchasing behaviour.

The wanted a change subcategory is often rooted in life-altering events or reflects a general yearning for novelty, as illustrated in the following excerpt.

> *No, it was actually more about the interest in something new, or – yeah, just a bit of variety. It wasn't really about it being technical or because it was too old or anything – just the desire for something new.* (Respondent I)

The job promotion subcategory appeared multiple times. The variations included the provision for customers to receive a company car following a job promotion or an increase in salary correlated with the promotion. In both cases, these outcomes were rooted in the concept of self-reward for achieving a noteworthy work milestone.

> *After changing companies and landing my first job in management, I felt it was the perfect time to reward myself. I wanted to celebrate this achievement by treating myself to something special, like a new car that reflected my hard work and new role.* (Respondent N)

The findings related to influential factors suggest that customer-specific factors significantly influence the decision-making process regarding purchasing new products. Purchase frequency is crucial in shaping customer contact sequences alongside the subjective norm and psychological influences. From the consumer's perspective, the decision to make a purchase appears predominantly driven by rational considerations, particularly concerning the product's high price point. The manufacturer's influence is relatively limited: it can attempt to steer the customer through various contact points, such as advertising campaigns and proactive sales personnel, to facilitate a purchase decision.

Part 2: customer contact sequences

For part 2, the analysis also aimed to yield critical insights into the contact points used during customer contact sequences and the rationale behind their employment to answer the following research question: *Do company-controlled and non-company-controlled contact points influence each other in creating a seamless customer contact sequence?*

The contact points used by the participants are consistent with those identified in the literature. Moreover, several novel contact points were uncovered (see Table 7), necessitating their incorporation into the quantitative study.

Table 7: Contact points identified from the literature review and the qualitative exploratory study

Contact points from literature review	Additional contact points found in the qualitative study
Company controlled • TV commercials • Direct mailing • Radio commercial • Brochures • Print advertising • Cinema advertising • Out of home advertising • Online advertising • Car configurator • Corporate website • Corporate social media • Mobile app • Events • Salesperson	Company controlled • Visited the dealer (no consultation) • Customer portal • Gathered information at a motorsport event (e.g., Formula 1) • Read in my personal customer magazine (from my current car manufacturer) • Repair or service at the dealer, • Contract negotiations with salesperson • Got a car replacement offer from my dealer

• Test drive • Trade shows Non-company controlled • Family and friends (word of mouth) • Test reports (online/offline) • Car blogs • Car portals (used cars) • Social media dialogues	Non-company controlled • Saw within the usual traffic (e.g., at traffic lights, on a parking lot or driving by) • Own experience with the car (e.g., drove the car from a friend, colleague; no official test drive)

Of note, several of the identified contact points were rarely utilised and were not deemed significant for decision-making. Consequently, these contact points are not included in the following summary due to the absence of specific findings. Table 8 outlines the themes, subthemes, subcategories, and exemplary codes for the primary contact points identified in the qualitative study.

Table 8: Codes supporting company-controlled and non-company-controlled contact points

Exemplary codes	Subcategory	Subtheme	Theme
'Wanted to exchange ideas with the salesperson' // 'It must be done to get the best price' // 'A schoolmate who works as a salesperson there.' // 'Wanted to see the car and have everything explained' // 'I know the salesperson personally' // 'I need the personal contact' // 'Supplementary information on what I couldn't find on the internet'// 'Check if financially feasible' // 'Decide on the last extras' // 'Book a test drive' //	Usage reasons	Consultation at a car dealer (with sales person)/visited the dealer (no consultation)	Company-controlled contact points

‘Because of my young age, I was not treated seriously’ // ‘The salesperson was not interested in me’ // ‘No one recognised me// ‘Did not like the store design’ // ‘The salesperson did not have enough knowledge’ // ‘Did not adapt to my needs’	Negative aspects		
‘Was offered a coffee immediately’ // ‘Good relationship with the salesperson’ // ‘The salesperson was a real expert’ // ‘Was treated well in general’ // ‘Already at the reception, or even when I call or just walk in without an appointment, I’m always taken care of ’ // ‘The salesperson organised a special feature that was not available for this car’ // ‘Bonded well with the salesperson’ // ‘The salesperson spent a lot of time with me’	Positive aspects		
‘As an entry point for the car configurator’ // ‘Was looking for the deciding information‘ // ‘Price information’ // ‘Discover what models are available’ // ‘Experience the design details of the car’ // ‘Searching for detailed specs’ // ‘Comparing features’	Usage reasons	Homepage visit of the manufacturer	
‘Website is outdated regarding specific model information‘ // ‘Wrong information was shown’ // ‘Boring pages’ // ‘Long loading times’ //	Negative aspects		

‘Emotional content where I feel the car connection is missing’ // ‘Found only information I already knew, but not the one thing I was missing.’			
‘First pictures of the new model shown—that was fascinating‘ // ‘Found all information in no time’ // ‘Nice design’ // ‘Easy navigation’ // ‘Modern look’ // ‘Opened the website and immediately saw the model I was looking for’ // ‘Found the link to the configurator quickly’	Positive aspects		
‘Configure the car’ // ‘Customise the car as I want it’// ‘Prepare my new car for the meeting with the salesperson. I don’t want to sit at the dealership for hours’ // ‘Get an idea about the price with extras’ // ‘Want to see the final look of the new car’ // ‘See what is possible in terms of design’	Usage reasons	Online car configurator at the homepage of the car manufacturer	
‘Bad performance and slow’ // ‘New model was not available’ // ‘Combination of different extras not possible—I did not know why’ // ‘Needed to start all over again’ // ‘Boring process’ // ‘Images are not loading correctly’ // ‘Configuration was not saved’ // ‘The process takes very long’	Negative aspects		
‘Easy to navigate’ // ‘Everything was easy to find’ // ‘Nice to see what my car will look like’ // ‘Information	Positive aspects		

depth was great' // 'Very fast' // 'Easy to save the configuration with a code' // 'Great to see how the car changes after switching colours and trims' // 'Change from day to night mode to see the headlights'			
'Experience the car' // 'I was offered a test drive by the salesperson' // 'Would not buy without driving the car first' // 'Experience how the car fits my needs' // 'Discover if the engine has enough performance' // 'Test every feature' // 'Is everything how I imagined it' // 'Compare different models' // 'Make the final decision'	Usage reasons	Took a test drive	
'Not the engine I wanted to test drive in this model' // 'Didn't like the driving experience.' // 'Test drive was too short' // 'Could not test drive over the weekend when I had enough time to experience every detail'	Negative aspects		
'The car felt as good as I had hoped' // 'Very easy process to book the test drive' // 'Could test drive for as long as I wanted' // 'Great performance of the car'	Positive aspects		
'Wanted another opinion' // 'Neutral and honest opinion from a friend - not a biased opinion from the salesperson' // 'Expert opinion because my friend knows everything about cars' // 'Have	Usage reasons	Talked to friends or relatives	Non-Company-controlled contact points

my decision confirmed' // 'Make the final decision' // 'See if the car might look bad for my image – I wanted to buy a big SUV' // 'I need to verify my decision with my family'			
'Nothing negative'	Negative aspects		
'Opinions matched, and it felt good' // My family backed the decision' // 'Feedback was very honest' // 'It felt pleasant just talking about it with someone else'	Positive aspects		
'Compare the different models I had in mind' // 'See market prices of all comparable models' // 'See how expensive the used version is' // 'Decision between a new or used car' // 'Find a better deal'	Usage reasons	Visited a used car portal on the internet	
'Did not find the model I was looking for' // 'Not the extras I wanted'	Negative aspects		
'Large selection of models and makes' // 'Easy navigation on the website' // 'Found all relevant information'	Positive aspects		
'Gather in-depth information' // 'Wanted to know what the price-performance ratio is' // 'Get insights from real experts' // 'Get a neutral, objective comparison of different models' // 'Only had information provided by the car company, and I wanted more' // 'Searching for a detailed test report for my decision' // 'Read the magazine regularly'	Usage reasons	Read a car magazine	

‘The test report was not about the configuration I was looking for’ // ‘Not interactive’ // ‘Provided redundant information’	Negative aspects		
‘Liked the images of the car’ // ‘Fun to read’ // ‘Real experts sharing their knowledge’	Positive aspects		

Company-controlled contact points

The personal contact points of consultation at a car dealership (with salesperson) and visit the dealership (without consultation) play a crucial role in the purchase decision. As discussed in Chapter 3.1, the dealership is the most significant contact point that influences the car purchase decision (Hauser, Urban and Weinberg, 1993; Diez, 2006; Marutschke and Gournelos, 2020). This study highlighted the importance of cultivating a healthy relationship with the salesperson during the dealership visit.

> *I know the salesperson personally and have built a good relationship with them. Over time, I’ve seen their dedication to providing the best service, and I trust their expertise to guide me through the buying process.* (Respondent F)

Personal interaction and hands-on product experience, both of which a salesperson can offer, are vital elements in the customer journey. Customers seek to see the car and to receive clear and comprehensive explanations. A salesperson should be friendly, proactive, and adaptable, ensuring that the customer feels valued and treated with respect. Conversely, a negative interaction with a salesperson can trigger significant frustration and scepticism if not handled appropriately, as highlighted by Zimmermann, Weitzl and Auinger (2022). Personalised guidance and expertise play a crucial role as dealers assist customers in navigating product options, empowering them to make well-informed purchase decisions.

I wanted to understand the car in all its intricacies and features. It wasn't enough for me to simply glance at its exterior; I wanted to see every detail up close and have everything explained. (Respondent D)

Whether it's at the reception desk, during a phone call, or even when I walk in without an appointment, I can always count on being taken care of. It's a reassuring feeling to know that no matter how I reach out, the staff is ready to assist me with a warm welcome and attentive service. Their commitment to making sure I feel valued is evident. (Respondent G)

My youth became a barrier; I wasn't taken seriously because of it. It didn't feel right. (Respondent C)

Furthermore, the findings suggest that a salesperson should be strategically integrated into the customer journey because a customer encounters the salesperson multiple times during their purchase and seek information both before and after their interactions with this individuals. This finding aligns with Steinmann (2011), who found that the dealer and the salesperson can address a range of customer needs throughout the journey, from the initial information search to the final purchase.

Given that numerous contact points within the customer contact sequence lead to the salesperson, car companies need to provide ongoing training to staff on creating personal customer experiences. The quality of the customer experience largely depends on the individual salesperson's knowledge, skills, and customer service abilities, which can vary significantly across different interactions (Yavorsky, Honka and Chen, 2021). This phenomenon emphasises the importance of personalised service during the purchasing process from the customer's perspective. This aligns with the risk-oriented approach discussed in the literature review, which aims to mitigate risks in the purchasing process, as customers tend to view the salesperson as a trustworthy and competent point of contact.

I visited the dealer multiple times throughout the purchase process. I wanted to ensure everything was in order, understand all the details, and feel confident in my decision. (Respondent H)

I wanted to speak with a true expert – Martin [salesperson] could guide me and help me make the right decision. (Respondent T)

A test drive is a crucial step that represents one of the most significant opportunities for the customer to decide. As reported by Diez (2006), a test drive is one of the three most critical contact points. Thus, despite the high costs associated with providing test drives for sellers, they are an essential component of the customer contact sequence. Without them, the likelihood of achieving a favourable purchase decision diminishes.

The test drive is absolutely essential for my purchase decision; it's the only way to truly know if this car is the right fit for me. (Respondent I)

I wouldn't consider buying without driving the car first. (Respondent A)

I can't make a final decision to buy a car without experiencing a test drive first. It's the only way to truly understand how the car handles and feels on the road. Without that firsthand experience, I wouldn't feel confident moving forward with the purchase. (Respondent L)

Customers can only gather the necessary information to make an informed decision through firsthand experience with a product. Degirmenci and Breitner (2017) demonstrated that a test drive is a crucial element of the customer journey during the pre-purchase phase. It allows potential buyers to experience the vehicle directly before committing to a purchase. During a test drive, a customer can assess the vehicle's comfort, handling, and performance and explore advanced technologies such as autonomous driving.

I need to experience the drive firsthand to discover if the engine has enough performance to meet my expectations. (Respondent J)

Taking the car for a test drive allows me to evaluate every feature in real conditions, ensuring everything works as expected and meets my needs. (Respondent F)

In the context of the customer journey, a test drive represents a natural progression following a visit to a dealership. Many customers specifically come to a dealership to schedule a test drive (Degirmenci and Breitner, 2017). A significant challenge identified in the literature and reflected in this study is the lack of test drive vehicles in specific configurations, leading to frustration among potential buyers (Yavorsky, Honka and Chen, 2021). Additionally, this study found that inflexible or overly short test drives significantly diminish the overall experience.

My motivation to visit the dealership is to book a test drive. (Respondent C)

This wasn't the engine I had hoped to test drive in this model. I wanted to experience the exact performance and feel of the engine I'm considering. Without testing that specific engine, it's hard to make a fully informed decision. (Respondent K)

The test drive was too short for me to really experience the car. With just one hour, I didn't have enough time to explore its handling and features properly. To feel confident in my decision, I would have needed more time behind the wheel. (Respondent B)

Among the online company-controlled contact points is the manufacturer's homepage (website). As indicated in Chapter 3.1, 75% of all car buyers utilise the corporate website during their purchasing process to gather information before visiting the dealership, making this a crucial stage in the customer contact sequence (Harting *et*

al., 2017). Visitors to the car company's homepage seek detailed information, using these resources to research product comparisons, pricing, and specific product details.

> *I used the car company's website to search for detailed specs, hoping to understand everything about the model before seeing it in person.* (Respondent O)

> *I went on the car company's website to compare features across different models, so I could see which one best suited my needs.* (Respondent F)

When utilising the homepage, customers expect to find information quickly and easily, so the homepage must function correctly. A well-designed corporate website can significantly enhance brand credibility and trust, serving as a valuable resource for customers conducting research (Jeon, Ok and Choi, 2018). The participants expressed concerns regarding inaccurate or insufficient information. Consistently, the literature review highlighted that the homepage should avoid navigation complexities and underscored the challenge of providing an engaging experience for each visitor (Jeon, Ok and Choi, 2018), a finding that aligns with this study.

> *I found all the information I needed on the car company's website in no time—it was easy and saved me a lot of effort – this is how it should be.* (Respondent H)

> *The website took so long to load that it became frustrating right from the start. I was eager to explore the car options, but the delays made me want to give up before I'd even begun.* (Respondent B)

> *When I looked up the model I was interested in, the website showed rims that I later found out weren't even available for it. The salesperson told me they couldn't be added to that model, which was disappointing. It's frustrating when the information online isn't accurate.* (Respondent J)

> *The website was pretty dull and didn't have that emotional appeal I was hoping for; it didn't make me feel excited about the car. Without anything to really capture my interest, I found it boring and didn't spend much time on it.* (Respondent M)

On the car company's homepage, customers frequently seek out the car configurator. This tool is crucial for gaining a comprehensive view of a future vehicle, allowing users to experiment with various features and see the final price. It is typically utilised after gathering detailed information from the website and preparing them for a visit with a salesperson (Naik and Peters, 2009). The participants noted that they used the car configurator to educate themselves and to minimise the time spent with the salesperson, allowing them to avoid discussing every configuration detail in person.

> *The car company's website served as my entry point for the car configurator, hoping to customise and explore different options for the model I wanted.* (Respondent P)

> *Using the car company's configurator gave me a sense of the price with extras, which helped me plan my budget better for the new car.* (Respondent N)

> *I used the car configurator to prepare my new car before meeting with the salesperson because I didn't want to spend hours sitting at the dealership. It helped me know exactly what I wanted and made the process much smoother.* (Respondent D)

The participants noted that the car configurator should be user friendly, allowing quick access to all essential details. It has the advantage of providing comprehensive information and visualising how the car will appear once constructed. Consistently, García Sánchez, Cardona, and Martín (2022) found that the car configurator offers a personalised and immersive experience by enabling users to explore various options for colours, trims, and additional features.

The car configurator was easy to navigate; everything was right where I expected, making it simple to find the options I wanted. (Respondent G)

It was nice to use the configurator and see exactly how my car would look with the options I picked – it made the experience more fun and real. (Respondent P)

According to the participants, the car configurator presents a suboptimal experience when it operates slowly or fails to save configurations adequately. From a user experience standpoint, it is crucial that the configurator does not become tedious and that the configuration process remains efficient. A notable drawback is the need for more transparency regarding which options can be combined; users may find that selecting one additional option restricts the availability of other choices or necessitates the purchase of extra features. Furthermore, García Sánchez, Cardona, and Martín (2022) highlighted a concern regarding the potential to overwhelm customers with excessive choices, which can lead to decision fatigue. However, this phenomenon was not mentioned by the participants.

The car configurator was really slow, and it made the whole process frustrating. Every time I chose an option, it took too long to load, which took away from the fun of building my car. (Respondent E)

The car configurator turned out to be boring. I was excited to build my car, but it just felt like clicking through basic options without anything fun or interesting. I expected it to feel more exciting, but it didn't. (Respondent O)

I tried to combine different extras in the car configurator, but some options just wouldn't work together, and there was no explanation why. I kept adjusting and trying different combinations, but it was frustrating not knowing which features were incompatible. It would have been helpful to have more guidance so I could understand my choices better. (Respondent I)

Non-company-controlled contact points

Several non-company-controlled contact points emerged from the interviews, including discussions with friends and relatives (WoM) and insights garnered from car magazines, specifically test reports. Additionally, used car portal emerged as an online non-company-controlled contact points.

Discussions with friends and relatives (WoM) are crucial in purchase decisions. Customers are keenly interested in obtaining neutral opinions from familial and expert sources to reassess and validate their choices and to garner consumer feedback. Obtaining truthful information regarding product specifics enables them to compare and identify potential negative attributes that the seller may not disclose. Decisions related to high-value items, such as automobiles, are frequently deliberated upon with family or friends to rationalise and facilitate the purchase decision.

According to the participants, they used WoM multiple times during the purchase decision process, consistent with the findings from the literature review (Chapter 3.1). WoM serves various purposes in the customer journey, ranging from initial information gathering to confirming the purchase decision (Azer and Ranaweera, 2022). Kuss and Tomczak (2007) identified WoM as the most critical contact point, and according to other researchers, it often surpasses the influence of traditional advertising (Baxendale, Macdonald, and Wilson, 2015), particularly concerning car purchase decisions (Van Rijnsoever, Castaldi and Dijst, 2012).

> *I talked to a friend who is a car expert because I wanted an honest opinion, not a biased one from a salesperson. He gave me his real thoughts on the car, which helped me feel more confident in my decision. It was important to hear what he honestly thought without any pressure.* (Respondent A)

> *I talked to my spouse and kids to have my decision confirmed. Their support and reassurance helped me feel more confident that I was making the right choice.* (Respondent F)

> *I wanted another opinion, so I spoke to different friends several times throughout the purchase process. Their advice helped me see things from different angles and made me feel more confident in my decision.* (Respondent T)

Subsequently, customers acquire expert opinions by perusing car magazines, particularly their test reports. Car magazines are valuable for customers seeking detailed and impartial information regarding various vehicle models. The participants frequently consulted these publications to ascertain the price-performance ratio of differing models, seeking expert analyses that elucidated the performance of vehicles relative to their contemporaries within the same category. These evaluations provide a neutral and objective comparison framework, facilitating more informed choices.

Although information provided by car manufacturers was readily accessible, the participants frequently criticised it as inadequate and biased. They sought to obtain more comprehensive and reliable information, which led to a pronounced reliance on car magazines for extensive reports and evaluations from recognised experts in the field. Sustained engagement with these publications allowed the participants to conduct thorough examinations of a wide array of models, ultimately enhancing their confidence in the decisions they made during the purchasing process.

> *I used car magazines to really understand the price-performance ratio of different models. It helped me compare how much value I was getting for the price, which was something the car company's website didn't provide.* (Respondent L)

> *I wanted an unbiased, objective comparison of the models I was interested in, so I turned to car tests. The magazines gave me real expert opinions, unlike the promotional material I found from the dealerships.* (Respondent B)

I needed more in-depth information. Car magazines provided the detailed test reports I was searching for, helping me make a much more informed decision. (Respondent G)

The findings suggest that WoM and car magazines are pivotal contact points in the customer contact sequence. Customers may prefer neutral opinions, as they are perceived as more trustworthy than information sellers provide. Therefore, automotive companies must incorporate these contact points more effectively into their customer contact sequence.

The final point of discussion regarding non-company controlled contact points pertains to online used car portals. They serve as a significant resource for customers, particularly during the latter stages of the customer journey. Many individuals utilise these platforms to assess market prices of comparable models, thereby facilitating their decision-making between purchasing a new or a used vehicle. Von Böhlen and Šimberová (2023) found that these portals offer a practical means of comparing various makes, models, and price ranges from the convenience of their homes.

By perusing the listings, consumers can swiftly ascertain the cost of a used variant of their preferred model, enabling them to identify potentially more favourable deals. Collectively, these portals enhance pricing transparency and assist consumers in making informed and financially prudent decisions. Nevertheless, concerns have been raised regarding the prevalence of fraudulent listings on these portals, which instils apprehension about the accuracy of the information provided and the risk of purchasing a counterfeit vehicle.

I used it to compare prices on the models I liked, which helped me see what was available and decide if I should go for a new or used car. (Respondent E)

The used car portal made it easy to get a clear view of prices across different listings, so I felt confident that I was making an informed choice and getting the best deal possible. (Respondent P)

At the end of the purchase process, I checked the used car portals one last time to validate the prices and make sure I was getting a fair deal. (Respondent N)

I found the used car portals helpful, but I was also worried about fake listings—I didn't want to risk getting wrong information or, worse, end up buying a car that does not exist. (Respondent A)

Based on the qualitative study, the critical contact points that warrant through analysis include salespeople (company controlled), WoM (non-company controlled), the company's website (company controlled), the car configurator (company controlled), test drives (company controlled), car magazines (non-company controlled), and used car portals (non-company controlled). Notably, salespeople emerged as the most influential contact point concerning the consumer's purchase decision. Conversely, WoM, an uncontrollable variable for the seller, ranked as the second most significant contact point. In contrast, the participants in this study deemed advertising (company controlled) and events (company controlled) to be of negligible importance.

Order of contact points

Following the in-depth analysis of key contact points, it is necessary to examine the interplay between company-controlled and non-company-controlled contact points in facilitating a seamless customer contact sequence. In general, the qualitative study showed that customer contact sequences identified during the initial purchase phase (preceding the targeted information search) exhibited no discernible patterns. However, during the targeted information search phase, a recognisable pattern emerged among the contact points, indicating commonly used combinations of contact points that are prevalent in the literature.

The qualitative study findings revealed several combinations of contact points, defined as instances where two contact points directly succeed one another within a sequence. Such occurrences can manifest at any stage within the comprehensive customer

contact sequence. Mandatory contact point combinations include transitioning from a company-controlled website to a car configurator. These mandatory combinations are exclusively composed of company-controlled contact points and are frequently observed during a customer contact sequence.

> *I used the car company's website as an entry point for the car configurator.* (Respondent P)

> *My motivation to visit the dealership is to book a test drive.* (Respondent C)

The phenomenon of learned purchase behaviour is particularly evident among experienced automotive customers with prior knowledge in this domain. Such individuals utilise consistent contact points throughout the sequential process of making various automobile purchases. This behaviour persists even when acquiring vehicles from different brands, underscoring a degree of chronic interaction within the purchasing framework.

> *I always stick to the same [contact points] when I purchase a car. I've gone through this process several times, and its proven to be reliable each time.* (Respondent L)

Based on the qualitative findings and shown in Table 9, there are several frequently employed combinations of exclusively company-controlled contact points. These combinations include salesperson to test drive, website to car configurator, car configurator to a salesperson, and test drive to a salesperson. Additionally, there are longer customer contact sequences comprising more than two company-controlled contact points. Examples of these sequences include car configurator to salesperson to salesperson to test drive, salesperson to test drive to test drive to salesperson, and website to car configurator to salesperson to test drive.

Table 9: Exemplary codes for the combination of company-controlled contact points

Exemplary codes	Contact point →	Contact point →	Contact point →	Contact point
'Visit the dealer to book a test drive' // 'I can't book a test drive without speaking to the salesperson' // 'Received an introduction to the car from the salesperson.'	Salesperson (company controlled)	Test drive (company controlled)		
'Used the website as an entry point for the car configurator' // 'The website helps in preparing to configure the car later.' // 'Need to visit the website to access the configurator.'	Website (company controlled)	Car configurator (company controlled)		
After completing the configuration, I went to the salesperson to discuss it' // 'Used the car configurator to prepare my new car before meeting with the salesperson, as I didn't want to spend hours at the dealership.'	Car configurator (company controlled)	Salesperson (company controlled)		
'After the test drive, the salesperson was already waiting for me' // 'I	Test drive (company controlled)	Salesperson (company controlled)		

wanted to buy the car after the test drive, so I spoke with the salesperson.'				
'Used the car configurator, visited the salesperson twice to clarify some aspects, and completed the test drive afterwards.'	Car configurator (company controlled)	Salesperson (company controlled)	Salesperson (company controlled)	Test drive (company controlled)
Visited the salesperson to test drive the car, was offered two test drives with different engines, and discussed pricing with the salesperson.'	Salesperson (company controlled)	Test drive (company controlled)	Test drive (company controlled)	Salesperson (company controlled)
'Browsed the website for detailed information, configured the car to save time with the salesperson, and completed a test drive.'	Website (company controlled)	Car configurator (company controlled)	Salesperson (company controlled)	Test drive (company controlled)

Moreover, frequent interactions between company-controlled and non-company-controlled contact points were identified (Table 10). These include a used car portal (non-company controlled), which leads to a salesperson (company controlled), and interactions with friends and relatives (WoM; non-company controlled), which culminate in consultations with a salesperson (company controlled). Additionally, the interviews with several participants revealed a more extended customer contact sequence with more than two contact points. This sequence typically follows the trajectory of car magazines (non-company controlled), leading to an interaction with a

salesperson (company controlled) and, subsequently, a test drive (company controlled).

Table 10: Exemplary codes for the combination of company-controlled and non-company-controlled contact points

Exemplary codes	Contact point →	Contact point →	Contact point
'Browsed Autoscout24.de (a used car portal) to get an idea of prices and then talked to the salesperson.' // 'I wanted to decide whether to buy new or used, so I visited Mobile.de (a used car portal) and went to the dealer afterwards.'	Used a car portal (non-company controlled)	Salesperson (company controlled)	
'I spoke with a friend who is an expert in cars. He helped prepare me for the conversation with the salesperson.' // 'My wife and I decided to purchase a new car, so I went to the dealer to get an initial idea of our options.'	Word of mouth (non-company controlled)	Salesperson (company controlled)	
'I read an engaging report in Auto-Motor-Sport (car magazine), then visited the dealer to speak with the	Car magazines (non-company controlled)	Salesperson (company controlled)	Test drive (company controlled)

salesperson, who offered me a test drive.'			

Finally, the study revealed a combination of non-company-controlled contact points: car magazines that led to discussions with friends and relatives (Table 11).

Table 11: Exemplary codes for the combination of non-company-controlled contact points

Exemplary codes	Contact point →	Contact point
'I read a car magazine and wanted to discuss my findings with a friend.' // 'I receive a car magazine every month and discussed one specific model I'd seen with my wife afterwards.'	Car magazines (non-company controlled)	Talking to friends and relatives (non-company controlled)

Based on the results, the company-controlled contact point salesperson at the car dealership is consistently present across nearly all significant combinations involving two and four contact points. This further underscores the critical role of this contact point in the customer contact sequence. In conjunction with a salesperson, a test drive, also company controlled, emerges as essential. When a salesperson is absent, the alternative combinations predominantly comprise company-controlled online contact points such as the car configurator or the corporate website.

Moreover, the findings revealed combinations involving company-controlled and non-company-controlled contact points and sequences that employ only non-company-controlled contact points. This observation validates the primary objective of this qualitative exploratory study, which was to demonstrate the interactions between company-controlled and non-company-controlled contact points, thus marking a significant advancement in the theoretical discourse. The subsequent quantitative study will analyse a larger sample size, aiming to identify generalisable findings.

Part 3: implications for the quantitative study and the conceptual framework

Regarding the research question *Which factors influence the structure of a customer contact sequence?*, the qualitative study revealed purchase frequency, denoting situational involvement; product-related factors, indicative of product involvement; the subjective norm, associated with channel involvement; psychological influences, encompassing personal involvement; and the impact of manufacturers, also linked to channel involvement, are relevant. These factors must be meticulously integrated into the conceptual framework and the quantitative study. Furthermore, integrating pre-knowledge as a significant variable within the research is fundamental to the integrity of the findings.

When examining the contact points relevant to the purchase process, it is imperative to place particular emphasis on the following: salesperson, WoM, the corporate website, the car configurator, test drives, car tests (as reported in magazines), and used car portals. Understanding these elements is crucial to understanding their roles within customer contact sequences.

Furthermore, additional contact points identified in this study include contract negotiations with a salesperson, dealership visits without consultation, and engagement at motorsport events, all of which are company controlled. Additionally, exposure to general traffic and personal experiences with the vehicle represent non-company-controlled contact points.

Salespersons are the most influential contact point concerning customers' purchase decisions. In contrast, WoM, which remains an uncontrollable variable for sellers, is the second most significant contact point. Conversely, according to the participants, traditional advertising, promotional events, and social media have a minimal impact. These findings should be systematically integrated into the quantitative study.

For the research question *Do company-controlled and non-company-controlled contact points influence each other in creating a seamless customer contact*

sequence?, the qualitative results underscore the frequent combinations of contact points in the context of purchasing consumer durables, thereby highlighting the significance of this research domain.

The company-controlled contact point, particularly a salesperson at a car dealership, is an integral component present across nearly all significant combinations involving two and four contact points. Alongside a salesperson, a test drive is a pivotal company-controlled contact point. In contexts where a salesperson is absent, the alternative combinations primarily consist of company-controlled online contact points, including the car configurator and the corporate website.

Furthermore, the findings illustrate combinations that incorporate company-controlled and non-company-controlled contact points and sequences that exclusively utilise non-company-controlled contact points. This observation affirms the primary objective of the qualitative exploratory study: to elucidate the interactions between company-controlled and non-company-controlled contact points, thus marking a considerable advancement in theoretical discourse.

Although this study yielded valuable insights, there were two primary limitations. The first was the relatively small sample size, which is characteristic of qualitative research. Subsequent quantitative studies must address this limitation by accumulating a sufficient number of customer contact sequences to identify prevalent combinations. Second, the participants were interviewed immediately upon completing their purchasing process, facilitating initial in-depth insights. However, participants should be interviewed multiple times throughout the purchasing process to provide a more authentic representation of contact point utilisation, yielding more sophisticated findings.

6 Research hypotheses and conceptual framework

This chapter delineates the research hypotheses and the conceptual framework, informed by both the literature review and the qualitative exploratory study findings, that will be analysed in the quantitative study. As demonstrated in the preceding chapters, several significant knowledge domains about customer contact sequences remain inadequately explored, resulting in the four aforementioned gaps that are analysed in this thesis. Before proceeding with the quantitative study to further investigate company-controlled and non-company-controlled contact points employed throughout this process, the sequence in which these contact points are utilised, and the overall length of the sequence (Steinmann, 2011; Barwitz and Maas, 2018), it is necessary to introduce the conceptual framework.

The conceptual framework involves four sets of hypotheses. The initial set concerns the types of contact points and how various forms of involvement influence them. The second set included hypotheses related to the order of contact points to analyse different combinations of company-controlled and non-company-controlled contact points. Third, there are hypotheses about the length of customer contact sequences and the influential factors affecting this length. The final set of hypotheses are related to purchase behaviour are introduced, aiming to analyse the role of emotions during customer contact sequences and which sequences facilitate purchases. Table 12 provides a comprehensive overview of the research questions addressed in the quantitative study in relation to those explored in the qualitative study.

Table 12: Research questions for the qualitative and quantitative studies

Study 1: Qualitative study	**Study 2:** Quantitative study
Role: Theory building	**Role:** Contributory
Nature: Exploratory study investigating the underlying conditions of customer contact sequences	**Nature:** Explanatory study to investigate the underlying mechanisms of customer contact sequences
Related research questions 1) Do company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence? 2) Which factors influence the structure of a customer contact sequence?	**Related research questions** 1) Which customer contact sequences regarding type, order and length are present? 2) Which company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence and favour a purchase? 3) How strong is the influence of involvement on the structure of a customer contact sequence? 4) To what extent does emotional arousal elicited at each contact point influence their purchasing decision? 5) Is a longitudinal research design more advantageous than cross-sectional studies for evaluating customer contact sequences?

6.1 Types of contact points

The first set of hypotheses developed based on a comprehensive literature review and the qualitative study results deal with the various types of contact points, namely company controlled (brand-owned) and non-company controlled (partner-owned, customer-owned, social/external/independent; Roggeveen and Rosengren, 2022). Based on the literature, the critical contact points include WoM (non-company controlled), salespeople (company controlled), car tests (as reported in magazines; non-company controlled), websites (company controlled), and test drives (company controlled; Steinmann, 2011; Van Rijnsoever, Castaldi and Dijst, 2012; Harting *et al.*, 2017; Kannan and Li, 2017; De Keyser *et al.*, 2020). Additionally, the qualitative study revealed that salespeople (company controlled), WoM (non-company controlled), websites (company controlled), car configurators (company controlled), test drives (company controlled), and car tests (as reported in magazines; non-company controlled), and used car portals (non-company controlled) are significant factors.

The two primary contact points identified by the literature review and the qualitative study are the salesperson (company controlled) and WoM (non-company controlled). Therefore, hypothesis 1 (H1) is: *The salesperson (company controlled) and WoM (non-company controlled) are among the most frequently used (top five) contact points.*

Personal involvement

A significant, influential factor is age, which notably affect the selection of contact points, as older consumers exhibit a pronounced preference for direct interpersonal interaction with salespeople and demonstrate a reduced frequency of engagement with online contact points compared to their younger counterparts (Steinmann, 2011). Conversely, younger consumers are more inclined to depend on recommendations from family and friends, referred to as WoM (Van Rijnsoever, Castaldi and Dijst, 2012). They also demonstrate a greater propensity for engaging in mixed search behaviours that culminate in purchase decisions (Hu and Tracogna, 2021). The findings regarding the age-related influence on the selection of contact points throughout the customer contact sequence led to H2: *Young customers are more likely to use WoM (non-company controlled) and online contact points and have fewer contacts with the salesperson (company controlled) than older customers.*

Channel involvement

The focus for channel involvement is on the subjective norm and the type of contact points. A product can be acquired for personal use, for a family member, for a third party (e.g., in a business context), or by assisting a friend in making a purchase decision. Information search and the customer journey unfold across these scenarios (Balasubramanian, Rajagopal, and Vijay, 2005).

The phenomenon of private communication among consumers, commonly referred to as WoM (Kroeber-Riel *et al.*, 2009; López, Sicilia and Verlegh, 2022), exerts profound influence, particularly within familial contexts and is especially pertinent to high-value products (Davis, 1975). WoM plays a pivotal role in establishing trust and credibility, as endorsements from acquaintances and family members, especially a spouse (Kuss and Tomczak, 2007), are frequently regarded as more authentic and reliable forms of information (Kessler, 2021). The impact of WoM is not contingent upon the volume of interactions; even a solitary exchange may substantially shape the customer journey. The core significance is ascribed to the credible content disseminated during these

dialogues, generally perceived as truthful and derived from ostensibly independent sources (López, Sicilia and Verlegh, 2022).

Steinmann (2011) posited that as discussions regarding purchases increase within a family setting or among friends (WoM), the necessity for alternative contact points, particularly personal interactions with sales representatives, diminishes. This trend is particularly relevant considering that the salesperson emerged as the most prevalent contact point in the qualitative study. An intriguing observation pertinent to this thesis is that WoM often acts as a substitute for other contact points due to the higher levels of trust associated with the information shared. Hence, WoM, functioning as a non-company-controlled contact point, can reduce the reliance on company-controlled contact points. This can ultimately lead to companies losing control over customers' purchase decisions, leading to H3: *The usage of WoM (non-company controlled) significantly decreases the chance of using other personal contact points (salespeople; company controlled).*

The selection of contact points is also an integral component of channel involvement. According to the literature, the subjective effort exerted by customers constitutes a significant determinant in identifying suitable contact points (Steinmann, 2011; McGregor, Azzopardi and Halvey, 2023). The selection of customer contact points is considerably influenced by preferences about convenience, which can be delineated into search and access convenience. The former refers to the ease with which information can be obtained, while the latter is associated with the availability of various contact points (Kaufman-Scarborough and Lindquist, 2002). Access convenience, contingent upon the geographical location and timing of contact points, substantially influences the selection of contact points, particularly their proximity to the customer's residence (Nicholson *et al.*, 2002). Empirical research findings have substantiated that distance is critical in shaping the willingness to use offline and online contact points (Teltzrow, Günther and Pohle, 2003; Johnson *et al.*, 2006; McGregor, Azzopardi and Halvey, 2023).

Inman, Raghubir and Grande (2004) posited that a customer is more inclined to engage in online searches when the distance between the shop and their residence is considerable, thereby facilitating prompt and cost-effective access to information. However, other researchers have found that a closer shop proximity is more likely to yield online transactions due to the diminished subjective risk for consumers, as it enhances the manageability of services and resolution of complaints (Verhoef and Donkers, 2005; Lemon and Verhoef, 2016).

Notably, researchers have yet to elucidate the effects of subjective effort of utilising a particular contact point on the customer journey. Nevertheless, the published findings indicate low subjective effort in accessing a contact point promotes utilisation (McGregor, Azzopardi and Halvey, 2023). Based on these observations, H4 is: *The lower the subjective effort of using a contact point, the higher the chance of usage.*

6.2 Order of contact points

The next set of hypotheses explores the order of contact points. When exploring the order, it is necessary to analyse the initiation and conclusion as well as the predominant combinations of two contact points within customer contact sequences.

The qualitative study revealed that a diverse array of contact points is utilised during the initial phases. However, the number of different contact points diminishes as the consideration set becomes more established. This observation suggests that customer contact sequences may initially exhibit disorganisation, which becomes more structured in the concluding stages.

Advertising contact points play a critical role at the onset of the customer contact sequence; for example, TV advertising is particularly significant in this initial phase, although its impact subsequently declines (Steinmann, 2011). Furthermore, online contact points, such as the company website, are pivotal early in the customer contact sequence because they equip potential car buyers with substantial knowledge before dealership visits (Klein and Ford, 2003). In addition, informal communication with

family and friends (WoM) is a prevalent source of information during this preliminary stage (Hauser, Urban and Weinberg, 1993; Van Rijnsoever, Castaldi and Dijst, 2012; Harting *et al.*, 2017).

To conclude the customer contact sequence, the salesperson especially is the most critical moment for facilitating the purchase decision (Steinmann, 2011). Hence, H5 and H6 are:

H5: *At the beginning of a customer contact sequence, advertising contact points (company controlled), online contact points (company controlled), and WoM (non-company controlled) are used most frequently (the top three aggregated contact points).*

H6: *At the end of a customer contact sequence, the dealer visit (company controlled) is most frequently used (ranked first).*

Researchers have identified various combinations of contact points. Combinations of advertising contact points can be delineated as interactions between two advertising contact points, as well as between an advertising contact point and a dealer and vice versa (Verhoef, Neslin and Vroomen, 2007; Steinmann, 2011; Marutschke and Gournelos, 2020). Moreover, it has been established that a visit to a dealer often results in subsequent visits to the same or different dealers (Verhoef, Neslin and Vroomen, 2007). Additionally, websites assume a significant role within the customer contact sequence; they facilitate interactions with family and friends through WoM and with the dealer (Steinman, 2011; Kannan and Li, 2017). In summary, the following combinations of contact points can be identified in sequential order: advertising to advertising, dealer visit to advertising, advertising to dealer visit, dealer visit to dealer visit, website to family and friends (WoM), and website to dealer visit.

The qualitative study also revealed various contact point combinations. Notably, advertising contact points were of limited significance. The significant sequences of contact points included dealer visits to test drives, the website to the car configurator

(also on the dealer website), and the car configurator (dealer website) to dealer visits. Moreover, while these findings may demonstrate a higher level of accuracy, they are constrained by a relatively small sample size.

H7 was formulated based on the aforementioned findings from the literature and the qualitative exploratory study:

The top eight combinations of contact points in customer contact sequences are:

- *Dealer visit → dealer visit;*
- *Dealer visit → test drive;*
- *Dealer visit → advertising;*
- *Dealer website → dealer website;*
- *Dealer website → dealer visit;*
- *Dealer website → WoM;*
- *Advertising → advertising;*
- *Advertising → dealer visit.*

6.3 The length of customer contact sequences

The third set of hypotheses focuses on the influence of diverse forms of involvement on the customer contact sequence length. These critical factors are associated with personal, situational, product, and channel involvement.

Personal involvement

Based on the literature review (Hu and Tracogna, 2021; Zhang *et al.*, 2020; Von Böhlen and Šimberová, 2023) and the qualitative findings, pre-knowledge and the income level significantly affect the length of customer contact sequences. Pre-knowledge encompasses familiarity with the brand, the car buying process, and specific contact points, collectively shaping a customer's overall understanding (Punj and Staelin, 1983; Hertrich, 1985; Klein and Ford, 2003; Steinmann, 2011; Utkarsh, Sangwan and Agarwal, 2019; Zhang *et al.*, 2020). Such knowledge influences the

search strategies employed by customers (Punj and Staelin, 1983). Customers with extensive brand knowledge tend to draw from their past purchase experiences. They only slightly adjust their search strategies when considering their next vehicle purchase (Chestnut *et al.*, 1976; Zhang *et al.*, 2020).

Research indicates that possessing specific pre-knowledge significantly reduces the length of the information search. Customers use a limited number of contact points, particularly when repurchasing the same brand or model (Katona, 1964; Newman and Staelin, 1972; Klein and Ford, 2003; Utkarsh, Sangwan and Agarwal, 2019). This phenomenon can be attributed to the fact that experienced consumers can solicit more internal information due to their enhanced understanding of product features acquired during their initial purchasing experience (Klein and Ford, 2003). Consequently, it can be inferred that experienced buyers with pre-existing knowledge engage with fewer contact points and require less information (Klein and Ford, 2003). Based on this premise, H8 is: *High pre-knowledge decreases the length of a customer contact sequence significantly.*

A substantial body of research has shown that income exerts a substantial influence on the customer journey (Newman and Staelin, 1972; Raffée and Silberer, 1981; Klein and Ford, 2003; Kulkarni, Ratchford and Kannan, 2012; Von Böhlen and Šimberová, 2023). A salient finding indicates a direct correlation between income level variations and the length of the customer journey (Steinmann, 2011). Individuals with higher income levels typically exhibit enhanced expectations and engage in more exhaustive research processes. This insight allows businesses to tailor their marketing and sales strategies in response to these income-related behavioural patterns (Raffée and Silberer, 1981; Kulkarni, Ratchford and Kannan, 2012). Nonetheless, there are findings that individuals within higher income brackets may engage in impulsive purchasing behaviours, favouring premium products and, consequently, leading to abbreviated customer journeys (Newman and Staelin, 1972; Raffée and Silberer, 1981; Klein and Ford, 2003). Additionally, Klein and Ford (2003) observed that the frequency of information-seeking activities decreases at lower income levels but increases at higher income levels.

The evidence supports the notion that both low- and high-income consumer segments pursue comparable levels of information during the purchasing process. This observation underscores the substantial variability in income levels within demographic segments, thereby complicating the generalisation of findings across differing income classifications (Von Böhlen and Šimberová, 2023).

Upon critical analysis of this income level, it becomes evident that the findings about income and the customer journey length exhibit substantial variability. Consequently, a definitive direction regarding the hypothesis related to this influential factor cannot be established. However, prior research indicates that income plays a pivotal role in determining the length of customer contact sequences (Von Böhlen and Šimberová, 2023), which will be tested in H9: *Income affects the length of a customer contact sequence.*

Situational involvement

Within situational involvement, the purchase frequency has been established as a critical factor for the customer journey, especially regarding the customer contact sequence length. The qualitative study contributed significantly to understanding the purchase process of a new car.

The purchase frequency is the interval from when a customer utilises a product to when they make a subsequent purchase. Various factors may influence this behaviour, including personal circumstances, financial considerations, and leasing options when acquiring a product (Lee, Choi and Kim, 2024). The frequency of purchases correlated positively with the level of effort a consumer is willing to invest in obtaining a new product. Shorter purchase cycles enhance familiarity with the purchasing process, influencing subsequent purchase decisions (Unger, 1998). In Germany, it has been reported that 28% of customers acquire a new car every 2–3 years (Focus Online, 2015). These purchasing cycles suggest shortened customer contact sequences. These observations led to H10: *A short re-purchase cycle (purchase frequency) of 2–3 years significantly decreases the length of customer contact sequences.*

Product involvement

The literature indicates that higher levels of product involvement in automotive purchases are strongly associated with extended customer contact sequences. This correlation arises because customers exhibit a greater need for information and find satisfaction in exploring vehicle specifics. Individuals characterised by high product involvement, often referred to as information seekers, generally approach their purchase decisions with openness and curiosity (Kroeber-Riel and Weinberg, 2003; Storey and Larbig, 2018).

High product involvement serves as a significant driving force, compelling customers to fully engage in the decision-making process. They actively seek, evaluate, and analyse detailed information to ensure their choices align with their specific preferences and needs. Consequently, the interactions between customers and sellers become increasingly extensive and complex, resulting in longer customer contact sequences (Suboh, Razak and Alshurideh, 2023). This phenomenon warrants further empirical exploration, as detailed in H11: *High product involvement (product-related factors) increases the length of a customer contact sequence.*

6.4 Purchase behaviour

The final set of hypotheses addresses the purchase behaviour influenced by the comprehensive customer contact sequence. According to the literature on purchase behaviour, emotional arousal is critical in purchase decisions. However, there has yet to be a significant focus on customer journey research (Sharma *et al.*, 2023). Emotions can be categorised systematically by arousal levels and valence (Ozcelik and Arslan-Ari, 2024). Arousal refers to the activation level, ranging from high to low. For example, stimuli characterised by high arousal are retained more effectively in memory (Cahill and McGaugh, 1996; Kensinger, 2009; Ozcelik and Arslan-Ari, 2024). Valence pertains to the degree of pleasantness associated with a stimulus, spanning from negative through neutral to positive (Kensinger, 2009; Ozcelik and

Arslan-Ari, 2024). Contact points that elicit positive valence are more memorable than those that evoke neutral or negative valence (Lemon and Verhoef, 2016).

The interplay between high arousal and positive valence is recognised as the most beneficial for facilitating purchase decisions. Caruelle *et al.* (2024) noted that managers should aim to generate more frequent positive arousal experiences than low or negative ones. Nevertheless, the role of emotional arousal within customer contact sequences has been largely understudied. Consequently, it is imperative to examine the subsequent impact of this arousal on the outcomes of customer contact sequences on purchasing behaviour (Sharma et al., 2023).

From the literature review, high levels of positive emotional arousal within customer contact sequences significantly increase the likelihood of purchase. Conversely, heightened negative emotions correlate with a diminished probability of purchase (Ozcelik and Arslan-Ari, 2024). This leads to H12: *A high level of positive emotions (emotional arousal score) for the contact points within a customer contact sequence enhances the chance of a purchase.*

The final hypothesis explores the influence of customer contact sequences on consumer purchase decisions. Researchers such as Albarq (2021) have determined the variables that are relevant to customer contact sequences. It is imperative to delineate the outcome variables associated with current and future behaviours. Of particular relevance to this thesis are variables related to present behaviour – namely a purchase (Albarq, 2021), a postponed decision (Parfenova and Romashova, 2020), and a cancelled decision (Darpy, 2000) – and a variable related to future behaviour, specifically re-purchase probability (Santos, Flecha and Lopez, 2020).

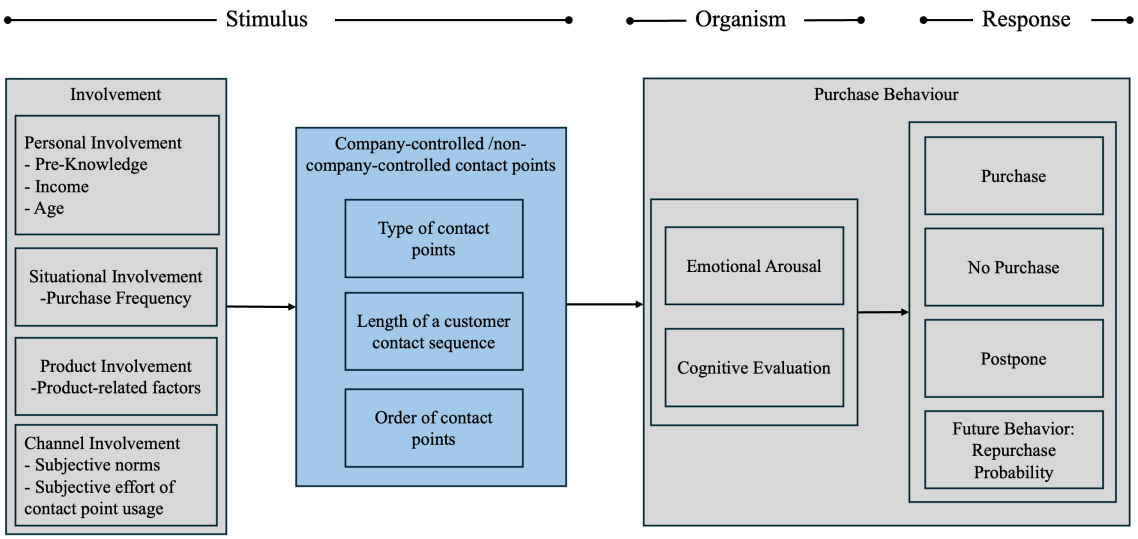
Building upon an existing literature review (Santos, Flecha and Lopez, 2020) and the qualitative study, specific customer contact sequences significantly increase the likelihood of initial purchases and the probability of re-purchase. These sequences can be differentiated based on the types of contact points employed and the sequence length.

The optimal customer contact sequences conducive to a purchase should ideally encompass a series of dealer visits, as dealer visits have been identified as the most significant contact points by other researchers (De Keyser *et al.*, 2020) and based on the qualitative study. Regarding the length of customer contact sequences, both exceedingly short and excessively long sequences appear less favourable for facilitating a purchase (Steinmann, 2011; Gawronska, 2022). Thus, H13 is: *Customer contact sequences dominated by dealer visits and with a medium sequence length enhance the chance of purchase (present behaviour) and re-purchase probability (future behaviour) most.*

6.5 Conceptual framework

Figure 15 outlines the final conceptual framework that will be systematically evaluated in the quantitative study. It adheres to the rigorously developed SOR framework outlined in Chapter 2.2.

Figure 15: Conceptual framework



The primary focus of the quantitative study is to critically analyse the types of company-controlled and non-company-controlled contact points, the length of customer contact sequences, and the order of contact points within these sequences

(see the blue box in Figure 15). This analysis addresses the following research question: *Which customer contact sequences regarding type, order, and length are present?*).

The use of company-controlled and non-company-controlled contact points is influenced by several important factors (identified in the qualitative study and outlined in Chapter 2.2.1), shown on the left side of the conceptual framework. The quantitative study aims to address the central research question of this thesis: *How strong is the influence of involvement on the structure of a customer contact sequence?* Influential personal, situational, product, and channel involvement factors are examined.

The right segment of the conceptual framework, addressing purchase behaviour, examines the role of emotional arousal during customer contact sequences. It identifies which sequences are conducive to fostering positive purchase decisions. The quantitative study addresses the following research question: *To what extent does emotional arousal elicited at each contact point influence purchase decisions?*

Lastly, the qualitative study elucidated whether company-controlled and non-company-controlled contact points influence each other in establishing a seamless customer contact sequence. The quantitative study also answers the following research question: *Which combinations of company-controlled and non-company-controlled customer contact sequences create seamless customer contact sequences and promote customer purchases?* This will be achieved by analysing the sequences contributing to favourable purchase decisions.

7 Quantitative explanatory study

7.1 Introduction

This quantitative study is inherently explanatory in nature, with the primary objective of gaining a comprehensive understanding of how prospective customers engage in information-seeking behaviour and ultimately purchase consumer durable products. A pivotal element of this investigation involves identifying and analysing both company-controlled and non-company-controlled contact points utilised throughout this purchasing process. This includes an examination of the order in which these contact points are employed, as well as the overall length of the customer contact sequence (Steinmann, 2011; Barwitz and Maas, 2018). Furthermore, the outcomes of these sequences are analysed concerning emotional arousal and their effectiveness in leading to a purchase. An initial validation of a longitudinal research design is also undertaken to analyse customer contact sequences. This study addresses the five research questions:

1. *Which customer contact sequences regarding type, order, and length are present?*
2. *Which company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence and favour a purchase?*
3. *How strong is the influence of involvement on the structure of a customer contact sequence?*
4. *To what extent does emotional arousal elicited at each contact point influence their purchase decision?*
5. *Is a longitudinal design more advantageous than a cross-sectional design for evaluating customer contact sequences?*

7.2 Overview of the methodology

Researchers have not adequately examined customer contact sequences in depth, and most studies have yet to permit the usage of a single contact point multiple times within a customer contact sequence (e.g., Steinmann, 2011). It is imperative to incorporate all pertinent contact points into the research design to address the five research questions comprehensively. The design should facilitate the repeated selection of each contact point, and it is essential to achieve a robust sample size of customer contact sequences to yield valid and reliable findings. This approach will enable the application of diverse statistical methods. The anticipated outcome is to elucidate frequently utilised combinations of contact points within customer contact sequences while ensuring that the sample size remains sufficiently large to support rigorous analysis.

Furthermore, in the past, researchers have predominantly depended on single questionnaires administered after the finalisation of a customer's purchase, thus categorising such investigations as cross-sectional studies (e.g., Steinmann, 2011). This methodological approach may result in participants focusing solely on the most recent contact points utilised before they answered the questionnaire, potentially overlooking earlier interactions experienced during the pre-purchase stage (e.g., Van Rijnsoever, Castaldi and Dijst, 2012).

A defining feature of the present study is its longitudinal design: the participants were interviewed three times throughout their ongoing purchase phase (a 6-month period) so data could be collected at various contact points along the customer contact sequence. The 6-month duration was chosen deliberately because it corresponds to the typical timeline required for customers to purchase a car (DAT, 2023).

Research sample and data sources

The automotive panel provided by Dynata, previously known as Research Now, served as a significant data source for this study. This panel is well established within Germany and is composed exclusively of prospective automobile purchasers. This

study employed a rigorous recruitment, thereby augmenting the qualitative robustness of the panel and the overall validity of the research findings.

A pre-screener questionnaire was implemented as an adjunct methodology to ascertain that the participants genuinely intended to acquire a vehicle. Individuals who did not sufficiently answer the screener following the study's stipulations were excluded. The final research sample consisted of prospective car buyers who fulfilled the following predetermined criteria: (1) potential car buyers residing in Germany, (2) intent to purchase a vehicle within the next 6 months, (3) buyers of new vehicles, and (4) private consumers.

All questions were administered in German, as the study was conducted in Germany. Subsequently, the questions were translated into English for use in this thesis. Initially, the questionnaire underwent forward translation by a professional translator proficient in German and English. This translator was well acquainted with the measurement instruments employed in this thesis and was instructed to accurately convey the original meaning in the target language. Subsequently, a second professional translator, fluent in German but not English, performed a back-translation of the questionnaire into German to identify potential discrepancies between the two versions. Lastly, a cognitive debrief was conducted by an individual proficient in English to assess the clarity and comprehensibility of the questionnaire (Wild *et al.*, 2005). The outcome was a translated English version of the questionnaire that was equivalent to the German version.

The initial dataset comprised 558 participants, each with a unique customer contact sequence. A detailed examination of the contact sequence lengths revealed that 30 participants reported an absence of contact points. Consequently, these participants were excluded from the analysis, resulting in an effective sample size of 528. There were 32 distinct states, defined as contact points, including 28 different contact points in the questionnaire and an 'other' category. The 'other' contact points were incorporated into the analysis. After cleaning the data, the final dataset contained 528

sequences accompanied by 32 distinct states/contact points, yielding 487 unique sequences.

Data collection methods

A longitudinal online study was conducted in Germany, utilising a single online questionnaire administered at three separate times over a 6-month period (from July 2017 to January 2018. The specific dates were selected to avoid potential disruptions caused by holiday periods and to provide the participants with a minimum of 2 weeks to respond to the participation invitation. The three times were 15 July 2017 to 29 July 2017, 15 October 2017 to 29 October 2017, and 15 January 2018 to 30 January 2018.

A total of 2000 individuals who met the eligibility criteria were sent an email and subsequently registered for participation in the study. As delineated in Table 13, 558 participants successfully qualified based on the screener questionnaire (28% participation rate). Of these, 528 participants completed the study. The primary objective of the data collection was to trace each participant throughout their respective customer journey. All participants commenced the survey on the same date, with 173 completing their vehicle purchase (including 103 after the second questionnaire and 70 after the third questionnaire) within 6 months. Additionally, 355 participants either cancelled or postponed their purchase decisions. The customer contact sequences associated with cancelled and postponed purchases were deemed valuable for data analysis, allowing for comparative examination of customer contact sequences that resulted in a purchase versus those that did not.

Table 13: Overall sample description for the quantitative study

Number of participants who started the study	558
Number of participants who finished the study	528
Number of participants who finished their purchase	173
Number of participants who cancelled or postponed their purchase decision	355

7.3 Questionnaire design and operationalisation of the variables

The primary objective of the questionnaire was to ascertain the various contact points utilised within a 6-month period in the customer contact sequence and to evaluate the emotional responses elicited by these contact points in the participants. Additionally, the questionnaire was designed to accomplish several specific tasks each time it was administered.

For the first administration (15 July 2017 to 29 July 2017), the questionnaire asked about company-controlled and non-company-controlled contact points, explicitly focusing on their type, sequence, and length, alongside involvement variables. The objective was to establish a foundational framework by investigating the critical factors that prompted the initiation of the customer contact sequence. This analysis concentrated on the primary contact points within the purchase journey. Furthermore, the demographic characteristics of the participants were collected.

The second (15 October 2017 to 29 October 2017) and third (15 January 2018 to 30 January 2018) administrations, the questionnaires enquired about both company-controlled and non-company-controlled contact points, encompassing aspects such as type, sequence, and length, as well as the participants' purchasing behaviours. The objective was to formulate questions about purchasing variables to determine how the participants reached their conclusions regarding their purchase processes.

All constructs examined in this thesis were assessed by utilising multi-item scales derived from established research. The response categories were structured on a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*very much*). A concise description of each variable is provided below.

In developing the questionnaire, systematic adherence to the protocols established by Tourangeau, Rips and Rasinski (2000) was maintained to mitigate the prevalence of common method bias. A pilot test involving five participants was conducted to eliminate unclear terminology; to clarify ambiguous concepts; and to ensure that the

questions were straightforward, specific, and concise. This process also helped to eliminate questions containing multiple components or unnecessarily complex language. These strategies were specifically formulated to diminish the likelihood of common method bias as the participants answered the questionnaire.

Furthermore, the data collection complied with the protocol recommended by Podsakoff *et al.* (2003). This adherence guaranteed the anonymity of the responses, thereby reducing potential social pressures or fears of judgment that could otherwise distort the results. The participants were explicitly informed that there were no correct or incorrect responses, encouraging honest responses. This approach was chosen to reduce the chances of the participants modifying their answers to conform to social expectations or to appease the researcher.

Type of contact points

This section discusses how the company and non-company-controlled contact points were operationalised and examined in the quantitative study. The variables are related to personal and channel involvement.

Contact points were assessed quantitatively based on recommendations from Gensler, Leeflang and Skiera (2007); Ansari, Carl, and Neslin (2008); and Steinmann and Silberer (2009). This assessment was informed by a comprehensive literature review that examined existing studies on contact points utilised during the automobile purchasing process, including studies by Lesscher, Lobschat and Verhoef (2021) and Yang *et al.* (2022). Furthermore, these contact points were validated through the qualitative exploratory study.

The participants were provided with a thorough description of the identified contact points and asked about their utilisation of these contact points during their car purchase experience. This inquiry was posed consistently for all three administrations of the questionnaire to elucidate the contact points the participants employed. The

questionnaire included the following company-controlled and non-company-controlled contact points:

Company-controlled contact points

- Consultation at a car dealer (with a salesperson);
- Visited the dealer (no consultation);
- Talked to friends or relatives;
- Visited the manufacturer's homepage (mobile or desktop);
- Used the online car configurator on the manufacturer's homepage (mobile or desktop);
- Took a car for a test drive;
- Ordered or received a brochure or pricelist;
- Saw a TV commercial;
- Used a mobile app;
- Read/discussed in an internet blog or forum (e.g., motor-talk);
- Saw online advertising (e.g., advertising for the product on another website);
- Contacted by the dealer or a salesperson (e.g., call, newsletter, mail);
- Contract negotiations with a salesperson;
- Repair or service at the dealer;
- Read in a magazine from my current car manufacturer;
- Got a car replacement offer from my dealer;
- Visited a motor show (e.g., International Motor Show Germany);
- Gathered information at a motorsport event (e.g., Formula 1);
- Was invited to an event (e.g. from the car dealer);
- Saw advertising in a magazine or newspaper;
- Listened to a radio commercial;
- Saw posters or other outdoor advertising (e.g., railway station);
- Used a customer portal with login;
- Other.

Non-company-controlled contact points

- Own experience with the car (e.g., drove the car from a friend or colleague; no official test drive);
- Read a car magazine (online or print);
- Saw within the usual traffic (e.g., at traffic lights, on a parking lot or driving by);
- Visited a used car portal on the internet;
- Read/discussed on social media (e.g., Facebook);
- Other.

Personal involvement was operationalised based on age. The age measurement was conducted following the methodologies proposed by Steinmann (2011) and Kantar (2018). This analysis aimed to investigate the potential influence of age on customer contact sequences.

Two channel involvement variables were operationalised: the subjective norm and the subjective use. The subjective norm was informed based on the suggestions of Chandrashekaran and Grewal (2003) and Jain, Dixit and Shukla (2023), whose work reflects ideas from Kuss (2007) and López, Sicilia and Verlegh (2022). The aim was to analyse whether the purchase decision was made independently, supported, or influenced by others. The subjective effort of contact point usage was examined through the Customer Effort Score as delineated by Dixon Freeman and Toman (2010), complemented by insights from Kaufman-Scarborough and Lindquist (2002) as well as Zaharia (2006). The primary objective was to explore the impact of subjective effort on the selection of contact points.

Finally, four variables were operationalised to understand the rationale behind selecting a specific type of contact point: contact point usage intention, contact point function, and the importance of a contact point, and the overall cognition score of a contact point. For contact point usage intention, the methodologies recommended by Kroeber-Riel and Weinberg (2003) were used. This endeavour involved an assessment of whether the participants selected a contact point actively, only by chance, or because

of another contact point's influence. This analysis aimed to examine the decision-making process underlying the selection of contact points and to investigate the extent to which participants engage actively throughout the customer contact sequence.

Contact point function was quantified by using a scale that evaluates the rationale behind using contact points (Steinmann, 2011). It assesses whether these contact points are employed for general or specific vehicle information, obtaining support and advice, lodging complaints, identifying cheap purchase options, acquiring information about financing or leasing options, or comparing prices and different car models. The aim was to investigate the relationship between the function of contact points and their frequency of usage.

The importance of a contact point was measured as proposed by Steinmann (2011) and Fu and van Oostendorp (2020). The goal was to examine the significance of a contact point in influencing the purchase decision.

Finally, the overall cognition score of a contact point was analysed by utilising the primary information indicators outlined by Zaichkowsky (1994). The ratings of a contact point and the implications of these ratings on the frequency of usage were examined.

Order of contact points

The order of contact points was analysed based on the recommendations provided by Steinmann (2011). The primary objective was to evaluate the sequence in which various company-controlled and non-company-controlled contact points were employed within the designated timeframe to construct the customer contact sequence. All contact points identified by the participants during the first administration of the questionnaire regarding the type of contact points were utilised to ascertain the order of these contact points. Of note, the participants could have selected an individual contact point multiple times.

Customer contact sequence length

The customer contact sequence length was operationalised based on the recommendations provided by Steinmann (2011). The objective was to quantify the number of contact points utilised within a sequence. The effect of personal, situational, and product involvement factors on the length was examined.

Personal involvement included the variables pre-knowledge and income. Pre-knowledge was assessed based on the work by Steinmann (2011), who analysed the number of transactions within a product category and specific brands. His findings were compared to those of Court *et al.* (2009) and Zhang *et al.* (2020). The aim was to determine how many cars and different car brands the participant has purchased in their lifetime.

Income was assessed by utilising methodologies advocated by Klein and Ford (2003), Kantar (2018), and Von Böhlen and Šimberová (2023) to accurately determine the net household income. The primary objective was to investigate the potential impact of income levels on customer contact sequences. The income categories were:

- Below 500 euros,
- 500–999 euros,
- 1,000–1,499 euros,
- 1,500–1,999 euros,
- 2,000–2,999 euros,
- 3,000–3,999 euros,
- 4,000–4,999 euros,
- 5,000–5,999 euros,
- 6,000–7,999 euros,
- 8,000–9,999 euros,
- 10,000–12,999 euros,
- 13,000–15,999 euros,
- 16,000 euros and above.

Situational involvement was assessed based on purchase frequency, as recommended by DAT (2023). The goal was to investigate the frequency with which new vehicles are acquired to elucidate their impact on the sequences of customer contact sequence.

Finally, two product involvement variables were operationalised: product-related factors and product involvement. Product-related factors were delineated following the recommendations by Dinsdale *et al.* (2016) Suboh, Razak and Alshurideh (2023), specifically focusing on the following elements: defective product, newly available product features, and newly available technologies. This analysis explored the motivations behind the participants' decision to acquire a new vehicle.

Product involvement was evaluated by using the Personal Involvement Inventory (PII) developed by Zaichkowsky (1994), along with suggestions from the German translation of the original scale by Hagendorfer (1992). The objective was to assess the impact of product involvement on the customer contact sequence. The categories used for this analysis included:

- Important – unimportant,
- Boring – interesting,
- Relevant – irrelevant,
- Exciting – unexciting,
- Means nothing – means a lot to me,
- Appealing – unappealing,
- Fascinating – mundane,
- Worthless – valuable,
- Involving – uninvolving,
- Not needed – needed.

Purchase behaviour

Based on the sequence of contact points selected by the participant in the preceding question, they responded to all ensuing inquiries about emotional arousal associated with each contact point. The emotional arousal associated with each contact point was

assessed by utilising the Discrete Emotions Questionnaire developed by Harmon-Jones, Bastian and Harmon-Jones (2016). The aim was to analyse the influence of emotional arousal at the contact point on purchase behaviour. The subsequent analysis focused on the following emotions:

- (Ag): anger, mad, pissed off, rage;
- (Dg): grossed out, revulsion, sickened, nausea;
- (F): terror, scared, fear, panic;
- (Ax): worry, anxiety, dread, nervous;
- (S): lonely, grief, sad, empty;
- (Dr): wanting, craving, longing, desire;
- (R): calm, relaxation, chilled out, easy-going;
- (H): happy, enjoyment, satisfaction, liking.

In this thesis, emotional arousal was divided into negative and positive:

- Negative: anger (Ag), disgust (Dg), fear (F), anxiety (Ax), sadness (S);
- Positive: desire (Dr), relaxation (R), happiness (H).

Following the emotional arousal presentation, the subsequent inquiries pertained to purchasing behaviour. These variables were only addressed during the second and third administrations of the questionnaire.

The decision of whether to purchase or not purchase was analysed by incorporating suggestions from Liersch (2012), Santos, Flecha and Lopez (2020), and Albarq (2021). This analysis aimed to determine whether the participants engaged in vehicle purchases within the specified time frame. If the participant responded negatively to the decision to purchase, then the reason for the postponed or cancelled purchase decision was assessed based on the methodologies proposed by Darpy (2000) and Parfenova and Romashova (2020). The objective was to distinguish between no purchase and postponed purchase to ascertain whether the purchase decision process remained active. If the participant responded affirmatively to the decision to purchase, then the re-purchase probability was assessed as described by Steinmann (2011). This assessment aimed to evaluate anticipated consumer behaviour in future transactions.

Demographics

Demographic information – gender, education, and occupation – was gathered from each participant during the first administration of the questionnaire.

Gender was assessed using the methodologies proposed by Kantar (2018). This analysis aimed to examine the potential impact of gender on customer contact sequences.

Education was assessed by utilising the recommendations of Kantar (2018). This analysis aimed to determine whether education influences customer contact sequences. The following categories were employed:

- No schooling completed,
- Lower secondary school,
- Intermediate secondary school,
- Upper secondary school,
- A-level,
- Bachelor's degree,
- Master's degree,
- Diploma,
- Doctorate degree.

Occupation was investigated following the framework established by Kantar (2018). This aim was to determine the influence of occupation on the sequences of customer interactions. The subsequent categories were employed for this purpose:

- Unemployed,
- Student,
- Apprentice,
- Self-employed,
- Employee,
- Manager,
- Public official,

- Retired.

7.4 Data analysis methods

The data were analysed with the R 3.4.4 software. This process involved an evaluation of (1) the data structure and contact point aggregation, (2) the types of contact points, (3) the order of contact points, (4) the length of customer contact sequences, and (5) purchase behaviour. Table 14 provides a comprehensive overview of these five analytical components, including their objectives and which research questions and hypotheses they address.

Table 14: Overview of the five analytical components

Part	Analysis	Objective	Result
1	Data structure and contact point aggregation Present the distinctive characteristics inherent in customer contact sequence data, elaborate on the composition of the study sample, outline the methodologies used to reduce the number of contact points, and establish clusters derived from customer contact sequences as a key strategy in this minimisation process	Determine the distinctive characteristics of customer contact sequence data and synthesise the contact points for targeted analytical purposes	Aggregated contact points and customer contact sequence clusters are foundational for subsequent analysis
2	The types of contact points	Elucidate the company-controlled and non-	Addresses research

	Examine the frequencies of contact points and the criteria for their selection and analyse the impact of personal and channel involvement on the types of contact points chosen	company-controlled contact points	questions 1 and 3, and tests H1, H2, H3, and H4
3	<u>The order of contact points</u> Examine the initiation and conclusion phases of customer contact sequences, with a focus on exploring the predominant combinatorial patterns of two distinct contact points within those sequences.	Elucidate the interrelations between company-controlled and non-company-controlled contact points and their mutual influences	Addresses research questions 1 and 2, and tests H5, H6, and H7
4	<u>The length of a customer contact sequence</u> Examine the length of customer contact sequences and the influence of personal, situational, and product involvement on this length	Establish a comprehensive understanding of the length of customer contact sequences	Addresses research questions 1 and 3, and tests H8, H9, H10 and H11
5	<u>Purchase behaviour</u> Examine emotional arousal and the outcomes of customer contact sequences	Determine the extent to which particular customer contact sequences are conducive to influencing purchase behaviour	Addresses research questions 2 and 4, and testes H12 and H13

The following text outlines the fundamental methodologies employed for the five analytical segments. For a detailed elucidation, see Chapter 8.

The first segment utilised descriptive statistics to characterise the sample's attributes, particularly concerning customer contact sequences. The distribution of customer contact sequence lengths significantly differed from the normal distribution. This phenomenon is commonly observed in the analysis of customer contact sequences and is intrinsic to their nature. This observation necessitated the formulation of a particular analytical strategy for this thesis, as detailed in Chapter 8.

The qualitative exploratory study yielded preliminary insights regarding the aggregated contact points. A high number of individual contact points identified (32), which presents challenges concerning the interpretability and significance of the results, as the sample size may be insufficient. Thus, interviews were conducted with validated by a panel of six experts (Boateng, 2018), consisting of four marketing professionals from leading automobile firms and two doctoral candidates specialising in marketing. These experts categorised the contact points into groups based on inherent similarities. Notably, none of the experts knew the study's objectives or participated in the overarching research process, and no fixed number of groups was predetermined before the study.

The initial phase of aggregation involved distributing spreadsheets to all experts via email. These spreadsheets contained 32 individual contact points and findings from the qualitative exploratory study. The experts were asked to categorise these contact points into similar groups. Subsequently, they assigned names to these groups and return the completed spreadsheets to the researcher. After aggregation by the researcher, the results revealed the formation of six to seven groups.

The groups were consistent concerning contact points. The distinction between six and seven groups stemmed from the contact point test drive: it was either defined as a standalone group or incorporated into dealer visit. All aggregated contact points were sent to the same experts again to determine whether test drive should exist as a separate

group. Most experts preferred having one group for a test drive due to its specific nature.

The seven aggregated contact points comprised five that are company controlled and two that are non-company controlled. They are described below and summarised in Table 15.

The company-controlled contact points include:

1. Advertising (AD): this category encompasses all contact points leveraged for advertising by the automotive company. Examples include TV commercials, radio advertisements, newsletter mailings, and customer magazines.
2. Dealer visit (DV): this category pertains to contact points associated with interactions at the dealership. It includes visits without a salesperson consultation, visits with a salesperson consultation, and contract negotiations.
3. Test drive (DV/OE): the sole contact point within this category is the test drive, which is categorised on its own due to its unique nature. While it is often related to the dealer visit, the test drive may also occur in alternative locations. It is intrinsically linked to the customer's experiential engagement. Given the pivotal role that the test drive plays in influencing the purchase decision, its significance is underscored by prior findings in this thesis regarding its impact on purchasing behaviours.
4. Dealer website (Dweb): this category consolidates all online contact points associated with the automotive company, from the official website to mobile apps.
5. Events (EV): this category encompasses all contact points linked to events organised by the automotive company or in which the company plays a significant role, including proprietary dealership events and participation in motor shows.

The non-company-controlled contact points include:

6. WoM: this category includes all contact points that shape customer opinions, resulting from interactions not directly influenced by the automotive company.

This spans conversations with friends and relatives and inputs from car blogs, social media platforms, and independent automotive publications that provide neutral test reports.

7. Own experience (OE): this category captures all contact points derived from the personal experiences of customers interacting with vehicles. Examples include experiences such as driving with friends, observing vehicles on the street, or utilising car rental services. Notably, this category differs from the test drive in that these contact points are not explicitly designed for evaluating a particular vehicle and often arise more fortuitously rather than through deliberate intention.

Table 15: Aggregated contact points

Individual Contact Point	**Aggregated Contact Point**	
Ordered or received a brochure or pricelist	Advertising	Company-controlled contact points
Saw a TV commercial	Advertising	
Saw online advertising (e.g. advertising for the product on another website)	Advertising	
I was contacted from the dealer or salesperson (e.g. call, newsletter, mail)	Advertising	
Read in my personal customer magazine (from my current car manufacturer)	Advertising	
Got a car replacement offer from my dealer	Advertising	
Saw advertising in a magazine or newspaper	Advertising	
Listened to a radio commercial	Advertising	
Saw posters or other outdoor advertising (e.g. railway station)	Advertising	
Consultation at car dealer (with salesperson)	Dealer visit	
Visited the dealer (no consultation)	Dealer visit	
Contract negotiations with salesperson	Dealer visit	
Repair or service at the dealer	Dealer visit	
Made a test drive	Test drive	

Homepage visit of manufacturer (mobile or desktop)	Dealer website	
Online car configurator at the homepage of car manufacturer (mobile or desktop)	Dealer website	
Used a mobile app	Dealer website	
Customer portal with login	Dealer website	
Visited a motor show (e.g. IAA Munich)	Event	
Gathered information at a motorsport event (e.g. product displays at the event)	Event	
Was invited to an event (e.g. from the car dealer)	Event	
Talked to friends or relatives	Word of mouth	Non-company-controlled contact points
Read a car magazine (online or print)	Word of mouth	
Visited a used car portal in the internet	Word of mouth	
Read/discussed in an internet blog or forum (e.g. motor-talk)	Word of mouth	
Read/discussed in social media (e.g. Facebook)	Word of mouth	
Saw within the usual traffic (e.g. at traffic lights, on a parking lot or driving by)	Own experience	
Own experience with the car (e.g. drove the car from a friend, colleague; no official test drive)	Own experience	
Car rental (e.g. Sixt)	Own experience	

In the first analytical segment, a cluster analysis was conducted on analogous group sequences derived from the previously aggregated contact points to condense them into three distinct clusters. These clusters are defined by their similarity concerning the utilised contact points, the sequence of these contact points, and the length of the customer contact sequences. This methodological approach enabled an examination of the impact of customer contact sequences on response variables such as purchase and the influence of involvement factors such as income on these customer contact sequences.

Initially, the distance matrix is computed for agglomerative hierarchical cluster analysis, adhering to the best practices for sequential analysis as delineated by Stegmann, Werner and Müller (2013). In sequential analysis, this computation is facilitated through optimal matching, which quantifies the distances between the state transitions (contact points) of two sequences. Concurrently, an optimal matching algorithm ascertains the requisite effort to align both sequences until they achieve congruence. The employed algorithm, known as the Levenshtein algorithm (or distance), is characterised by its utilisation of insertion and deletion (Indel) operations to align sequences, as noted by Brüderl and Scherer (2006). Subsequently, Ward's method uses the distance matrix generated from this computation to construct clusters. Finally, the number of clusters is determined through the optical method utilising a dendrogram.

The second analytical segment employed descriptive statistical methods, specifically calculating means and conducting t-tests to analyse usage frequencies for individual and aggregated contact points. Furthermore, analysis of variance (ANOVA) followed by Duncan's multiple-range test for post hoc analysis were used to investigate the functions of contact points and the rationale behind selecting specific contact points. Finally, personal and channel involvement factors were examined through t-tests.

In the third analytical segment, a sequential analysis was conducted by utilising the R TraMineR package to examine the structure and sequence of contact points. The initiation and conclusion phases of customer contact sequences were evaluated thoroughly, with an emphasis on an exploration of prominent combinatorial patterns involving company-controlled and non-company-controlled contact points.

Sequential analysis is primarily utilised to examine time series data, such as career trajectories, daily behavioural patterns, or sales trends within marketing literature; it has also been applied to analyse customer contact sequences (Steinmann, 2011). This analytical method is particularly effective for processing process-produced longitudinal data, exemplified by the consumer durables purchasing process that involves various contact points. Consequently, sequence data can be conceptualised as

a biographical account of different states over a specified temporal framework. Statistically significant differences are assessed using the Wilcoxon rank-sum test, the t-test, and the chi-squared test.

The fourth analytical segment employed sequential analysis to investigate the length of customer contact sequences. The *seqlength* function was used to calculate the length. Additionally, the effects of personal, situational, and product involvement factors were assessed by using regression analysis and t-tests to evaluate the impacts of pre-knowledge, income, purchase frequency, and product-related factors on the length of customer contact sequences.

The final segment employed t-tests and regression analysis to explore the impact of emotional arousal on purchase decisions. Additionally, chi-squared tests and ANOVA were used to investigate purchase probabilities related to customer contact sequences, thus identifying which sequences are most likely to encourage purchases.

8 Data analysis for the quantitative study

This chapter presents the findings from the quantitative study, systematically following the structure outlined in the conceptual framework of this thesis. It is divided into five subchapters, each of which covers one of the five analytical segments, as outlined in Table 14.

Chapter 8.1 provides a comprehensive introduction to the data used in this study to outline strategies for effectively managing customer contact sequence data, particularly regarding the high number of contact points examined in this research. Additionally, this chapter offers an overview of the study participants.

Chapter 8.2 explores the types of contact points, aiming to define the characteristics of company-controlled versus non-company-controlled contact points clearly. This understanding is crucial for explaining the structure of customer contact sequences, the influence of involvement on contact point selection, and the interrelations among the various contact points.

Chapter 8.3 discusses the order of contact points. The positioning of contact points clarifies the role of each contact point within a given sequence, such as their functions as initiating or concluding elements. Furthermore, combinations of contact points are analysed to determine which contact points are commonly used together in a specified sequence, thereby revealing typical pathways in customer contact sequences.

Chapter 8.4 clarifies the findings related to the length of customer contact sequences, seeking to understand the overarching characteristics of these sequences. It then explores the influence of personal, situational, and product involvement on the length of these sequences. This analysis examines the determinants that affect the length of customer contact sequences, which is essential for formulating effective strategies to address these factors.

Finally, Chapter 8.5 examines the effect of emotional arousal within customer contact sequences and its subsequent influence on purchase decisions. Analysing emotional arousal at various contact points is crucial, as it underscores the significance of emotional responses during each interaction. Moreover, the goal is to explore which customer contact sequences enhance the likelihood of a purchase. Analysing contact sequences that increase the probability of a purchase provides valuable insights into seamlessly structuring these sequences to facilitate purchasing behaviour.

8.1 Data structure and contact point aggregation

This analysis provided a comprehensive overview of the data in general, established a methodology for analysing specific customer contact sequence data, and aggregated contact points to a more appropriate level for analysis. Moreover, this endeavour reduced the number of contact points within the sequences and clustered similar sequences. This process was essential to answer the research questions and to test the hypotheses effectively. The initial 32 distinct contact points were synthesised into seven aggregated categories, which were further organised into three distinct clusters representing customer contact sequences.

All analyses were conducted utilising R. The study sample comprised 528 participants, of which 48% were female, 49.1% were male, and 2.7% did not provide their gender. The mean age of the participants was 46.6 years, with the following age categories: 36.6% were aged up to 39 years, 40.3% were aged 40–59 years, and 23.2% were aged 60 years and older. Regarding monthly household income, 46.8% of the participants reported an income of 0–2,999 euros, whereas 53.2% reported an income exceeding 2,999 euros.

In preparation for subsequent analyses, all demographic variables were recoded systematically, as described below.

Age. Twelve participants indicated ‘0’ as their year of birth, which was recoded as NA for analytical purposes. In total, 516 of the participants reported their age, representing

61 distinct ages. To mitigate potential sparsity across regression cells, the participants were categorised into two age groups based on the median age of 45 years: those aged 45 years or younger (≤45 years) and those older than 45 years (>45 years).

Gender. A total of 514 participants disclosed their gender. Two participants who provided 'no answer' were recorded as NA. Gender was dichotomised into two categories: male and female.

Education. Overall, 510 participants provided information on their education. Initially, the education variable comprised 9 categories, with 3 categories having < 10 participants each. This variable was subsequently recoded into two broader categories: higher education and less than higher education, with the latter encompassing all levels of education below higher education.

Employment. The employment status was reported by 523 participants. Employment was consolidated into two categories: non-workers (encompassing the unemployed) and workers.

Income. Forty-two participants provided no answer regarding their income, and these cases were recoded as NA. Thus, income information was available for 483 participants. Initial categorisation of income encompassed 13 distinct categories, which were later recoded into two categories: high income and low income. The high income group included the 226 participants whose net household income was above the median, specifically those earning 2,000–2,999 euros per month. Conversely, the low income group comprised 257 participants whose net household income was at or below the median.

Despite taking various measures to reduce common method bias during the design phase of the quantitative study, Harman's single-factor test (Podsakoff *et al.*, 2003) was executed via exploratory factor analysis for all constructs. The findings showed no significant risk from a dominant common factor, with an explained variance of 42%, which falls short of the 50% threshold. However, it is crucial to recognise that

Harman's single-factor test might have limitations (Podsakoff *et al.*, 2003). Consequently, a common latent factor was added to the measurement model, which revealed no signs of common method bias (Afthanorhan *et al.*, 2021). The difference in estimates between the two models (with and without a common latent factor) was < 0.20.

The dataset contained 528 customer contact sequences, corresponding to 528 individual customers, each characterised by 32 distinct states, referred to as contact points. Each sequence encapsulates data about the order and quantity of contact points. In total, 487 of these contact sequences were unique. The average length of a customer contact sequence was 11.55 contact points, with a standard deviation of 0.49, a median of 8, and a range of 1–79. Table 16 provides a summary of the critical descriptors of the study.

Table 16: Summary of the study descriptors

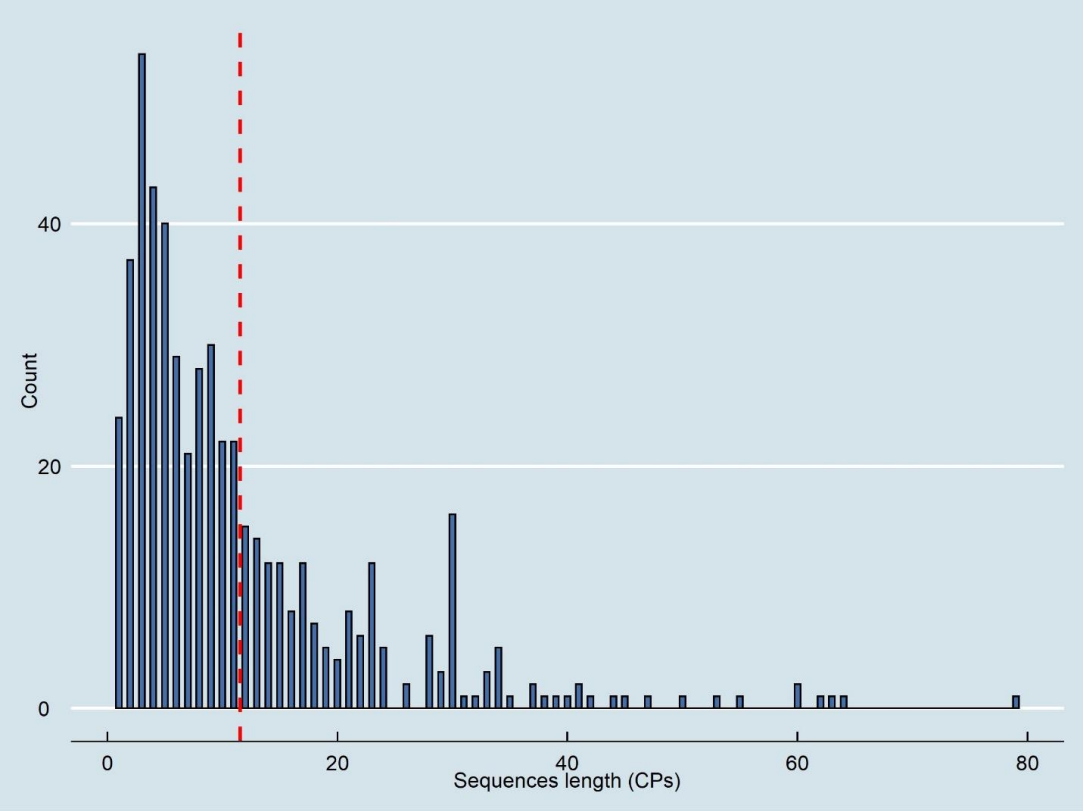
Sample size (number of customer contact sequences)	528
Female (%)	48.0
Male (%)	49.1
Mean age (years)	46.6
Monthly household income 0–2,999 euros (%)	46.8
Monthly household income > 2,999 euros (%)	53.2
Number of customer contact sequences	528
Number of different contact points	32
Number of unique sequences	487
Mean customer contact sequence length (contact points)	11.55
Median customer contact sequence length (contact points)	8
Range of contact points in one customer contact sequence	1–79

The distribution of customer contact sequence lengths deviated significantly from a normal distribution, necessitating a tailored analysis strategy. Given kurtosis of 6.04 and skewness of 2.15, the sequence length distribution was right skewed, displaying an extended right tail and suggesting the presence of multiple potential outliers within

this tail. Therefore, non-parametric tests (such as the Wilcoxon signed-rank test) or bootstrapping techniques (for assessing differences in average values) emerged as a suitable methodological approach for analysis. Of note, a non-normal distribution was anticipated, given the inherent nature of customer contact sequences (Steinmann, 2011).

Figure 16 illustrates the distribution of the customer contact sequence lengths, with the number of contact points per sequence along the x-axis and the frequency of customer contact sequence lengths on the y-axis. This analysis employed the *seqIplot* function in the TraMineR package. The dashed red line indicates the average length (11.55 contact points).

Figure 16: Distribution of customer contact sequence lengths



The analysis revealed 32 individual contact points, a high number that presents challenges in interpretability given the likely low sample size for each contact point. Nevertheless, the insights derived from individual contact points are valuable: they

offer a diverse range of significant findings, but it is necessary to aggregate contact points based on their similarities to generate more comprehensive insights.

Aggregating contact points enabled a broader analytical approach, improving the methods, visualisation, and the significance of the results. As discussed in Chapter 7.4, the 32 individual contact points were grouped into 7 aggregated contact points: Advertising (AD), dealer visit (DV), test drive (DV/OE), dealer website (Dweb), events (EV), WoM, and own experience (OE).

The aggregated contact points were subsequently divided into distinct clusters representing similar customer contact sequences. A rigorous cluster analysis was employed to identify these analogous group sequences of contact points. The resulting clusters are homogeneous regarding the contact points used, the sequential order of these contact points, and the overall length of the customer contact sequence. This methodological approach enabled the measurement of the effects of customer contact sequences on response variables such as purchase, and an examination of the influence of the key involvement variables, including income, on the patterns of customer contact sequences.

Cluster analysis is a methodological approach used to create clusters of customer contact sequences. The initial step involves calculating a distance matrix, specifically within the context of agglomerative hierarchical cluster analysis. In the realm of sequential analysis, this calculation is carried out through optimal matching, which measures the distances between the states (in this case, contact points) of two sequences (Stegman, Werner and Müller, 2013). Simultaneously, the optimal matching algorithm assesses the effort required to align both sequences until they achieve an identical structure.

The Levenshtein algorithm (or distance) was employed in the cluster analysis. The distance between any two customer contact sequences was calculated from the cumulative operations (Indel, representing insertion and deletion) required to achieve complete similarity between the sequences (Brüderl and Scherer, 2006). In this

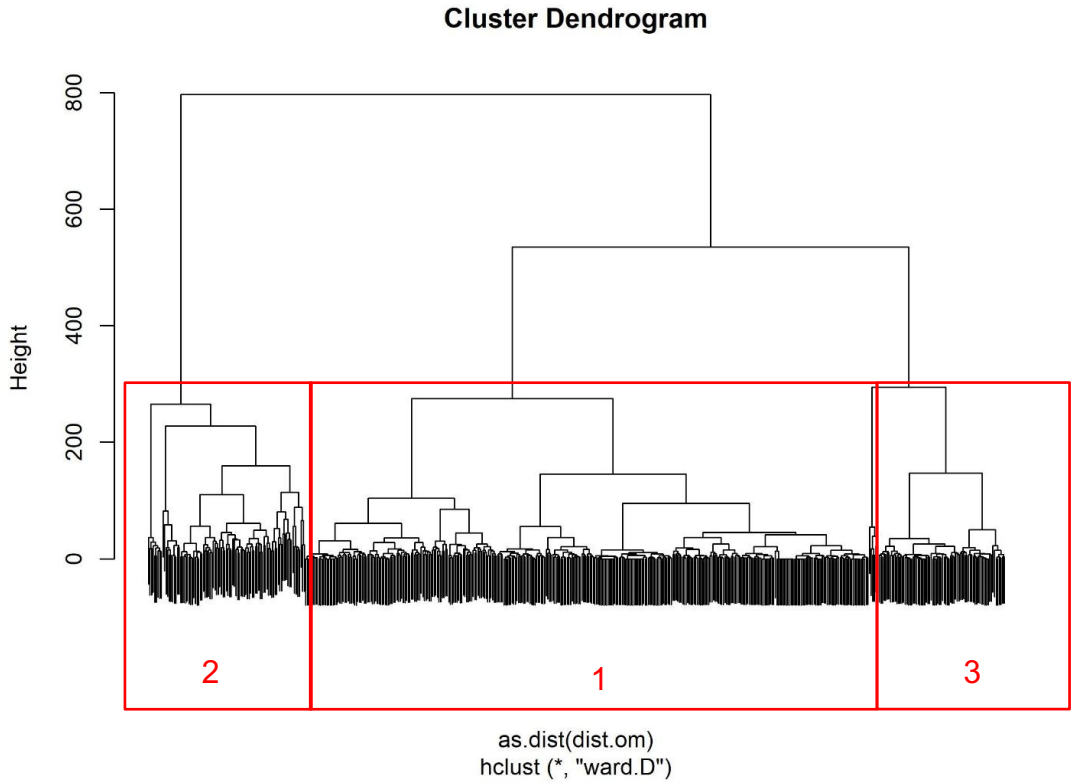
calculation, insertion and deletion were assigned a value of 1 (Indel = 1), while substitution costs were determined using the T-Rate concept derived from the transition matrix of all contact points. The final output of the optimal matching procedure was a distance matrix for each sequence, detailing the respective distances in relation to all other sequences. The *seqdist* function and optimal matching method in the TraMineR package were used for the computation.

The distance matrix derived from this calculation served as the foundation for agglomerative hierarchical cluster analysis. Ward's method was employed to create clusters based on best sequential analysis practices, as described by Stegman, Werner and Müller (2013). This calculation used the *hclust* function in the stats package with the Ward method.

Furthermore, the optimal number of clusters was determined by using the optical method, particularly by analysing the dendrogram to pinpoint the 'knee' point, which helps establish the appropriate EPS (epsilon) parameter. This process utilised the *kNNdistplot* function together with the *hclust* function in the stats package. The sequences were assigned to three distinct clusters using the *cutree* function in the stats package.

In the resulting dendrogram, shown in Figure 17, the x-axis represents various customer contact sequences, while the y-axis indicates the error sum of squares. Three clearly defined clusters are evident within the red boxes, with a particular emphasis on the central cluster, which is notably large and contains the majority of the customer contact sequences.

Figure 17: Cluster dendrogram for customer contact sequence clusters



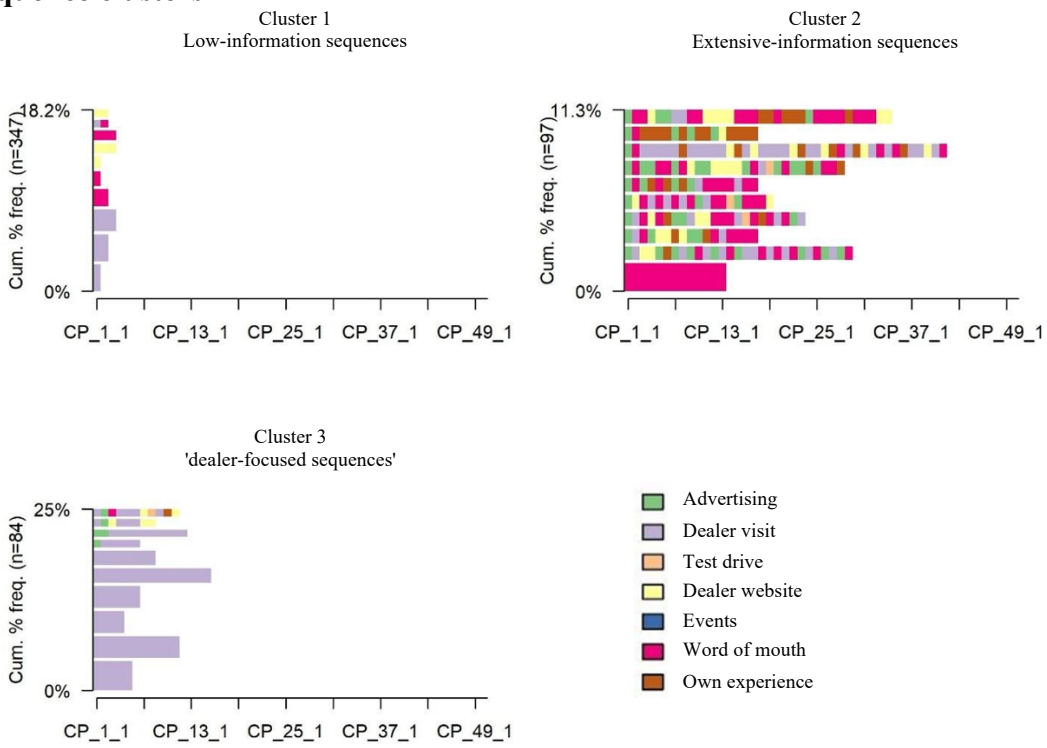
In summary, customer contact sequences can be categorised into three distinct clusters:

1. Cluster 1, low-information sequences, are characterised by a very short sequence length and relies exclusively on a single contact point during a customer contact sequence.
2. Cluster 2, extensive-information sequences, exhibits a longer sequence length and utilises a diverse array of contact points for information acquisition.
3. Cluster 3, dealer-focused sequences, demonstrates a medium sequence length and predominantly engages through dealer visits as the sole contact point.

To describe the clusters, an analysis of the type, order of contact points, and sequence length was conducted using the *seqIplot* function in the TraMineR package. This analysis clarified the intricacies of the three clusters, outlining the distinctions among them. Figure 18 illustrates each cluster's top 10 customer contact sequences, as graphical representations are more effective when focusing on prominent sequences. The x-axis represents the number of contact points, also known as the customer contact

sequence length, while the y-axis depicts the frequencies of the customer contact sequences across the entire cluster, represented by the heights of the bars corresponding to the top 10 sequences. The top number on the left side is the cumulative percentage of the top 10 sequences within each respective cluster.

Figure 18: The top 10 most frequent sequences across the customer contact sequence clusters



Cluster 1 defines the shortest sequence among the various clusters. The sequences are homogeneous and primarily consist of contact points such as dealer visit, WoM, or dealer website. These contact points are rarely combined, causing customers to rely on a single contact point as their entire customer contact sequence. In summary, the sequences within this cluster can be classified as low-information sequences due to their notably brief customer contact sequence lengths and their predominant reliance on one contact point within each sequence.

Cluster 3 is characterised by intermediate customer contact sequence lengths, primarily indicating a tendency to consist of a single contact point within these sequences. The most common customer contact sequences involve multiple visits to

the dealer. An examination of the less frequent customer contact sequences in this cluster shows that the advertising contact point is used alongside dealer visits, mainly serving as an initial motivator for those visits. Furthermore, the role of the dealer website appears minimal in this context. In conclusion, sequences classified in this cluster can be aptly described as dealer-focused sequences, as they mainly comprise dealer visits with moderate sequence lengths.

Cluster 2 is characterised by heterogeneous sequences and have the longest customer contact sequence lengths of the three clusters. Within this cluster, sequences are derived from a diverse array of contact points in a single customer contact sequence. Notably, WoM is prevalent across the entire top 10 sequences, often appearing multiple times. WoM is frequently combined with interactions involving dealer visits and dealer website, alongside advertising and own experience. In summary, the sequences within this cluster can be aptly described as extensive information sequences, given their composition of a substantial variety of contact points and extended customer contact sequence lengths.

Note that in the analysis of low-information sequences (Cluster 1) compared with high-information sequences (Cluster 2), the description of these clusters is strictly quantitative, focusing solely on the number of customer contact points used within a given sequence (the customer contact sequence length). However, it is essential to acknowledge that the depth of customer engagement with specific contact points may vary, and perceptions of information quality could differ among customers; these factors lie beyond the scope of the current study.

8.2 The types of contact points

This analysis encompassed two primary dimensions. First, examining the frequencies of contact points led to a comparison of company-controlled and non-company-controlled contact points, focusing on individual contact points, aggregated contact points, and customer contact sequence clusters to discern the most prevalent contact points used to test H1. Furthermore, to understand the findings from H1, why specific

contact points are chosen was analysed. Second, the impact of personal and channel involvement on selecting both company-controlled and non-company-controlled contact points was explored to clarify how varying levels of involvement influence the choice of contact points, thereby testing H2, H3, and H4.

Overall, this analysis aimed to comprehensively clarify the characteristics of company-controlled versus non-company-controlled contact points. This understanding is pivotal in explaining the architecture of customer contact sequences, the influence of involvement on contact point selection, and the interrelatedness of various contact points. This analysis addressed the following research questions: *Which customer contact sequences regarding type, order, and length are present?* and *How strong is the influence of involvement on the structure of a customer contact sequence?*

Based on the analysis, 7 contact points comprise over 70% of the total share across all customer contact sequences. Of these contact points, five are under the company's control, while two are not. The most commonly used contact points include dealer visits – whether with a salesperson or not – and WoM. Furthermore, the analysis suggested that personal involvement, such as age and channel involvement, partially influences the choice of contact points. A particularly noteworthy finding in this context is that WoM seems to reduce the likelihood of using the most prevalent contact point, consultation at car dealer with salesperson.

To test H1 – salesperson (company controlled) and WoM (non-company controlled) are the most frequently used (top five) contact points – the general frequencies of company-controlled and non-company-controlled contact points were examined (Table 17). Seven contact points together accounted for > 70% of the total share across all customer contact sequences, with dealer visits identified as the most crucial contact point. Five of these contact points are company controlled – consultation at the dealer with the salesperson, visiting the dealer without consultation, visiting the manufacturers homepage, online car configurator, and test drive – and two are not company controlled – talked to friends and relatives (WoM) and reading car magazines The observation that customer purchase decisions are predominantly influenced by

these seven contact points allows for a consolidation of the contact points in future research to facilitate a more focused analysis.

Table 17: Contact point frequencies

Contact Point (Description)	Total in sequences	
	count	share, %
Consultation at car dealer (with sales person)	951	15.65
Visited the dealer (no consultation)	866	14.25
Talked to friends or relatives	736	12.11
Homepage visit of manufacturer (mobile or desktop)	624	10.27
Online car configurator at the homepage of car manufacturer (mobile or desktop)	420	6.91
Made a test drive	387	6.37
Read a car magazine (online or print)	333	5.48
Saw within the usual traffic (e.g. at traffic lights, on a parking lot or driving by)	305	5.02
Visited a used car portal in the internet	284	4.67
Own experience with the car (e.g. drove the car from a friend, colleague; no official test drive)	169	2.78
Ordered or received a brochure or pricelist	141	2.32
Saw a TV commercial	97	1.6
Used a mobile app	97	1.6
Read/discussed in an internet blog or forum (e.g. motor-talk)	82	1.35
Saw online advertising (e.g. advertising for the product on another website)	75	1.23
I was contacted from the dealer or sales person (e.g. call, newsletter, mail)	65	1.07
Read/discussed in social media (e.g. Facebook)	64	1.05
Contract negotiations with sales person	54	0.89
Repair or service at the dealer	49	0.81
Read in my personal customer magazine (from my current car manufacturer)	45	0.74
Got a car replacement offer from my dealer	43	0.71
Visited a motor show (e.g. IAA Frankfurt)	35	0.58
Gathered information at a motorsport event (e.g. Formula 1)	33	0.54
Was invited to an event (e.g. from the car dealer)	31	0.51
Saw advertising in a magazine or newspaper	29	0.48
Listened to a radio commercial	28	0.46
Saw posters or other outdoor advertising (e.g. railway station)	22	0.36
Customer portal with login	11	0.18
Total	6076	100

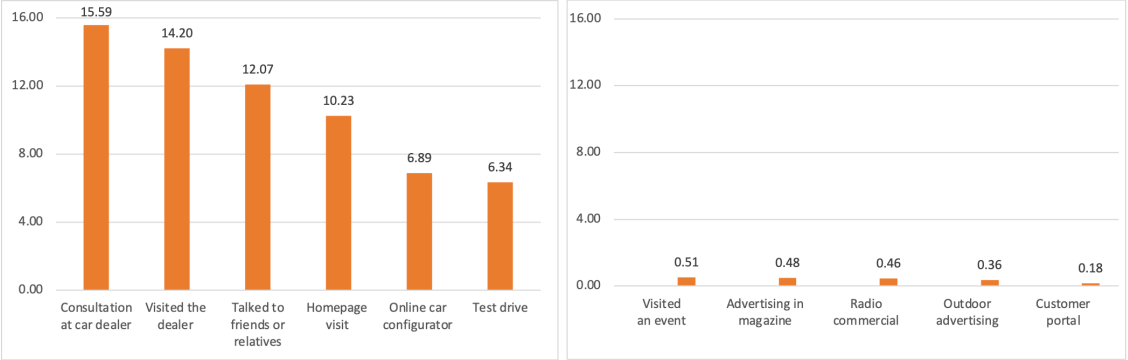
The contact point saw within usual traffic (non-company controlled) had a frequency of 5%. This finding is particularly significant as prior studies have not incorporated this specific contact point. The absence of this contact point in earlier research is not unexpected, given that it is not actively leveraged in the marketing strategies of automotive sellers.

The analysis also revealed 11 contact points with a frequency of < 1%. These data underscore that sellers employ an extensive array of contact points to engage with customers. From the customer's perspective, these contact points may lack sufficient media richness, rendering them less worthwhile in terms of subjective selection effort. From the seller's perspective, this situation may reflect the resource-based view, which posits that companies can achieve a competitive advantage through the strategic use

of numerous contact points. However, the findings indicate that this unwarranted proliferation of contact points contributes negligible value to the organisation. Consequently, it is recommended that marketing budgets be allocated towards the most impactful contact points.

In summary, the most and least significant contact points, as determined by the percentage frequency share, are illustrated in Figure 19. Marketers are encouraged to focus on the most frequently occurring contact points while economising on those that are infrequently utilised, keeping in mind that despite the predominance of company-controlled contact points, interpersonal communication, such as talking with friends and relatives (WoM), remains crucial and is not subject to company control.

Figure 19: The most (A) and least (B) frequently used contact points



(A) (B)

Next, the usage frequencies of the seven aggregated contact points were calculated to determine whether distinct findings would emerge compared with the individual contact points. This approach enabled the use of more sophisticated analytical methodologies. The analysis entailed computing the cumulative sum of the usage frequencies for all individual contact points within each aggregated category. For example, the total usage frequency of all advertising contact points (e.g., instances of ordering or receiving a brochure/pricelist and viewing a TV commercial) was determined to establish the usage frequency for the aggregated advertising contact point. Table 18 shows the usage frequencies as well as the average usage per customer contact sequence.

Table 18: Overall distribution of the aggregated contact points

Contact points	Overall in customer contact sequences		Average use in sequences
	Count	Share, %	
Dealer visit	1943	31.87	3.68
Word of mouth	1519	24.91	2.88
Dealer website	1126	18.47	2.13
Advertising	611	9.99	1.16
Own experience	513	8.41	0.97
Test drive	305	5.00	0.58
Events	82	1.34	0.16

The predominant contact points were dealer visit (company controlled), followed by WoM (non-company controlled) and dealer website (company controlled). Collectively, these three categories accounted for 75% of all utilised contact points, mirroring the findings from the analysis of the individual contact points.

H1 was tested by analysing the overall frequencies of the aggregated contact points. A chi-squared test (utilising the *chisq.test* function) was executed, revealing that the salesperson and WoM are employed significantly more frequently than the other contact points ($\chi^2 = 1678.44$, $p = 0.00$). Thus, **H1 is supported**.

Events presented the lowest frequency, a finding that was not anticipated, particularly given the substantial budgets companies allocate to such contact points, such as dealer events. Test drive ranked as the second lowest in frequency. However, it remains crucial for the purchase decision, especially when reviewing the results of individual contact points. The low frequency for test drive can be attributed to the limited availability provided by sellers, mainly due to the associated high costs. This highlights the need for sellers to prioritise test drives as a central objective within the customer

contact sequence. Consequently, it is advised that sellers reallocate their contact point budgets to emphasise product testing.

As shown in the rightmost column in Table 18, of the seven aggregated contact points, on average, dealer visit (company controlled) occurred 3.68 times during the same customer contact sequence, followed by WoM (non-company controlled) at 2.88, dealer website (company controlled) at 2.13, and advertising (company controlled) at 1.16. This pattern is also reflected in individual contact points (see Appendix A). The findings indicate that within one sequence, it is common to utilise the same contact point multiple times. This suggests that these contact points fulfil diverse informational needs of customers, as evidenced by their repeated use. It is imperative for sellers to integrate these contact points into the customer contact sequence strategically. Furthermore, the lack of consideration for multiple contact point usage in previous studies may indicate potential flaws in the findings.

While this thesis contributes to the existing body of knowledge regarding the contact points primarily utilised within a customer contact sequence during the automobile purchase decision-making process, it is crucial to comprehensively understand the underlying reasons for the observed frequencies of these contact points. This endeavour will clarify the rationale behind the customers' choices of specific contact points and the type of information each contact point delivers and its function within customer contact sequences. Contact points can have the following functions (Steinmann, 2011): general information of the product, specific information of the product, support and advice from the seller, complaints about the product/process, finding the cheapest option to purchase, details about credit options, overview of prices to compare alternative choices, comparison of product configurations or features.

The participants were asked to assess each contact point function within their respective customer contact sequences on a 7-point Likert scale (from 1 [*not at all*] to 7 [*very much*]). The analysis of individual contact points did not produce notable findings; thus, the functions of the aggregated contact points were evaluated. Initially, a one-way ANOVA was performed for each contact point (utilising the *aov* function).

Based on the F-statistics in Table 19, all the aggregated contact points, except for events, demonstrated significant differences across contact point functions.

While an ANOVA indicates the existence of differences among groups, it does not specify the nature of these differences. Therefore, post hoc analysis with Duncan's multiple-range test was conducted using the *duncan.test* function in *agricolae* for advertising, dealer visit, test drive, dealer website, WoM, and own experience, with events excluded due to the absence of significant differences in the ANOVA. The significance level was set at 0.05.

Table 19: Group differences for contact point functions

		ANOVA								
		Contact Point Functions								
Aggregated CPs	Total sample (average)	GI	SI	SA	Cpl	PChP	FLO	O	Cps	F
AD	4.20	**4.50**	**4.49**	4.14	*3.14*	4.22	4.13	**4.55**	4.43	38.74***
DV	4.42	**4.91**	**4.88**	4.45	*2.89*	4.44	4.15	**4.92**	4.71	266.09***
DV/OE	4.56	5.00	**5.07**	4.75	*3.12*	4.61	4.25	4.83	4.88	38.88***
DWeb	4.53	**5.23**	**5.31**	4.15	2.72	4.33	4.15	**5.28**	5.03	248.42***
EV	4.39	4.25	4.56	4.37	4.16	4.15	4.19	4.69	4.81	1.95
WoM	4.30	4.74	**4.82**	4.43	*2.96*	4.31	3.81	4.62	4.71	162.41***
OE	3.67	**4.46**	3.94	3.56	*2.82*	3.38	3.41	3.61	4.16	32.09***

Bold denites statistically high values, according to Duncan's test
Italic denites statistically low values, according to Duncan's test

***-p<0.001, **-p<0.01, *-p<0.05.

General information (GI)
Specific information (SI)
Support & Advice (SA)
Complaint (Cpl)
Possibility cheap purchase (PChP)
Financing /easing options (FLO)
Overview of prices (O)
Comparison of cars (Cps)

AD = advertising
DV = dealer visit
DV/OE = test drive
DWeb = dealer website
EV = event
WoM = word of mouth
OE = own experience

Table 19 shows that advertising primarily functions as a source of price overviews (O), general information (GI), specific information (SI), and car comparisons (Cps), with complaints (Cpl) as a secondary use. Dealer visit is mainly utilised for price overviews, general information, and specific information, while complaints are regarded as less significant. Test drive is primarily used to collect specific information, with complaints being a minimal concern. Dealer website is chiefly engaged for specific information, price overviews, and general information, with complaints being the least common usage. WoM primarily centres on specific information, with complaints occurring infrequently. Own experience mainly provides general information, with complaints being a minor aspect. In summary, the majority of identified contact points facilitate access to a diverse range of information and serve multiple purposes. Notably, advertising, dealer visit, and dealer website are utilised to obtain various types of

information. Conversely, test drive (specific information), WoM (specific information), and own experience (general information) are employed primarily for singular, specific functions. These findings may be employed to clarify the prevalence of these contact points within customer contact sequences. Except for WoM, all other contact points that provide multiple functions are utilised more frequently within customer contact sequences. In contrast, contact points catering to a single specific function are employed less frequently in customer contact sequences.

Following a thorough analysis of the most common contact points, the next examination focused on the impact of personal involvement on the types of contact points. The literature review showed that age significantly influences the choice of contact points. Specifically, older consumers demonstrate a clear preference for direct interpersonal interactions with salespeople, while they engage less frequently with online contact points compared to their younger counterparts (Steinmann, 2011). In contrast, younger consumers are more inclined to rely on recommendations from family and friends (WoM; Van Rijnsoever, Castaldi and Dijst, 2012). This analysis is important because the effect of age on the use of contact points has not been comprehensively addressed in existing literature.

To test H2 – young customers are more likely to use WoM (non-company controlled) and online contact points and have fewer contacts with the salesperson (company controlled) than older customers – the probabilities associated with the use of the contact point talked to friends or relatives (WoM) as well as online contact points were calculated. Online contact points were defined as the sum of contact points categorised under dealer website, along with read/discussed in an internet blog or forum (e.g., motor-talk) and read/discussed in social media (e.g., Facebook). Additionally, the probability of using consultation at car dealer (with salesperson) was examined.

As noted previously, the two age cohorts were ≤ 45 years and > 45 years. Initially, the average probability of using the contact point talked to friends or relatives (WoM) was compared between younger and older customers (0.117 and 0.096, respectively). A t-test with bootstrapping (utilising the *boot.t.test* function in the MKinfer package)

indicated that the probability of younger customers using this contact point was significantly higher than that for older customers ($p = 0.012$). This finding support H2.

Subsequently, the average probabilities of using online contact points were compared between younger and older customers. The t-test with bootstrapping revealed that the probability of using online contact points was significantly lower for younger customers compared with older customers (0.161 and 0.215, respectively; $p = 0.038$). This finding does not support H2.

Finally, the average probability of using the contact point consultation at car dealer (with salesperson) was lower for younger customers compared with older customers (0.154 and 0.173, respectively). However, the t-test with bootstrapping showed that this difference was not significant ($p = 0.478$). This finding does not support H2.

In summary, **H2 is supported in the context of WoM but not for online contact points or interactions with salespeople**. The findings suggest that two out of three contact points exhibit a significant effect based on age. Notably, younger customers do not engage with online contact points more frequently than older customers. The outcomes regarding the contact point consultation at a car dealer (with a salesperson) further indicate that younger customers rely on dealer consultations without the anticipated increased frequency of online contact point usage. This suggests a lack of substantial change in the information-seeking behaviour of younger consumers, contrary to theoretical expectations.

In a related analysis (see Appendix B), the influence of gender on the frequency of using specific contact points such as advertising and WoM was investigated. The findings revealed no significant differences between male and female participants. In conclusion, the results regarding the influence of personal involvement on the types of contact points utilised demonstrate minimal disparities arising from personal involvement.

The following analysis focused on how channel involvement affects the selection of the utilised contact points. Based on the literature review, WoM, serving as a non-company-controlled contact point, can significantly reduce reliance on company-controlled contact points. This shift may ultimately lead to companies losing their influence over consumers' purchase decisions. Steinmann (2011) asserted that as discussions regarding purchases intensify within family or peer contexts (WoM), the need for alternative contact points, particularly interpersonal interactions with sales representatives, is considerably diminished. This finding is noteworthy as the contact point consultation at car dealer (with salesperson) was the predominant interaction method in this study, accounting for over 15% of overall usage. If an alternative contact point changes this usage pattern, then it could profoundly change the sequence of contact points.

To test H3 – the usage of WoM (non-company controlled) significantly decreases the chance of using other personal contact points (salespeople; company controlled) – dummy variables were established where 1 indicates the presence of the contact point talking to friends and relatives (WoM) within a sequence, and 0 signifies its absence. The total number of occurrences of the contact point consultation at car dealer (with salesperson) was calculated for each customer contact sequence. Then, the probability of consultation at car dealer (with salesperson) occurring within a customer contact sequence was determined by dividing the total number of occurrences of this contact point by the overall length of the sequence. Lastly, the average probability of consultation at car dealer (with salesperson) for sequences that included talking to friends and relatives (WoM) was compared with sequences lacking both contact points simultaneously. The result was 0.095 and 0.224, respectively, indicating that the probability of utilising consultation at car dealer (with salesperson) was lower for customer contact sequences that also include talking with friends or relatives (WoM) compared with sequences that comprise only consultation at car dealer (with salesperson). A t-test with bootstrapping (utilising the *boot.t.test* function in the MKinfer package) confirmed that this difference was significant ($p < 0.001$).

Thus, **H3 is supported**, highlighting the reciprocal influence of contact points within the customer contact sequence, which has critical implications for sellers. When assisting customers in navigating their customer contact sequences, sellers must be acutely aware of the interdependent effects that each contact point may have on one another.

Finally, the effect of the subjective effort on the choice of a contact point, specifically within the context of channel involvement, was examined. According to the literature, it is crucial to consider the subjective effort exerted by customers to identify appropriate contact points (Steinmann, 2011; McGregor, Azzopardi and Halvey, 2023). However, researchers have yet to clarify the impact of the subjective effort of using a specific contact point in the customer journey. Nevertheless, the available findings indicate that lower subjective effort in accessing a contact point facilitates its use (McGregor, Azzopardi and Halvey, 2023).

To empirically test H4 – the lower the subjective effort of using a contact point, the higher the chance of usage – the correlation coefficient between the number of contact points and the average score for subjective effort was evaluated using the *rcorr* function in the Hmisc package. The correlation was not significant ($R = -0.26$, $p = 0.570$).

To further explore H4, the subjective effort scores (ranging from 1 [*low effort*] to 7 [*high effort*]) of the contact points were analysed alongside their frequencies (Table 20).

Table 20: The contact point frequencies and average effort scores for the aggregated contact points

	Frequency of contact points	Average subjective effort score per contact point	Rank by frequency of contact points	Rank by subjective effort of contact point
Advertising	611	3.50	4	6
Dealer visit	1943	3.82	1	3
Test drive	305	3.91	6	2
Dealer website	1126	3.70	3	4
Events	82	4.37	7	1
Word-of-mouth	1519	3.51	2	5
Own experience	513	3.18	5	7

Events exhibited the highest levels of subjective effort alongside the lowest frequency of occurrence. Test drive ranked second in terms of subjective effort and sixth in frequency. These results support H4. Conversely, dealer visit ranked third in subjective effort and held the top position in frequency. Own experience presented the lowest subjective effort, but it ranked fifth in frequency. Consequently, **H4 is not supported**, particularly when considering the insignificance of the correlation between subjective effort and the frequency of contact points. Notably, dealer visit is exceptional, demonstrating both elevated subjective effort and high frequency, suggesting that considerable subjective effort is provoked from customers when a favourable outcome from a contact point is anticipated.

8.3 The order of contact points

After the thorough analysis of contact points, the next logical step was to examine the order of contact points within customer contact sequences and to investigate how these contact points combine to create such sequences. This analytical effort addressed two research questions (*Which customer contact sequences regarding type, order, and length are present?* and *Which company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence and favour a purchase?*) and tested H5, H6, and H7, which a focus on the placement of

contact points within the sequence, highlighting those used at the beginning or end and evaluating combinations of two or more contact points arranged in a specific order. The significance of this analysis is underscored by the way contact point positions clarify the role of each contact point within a sequence (e.g., as initiating or concluding elements). The investigation of contact point combinations is vital as it highlights which contact points are frequently used together in a specified sequence, thereby revealing dominant pathways within customer contact sequences.

The analysis showed that interactions with dealers, whether or not they include sales personnel, mainly occur at both the start and end of the customer contact sequence. This observation highlights the significance of these contact points in customer interactions. Such dynamics pose a considerable challenge for sellers, as these contact points need to be flexible enough to serve various functions throughout the sequence. Moreover, identifying the top seven combinations of contact points revealed a tendency for transitions within a single category of contact points, suggesting that customers are likely to engage within a specific category across multiple interactions. This finding represents a noteworthy enhancement in the theoretical understanding of customer contact sequence patterns.

The methodological approach was sequential analysis, facilitated by the TraMineR package. This method has previously been applied to the analysis of customer contact sequences (Steinmann, 2011) by defining individual contact points as the analytical level to identify the most common customer contact sequences. The analysis indicated that the most frequently used contact points identified in previous studies also govern the predominant combinations of contact points. Notably, a considerable proportion of the contact points in the most frequently observed sequences are within the seller's control (company controlled), thereby presenting significant opportunities to curate an effective customer contact sequence that aligns with customer needs.

First, H5 – at the beginning of a customer contact sequence, advertising contact points (company controlled), online contact points (company controlled), and WoM (non-company controlled) are used most frequently (the top three aggregated contact points)

– was tested. The literature indicates that advertising contact points, online contact points, and WoM serve as the primary catalysts for initiating a sequence of customer interactions. Consequently, these elements represent the initial contact points in the customer contact sequence (Klein and Ford, 2003; Steinmann, 2011; Harting *et al.*, 2017).

To conduct a thorough analysis of customer contact sequences and their corresponding contact points, sequences with a frequency exceeding 1% were extracted. A total of 457 customer contact sequences were identified as suitable for further examination using the *seqefsub* function in the TraMineR package. This analysis allowed for the investigation of various stages (i.e., beginning, middle, and end) within the customer contact sequences, utilising the *seqstatd* function in the TraMineR package.

The initial phase is crucial for elucidating customer contact sequences, as it highlights the specific contact points employed to initiate an information search. The total counts of contact points at the beginning (the first contact point in a customer contact sequence) are presented in Table 21.

Table 21: The initial contact points in a customer contact sequence

Contact point	Count
At the beginning (first contact point in a sequence)	
Visited the dealer (no consultation)	109
Consultation at car dealer (with salesperson)	82
Talked to friends or relatives	61
Homepage visit of manufacturer (mobile or desktop)	57
Online car configurator at the homepage of car manufacturer (mobile or desktop)	36

The most prevalent initial contact points were visited the dealer (no consultation) and consultation at a car dealer (with a salesperson), both of which are company controlled. Moreover, an examination of the contact points from the fourth to the ninth positions

in the sequences – the middle segment of the sequence, which is not represented in Table 21 – demonstrated that consultation at car dealer (with salesperson) was the most frequently utilised contact point, followed closely by visited the dealer (no consultation); both of these contact points are company controlled. In summary, the contact points observed at the beginning and the middle sequence predominantly align with the contact points encountered most frequently overall.

The entire customer contact sequence comprises dealer visits, which may occur with or without the presence of a salesperson. This highlights the significant role that customer contact sequences play in the sales process. Furthermore, it is evident that no definitive conclusions can be drawn from this observation due to the lack of noticeable differences between the initial and middle phases of a customer contact sequence.

To further investigate H5, the frequencies of aggregated contact points at the beginning of sequences, both overall and across various customer contact sequences clusters, were calculated (first contact point) using the *seqstatl* function in the TraMineR package. As shown in Table 22, which presents the total frequencies along with their respective overall ranks and ranks per cluster, advertising ranked lower than dealer website and WoM. Specifically, advertising ranked fifth overall and either fourth or fifth across the different clusters.

Table 22: The frequencies of the aggregated contact points overall and across the three clusters at the beginning of sequences

Contact Points	Total		Cluster 1 low information sequences		Cluster 2 extensive information sequences		Cluster 3 dealer-focused sequences	
	Frequency	Rank	Frequency	Rank	Frequency	Rank	Frequency	Rank
AD	**33**	**5**	**20**	**5**	**11**	**4**	**2**	**5**
DV	195	1	111	1	22	2	62	1
DV/OE	17	6	11	6	4	6	2	5
DWeb	**100**	**3**	**74**	**3**	**16**	**3**	**10**	**2**
EV	5	7	4	7	1	7	0	7
WoM	**138**	**2**	**99**	**2**	**35**	**1**	**4**	**3**
OE	40	4	28	4	8	5	4	3

AD = advertising; DV = dealer visit; DV/OE = test drive; DWeb = dealer website; EV = events; WoM = word of mouth; OE = own experience

Table 22 indicates that H5 was not supported for advertising as a company-controlled contact point because it failed to secure a position among the top three ranks. In contrast, dealer website, which is also company controlled, ranked third overall and for Clusters 1 and 2, and second for Cluster 3. WoM ranked second overall and first to third across the clusters.

Additionally, an analysis was conducted to determine the significance of the differences between the clusters. Specifically, a chi-squared test for association was applied to all contact points in the sequences (using the *chisq.test* function in the stats package), because both of the examined variables are categorical. Predictably, some values related to the first contact point were identified as < 5 (events). Consequently, Fisher's exact test was employed to evaluate the association between cluster categorisation and the distribution of the first contact point within a customer contact sequence (applying the *fisher.test* function in the stats package). There was a significantly different distribution of contact points across the clusters ($\chi^2 = 1375.1$, degrees of freedom [df] = 12, $p < 0.001$). Fisher's exact test returned $p < 0.01$ for the first contact point in the customer contact sequence. Hence, the distribution of contact points related to the first contact point in a customer contact sequence varied significantly across clusters.

In summary, H5 is supported regarding dealer website and WoM but not advertising. Thus, **H5 is partially supported**.

The results also revealed that the primary contact points in the customer contact sequence begin with a dealer visit. This clearly suggests that sellers should use dealer visits as a strategic contact point to initiate the customer contact sequence. Sellers must provide customers with crucial information at the start of the contact sequence, ensuring that all relevant information needs are effectively addressed.

Next, the conclusion of customer contact sequences was explored. According to Steinmann (2011), this conclusion, especially when a salesperson at a dealership is involved, is a pivotal moment in facilitating the purchase decision.
To test H6 – at the end of a customer contact sequence, the dealer visit (company controlled) is most frequently used (ranked first) – the total counts of contact points at the end of customer contact sequences (the final contact point) were tabulated (Table 23). The most frequently observed contact points at the conclusion of a customer contact sequence were consultation at car dealer (with a salesperson; company controlled), talked to friends or relatives (non-company controlled), and visited the dealer (no consultation; company controlled).

Table 23: Contact points at the end of a customer contact sequence

Contact point	Count
At the end (last contact point in a sequence)	
Consultation at car dealer (with salesperson)	92
Talked to friends or relatives	73
Visited the dealer (no consultation)	66
Homepage visit of manufacturer (mobile or desktop)	49
Took a test drive	37

To further test H6, the frequencies of aggregated contact points and the per-customer contact sequence clusters at the end of customer contact sequences were computed using the *seqstatl* function in the TraMineR package. Dealer visit ranked second in Clusters 1 and 2 and first in Cluster 3. Thus, only Cluster 3 supports H6.

Table 24: The frequencies of the aggregated contact points overall and across the three clusters at the end of sequences

CPs	Total		Cluster 1 low information sequences		Cluster 2 extensive information sequences		Cluster 3 dealer-focused sequences	
labels	Frequency	Rank	Frequency	Rank	Frequency	Rank	Frequency	Rank
AD	51	4	36	4	11	4	4	5
DV	175	1	91	2	22	2	62	1
DV/OE	37	6	27	5	5	6	5	3
DWeb	84	3	61	3	17	3	6	2
EV	6	7	5	7	0	7	1	6
WoM	137	2	100	1	32	1	5	3
OE	38	5	27	5	10	5	1	6

AD = advertising; DV = dealer visit; DV/OE = test drive; DWeb = dealer website; EV = events; WoM = word of mouth; OE = own experience

To determine whether the observed discrepancies in contact points across the clusters were statistically significant, the frequency data for each contact point were organised systematically into a contingency table, and a chi-squared test for independence was conducted (using the *chisq.test* function in the state package). The results ($\chi^2 = 81.38$, $p = 0.00$) indicated significant differences in the frequencies of contact points among the clusters. Consequently, **H6 is only partially supported**.

The ranking data clearly indicated that dealer visit occurs most frequently at the end of a customer contact sequence. This observation underscores the critical role of the contact point within the broader customer contact sequence framework, presenting a significant challenge for the seller, especially because it also serves as the primary initial contact point used in these sequences. As a result, the contact point must communicate a diverse range of information while also delivering essential details required to initiate or conclude a customer contact sequence. This necessitates that

contact points are equipped to facilitate these processes; however, it is crucial that they are managed with care and guided by clear objectives set by the seller.

Interestingly, WoM ranked second at the end of customer contact sequences, highlighting the significant influence that the opinions of peers and family members have on the conclusion of an information search or the validation of a purchase decision. As WoM is a non-company-controlled contact point, this finding suggests that the flow of information within the social environment, particularly among family members, plays a vital role in shaping the final purchase decision, which remains beyond the seller's control.

Following a thorough investigation of the initial and terminal contact points, the transitions between contact points in a customer contact sequence were examined. Leveraging the findings from this analysis, the seller can effectively determine the correlation among various contact points, thereby aiding customers in navigating the customer contact sequence. This analysis involved testing H7: prior research has indicated that the top eight combinations of contact points in customer contact sequences are:

- Dealer visit → dealer visit;
- Dealer visit → test drive;
- Dealer visit → advertising;
- Dealer website → dealer website;
- Dealer website → dealer visit;
- Dealer website → WoM;
- Advertising → advertising;
- Advertising → dealer visit.

The literature review revealed the following combinations of contact points: advertising to advertising, dealer visit to advertising, advertising to dealer visit, dealer visit to dealer visit, website to family and friends (WoM), and website to dealer visit versa (Verhoef, Neslin and Vroomen, 2007; Steinmann, 2011; Kannan and Li, 2017; Marutschke and Gournelos, 2020). The qualitative study also revealed various

combinations: the results indicated several significant sequences of contact points, including the dealer visits to test drives, the website to the car configurator (also on the dealer website) and the car configurator (dealer website) to dealer visits. Notably, based on the qualitative study, advertising contact points were of limited significance.

A sequential analysis was conducted to test H7. Substrings comprising two contact points in the same usage order, as utilised by the customer, were extracted from the study sample by using the *seqefsub* function in the *TraMineR* package. These combinations can appear at any position within the sequence (beginning, middle, or end). The most common combinations are displayed in Table 25, along with the total count for each combination across all customer contact sequences.

Table 25: Combinations of two contact points

Substring			Count
Visited the dealer (no consultation)	>	Consultation at car dealer (with sales person)	80
Visited the dealer (no consultation)	>	Talked to friends or relatives	64
Homepage visit of manufacturer (mobile or desktop)	>	Online car configurator at the homepage of car manufacturer	61
Consultation at car dealer (with sales person)	>	Visited the dealer (no consultation)	56
Talked to friends or relatives	>	Visited the dealer (no consultation)	54
Talked to friends or relatives	>	Homepage visit of manufacturer (mobile or desktop)	50
Consultation at car dealer (with sales person)	>	Talked to friends or relatives	44
Homepage visit of manufacturer (mobile or desktop)	>	Visited the dealer (no consultation)	43

Considering the three most prevalent contact point combinations, the pairing of visited the dealer (no consultation) followed by talked to friends or relatives (WoM) is particularly noteworthy, as it encapsulates both company-controlled and non-company-controlled contact points. This pattern indicates that customers engage in information-seeking behaviour without direct consultation with a sales representative, opting instead to seek advice from friends and relatives after their dealership visit. This emphasises the critical role of information exchange within peer networks during the purchase decision-making process.

The most frequently observed combination, visited the dealer (no consultation) followed by consultation at car dealer (with salesperson), emerged as the most significant. This finding highlights the necessity of having sales personnel available within the dealership to engage with potential customers at the time of their visit.

The findings reiterate the essential role of dealership visits, with the data indicating that such visits recur consistently within the customer contact sequence, particularly during the initial stages. This suggests that visiting the dealership constitutes the most crucial contact point within the customer contact sequence. Furthermore, the results presented in Table 26 reveal additional frequent combinations of three and four contact points, which warrant analysis to determine whether the previously noted patterns persist or whether there are alternative trends.

Table 26: Combinations of three and four contact points

Three contact points

Substring	Count
Visited the dealer (no consul.) > Visited the dealer (no consul.) > Consultation at car dealer (with sales person)	38
Visited the dealer (no consult.) > Visited the dealer (no consul.) > Talked to friends or relatives	26
Visited the dealer (no consult.) > Visited the dealer (no consul.) > Homepage visit of manufacturer (mobile or desktop)	20

Four contact points

Substring	Count
Visited the dealer (no consul.) > Talked to friends or relatives > Talked to friends or relatives > Visited the dealer (no consult.)	25
Visited the dealer (no consul.) > Cons. at car dealer (w. sales p.) > Cons. at car dealer (w. sales p.) > Visited the dealer (no consult.)	23
Cons. at car dealer (w. sales p.) > Visited the dealer (no consult.) > Visited the dealer (no consult.) > Cons. at car dealer (w. sales p.)	22

The frequent occurrence of three and four contact point combinations consistently arises from the repetition of two contact points, which may either occur in immediate succession or be positioned at the beginning and end of these combinations. This trend indicates that the formations of contact point combinations predominantly consist of identical contact points, as evidenced by the lack of frequent combinations involving four distinct contact points.

In summary, the most frequently used contact points are those found within the most common combinations. Specifically, the contact points visiting the dealer with consultation (1) and visiting the dealer without consultation (2) often appear in succession within various prevalent combinations, further supporting the idea of repeated dealer interactions and reinforcing the dealer visit → dealer visit combination. Additionally, this pattern suggests that sellers can strategically focus on the five most crucial contact points, as they appear in nearly all customer contact sequences during the acquisition of consumer durables. Among these five contact points, the seller has

control over the majority, except for talking to friends and relatives (WoM) which introduces a potential risk to the seller's ability to guide customers throughout the customer contact sequence effectively.

After a comprehensive analysis of customer contact sequences to achieve a holistic understanding of these interactions, the aggregated contact points related to H7 underwent rigorous testing based on the observation that most sequences found in the general dataset consisted of a dealer visit immediately followed by another dealer visit. A transition matrix derived from the sequential analysis was examined by using the *seqtrate* function in the *TraMineR* package. Table 27 displays all aggregated contact points, their corresponding transition probabilities, and the ranks of the respective combinations. The first column outlines the initial contact point, while the subsequent columns clarify the transition probabilities to the second contact point for each combination. Below the probabilities, the ranks of the contact point combinations are displayed to indicate their position within the top eight rankings.

Table 27: Transition matrix of contact points

Contact points	[→ AD]	[→ DV]	[→ DV/OE]	[→ DWeb]	[→ EV]	[→ WoM]	[→ OE]
Probabilities							
[AD →]	0.36	0.23	0.02	0.13	0.02	0.18	0.06
[DV →]	0.06	0.60	0.05	0.10	0.01	0.14	0.04
[DV/OE →]	0.10	0.23	0.27	0.10	0.01	0.19	0.10
[DWeb →]	0.07	0.17	0.04	0.48	0.00	0.17	0.06
[EV →]	0.14	0.17	0.03	0.13	0.28	0.17	0.08
[WoM →]	0.08	0.17	0.04	0.14	0.01	0.49	0.08
[OE →]	0.09	0.17	0.05	0.11	0.01	0.24	0.32
Ranks							
[AD →]	**4**	**9**	43	22	44	12	36
[DV →]	**34**	**1**	37	**28**	47	20	39
[DV/OE →]	26	**10**	7	26	48	11	25
[DWeb →]	33	13	40	**3**	49	14	35
[EV →]	19	15	42	23	6	15	31
[WoM →]	30	17	41	**21**	46	2	32
[OE →]	29	18	38	24	45	8	5

AD = advertising; DV = dealer visit; DV/OE = test drive; DWeb = dealer website; EV = events; WoM = word of mouth; OE = own experience

According to Table 27, the ranks for the eight transitions included in H7 are:

- Dealer visit → dealer visit (rank 1);
- Dealer visit → test drive (rank 10);
- Dealer visit → advertising (rank 9);
- Dealer website → dealer website (rank 3);
- Dealer website → dealer visit (rank 28);
- Dealer website → WoM (rank 21);
- Advertising → advertising (rank 4);
- Advertising → dealer visit (rank 34).

A chi-squared test for independence was performed (using the *chisq.test* function in the stats package) to determine whether the observed differences in probabilities among contact points were statistically significant. This test evaluated a contingency table of probabilities, scaled according to a hypothetical total sample size. The results (χ^2 = 4642.96, p = 0.0) indicated significant differences in probabilities. Thus, H7 is supported for the transitions: dealer visit → dealer visit (rank 1), dealer website → dealer website (rank 3), and advertising → advertising (rank 4). The remaining combinations examined did not rank among the top eight contact point transitions.

Upon further investigation of the leading three combinations, WoM → WoM and dealer website → dealer website emerged. Particularly, the WoM → WoM transition is entirely outside the control of the seller, as it solely involves non-company-controlled contact points. In conclusion, the top seven comprise transitions within the same aggregated contact point category, suggesting that customers tend to remain within a single category across multiple contact points throughout a customer contact sequence. This observation indicates a noteworthy advancement in theoretical understanding.

The results imply that a significant contact point serves multiple informational needs and fulfils various roles within the customer contact sequence. Furthermore, customers exhibit minimal movement between disparate contact points, demonstrating a tendency to utilise the same contact points repetitively. As a result, **H7 is partially supported**.

Finally, the rationale behind the customers' selection of specific combinations of contact points was investigated. The goal was to determine why contact points are chosen, as the sequence of contact points ultimately results from these choices. Sellers can use these insights to strategically enhance their methods for crafting effective customer contact sequences.

The variables designated for analysis included 'I actively chose the contact point (no other contact point was the reason)'; 'I did not actively choose the contact point; it was

by chance'; and 'Another contact point was the reason for choosing this contact point.' Notably, the distinction between the first and the third variables is crucial, as it indicates whether customer contact sequences are actively managed by the seller (implying that the seller exercises control), for example, by implementing 'calls to action' to guide customers through the contact sequence, or whether the customer's preferences solely dictate the selection.

The subsequent analysis utilised the aggregated contact points, because the use of the individual contact points yielded no additional relevant findings (thus, those results are not presented here). Initially, a one-way ANOVA was performed for each usage rationale (using the *aov* function in the stats package) to assess differences in average values across various groups. Subsequently, Duncan's multiple-range test was employed (via the *duncan.test* function in the agricolae package) to analyse the reasons underlying the selection of contact points, with the significance level set at 0.05.

Table 28: Differences in the reason for choosing a contact point

		ANOVA							
		Aggregated CPs							
Reasons	Total sample (average)	AD	DV	DW/OE	DWeb	EV	WoM	OE	F
Actively choosen	4.75	*4.08*	4.96	5.00	**5.31**	4.62	4.68	*3.66*	65.84***
By chance	3.53	**4.08**	3.35	3.63	*3.03*	**4.12**	3.51	**4.48**	42.70***
Another contact point was reason	3.44	3.61	3.53	3.73	3.29	**4.09**	3.37	*3.10*	7.57***

Bold denites statistically high values, according to Duncan's test
Italic denites statistically low values , according to Duncan's test

***-p<0.001, **-p<0.01, *-p<0.05.

AD = advertising
DV = dealer visit
DV/OE = test drive
DWeb = dealer website
EV = event
WoM = word of mouth
OE = own experience

As shown in Table 28 (second column), most contact points were predominantly actively chosen by the participants, followed by those engaged by chance and another contact point was the reason. This observation strongly suggests that sellers do not control customers' information-seeking behaviour, allowing them the autonomy to select the contact point they deem to be suitable. Consequently, sellers across various industries have begun offering a diverse array of contact points to adequately meet customers' information needs while moving through the customer journey. These

findings indicate that this approach may be misguided. Sellers should prioritise designing customer contact sequences specifically tailored to meet customers' information needs and to strategically guide them through these sequences.

Regarding actively chosen contact points, dealer website emerged as the most frequently selected option. In contrast, events ranked highest for another contact point was the reason. Own experience was most significant for contact points selected by chance. Based on the F-statistics in Table 28, the reason for selecting a contact point showed significant differences for most of the aggregated contact points.

Another contact point was the reason did not receive high scores across all evaluated contact points, suggesting that the seller's management of customer contact sequences is only partially executed by guiding customers through these sequences. Furthermore, the customers' most significant contact points – dealer visit, WoM, and dealer website – demonstrated high levels of active selection. This trend indicates that customers actively engage with the most pivotal contact points. Consequently, managing customer contact sequences should prioritise contact points of considerable importance for the seller, along with those used by customers to actively seek information.

8.4 The length of customer contact sequences

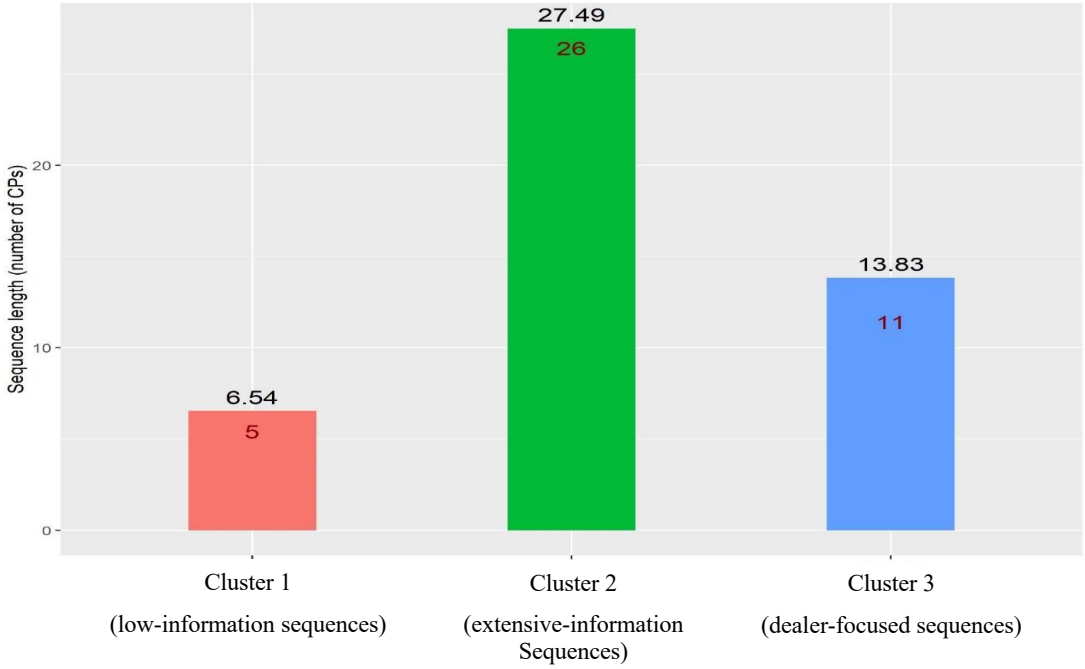
This multifaceted analysis initially involved an examination of the length of customer contact sequences in general. Subsequently, the focus was on the impact of personal, situational, and product involvement factors on the length of these customer contact sequences. This analysis aimed to elucidate the factors that influence customer contact sequence length to develop effective strategies for addressing them and to test H8, H9, H10, and H11. Overall, the analysis revealed an average customer contact sequence length of 11.55 contact points. Furthermore, higher levels of personal involvement (pre-knowledge) increased the customer contact sequence length, while greater product involvement contributed to a reduction in the overall length of the customer contact sequence.

The initial analysis was focused on the findings related to the length of customer contact sequences, aiming to understand the overarching characteristics of these sequences. The customer contact sequence length is defined as the total number of contact points within a given sequence (Steinmann, 2011). This metric serves as a significant proxy for evaluating the comprehensiveness of a customer's information search process.

As noted in Chapter 8.1, the average customer contact sequence length was 11.55 contact points (standard deviation = 0.49), with a range of 1–79 contact points per sequence. An examination of the distribution revealed that 52.25% of sequences contained 1–8 contact points, 30.88% included between 9–20 contact points, and 5.29% consisted of > 30 contact points. The customer contact sequences in this study are longer compared with studies examining other product categories, such as consumer electronics (an average of 6.22 contact points) and tourism (an average of 9.63 contact points), as well as the insights from the qualitative study. The results indicate that the acquisition of consumer durables, particularly automobiles, necessitates a more extensive information search process due to the substantial financial investment involved. Furthermore, the variations in customer contact sequence lengths may correlate with distinct consumer groups characterised by differing informational needs.

A more in-depth investigation into the length of customer contact sequences was conducted by evaluating this metric within three distinctly defined sequence clusters, namely Clusters 1, 2, and 3 (Figure 20; see Chapter 8.1). Note that the average number of contact points within a customer contact sequence, indicative of sequence length, is denoted at the apex of each bar, and the median is presented within the bar.

Figure 20: The average sequence length for the three clusters



Cluster 1 (347 participants, representing 65.7% of the total sequences) had the shortest customer contact sequence length, denoted by the lowest mean of 6.54 contact points and a median of 5 contact points. In contrast, Cluster 2 (97 participants, 18.4% of the total sequences) demonstrated the longest customer contact sequence, with a mean of 27.49 contact points and a median of 26 contact points. Finally, Cluster 3 (84 participants, 15.9% of all sequences) exhibited an intermediate customer contact sequence length, with a mean of 13.83 contact points and a median of 11 contact points.

Based on these results, Cluster 2 involves a markedly more exhaustive information search compared with Cluster 1, which relies on a relatively small number of contact points. A non-parametric Wilcoxon rank-sum test employed by utilising the *wilcox.test* function in the stats package revealed significant differences among the groups in the mean number of contact points ($p < 0.001$). This test was applied due to the non-normal distribution of the sample. Furthermore, a normal distribution t-test with bootstrapping (999 replicates) was performed for a pairwise comparison of differences in average customer contact sequence lengths across the clusters (employing the

boot.t.test function in the MKinfer package). The average customer contact sequence length differed significantly across the clusters ($p < 0.001$).

Following a comprehensive analysis of the general length of customer contact sequences, the influence of personal involvement, specifically pre-knowledge and income level, on the length of customer contact sequences was investigated. Past research, including the qualitative study presented in this thesis, indicates that customers with extensive prior knowledge tend to leverage their past purchasing experiences when making decisions. Consequently, they exhibit only minor adjustments in their search strategies when contemplating their next vehicle acquisition, resulting in a reduction of the customer contact sequence length (Chestnut *et al.*, 1976; Zhang *et al.*, 2020).

In this thesis, 522 participants provided insights into their pre-knowledge with the brand. Three variables were considered: experience with brand, familiarity with car purchases, and set of alternatives. For the first, the participants were categorised into three distinct groups: no experience with the brand, defined as owning 0 vehicles (131 participants, 25.10%); limited experience with the brand, defined as owning 1–2 vehicles previously (308 participants, 59.00%); and extensive experience with the brand, defined as owning ≥ 3 vehicles (83 participants, 15.90%). For familiarity with car purchases, the participants were classified as limited familiarity with purchases, indicating ownership of ≤ 3 cars (275 participants, 52.08%), or good familiarity with purchases, denoting ownership of > 3 car (253 participants, 47.92%). Finally, the set of alternatives was categorised as follows: ≤ 2 vehicles representing a small set of alternatives (125 participants, 23.67%); 3–5 vehicles indicating a medium set of alternatives (234 participants, 44.32%); and > 5 vehicles representing a large set of alternatives (169 participants, 32.01%).

To test H8 – high pre-knowledge decreases the length of a customer contact sequence significantly – univariate linear regression was conducted using the *reg* function in the stats package, employing experience with brand, familiarity with car purchases, and set of alternatives as single predictors. Subsequently, a linear model incorporating all

three predictors was estimated to assess the significance of the coefficients. Bootstrapping with 1,000 resampled datasets was utilised to ascertain coefficients and p-values (using the *ANOVA.boot* function in the Imboot package).

Table 29 presents the intercept, which serves as the baseline for the customer contact sequence length. Taking limited experience with the brand as an example, in comparisons between this baseline value and no experience with the brand, negative values indicate a decrease in the customer contact sequence length, while positive values indicate an increase in the customer contact sequence length, all assessed within the context of the significance levels denoted by the stars.

Table 29: Regression coefficients for the customer contact sequence length and experience with brand, familiarity with car purchases, and the set of alternatives

	Univariate linear models			Multivariate model with all predictors
	Experience with brand	Familiarity with car purchases	The set of alternatives	
(Intercept)	12.39***	10.88***	13.69***	13.61***
No experience with brand (baseline 'Little experience')	-3.59**			-3.81**
Well experienced with brand (baseline 'Little experienced with brand')	0.56 'ns'			1.73 'ns'
Little familiarity with car purchasing (baseline 'Good familiarity with purchase')		1.29 'ns'		2.66*
Middle set of alternatives (baseline 'Large set of alternatives')			-2.47*	-3.41**
Small set of alternatives (baseline 'Large set of alternatives')			-4.43***	-5.21***

***- p-value<0.001, **- p-value<0.01, * - p-value <0.05

ns, not significant

Table 29 presents notable findings concerning the correlation between brand experience and the length of customer contact sequences. Specifically, little experience with the brand decreases the customer contact sequence length. This observation arises from the fact that no experience results in shorter sequences, whereas well-experienced individuals have longer sequences.

The **results do not support H8**. A lower level of pre-knowledge corresponded with shorter customer contact sequences, while a higher level of pre-knowledge was linked to longer sequences. Based on the literature, individuals with limited prior knowledge are likely to seek additional information, which would ostensibly lead to longer customer contact sequences. A potential explanation for this phenomenon is that customers with substantial pre-knowledge may have more efficient access to contact points, such as established relationships with sellers, thereby utilising a greater number of contact points during their information search.

There has been considerable variability in the reported findings regarding income and the length of the customer journey. Consequently, a definitive conclusion regarding this relationship could not be established. Nevertheless, Von Böhlen and Šimberová (2023) suggested that income plays a crucial role in influencing the length of customer contact sequences.

To test H9 – income affects the length of a customer contact sequence – a t-test was conducted (using the *boot.t.test* function in the MKinfer package) to compare the average lengths of customer contact sequences (using the *seqlength* function in the TraMineR package) between the high- and low-income groups. The average contact sequence length was 11.45 contact points for the low-income group and 11.87 contact points for the high-income group. A t-test with bootstrapping (1,000 replicates) revealed that the difference between the groups was not significant ($t = -0.406$, $p = 0.689$). Therefore, **H8 is not supported**.

The findings align somewhat with the conclusions drawn from the literature review. However, several studies did indicate that income exerts an influence on the length of

customer contact sequences. Two contrasting perspectives from the literature review are noteworthy: (1) individuals with a higher income can afford to make decisions that may be less optimal and tend to engage in less extensive search behaviour; and (2) individuals with a higher income may possess higher standards and thus engage in more extensive product searches. These perspectives are not substantiated by this research, suggesting that income does not act as a distinguishing customer variable for sellers regarding information search behaviours relating to a product.

Next, situational involvement in the context of the repurchase cycle and its effect on the length of customer contact sequences was examined. Specifically, H10 – a short re-purchase cycle (purchase frequency) of 2–3 years significantly decreases the length of customer contact sequences – was tested. Based on the comprehensive literature review, customers who exhibit a short repurchase cycle, defined as 2–3 years, are likely to demonstrate a shorter customer contact sequence length (Lee, Choi and Kim, 2024).

To facilitate analysis, the repurchase cycle variable was recoded. Notably, two participants indicated a negative value (-1) for the duration of years until repurchase. The category encompassing 5–7 years between repurchases was recoded to represent a value of 6, while the category of 8–12 years was recoded to 10, and the category labelled more than 12 years was recoded to 12. Consequently, the repurchase cycle variable was synthesised into two distinct groups: a short cycle, encompassing repurchase cycles of < 3 years, and a long cycle, representing repurchase cycles of ≥ 3 years. Overall, among the sample, 481 participants (91.10%) reported a long repurchase cycle, whereas 47 participants (8.90%) indicated a short repurchase cycles.

The average customer contact sequence length, derived by using the *seqlength* function in the TraMineR package, was 10.0 contact points for the short repurchase cycle group and 11.7 contact points for the long repurchase cycle group. A t-test conducted using the *boot.t.test* function in the MKinfer package revealed that the difference in the average sequence length between the groups was not significant ($t = -1.36$, $p = 0.16$). Therefore, **H10 is not supported**.

Based on the results, a short repurchase cycle does not lead to significantly shorter customer contact sequences. This finding implies that despite a large amount of knowledge from previous purchases, customers rely heavily on information search. The reasons might be the need to reduce purchase-related risks or merely the joy of using several contact points within a purchase decision. Joy could be based on the high level of product or channel involvement or related to hedonic behaviour when purchasing emotionally attached products like cars.

Finally, the effect of personal involvement on the length of customer contact sequences was investigated. According to the literature, elevated levels of product involvement serve as a crucial determinant, motivating consumers to engage thoroughly in the decision-making process. Customers actively seek out, evaluate, and analyse extensive information to ensure their selections align with their unique preferences and requirements. Consequently, the interactions between customers and sellers become increasingly extensive and intricate, leading to prolonged customer contact sequences (Suboh, Razak and Alshurideh, 2023).

To evaluate H11 – high product involvement (product-related factors) increases the length of a customer contact sequence – linear regression analysis (using the *reg* function in the stats package) was conducted, with the customer contact sequence length serving as the dependent variable and the product involvement score as the predictor variable. The product involvement score was derived from the item set within the PII (Zaichkowsky, 1994).

In the initial phase of the analysis, Pearson's correlation coefficient was calculated to examine the relationship between the customer contact sequence length and the product involvement score. There was a significant negative correlation ($R = -0.13$, $p = 0.004$).

Given that both the dependent variable and the predictor are continuous, and recognising the significance of the Pearson correlation coefficient, linear regression was an appropriate analytical strategy to explore the relationships between the

dependent variable and the predictor (Hox, 2002; Hair, Anderson and Babin, 2009). Three distinct regression analyses were conducted. The initial analysis comprised univariate linear regression. Subsequently, various control variables – including age, gender, education, employment, and income – were incorporated into the regression model. Finally, a stepwise procedure (using the *stepAIC* function in the MASS package) was employed to identify significant predictors using the Akaike information criterion (Field, 2013). The backward elimination method was applied to remove the predictors involved in suppressor effects, thereby enhancing the integrity of the stepwise process (Field, 2013). To address potential issues related to outliers and data distribution, bootstrapping with 1,000 samples was utilised, as recommended by Field (2013) in cases where data exhibit complications related to distribution and outliers.

Table 30 presents the regression coefficients from the models where the customer contact sequence length served as the dependent variable and product involvement was the independent variable. The intercept reflects the customer contact sequence length corresponding to the baseline value for each category.

Table 30: Regression coefficients for involvement and the sequence length

	Univariate model	Multivariate model with all controls	Final model from stepwise selection
Intercept	23.54***	20.02***	19.06***
Involvement **(Product)**	-0.33*	-0.25 'ns'	-0.27*
Age >45 (baseline age <=45)		-1.51 'ns'	
Gender Males (baseline Females)		0.09 'ns'	
High education (baseline < high education)		-1.63 'ns'	
Workers (baseline non-workers)		3.06*	3.03*
Lower income (baseline higher income)		-0.42 'ns'	

***- p-value<0.001, **- p-value<0.01, * - p-value <0.05.
ns, not significant

The coefficients associated with product involvement in the univariate and final models were statistically significant ($p < 0.05$) and showed a negative correlation. This suggests that increased product involvement is linked to reducing the length of customer contact sequences. Therefore, **H11 is not supported**.

This outcome revealed that greater product involvement does not facilitate longer customer contact sequences; instead, it seems to push customers to advance through the purchasing process with fewer interaction points. This implies that customers with high product involvement have a clear understanding of the contact points that are necessary to meet their informational needs. Furthermore, at these critical contact points, the depth of the information search is likely to be more extensive compared with customers with lower levels of product involvement.

8.5 Purchase behaviour

In the final analysis of the quantitative study, purchase behaviour was examined – specifically, the impact of emotional arousal within customer contact sequences and its influence on purchase decisions. It is crucial to investigate emotional arousal at different contact points, as it highlights the significance of emotions during each interaction. This analysis addressed two research questions (*To what extent does emotional arousal elicited at each contact point influence their purchase decision,* and *Which company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence and favour a purchase?*) and tested H12 and H13. The analysis showed that emotions significantly affect customer contact sequences and are crucial in purchase decision-making. Additionally, the findings indicate that sellers should ensure that customer contact sequences are a sufficient length by offering a range of the most commonly utilised contact points.

To analyse H12 – a high level of positive emotions (emotional arousal score) for the contact points within a customer contact sequence enhances the chance of a purchase – it was essential to first examine the impact of emotions within customer contact sequences and their corresponding purchase decisions. Then, a comprehensive

analysis of emotional responses at aggregated contact points was performed to construct a holistic understanding of the phenomenon. The literature review suggests that elevated levels of positive emotional arousal during customer contact sequences significantly enhance the likelihood of purchase (Ozcelik and Arslan-Ari, 2024).

While testing H12, the average emotional arousal score for each contact point within a single sequence was computed to derive a mean emotional arousal score for each customer contact sequence. This calculation utilised a scale ranging from 1 (*low emotional arousal*) to 7 (*high emotional arousal*). Positive emotions (desire, happiness, and relaxation) and negative emotions (anger, fear, disgust, anxiety, and sadness) were considered in this assessment (Harmon-Jones, Bastian and Harmon-Jones, 2016). In the scoring process, negative emotions were inverted (7 → 1, 6 → 2, 5 → 3, 4 → 4, 3 → 5, 2 → 6, and 1 → 7) to account for the premise that pronounced negative emotions are undesirable within a customer contact sequence. For example, a participant scoring 1 for anger would positively influence the emotional score of that customer contact sequence as it would be inverted to reflect a score of 7.

The scores associated with each customer contact sequence were calculated using the *rowMeans* function in the stats package and subsequently analysed concerning customer decisions regarding purchase, postponement, or non-purchase. This analysis combined purchase and postponement decisions into a new variable termed continue purchase, as no definitive purchase rejection was indicated. Thus, continue purchase can be quantified compared with cancelled purchase (with 1 representing continued purchase and 0 indicating cancellation). Within the sample, 37 participants reported a cancelled purchase decision, while 491 indicated a continued purchase decision.

To ascertain the difference in emotional arousal scores, a t-test was conducted to compare the average emotional arousal score per customer contact sequence between those who chose to continue the purchase (4.65) and those who cancelled (4.26). The difference in the mean scores (-0.39 [95% confidence interval -0.54, -0.23] was significant, $t(44.34) = -4.92$, $p < 0.001$. This finding suggests that customer contact

sequences characterised by heightened emotional arousal scores are conducive to a continued purchasing process, thereby supporting H12.

To further validate these findings, the average emotional arousal score for each customer contact sequence was also calculated for the outcome variables of cancelled purchases (n = 37) and purchases (n = 197), excluding customer contact sequences related to postponed purchases. The t-test indicated that the average emotional arousal score for the cancelled purchase group (4.26) was significantly lower than that of the vehicle purchase group (4.49), $t(56.37) = -2.69$, $p = 0.009$, thereby reaffirming the prior findings.

Furthermore, logistic regression was conducted using the *glm* function in the stats package to evaluate the impact of the purchase variable, specifically a cancelled decision, as the dependent variable. This analysis involved a comprehensive set of predictors, including the overall cognition score, psychological factors, the subjective norm, the manufacturer's influence, and product-related factors. Additionally, control variables such as gender, age, education, employment status, and income were included in the model, as displayed in Table 31.

Table 31: The results of logistic regression with the outcome variable cancelled decision

	Estimate	Standard error	z-value	Pr(>|z|)
Intercept	4.884	2.670	1.829	0.067
Emotional arousal	**-1.972*** **	**0.563**	**-3.503**	**0.000**
Overall cognition	0.027 (ns)	0.053	0.499	0.618
Psychological factor	-0.031 (ns)	0.206	-0.151	0.880
Subjective norm	0.131 (ns)	0.228	0.575	0.565
Manufacturer influence	0.300 (ns)	0.182	1.644	0.100
Product-related factor	-0.452*	0.197	-2.298	0.022
Purchase frequency	-0.101 (ns)	0.130	-0.781	0.435
Male gender (baseline female)	-0.318 (ns)	0.439	-0.726	0.468
Age > 45 years (baseline age ≤ 45 years)	0.058 (ns)	0.490	0.118	0.906
Higher education (baseline less than higher education)	0.461 (ns)	0.484	0.953	0.341
Workers (baseline non-workers)	0.503 (ns)	0.566	0.888	0.374
Low income (baseline high income)	0.392 (ns)	0.469	0.836	0.403

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; ns, not significant.

The coefficient estimate for emotional arousal was negative and significant. This finding indicates that customer contact sequences with a high average emotional arousal score significantly decrease the likelihood of a cancellation decision. Thus, **H12 is supported**.

The results of this analysis provide compelling evidence that emotions are a critical determinant in purchase decision-making. The emotions elicited at each contact point substantially influence consumer behaviour. Given the relative scarcity of previous research that has addressed emotions in the context of the customer journey, this discovery represents a significant advancement in theoretical understanding. Integrating emotional theories into customer journey research is essential; neglecting to do so results in an incomplete representation of the customer experience.

Furthermore, this analysis underscores the vital role of emotional arousal in comparison to cognitive evaluations. Given that cognitive factors have traditionally been prioritised in customer journey research at the expense of emotional considerations, this finding encourages a greater emphasis on emotional arousal in future research efforts.

This study has clarified the significance of emotional arousal during customer contact sequences. The following analysis aimed to explore the emotional responses elicited at each aggregated contact point. Although Appendix C provides a comprehensive overview of emotions for individual contact points, these findings are not reiterated here, as they yielded comparable results. Table 32 displays the averages for all aggregated contact points concerning both positive and negative emotional responses.

Table 32: The average scores for emotions related to the aggregated contact points

	Negative					Positive		
Contact Point	**Anger**	**Fear**	**Disgust**	**Anxiety**	**Sadness**	**Desire**	**Happiness**	**Relaxation**
Advertising	2.51	2.54	2.60	2.84	2.85	4.29	4.28	4.26
Dealer Visit	2.48	2.58	2.54	2.72	2.68	4.37	4.50	4.36
Test Drive	2.65	2.81	2.75	2.91	2.82	4.57	4.65	4.47
Dealer Website	2.25	2.29	2.30	2.45	2.54	4.40	4.48	4.43
Events	3.67	3.88	3.77	3.91	3.75	4.29	4.55	4.10
Word of Mouth	2.48	2.61	2.54	2.67	2.66	4.21	4.38	4.41
Own Experience	2.41	2.50	2.47	2.57	2.66	4.21	4.30	4.33

When comparing the means of various emotional responses presented in Table 32, it is clear that happiness had the highest score across all contact points, while anger had the lowest. A more in-depth examination with a t-test conducted using bootstrapping (the *boot.t.test* function in the *MKinfer* package), revealed that positive emotions – specifically desire, happiness, and relaxation – exhibited a significantly higher mean compared with negative emotions (including anger, fear, disgust, anxiety, and sadness; 4.37 and 2.76, respectively; $t = 8.55$, $p = 0.00$). This indicates that there is a greater prevalence of positive emotional responses during the car purchase process.

Next, the specific contact points that elicit these emotional responses were identified. Test drive yielded the highest score for the emotion of happiness, significantly

surpassing the scores recorded for all other contact points ($t = 5.15$, $p = 0.00$). Conversely, events were associated with the highest negative emotional anxiety among the contact points ($t = 17.55$, $p = 0.00$). Test drive also had for the highest overall score for positive emotions overall (desire, happiness, and relaxation; significantly higher than those recorded for any other contact points: $t = 9.49$, $p = 0.00$). In contrast, events presented a significantly higher negative emotional response (anger, fear, disgust, anxiety, and sadness; $t = 20.88$, $p = 0.00$), particularly when customer expectations are not met.

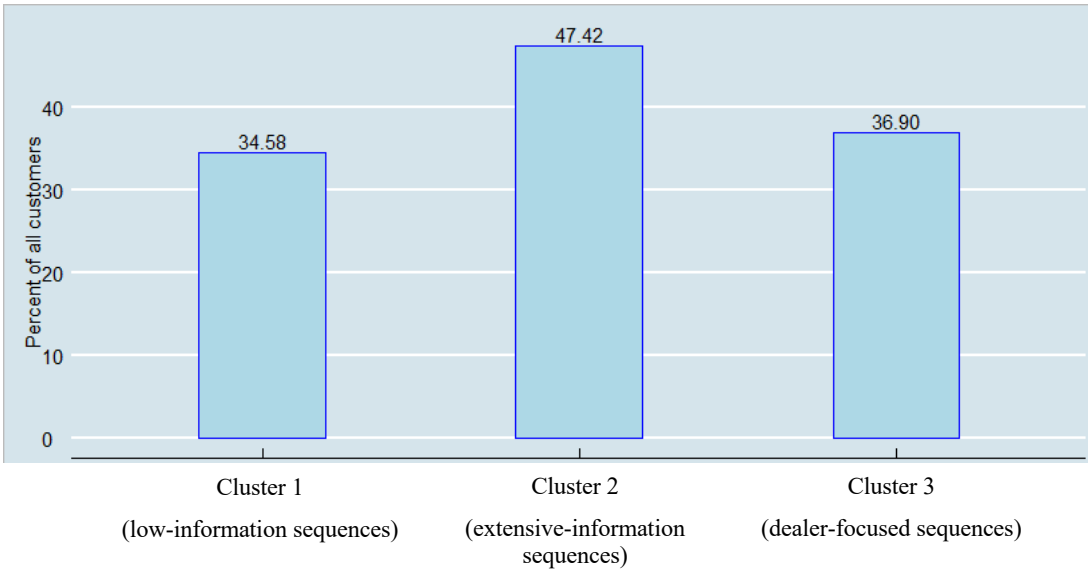
These findings demonstrate that test drive and events serve distinct roles within customer contact sequences. It is crucial for both contact points to effectively facilitate a positive emotional experience, given the significant financial resources invested by the seller in providing these interactions for the customer. A test drive is essential, as it evokes considerable positive emotional arousal, which may subsequently influence the likelihood of purchase. Conversely, events, which are organised by the seller, has the potential to elicit negative emotional responses, mainly if they are poorly managed, which may deter customers from proceeding with a purchase. Nevertheless, events should not be eliminated; instead, sellers must acknowledge the possibility of adverse emotional outcomes from events and understand that poorly executed events could lead to customers disengaging from the purchase process entirely.

The final analysis focused on how customer contact sequences affect purchase decisions. This study employed the three clusters of customer contact sequences (see Chapter 8.1) to identify which are most effective in influencing purchasing behaviour. It was essential to assess whether specific customer contact sequences promote or hinder purchasing behaviour, calculations involving these three clusters are considered the most suitable.

To test H13 – customer contact sequences dominated by dealer visits and with a medium sequence length enhance the chance of purchase (present behaviour) and re-purchase probability (future behaviour) most – the percentages of purchases per cluster

were calculated (Figure 21). The results were derived from the actual purchasing behaviour of customers participating in the study.

Figure 21: The percentage of purchases for each customer contact sequence cluster

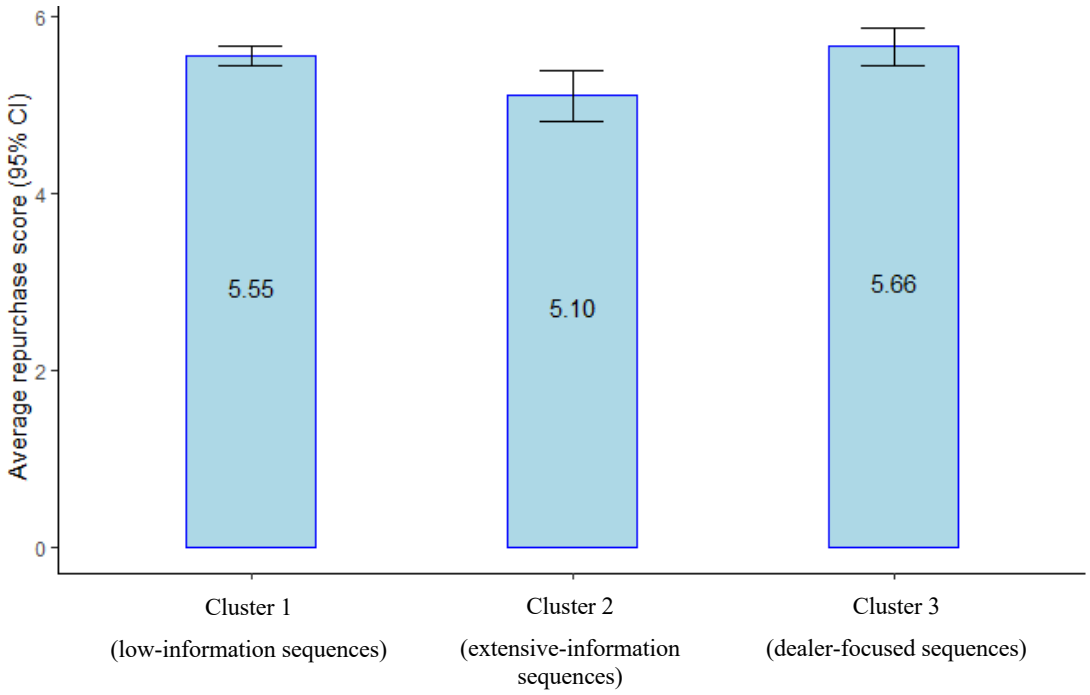


Cluster 2 had the highest percentage of purchases, followed by Cluster 3, and Cluster 1. A chi-squared test (using the *chisq.test* function in the stats package) was performed to assess the significance of the differences among the clusters. The difference between Clusters 1 and 2 was significant ($\chi^2 = 5.34$, $p = 0.021$); however, the difference between Clusters 1 and 3 ($\chi^2 = 0.16$, $p = 0.689$) and between Clusters 2 and 3 ($\chi^2 = 2.04$, $p = 0.154$) was not significant.

The significant difference between Clusters 1 and 2 indicates that consumers who exhibit extensive-information sequences are more likely to make purchases compared with those who demonstrate low-information sequences. Therefore, H13 is partially supported. While it is clear that the customer contact sequences within Cluster 2 significantly enhance the likelihood of a purchase, this enhancement is not quantitatively greater than that observed within the customer contact sequences of Cluster 3.

To further test H13, the clusters of customer contact sequences were assessed for their likelihood of repurchase, which indicates future consumer behaviour, quantified using a 7-point Likert scale ranging from 1 (*extremely unlikely*) to 7 (*extremely likely*). The average repurchase scores for the three clusters are shown in Figure 22.

Figure 22: The re-purchase probability for each customer contact sequence cluster



Cluster 3 presented the highest re-purchase score, followed closely by Cluster 1 and then Cluster 2. The application of a bootstrapped ANOVA (utilising the *ANOVA.boot* function in the Imboot package) revealed a trend for a significant difference across the clusters, $F(2, 180) = 2.76$, $p = 0.071$. Moreover, a t-test with bootstrapping (using the *boot.t.test* function in the MKinfer package) yielded the following insights: the difference between Clusters 1 and 2 showed a trend for a significant difference ($t = 1.825$, $p = 0.072$), there was no difference between Clusters 1 and 3 ($t = -0.501$, $p = 0.63$), and there was a significant difference between Clusters 2 and 3 ($t = -1.9$, $p = 0.039$). Thus, **H13 is partially supported**.

It is striking that customer contact sequences originating from Cluster 2 exhibited the highest probability of purchase juxtaposed with the lowest likelihood of subsequent re-purchase. In contrast, Cluster 3 demonstrated the highest re-purchase probability alongside the second-highest purchase likelihood. Cluster 1 had the lowest purchase probability yet ranked second in re-purchase likelihood. It is important to note that Cluster 1 did not achieve the top ranking for either the initial purchase probability or the re-purchase probability.

Furthermore, given that Cluster 1 comprises the shortest customer contact sequences utilising homogeneous contact points, it can be concluded that an extended customer contact sequence correlates positively with performance in both outcome variables. While the examination of Clusters 2 and 3 revealed that the distinction between homogeneous and heterogeneous contact points was not significant, at a minimum, a medium customer contact sequence length is essential for optimal performance.

To further investigate these findings, an analysis was conducted to determine whether the likelihood of postponing the decision varied among the three clusters (see Appendix D for detailed results). Cluster 2 exhibited the lowest probability of postponing the decision, followed by Cluster 3. Conversely, Cluster 1 demonstrated the highest probability of postponing the decision, significantly exceeding that of Cluster 2. These findings support the proposition that medium and long customer contact sequences outperform shorter customer contact sequences.

The implications of this analysis emphasise the need for sellers to facilitate longer customer contact sequences by offering a diverse range of contact points (focused on the most frequently used contact points) and allowing multiple interactions through specific contact points (e.g., salesperson) to encourage car purchases effectively. Thus, the length of customer contact sequences emerges as a critical factor in the decision-making process, and this insight represents a significant advancement in the theoretical discourse.

9 Discussion

This chapter provides an analysis of the qualitative (Chapter 5) and quantitative (Chapter 8) study findings, as well as insights gleaned from the literature review (Chapters 2 and 3). This discussion focuses on the overarching objective of this thesis: to investigate customer contact sequences and to understand how potential customers search for information and ultimately acquire a consumer-durable product, specifically focusing on the purchase of automobiles in Germany. The qualitative and quantitative studies led to the identification of company-controlled and non-company-controlled contact points that are used throughout this process, the order in which the contact points are employed, and the customer contact sequence length (Steinmann, 2011; Barwitz and Maas, 2018).

Seven pivotal company-controlled and non-company-controlled contact points accounted for over 70% of customer contact sequences. This observation aligns with Steinmann's (2011) framework, which emphasises the effectiveness of contact points with high media richness. Furthermore, the sequential use of contact points, particularly the repeated pairing of dealer visit with dealer visit, challenges previous research that has overlooked the multifunctionality of single contact points within sequences (McGregor, Azzopardi and Halvey, 2023). The findings also contradict earlier assumptions advocating for shorter sequences: based on the quantitative study, medium-length (13.83 contact points) and extended (27.49 contact points) sequences significantly enhance purchase probabilities. This finding reinforces the theoretical advancements proposed by Koch and Hartmann (2022).

Additionally, the findings underscore the importance of heightened positive emotional states as drivers of purchase decisions, so emotional responses should be assessed continuously throughout the customer journey. These insights have contributed to a more nuanced understanding of customer decision-making processes by integrating a range of impactful contact points, thereby both aligning with and challenging the established theoretical frameworks.

9.1 The types of contact points

Chapters 5.5 and 8 present the most significant contact points and the influence of personal and channel involvement on these contact points relevant to the acquisition of consumer durables. The customer journey literature, particularly studies on customer contact sequences, has largely focused on assessing the impact of online versus offline contact points. Researchers have emphasised offline contact points (e.g., Khan *et al.*, 2020), have examined online contact points in isolation (Barari *et al.*, 2020), or have explored the relationship between online and offline contact points throughout the customer journey (Suh and Moradi, 2023).

Research on online and offline contact points has produced compelling evidence concerning the mutual influence of these interactions (Suh and Moradi, 2023). The integration of both online and offline channels has resulted in two essential behaviours: showrooming (where consumers browse offline but make purchases online) and webrooming (where consumers browse online but buy offline; Hu and Tracogna, 2021). Furthermore, a meta-analysis of customer journey research revealed additional channel behaviours beyond the dichotomy of online and offline that deserve further scholarly investigation (Tueanrat, Papagiannidis and Alamanos, 2021).

In this thesis, the framework established by Roggeveen and Rosengren (2022) facilitated the categorisation of contact points into two principal classifications: company controlled (brand owned) and non-company controlled (partner owned, customer owned, and social/external/independent). Notably, this thesis has addressed a pertinent gap identified in the literature: the limited understanding of the interplay between company-controlled and non-company-controlled contact points throughout the customer journey (Lemon and Verhoef, 2016; Thomas, Epp and Price, 2020; Suh and Moradi, 2023). The integration of these two categories of contact points should enrich the academic discourse by clarifying methodologies to enhance the overall customer experience (Wetzels *et al.*, 2023) and to cultivate synergistic relationships between the two categories (Gao, Currim and Dewan, 2022).

The quantitative analysis revealed that the seven most frequent contact points during the vehicle purchasing process include consultation at the dealer with the salesperson (company controlled), visiting the dealer without consultation (company controlled), talked to friends and relatives (WoM; non-company controlled), visiting the manufacturer's homepage (company controlled), online car configurator (company controlled), test drive (company controlled), and reading car magazines (non-company controlled). The findings highlight the vital role of dealership-related contact points within the car purchase decision-making process: consultation at the dealer with the salesperson and visiting the dealer without consultation are the two most significant company-controlled contact points. These results align with the findings of Marutschke and Gournelos (2020), who identified the dealership as the primary contact point in car purchase decisions. Similarly, Steinmann (2011) reported comparable trends in the context of tourism purchase decisions, thereby underscoring the dealership's lasting relevance across different sectors.

Importantly, this thesis has confirmed the observation that, despite the growing importance of online contact points, such as the manufacturer's homepage, consumer behaviour has not significantly shifted away from traditional, in-person engagement. This finding challenges the assumption that digitalisation alone can completely replace physical engagement in consumer durable purchase decisions.

Frequent visits to dealerships can largely be attributed to their ability to address various customer inquiries comprehensively. The qualitative study findings indicate that the extensive and detailed information available at dealerships offers a unique value proposition. Respondent D succinctly expressed this idea: '*I wanted to understand the car in all its intricacies and features. It wasn't enough for me to simply glance at its exterior; I wanted to see every detail up close and have everything explained.*' This observation underscores the role of dealerships as essential venues for examining the tangible and functional characteristics of automobiles. Indeed, in this sector, sensory and experiential factors significantly influence consumer purchase decisions.

Dealer visits, viewed through the lens of channel involvement, are exceptional, as indicated by the quantitative study. These visits occur frequently despite the significant subjective effort required to engage with them (e.g., travelling to the nearest dealership instead of merely visiting the corporate website with a few clicks). This suggests that customers are willing to invest substantial subjective effort when they expect a positive outcome from a contact point.

Furthermore, the quality of interactions with sales personnel is crucial in shaping the overall customer experience. This observation is reinforced by the study by Zimmermann, Weitzl and Auinger (2022), who highlighted the importance of personalised guidance and expertise in this context. The qualitative study has further clarified the 'expert status' attributed to sales personnel and their strong relationships with consumers. Respondent T noted, '*I wanted to speak with a true expert – Martin [salesperson] could guide me and help me make the right decision*', while Respondent C said, '*I know the salesperson*', highlighting the trust and rapport developed through these interpersonal connections. Such insights underscore the dual role of sales personnel: they serve as sources of information and nurture emotional connections that enhance the overall purchasing experience.

The findings from this thesis contest the prevailing notion of a linear progression from a traditional customer journey to a digital customer journey. Instead, they advocate for a hybrid model in which both physical and digital contact points co-exist, each tailored to address different stages or dimensions of the decision-making process. It is imperative for a manufacturer to maintain its investments in dealer networks, prioritising substantial training for sales personnel to ensure the continuation of their expert status. This enduring significance of dealerships underscores their unique capacity to blend product knowledge, personalised engagement, and sensory interactions. As industries increasingly adopt digitalisation, these findings emphasise the need to preserve and enhance the physical contact points that remain crucial for cultivating trust, disseminating comprehensive information, and facilitating memorable customer experiences.

WoM emerged as the most significant non-company-controlled contact point, following interactions with dealerships. These findings align with the literature, which underscores the crucial role of WoM in shaping the customer journey (López, Sicilia and Verlegh, 2022). WoM serves multiple functions, ranging from the initial stages of information gathering to the reinforcement of purchase decisions (Azer and Ranaweera, 2022). Prior studies have even identified WoM as the leading contact point, often surpassing traditional advertising methods (Kuss and Tomczak, 2007; Baxendale, Macdonald, and Wilson, 2015), particularly in the context of automotive purchases (Van Rijnsoever, Castaldi and Dijst, 2012).

Positive recommendations from friends and family, whether communicated through offline or online channels, significantly influence a consumer's perception of a product, fostering trust and confidence (López, Sicilia and Verlegh, 2022). This viewpoint was supported by Respondent A: '*I talked to a friend who is a car expert because I wanted an honest opinion, not a biased one from a salesperson. He gave me his real thoughts on the car, which helped me feel more confident in my decision. It was important to hear what he honestly thought without any pressure.*'

Moreover, Steinmann (2011) suggested that as discussions about purchases become increasingly common in family or peer-oriented contexts, the need for alternative contact points, particularly personal interactions with sales representatives, tends to decrease. This view corresponds with the findings from this thesis: there was a significantly lower likelihood of engaging in consultation at the car dealer (with a salesperson) during customer contact sequences that involve dialogue with friends or relatives (WoM) compared with those that rely solely on dealership consultations (0.095 and 0.224, respectively; $p < 0.001$). This relationship underscores the interconnected dynamics of various contact points along the customer journey. Sellers can manage company-controlled interactions, such as dealership consultations; however, they cannot influence WoM, which is inherently driven by customers.

Furthermore, in terms of personal involvement, the quantitative study revealed that the likelihood of using the contact point talked to friends or relatives (WoM) among

younger customers was significantly higher than that observed for older customers (0.117 and 0.096, respectively; $p = 0.012$). This finding serves as an important signal for sellers, as the emerging generation of customers exhibits an increased reliance on WoM communication.

The qualitative and quantitative findings underscore the dual-edged role of WoM. On the one hand, it fosters trust and reduces perceived risks associated with significant purchases (López, Sicilia and Verlegh, 2022). On the other hand, its influence may diminish the dependence on company-controlled contact points, thus presenting a significant challenge for sellers who must compete with insights generated by peers. For example, while dealerships can control the quality of their consultations, they cannot directly influence the narratives shared by consumers within their social circles. This dynamic illustrates the necessity for companies to proactively engage and support positive WoM through indirect strategies. For example, they could ensure customer satisfaction during dealership interactions to enhance the likelihood of favourable referrals. Additionally, companies might explore methods to facilitate WoM in digital environments by encouraging satisfied customers to share their experiences on social media platforms or review sites. The findings also emphasise the importance of understanding the interaction between company-controlled and non-company-controlled contact points within the broader customer journey. While dealerships and sales representatives remain integral due to their expertise and immersive experiences, WoM is crucial in building trust and shaping consumer perceptions.

The manufacturer's homepage, a company-controlled contact point, plays a crucial role in the automobile purchasing process: it ranked as the fourth most prevalent contact point in the quantitative study. This finding aligns with the study conducted by Harting *et al.* (2017), who found corporate websites to be among the top three contact points for German automobile purchasers. Specifically, 75% of the surveyed respondents reported using these platforms to gather information before interacting with dealerships. The corporate website is vital for information acquisition, enabling users to efficiently compare products, prices, and features.

Moreover, the qualitative analysis highlighted the importance of the website, with participants underscoring its systematic nature and accessibility. For example, Respondent F noted, '*I utilised the car company's website to compare features across various models, allowing me to ascertain which option most effectively met my requirements.*' Similarly, Respondent H commented on its efficiency: '*I located all the necessary information on the car company's website – it was straightforward and significantly reduced my efforts. This is an ideal approach.*' Such accounts demonstrate the effectiveness of corporate websites in delivering prompt, comprehensive, and reliable information, thereby addressing critical consumer needs during the purchasing journey.

Despite these strengths, the website ranked as the fourth most frequent contact point, suggesting that there is still considerable potential to improve its integration into the broader customer journey. While it effectively supports the research phase, it may lack the interpersonal and experiential aspects inherent in dealership visits and could be perceived as lacking authenticity and trustworthiness compared with peer-to-peer interactions or independent reviews. From a strategic perspective, it is crucial to prioritise the integration of the manufacturer's homepage with other digital and physical contact points. For example, implementing tools that enable a seamless transition for customers from online research to offline experiences – such as scheduling test drives or planning dealership visits – could significantly enhance the cohesiveness and user-friendliness of the overall journey.

A notable feature of the manufacturer's homepage is the car configurator, a proprietary tool that ranked as the fifth most frequently used contact point in the car purchase process. This observation correlates with an earlier study in which the authors highlighted the significance of car configurators in shaping purchase decisions (Naik and Peters, 2009). However, this thesis has clarified its role and importance. The car configurator empowers customers to gain a comprehensive view of their prospective vehicle, to experiment with various features, and to determine the final price, thereby offering a unique combination of interactivity and personalisation.

The qualitative study elucidated the role of the car configurator in facilitating informed decision-making and enabling efficient preparation for subsequent engagements. For example, Respondent P remarked, '*The car company's website served as my entry point for the car configurator, helping me customise and explore diverse options for the model.*' Likewise, Respondent N highlighted its budgetary benefits: '*Using the car company's configurator gave me a better understanding of the price with extras, which helped me plan my budget more effectively for the new car.*' These perspectives underscore the tool's capacity to empower users through a tailored exploration of options that align with their preferences and financial constraints.

Furthermore, the configurator effectively bridges the gap between online research and in-person dealership visits. Respondent D noted, '*I used the car configurator to prepare for my new car before meeting with the salesperson because I didn't want to spend hours sitting at the dealership. It helped me know exactly what I wanted and made the process much smoother.*' This preparatory phase allows customers to approach dealership interactions with enhanced clarity and confidence, thereby improving the efficiency of these exchanges. Marutschke and Gournelos (2020) suggested that contact points, such as the car configurator, can augment the roles of dealers and sales personnel. This finding indicates that customers can educate themselves before visiting a showroom (Schwickal, 2010; Harting *et al.*, 2017).

The car configurator demonstrates significant strengths in enhancing convenience and personalisation; however, there remains considerable opportunity for deeper integration of this tool throughout the entire customer journey. For example, establishing links between the configurator and various digital contact points – such as scheduling online test drives or virtual consultations with sales representatives – could effectively streamline the transition from digital to physical interactions. By further improving its integration with other contact points and leveraging emerging technologies, automotive manufacturers have the potential to optimise the configurator's effectiveness, thereby ensuring a cohesive, richer experience for the customer.

According to the quantitative study, the test drive, another company-controlled contact point, was the sixth most commonly used contact point in the car purchasing process. This finding highlights its crucial role in shaping the customer journey. Degirmenci and Breitner (2017) found that test drives provide customers with a hands-on opportunity to engage with the vehicle, enabling them to assess how its features align with their specific needs and preferences. This practical engagement aids in the functional evaluation of the automobile and fosters an emotional connection with the product, which can significantly influence the likelihood of purchase.

The qualitative findings support this idea, as many of the participants highlighted the importance of test drives in their purchase decisions. Respondent I expressed, '*The test drive is absolutely essential for my purchase decision; it's the only way to truly know if this car is the right fit for me.*' Similarly, Respondent C noted, '*My motivation to visit the dealership is to book a test drive*', thus emphasising the role of the test drive as a logical step following initial interactions at the dealership. These viewpoints confirm that the test drive is more than just an additional activity; it is a fundamental aspect of the car buying experience.

The quantitative analysis revealed that the test drive elicits substantial positive emotional arousal, a variable that notably influences purchase decisions. However, the comparatively low incidence of the test drive, despite its significance, may be attributed to the limited availability of this activity. This limitation often arises from the considerable costs associated with vehicle maintenance, insurance, and personnel. The findings from this thesis present a compelling argument for sellers to prioritise the incorporation of the test drive into their contact point strategies. Specifically, sellers should reallocate financial resources to enhance opportunities for product testing. Such initiatives could include expanding the fleet of test vehicles, offering flexible scheduling options, and/or integrating digital solutions like virtual test drives to complement traditional physical experiences. By reducing barriers to access, sellers can ensure that more customers take advantage of this pivotal contact point, which has the potential to enhance conversion rates and improve customer satisfaction. In summary, the test drive is an essential element of the automotive purchasing process,

providing unmatched opportunities for functional evaluation and emotional engagement.

Furthermore, reading car magazines, a non-company-controlled contact point, is an important part of the customer journey. Although it ranked seventh in the quantitative study, it is still one of the most prevalent and influential contact points. Previous research has underscored the importance of car magazines: Hauser, Urban and Weinberg (1993) and Diez (2006) identified automobile magazines as among the top three critical sources of information during the car purchasing process. The findings from this thesis corroborate their significance, demonstrating that, despite their lower comparative ranking, they consistently provide valuable and impartial insights that are highly sought after by customers.

Car magazines, particularly their test reports, play a fundamental role in equipping prospective car buyers with thorough and unbiased assessments of various vehicle models. As Gibson (2020) highlighted, these reports offer comprehensive analyses of performance metrics, safety attributes, comfort levels, technological advancements, and the overall driving experience. Such evaluations empower customers to make more informed purchase decisions by providing an independent viewpoint that is often absent in company-controlled materials.

There are numerous benefits to consulting car magazines. Silaban *et al.* (2022) noted that these publications provide expert, unbiased evaluations that customers can rely on based on standardised assessment criteria. They also offer a dependable comparison framework that aids in understanding the price-performance ratio across various models, which is invaluable for budget-conscious buyers. Respondent L clearly expressed this value: '*I used car magazines to really grasp the price-performance ratio of different models. It helped me compare how much value I was getting for the price, which was something the car company's website didn't provide.*' Furthermore, these resources keep customers informed about industry trends and technological advancements, enhancing their overall knowledge and confidence during purchasing.

During the qualitative study, the participants emphasised the role of car magazines as reliable sources of objective assessments. They consistently referred to evaluative reports for insights regarded as more credible than promotional materials from dealerships or manufacturers. Respondent B articulated, '*I wanted an unbiased, objective comparison of the models I was interested in, so I turned to car tests. The magazines gave me real expert opinions, unlike the promotional material I found from the dealerships.*' This perspective underscores the ability of car magazines to reconcile the customers' demand for impartial information with their scepticism towards company-controlled content.

Rather than interpreting the seventh-place ranking of car magazines as indicative of their limited significance, it should be perceived as a robust position within an increasingly digital information landscape. The persistent appeal of car magazines indicates that they fulfil specific customer needs that are not entirely addressed by alternative sources of information. Furthermore, they enhance company-controlled contact points by providing an additional layer of credibility and expertise that boosts customer confidence.

As discussed previously, the quantitative study revealed that seven primary contact points accounted for over 70% of the total share across all customer contact sequences. These contact points include five company-controlled contact points and two non-company-controlled contact points. Moreover, 15 contact points with a usage frequency of less than 1% are entirely company controlled, highlighting a significant disparity in their utilisation rates. The difference in frequency between the highly used contact points and those considered less significant can be theoretically explained through the concept of media richness, which pertains to a contact point's ability to convey rich, multifaceted information (Wu, Wong and Lin, 2021). High media richness is characterised by a contact point's capacity to provide diverse stimuli, including visual, verbal, and tactile experiences, in real-time and tailored to the individual. For example, direct personal interactions, such as visiting a dealership or engaging in WoM communication, demonstrate superior media richness, particularly concerning consumer durables like automobiles (Steinmann, 2011). This aligns with

the quantitative study findings indicating that most identified contact points with high frequencies facilitate access to a diverse range of information and serve multiple purposes. Contact points primarily employed for singular, specific functions are selected less frequently.

However, companies rely excessively on their own contact points. This situation may stem from the resource-based view, where companies achieve a competitive advantage through various contact points in their portfolio. Based on the results, these contact points are unnecessary because they add minimal value to the company. From a practical standpoint, the findings suggest that budgets should be allocated to the most significant contact points. This view is supported by the fact that most of the previously mentioned contact points appeared one or more times in customer contact sequences, indicating that each customer contact sequence includes one or more of these contact points. Hence, these contact points fulfil the customer's various information needs, as they are used more than once in a customer contact sequence. Sellers must be aware of the strategic integration of these contact points into the customer contact sequence. Studies that have not considered the multiple uses of a single contact point may have produced flawed results.

In conclusion, the findings clarify the significant distinction between company-controlled and non-company-controlled contact points in the car purchase decision-making process. The dominance of company-controlled contact points can be attributed to their ability to provide detailed, accurate, and tailored information. In contrast, non-company-controlled contact points serve a complementary role throughout the customer journey. These sources are often perceived as more impartial and credible, influencing initial perceptions of a brand or product. The findings also indicate that non-company-controlled contact points are rarely sufficient on their own to trigger a purchase decision. Instead, they typically function as pathways that guide customers towards company-controlled contact points where final decisions are ultimately made. For example, although a customer may trust a friend's recommendation, they are still likely to seek the tangible and immersive experience that can only be obtained through a dealership.

The aforementioned distinction underscores the strengths and limitations of these two types of contact points. Company-controlled contact points excel in delivering product-specific expertise and creating immersive experiences, while non-company-controlled contact points build trust and credibility through perceived impartiality. This duality suggests that companies should adopt an integrated approach to customer engagement. By leveraging the credibility of non-company-controlled contact points to attract customers and the depth of company-controlled contact points to close the decision-making loop, organisations can optimise the overall customer journey. Sellers could benefit from acknowledging and integrating these independent evaluations into their marketing strategies by, for example, referencing favourable test reports in their communications to validate their claims. There is the need for a hybrid model of customer contact sequences, where both company-controlled and non-company-controlled contact points are recognised for their unique contributions.

9.2 The order of contact points

The order of customer contact points within the customer journey remains an underexplored yet critical area of research. Previous studies have focused mainly on isolated contact points or partial mappings of the customer journey, often neglecting the intricate interplay between various contact points (Klein and Ford, 2003; Abbasi *et al.*, 2020). Indeed, mapping the first few contact points (Hauser, Urban and Weinberg, 1993; Van Rijnsoever, Castaldi and Dijst, 2012) is no longer sufficient to address the multi-faceted customer interactions now prevalent in industries like automotive retail (Marutschke and Gournelos, 2020). Recent studies (e.g., Tueanrat, Papagiannidis and Alamanos, 2021) have highlighted the growing complexity of customer journeys as technology introduces new contact points. This thesis has addressed these gaps by emphasising the need for a more comprehensive analysis of customer contact sequences, particularly within the pre-purchase phase for car purchases.

Comprehensive customer journey mapping can offer profound insights into how different contact points interact, whether or not they are company controlled, and how

these sequences influence decision-making. Steinmann (2011) emphasised that companies could strategically guide customers through the customer journey by identifying ideal customer contact sequences. Similarly, Berman (2020) highlighted the potential to uncover previously unknown synergies between contact points, enabling more informed marketing strategies.

The quantitative study built on these foundational insights and identified a hierarchy of contact points that structure customer contact sequences. High-frequency contact points – such as dealership visits with or without the salesperson and WoM – play pivotal roles in shaping customer decisions. In contrast, numerous primarily company-controlled, low-frequency contact points highlight areas where sellers struggle to create meaningful engagement. This disparity aligns with research by Peterson, Balasubramanian and Bronnenberg (1997) and Rangaswamy and van Bruggen (2005), who have called attention to the challenges of optimising less effective channels.

Understanding customer contact sequences allows companies to predict customer behaviour and to optimise resource allocation. Identifying patterns in high-frequency contact points provides a roadmap for focusing investments on areas of proven effectiveness while simultaneously refining low-performing channels. Consistently, Tueanrat, Papagiannidis and Alamanos (2021) argued that a comprehensive understanding of the customer journey enhances the ability to meet customer needs effectively.

The initial and final contact points are significant within the customer contact sequence, as these phases significantly impact the purchase decision-making process. This analytical capability enables organisations to provide relevant information at ideal moments in the customer contact sequence, thus promoting communication clarity and transparency. As a result, such strategic engagement is poised to enhance operational efficiency and accuracy in reaching customers while effectively guiding them through their customer journeys (Berman, 2020).

Beginning of a sequence

The initial contact points in a customer contact sequence are vital in shaping the overall customer journey. The quantitative study revealed that interactions with dealers – regardless of whether a salesperson is involved – are the most common initial contact points. These company-controlled contact points set the tone for subsequent engagements, underscoring their strategic importance in the pre-purchase phase. Sellers need to recognise this dynamic and ensure that dealer interactions are optimised to address key customer needs from the outset, a view that is in line with findings reported by Marutschke and Gournelos (2020).

The quantitative findings demonstrated a tendency for transitions within a singular category of contact points. For example, a customer who begins their journey through a dealer visit is more likely to engage with similar company-controlled contact points consistently throughout the sequence. This trend highlights the necessity for consistency and coherence in the messaging and experiences delivered at these contact points, a novel finding.

Van Rijnsoever, Castaldi and Dijst (2012) supported the significance of the car dealer as the primary starting point in the automotive purchasing process. This thesis also underscores the importance of other initial contact points, such as WoM interactions with peers and family. This non-company-controlled contact point illuminates the interplay between company-controlled and non-company-controlled sources at the inception of the customer journey.

Notably, advertising (a company-controlled contact point) was absent from the primary initial contact points, a finding different from Berman (2020). This observation indicates that traditional advertising may lack the immediacy or relevance typical of dealer visits or personal consultations when starting the customer journey. Therefore, sellers need to consider reallocating resources from broad advertising campaigns to enhancing dealer-based interactions, which are more likely to initiate the customer journey.

The findings highlight the critical importance of dealer visits as the main starting point within customer contact sequences. Sellers should utilise this insight by ensuring these interactions are enriched with relevant information and by facilitating subsequent contact points. Furthermore, a nuanced understanding of the dynamics between company-controlled and non-company-controlled contact points can further refine marketing strategies, promoting a cohesive and impactful customer journey from the initial interaction onward.

End of a sequence

The conclusion of the customer contact sequence is pivotal in influencing purchase decisions. Based on the quantitative study, the three primary contact points that frequently signify the end of the customer contact sequence are consultation at the car dealer (with salesperson), conversations with friends or relatives (WoM), and visits to the dealer (without consultation). Notably, the predominance of dealer visits – with or without interaction with a salesperson – emphasises their critical dual role as typical starting and ending points in the sequence.

Dealer visits at the final stage of the sequence underscore their essential function in providing customers with the necessary, actionable information to finalise a purchase decision. Whether through an in-depth consultation with a salesperson or an independent visit, the dealer emerges as a crucial contact point where lingering inquiries are resolved, product specifications are reiterated, and financial or logistical arrangements are reconciled. For sellers, recognising that dealers act as both entry and exit points necessitates a dynamic approach. Specifically, these interactions must be sufficiently flexible to offer preliminary insights at the beginning of the sequence while also delivering tailored assistance at the end. This finding had not yet been presented in the literature.

This thesis revealed that WoM is the second most prevalent final contact point in the customer contact sequence. This phenomenon highlights the substantial role that social interactions play in legitimising purchase decisions. Given that WoM represents a non-

company-controlled contact point, it reflects a fundamental aspect of consumer behaviour: the reliance on impartial and credible sources to validate choices. This reliance is particularly pronounced in consumer durable purchases, such as cars, where both emotional and financial stakes are significantly elevated.

The prominence of WoM as a final contact point emphasises the critical nature of communication needs within the purchasing process. Acquiring a vehicle typically requires extensive discussions among family members, reflecting the considerable financial and logistical implications of such a significant purchase. Consumers often seek reassurance from trusted peers to alleviate uncertainties and enhance confidence prior to committing to this consequential decision (López, Sicilia and Verlegh, 2022).

The dual prominence of dealer visits and WoM at the conclusion of a customer contact sequence highlights the complex relationship between company-controlled and non-company-controlled contact points at that time. Dealers provide structured and informative recaps of the process, while WoM effectively addresses a significant gap by offering independent and unbiased validation. For sellers, ensuring a seamless and supportive experience at the dealer level is crucial while fostering positive perceptions that encourage favourable WoM. These strategies are vital in influencing the final purchase decision.

Combinations of contact points

The qualitative and quantitative findings underscored the vital role of dealer visits in the purchasing process. According to the quantitative study, the most common sequence is visited the dealer (no consultation) followed by consultation at car dealer (with salesperson). This sequence highlights the need for sales personnel to engage potential customers during their visits proactively. Furthermore, the sequence visited the dealer (no consultation) followed by talked to friends or relatives (WoM) clarifies the interaction between company-controlled and non-company-controlled contact points, highlighting the importance of peer networks in consumer decision-making, a finding consistent with the study by Berman (2020).

The frequent occurrence of sequences such as dealer visit → dealer visit, alongside various other repetitive patterns, implies that a customer often relies on the same contact points multiple times throughout their journey. The initial seven most frequent sequences comprise a single contact point followed by the same contact point. This finding contrasts with earlier studies (e.g., Steinmann, 2011), which failed to adequately account for the repeated use of a single contact point within a sequence. Thus, this thesis represents a significant theoretical advancement. The repeated use of identical contact points within a sequence suggests that certain contact points serve multiple roles throughout the purchasing process (Koch and Hartmann, 2022).

A synthesis of the findings from this thesis and previous research provides interesting insights. The sequence advertising to advertising frequently emerged within the realms of consumer electronics and travel bookings (Steinmann, 2011) and was corroborated by the quantitative data (rank 4). In contrast, advertising seems to have a much less pronounced role in the automotive industry, particularly at the onset of customer contact sequence. Sequences such as dealer visit to advertising (rank 9) and advertising to dealer visit (rank 34), which have been highlighted in the literature (e.g., Marutschke and Gournelos, 2020), displayed lower rankings in this thesis. These results underscore the complex and varied nature of the customer contact sequence in the automotive sector. Moreover, dealer website to WoM (rank 21), which had been recognised in earlier studies (Verhoef, Neslin and Vroomen, 2007; Steinmann, 2011), showed a low frequency in this thesis. This low incidence of specific patterns suggests industry-specific consumer behaviours, indicating that customers may not invariably progress from digital platforms to WoM engagements. Instead, there is a pronounced inclination towards dealer interactions and in-person consultations. Furthermore, the pathway from dealer visit to dealer visit accentuates the importance of fostering consistent and engaging customer experiences at dealerships.

The findings of this thesis indicate that customers often interact with both company-controlled and non-company-controlled contact points. The interaction between these categories is exemplified by combinations such as visited the dealer (no consultation) leading to talked to friends or relatives (WoM), thereby underscoring the significant

influence exerted by peer networks. There were also instances involving only non-company-controlled contact points (e.g., car magazine → WoM), as noted by Respondent C: '*I read a car magazine and wanted to discuss my findings with a friend.*' This clearly indicates the importance of analysing the combinations of contact points within the framework of the contact point categories established by Roggeveen and Rosengren (2022).

Furthermore, in the quantitative study, the statement another contact point was the reason did not receive high scores across the assessed contact points. This serves as a clear indicator that customer contact sequences are currently not subject to active management within the existing landscape. Instead of navigating through a structured pathway, customers independently traverse the sequence of contact points. This absence of management reveals potential opportunities for businesses to strategically influence the customer contact sequence and enhance transitions between various contact points. This finding has not been acknowledged in the literature.

Taken together, the findings highlight the necessity of customising customer contact sequence strategies to align with industry-specific behaviours. The theoretical advancements encompass recognising the recurrent utilisation of contact points and their intricate roles within sequences.

9.3 The length of a customer contact sequence

The length of a customer contact sequence, defined by the number of contact points, is crucial in understanding customer behaviour in the automotive purchasing process. In the literature, theoretical frameworks suggest that the number of contact points, influenced by factors such as personal or situational involvement, determines the length of the sequence. Steinmann (2011) argued that sequence length can vary based on product categories and customer types, with greater involvement and investment linked to longer sequences. These findings align with the studies by Hickman, Kharouf and Sekhon (2019) and McGregor, Azzopardi and Halvey (2023), who emphasised the cost–benefit dynamics evident in information-seeking behaviours. Short sequences

may alleviate consumer fatigue but could reduce the depth of customer engagement, whereas longer sequences provide numerous opportunities for clarifying and addressing consumer needs.

Based on the quantitative study, the average sequence length was 11.55 contact points. More than half of the sequences (52.25%) included 1–8 contact points, while 30.88% comprised 9–20 contact points. These sequence lengths are considerably longer than what Steinmann (2011) documented for consumer electronics (6.22 contact points) and tourism (9.63 contact points). The extended sequence lengths observed in automobile purchases highlight the complexity of the product and the substantial information-gathering efforts required. Furthermore, the quantitative analysis demonstrated that longer sequences increase the likelihood of purchase, challenging the previous assertion by Newman and Staelin (1972), who stated that a minimal number of contact points are necessary for car purchases.

The deviation from earlier research, such as that conducted by McGregor, Azzopardi and Halvey (2023), who advocated for shorter sequences, is particularly noteworthy. Based on the findings in this thesis, sequences with fewer than 6.54 contact points do not facilitate purchases, while medium-length sequences (13.83 contact points) significantly enhance the purchase probability. Moreover, longer sequences, averaging 27.49 contact points, do not decrease the likelihood of purchase, thus reaffirming the importance of extensive information gathering associated with products such as automobiles.

The influence of involvement

The qualitative findings illuminated the influence of pre-knowledge (personal involvement) on the customer contact sequence length. Specifically, participants with previous experience or familiarity with the automotive purchasing process strongly preferred shorter sequences. Respondent L stated, '*I always stick to the same contact points when I purchase a car. I've gone through this process several times, and it's proven to be reliable each time.*' This observation supports the findings reported by

Steinmann (2011) and Zhang *et al.* (2020), who highlighted that experienced customers tend to rely on established patterns, thereby reducing the number of necessary contact points. The quantitative results diverged from the qualitative results, indicating that greater pre-knowledge correlates with longer sequences. This seemingly paradoxical finding suggests that experienced customers may undertake more extensive searches to confirm their decisions or to explore alternative options, ultimately contributing to longer customer contact sequences. This nuanced interpretation has enriched the theoretical framework by underscoring the dual role of pre-knowledge as both a simplifying and extending factor.

Contrary to prevailing expectations based on the literature regarding personal involvement, which suggests that age and gender significantly influence outcomes (Kulkarni, Ratchford and Kannan, 2012; Steinmann, 2011), the quantitative study revealed that neither of these variables had a significant effect on the sequence length. Specifically, the common assumption implies that younger consumers exhibit longer sequences due to their comparatively less purchase experience and heightened information needs (Bewicke, 2023). However, the findings from this thesis indicate that age and gender may not be decisive factors in this context.

Regarding personal involvement, income had less impact than previously anticipated. In the past, researchers have often linked higher income to more extensive search behaviours (Raffée and Silberer, 1981; Klein and Ford, 2003). However, the quantitative study revealed no significant difference in the customer contact sequence length for the low-income group (11.45 contact points) compared with the high-income group (11.87 contact points). This divergence emphasises the nuanced and complex role of income in shaping consumer behaviour.

Conversely, product involvement showed a negative correlation with sequence length. Contrary to the theoretical expectation that higher involvement lengthens the customer contact sequence due to increased investment and attention (Suboh, Razak and Alshurideh, 2023), it seems to streamline the process. Highly involved customers

appear to navigate efficiently towards crucial contact points, indicating a focused and strategic approach rather than an exhaustive search.

Taken together, this thesis has clarified theoretical frameworks by highlighting the importance of longer sequences in increasing purchase probabilities, thereby challenging previous assumptions that shorter sequences would suffice. These findings challenge common beliefs, offer new insights, and emphasise the need to manage customer journeys effectively.

9.4 Purchase behaviour

The influence of emotional arousal on purchase behaviour

Based on the literature, emotional arousal has emerged as a crucial factor to explain purchase behaviour, a notion supported by this thesis. Lemon and Verhoef (2016) asserted that emotions are fundamental to the customer experience. Although cognitive and emotional responses are conceptually distinct, they exhibit a degree of interdependence; however, prior research has focused mainly on cognitive responses (Kuuru and Närvänen, 2019). This cognitive emphasis can be attributed to the capacity of firms to effectively manage the functional aspects of products that trigger cognitive responses, often at the expense of genuine emotional engagement (Caruelle *et al.*, 2024). Conversely, when emotional experiences are poorly managed, firms risk losing customers, particularly in situations where reliance on product quality alone is insufficient to maintain a competitive advantage (Caruelle *et al.*, 2024).

Emotions, as immediate responses to stimuli, profoundly influence decision-making, often surpassing cognitive reactions (Ozcelik and Arslan-Ari, 2024). Positive emotional arousal, particularly when accompanied by high valence, enhances memory retention and fosters positive purchase decisions (Cahill and McGaugh, 1996; Kensinger, 2009). In contrast, heightened negative emotions correlate negatively with the likelihood of purchase (Ozcelik and Arslan-Ari, 2024). Consequently, managers

need to create frequent positive arousal experiences to optimise customer decision-making processes (Caruelle *et al.*, 2024).

The quantitative study demonstrated the significant impact of emotional arousal on the purchase outcome, a finding that is consistent with previous studies. Customer contact sequences with higher average emotional arousal scores correlated strongly with ongoing purchasing behaviours. Specifically, there was a significant difference in the average emotional arousal scores of customers who continued their purchases compared with those who chose to cancel. Hence, heightened emotional arousal during customer contact sequences significantly decreases the likelihood of cancellations and promotes purchases.

The subsequent analysis, which excluded postponed purchases, further supported these findings. Specifically, there was a significant reduction in the average emotional arousal score for those who cancelled their purchase compared with those who completed their purchase. Furthermore, logistic regression identified a significant negative coefficient for emotional arousal, highlighting its essential role in reducing the likelihood of purchase cancellations.

In line with the literature, the quantitative study demonstrated that contact points that evoke heightened emotional arousal accompanied by positive valence are retained more effectively in memory, increasing the likelihood of purchases (Kensinger, 2009; Ozcelik and Arslan-Ari, 2024). Notably, the customer experience at each contact point emerged as a crucial determinant. Specific contact points, such as product testing (e.g., test drives), consistently elicited high levels of positive emotions and were recognised as vital for facilitating successful purchases. However, the unique characteristics of customers, including lifestyle, values, and personality, induced varied emotional responses, particularly with less frequent contact points such as events. This variability presents significant challenges for sellers because the same contact point may elicit positive emotions in some customers while provoking negative emotions in others.

Traditional methodologies in this research field often evaluate emotional states at a single point in time, typically at the end of the customer journey. This approach can result in static and potentially misleading interpretations (Caruelle *et al.*, 2024). In contrast, collecting dynamic emotional responses at every contact point offers a more accurate understanding of their cumulative effect on purchasing behaviour. Thus, this thesis has addressed this limitation by employing a longitudinal research design to evaluate emotional arousal across multiple contact points, calculating a mean emotional arousal score for each sequence. Both positive emotions (e.g., desire and happiness) and negative emotions (e.g., anger and anxiety) were evaluated. This approach has provided a nuanced and dynamic perspective that transcends the traditional static measures in earlier research.

The influence of customer contact sequences on purchase behaviour

The empirical findings underscore the crucial role of customer contact sequence length and the types of contact points in shaping purchase outcomes. Longer sequences demonstrate superior performance across various outcome variables, aligning with a risk-oriented approach where potential customers engage with multiple contact points to mitigate perceived risks (Balsarini *et al.*, 2021). Three distinct clusters of customer contact sequences were identified: Cluster 1, low-information sequences; Cluster 2, extensive-information sequences; and Cluster 3, dealer-focused sequences (see Chapter 8.1 for additional details). Of note, there was a significant difference between Clusters 1 and 2 ($\chi^2 = 5.34$, $p = 0.021$). Considering re-purchasing, Cluster 3 exhibited the highest re-purchase probability, showing a significant difference compared with Cluster 2. Moreover, there was a trend for a significant difference between Cluster 1 and Cluster 2. These findings imply that while extensive information sequences effectively enhance initial purchase likelihood, dealer-focused sequences demonstrate superior efficacy in promoting re-purchases.

In conclusion, this study has effectively addressed critical gaps within the literature by synthesising emotional arousal and customer contact sequences into an integrated framework. It is crucial to dynamically measuring emotional responses throughout

various contact points, an approach that yields more comprehensive insights than static global assessments. Furthermore, the findings suggest that longer, heterogeneous contact sequences that incorporate important contact points such as dealer visits and test drives should be designed to optimise the purchase and re-purchase probabilities.

10 Conclusion

This chapter synthesises the most significant findings from this thesis, presenting them as lessons learnt, and examines their implications for both theoretical frameworks and practical applications. Finally, the limitations of this thesis are outlined and future research directions are suggested.

10.1 Charting customer contact sequences for consumer durables: lessons learnt

This thesis is primarily related to the field of customer experience research, a critical area of inquiry that continues to be a priority for scholars and practitioners (Zhang *et al.*, 2024). The central focus is the customer journey, approached from a process-based perspective, a theme that has garnered considerable attention in contemporary customer experience literature (Wang *et al.*, 2024). Within the context of omnichannel and multichannel marketing, Steinmann (2011) introduced the customer contact sequence, which is used to analyse systematically the distinct stages of the customer journey. The focus for this thesis is the pre-purchase phase.

As stated previously, this thesis examined the customer contact sequences relevant to the acquisition of consumer durables, specifically in the context of purchasing automobiles in Germany. The mechanisms by which potential customers seek information and subsequently acquire a consumer-durable product were elucidated. This endeavour involved identifying the various company-controlled and non-company-controlled contact points used throughout this process, the order of these contact points, and the length of the customer contact sequence (Steinmann, 2011; Barwitz and Maas, 2018).

This research holds significant value for the academic community as it has enhanced understanding of the frameworks necessary for designing seamless customer journeys, enriching theoretical insights into customer experience and journey research. Furthermore, this concept offers practitioners essential insights that empower them to

identify critical contact points, to optimise sequence lengths, and to orchestrate customer journeys that effectively influence purchase decisions (Emplifi, 2021).

This thesis has addressed four substantial gaps in the academic literature. First, there is a pressing need for a comprehensive understanding of creating seamless customer journeys (Lemon and Verhoef, 2016). Second, the dynamic interplay between company-controlled and non-company-controlled contact points within the customer contact sequence requires thorough examination (Wetzels *et al.*, 2023). Third, further research is needed to understand the significance of emotions at different customer contact points (Grewal and Roggeveen, 2020). Lastly, most studies conducted in this domain have employed a cross-sectional approach, which may yield less accurate findings. To enhance result precision, experts advocate for the incorporation of longitudinal field data (Klein and Ford, 2003; Verhoef, Neslin and Vroomen, 2007; McColl-Kennedy *et al.*, 2015; Yumurtacı *et al.*, 2017; Tueanrat, Papagiannidis and Alamanos, 2021; Wang *et al.*, 2024).

There are four major findings related to the first and second research gaps and the following two research questions: *Which customer contact sequences regarding type, order, and length are present?* and *How do company-controlled and non-company-controlled contact points affect each other in creating a seamless customer contact sequence?* The most crucial contact points are dealer visits (company controlled) and WoM (non-company controlled), which operate in a hybrid manner. Moreover, the order of these contact points typically involves repeating the same contact points and medium-length sequences enable seamless customer contact sequences.

The first major finding relates to the composition of customer contact sequences revealed that seven pivotal contact points – both company controlled (most important: dealership visits) and not company controlled (most important: WoM) – collectively accounted for over 70% of the contact points within customer contact sequences. Considering the variability in findings regarding the types of contact points across various studies, this thesis has contributed to the theoretical discourse by establishing

a framework that identifies key types of contact points while also addressing which contact points merit further scholarly attention.

The second major finding offers insights into the order of contact points, indicating that the top seven rankings comprise transitions within the same category of contact points (e.g., dealer visit → dealer visit). This suggests a tendency among customers to remain within a specific category throughout their engagement in a customer contact sequence. This observation represents a notable advancement in theoretical understanding, as it uncovers previously unexplored aspects of the order of contact points and challenges earlier research that has overlooked the multifunctionality of individual contact points within sequences (McGregor, Azzopardi and Halvey, 2023).

The third major finding concerns the length of customer contact sequences and challenges previous assumptions that advocate for shorter sequences (Koch and Hartmann, 2022). Specifically, medium-length (13.83 contact points) and extended (27.49 contact points) sequences significantly improve purchase probabilities. This information represents a theoretical advancement regarding the optimal number of contact points throughout the customer journey.

The fourth major finding concerning the relationship between company-controlled and non-company-controlled contact points highlights the necessity for a hybrid customer contact sequence model, wherein both categories of contact points are recognised for their unique contributions. WoM, as a non-company-controlled contact point, is particularly significant, as its influence may reduce dependence on company-controlled contact points such as dealer visits. This outcome offers valuable insights into new categories of contact points (Wetzels *et al.*, 2023), which is crucial for optimising the customer journey and enhancing channel integration for a seamless omnichannel experience (Gao, Currim and Dewan, 2022).

The fifth major finding pertains to research gap three and addresses the following research question: *To what extent does emotional arousal elicited at each customer contact sequence influence purchase decision?* Researchers have underscored the

critical role of emotional arousal in shaping purchase decisions; however, there has been a notable lack of emphasis on customer journey research, which predominantly focuses on cognitive factors (Sharma *et al.*, 2023). This thesis demonstrated that heightened positive emotional arousal during customer contact sequences significantly reduces the likelihood of cancellations while simultaneously promoting purchases, thus highlighting the necessity of integrating emotional arousal into customer journey research. Furthermore, the mean method was used to measure emotions at each contact point rather than relying on a singular measurement at the conclusion of the customer journey. This approach underscores the reality that the customer journey encompasses multiple stimuli, each inciting distinct emotional responses that interact, yielding more accurate results (Caruelle *et al.*, 2024).

The sixth major finding relates to the concept of involvement and its impact on the customer contact sequence, addressing the following research question: *What factors influence the structure of a customer contact sequence?* Based on the analysis, personal involvement, notably higher levels of pre-knowledge, lengthens the customer journey. This finding contrasts with the conclusions drawn by Steinmann (2011) and Zhang *et al.* (2020), who argued that experienced customers tend to follow established patterns, and thus the number of necessary contact points is reduced. This study has contributed to the theoretical framework by highlighting the dual role of pre-knowledge as both a simplifying and extending factor.

The final major finding pertains to research gap four and addresses the following research question: *Is a longitudinal design more advantageous than a cross-sectional design for evaluating customer contact sequences?* This thesis has responded to the scholarly call to use longitudinal field data by providing initial insights into the topic through the presentation of longitudinal customer journey data, which can be compared with earlier cross-sectional studies in the future (e.g., Steinmann, 2011).

10.2 Theoretical implications

This thesis has made seven contributions to the theoretical discourse surrounding customer experience and journey research.

The first theoretical implication of this thesis is a clarification of the structure of customer contact sequences, namely a comprehensive framework with seven critical contact points. These comprise five company-controlled contact points – consultation at the dealer with the salesperson, visiting the dealer without consultation, visiting the manufacturer's homepage, online car configurator, and test drive – and two non-company-controlled contact points – talking to friends and relatives (WOM) and reading car magazines. Together, they represent over 70% of customer interactions during the purchasing process.

By addressing inconsistencies in prior research regarding the relative significance of these contact points, this thesis has offered a more coherent and integrated understanding of those that exert the most substantial influence. Researchers can build upon this framework by conducting comparative studies across various industries to explore whether similar patterns emerge or if specific contact points are distinctly relevant to the automobile purchasing process.

Second, this thesis has clarified the crucial role of transitions within similar categories of contact points. The findings indicate that the most common customer sequences, exemplified by successive dealer visits, tend to show a pattern of customers consistently engaging with the same contact points, thereby highlighting their multifunctional nature throughout the customer journey. This revelation challenges the existing literature (e.g., Steinmann, 2011; including studies by McGregor, Azzopardi and Halvey, 2023), which has often overlooked the recurrent and versatile use of individual contact points within such sequences. This study has enriched the theoretical discourse on customer journey research by demonstrating that specific contact points, such as dealer visits, serve multiple purposes – from information acquisition to decision-making.

Scholars may leverage these findings to refine current theoretical models by incorporating the multifunctional characteristics of contact points and their repeated use within sequences, thus rendering future studies that overlook the potential for repeated selection of a single contact point obsolete. The insights provided by this research lay the groundwork for enhancing the representation of the customer journey in contemporary theoretical frameworks, enabling a more nuanced understanding of how interactions with key combinations of contact points influence decision-making.

Third, this thesis has highlighted the critical role of the customer contact sequence length in influencing purchasing behaviour, especially concerning complex consumer durables such as automobiles. The average sequence length of 11.55 contact points is markedly longer compared with consumer electronics (6.22 contact points) and tourism (9.63 contact points; Steinmann, 2011). Additionally, sequences with 13.83 contact points and extended sequences averaging 27.49 contact points considerably enhance purchasing probabilities, offering new insights into the importance of thorough and sustained engagement throughout the customer journey. These findings underscore the necessity of considering sequence length as a crucial dimension in customer journey studies. The extended sequences observed in automobile purchases highlight the inherent complexity of this product and emphasise the substantial information-gathering and decision-making efforts required from customers. This suggests that acquiring consumer durable products necessitates a more nuanced understanding of customer journeys than has been acknowledged in prior research.

These findings enrich the discourse on customer journey optimisation by highlighting the multidimensional nature of sequence length. Scholars should not just focus on the content and types of contact points; they should also consider their length and the cumulative effects of extended engagement. For example, longer sequences may foster customer trust, reduce uncertainty, and deepen understanding of the product, which are crucial for high-stakes purchase decisions.

Fourth, this thesis has clarified the crucial role of company-controlled and non-company-controlled contact points in shaping the customer journey. Company-

controlled contact points, such as dealer visits, provide product-specific expertise and facilitate immersive experiences. In contrast, non-company-controlled contact points, represented by WoM, build trust and credibility through their perceived impartiality. This finding highlights the necessity of a hybrid customer contact sequence model, where both types are recognised for their unique contributions (Wetzels *et al.*, 2023). Such a framework addresses the call from Tueanrat, Papagiannidis and Alamanos (2021) that additional channel behaviours beyond traditional online and offline categories warrant further academic exploration.

The results provide a basis for investigating how the influence exerted by non-company-controlled contact points – such as online reviews or social media endorsements – intersects with or diminishes the need for company-controlled contact points, like dealer websites. This is especially relevant given the declining effect of WoM on dealer visits demonstrated in this thesis. A nuanced understanding of these interactions could enhance the accuracy of customer journey models and capture the inherent complexities of the customer decision-making process. These findings could improve existing customer journey models by incorporating the complementary functions of both company-controlled and non-company-controlled contact points.

This process necessitates a re-evaluation of traditional linear customer journey frameworks in favour of a more dynamic and interconnected perspective that accurately portrays the hybrid nature of modern customer interactions. For example, Gao, Currim and Dewan (2022) emphasised the importance of seamless omnichannel experiences; this presents an opportunity for scholars to investigate further how customers engage with both types of contact points at different stages of their customer journey.

Fifth, this thesis has addressed a notable gap in research on the customer journey, which has historically prioritised cognitive factors over emotional arousal (Sharma *et al.*, 2023), even though Lemon and Verhoef (2016) emphasised that emotions are a vital component in defining customer experience. This study demonstrated that higher levels of positive emotional arousal during customer contact sequences can decrease

cancellations and promote purchasing behaviour, thereby supporting the position of Lemon and Verhoef (2016). This underscores the necessity of integrating emotional responses into existing customer journey models. Emotional arousal plays a vital role in shaping consumer behaviour, and its importance throughout the customer journey deserves recognition beyond mere cognitive considerations.

This observation calls for the expansion of current customer journey frameworks to include emotional arousal at various contact points rather than restricting the focus to cognitive responses or solely assessing emotions at the conclusion of the journey. The methodological approach employed in this study, which evaluated emotional responses at each distinct contact point, provides a more dynamic and accurate perspective for understanding the customer experience. By tracking emotional reactions across different customer journey stages, scholars can capture the evolving nature of emotional states and their significant impact on decision-making processes (Caruelle *et al.*, 2024).

In light of these findings, researchers might explore advanced methodologies, such as real-time emotional tracking, biometric measures, or live sentiment analysis, to thoroughly account for emotional arousal throughout the customer journey. These techniques could capture emotional responses as they occur, overcoming the limitations associated with retrospective surveys and yielding more immediate and precise data regarding the influence of emotions on consumer behaviour at each contact point. Ultimately, this thesis advocates for a paradigm shift in customer journey and experience research to integrate emotional arousal more comprehensively. A deeper understanding of the intricate interplay between emotional and cognitive factors throughout the customer journey will empower scholars to develop more holistic models offering richer consumer behaviour insights.

Sixth, this thesis has significantly enhanced the academic discourse surrounding personal involvement in the customer journey by demonstrating that higher levels of pre-knowledge correspondingly extend the customer contact sequence. This finding starkly contrasts with the assertions made by Steinmann (2011) and Zhang *et al.*

(2020), who argued that experienced customers follow predetermined patterns, thereby reducing the frequency of contact points. The results highlight the dual nature of pre-knowledge: it functions as a simplifying factor in specific contexts and as a prolonging factor in others. Furthermore, ancillary dimensions of personal involvement, including age, gender, and income, exerted minimal influence on the customer contact sequence length.

Based on this finding, researchers can explore the impact of pre-knowledge on customer journeys across various product categories. Researchers can develop a more comprehensive understanding of customer experience by refining theoretical models to capture its dual nature. This approach could yield valuable insights into how different levels of pre-knowledge affect the overall customer contact sequence length, and thus effectively enhance the theoretical framework of customer journeys.

Lastly, this thesis has significantly advanced the field of customer journey research by addressing the call to use longitudinal field data (Klein and Ford, 2003; Verhoef, Neslin and Vroomen, 2007; McColl-Kennedy *et al.*, 2015; Yumurtacı *et al.*, 2017; Tueanrat, Papagiannidis and Alamanos, 2021; Wang *et al.*, 2024). The incorporation of longitudinal data enhanced the understanding of customer journey dynamics over time, offering a more nuanced and comprehensive perspective than previous cross-sectional studies (e.g., Steinmann, 2011).

Given these findings, researchers must consider adopting longitudinal methodologies to effectively capture the evolving nature of consumer behaviours and experiences across various contact points. Such data foster a profound understanding of customer interactions and emotional transformations over time, thus providing a more accurate representation of the customer journey. Scholars can apply this methodological approach across diverse industries, tracking customer contact sequences over extended periods and comparing these results with earlier cross-sectional studies to clarify patterns and trends over time. This methodology enables scholars to ascertain the long-term implications of specific contact points on purchasing behaviour, uncovering insights often overlooked in short-term analyses. Ultimately, as evidenced by the

quantitative study, applying longitudinal data in customer journey research offers a significant opportunity for scholars to enhance their understanding of how customers engage with brands throughout their customer journeys.

10.3 Practical implications

This thesis offers numerous practical implications for automobile manufacturers and business consultants.

The first practical implication relates to forming customer contact sequences: seven key contact points make up over 70% of these sequences. The findings encourage organisations to strategically allocate their financial resources to highlight these vital contact points. This claim is supported by the fact that on average, most of these contact points appear more than once in customer contact sequences, indicating that each sequence includes one or more of these contact points. Such evidence underscores the use of multiple contact points within a single customer contact sequence.

These findings suggest that the contact points serve specific informational needs, thus providing customers with varied information due to their repeated use within a contact sequence. Accordingly, conceptualising a contact point requires a thorough strategic approach. These contact points must achieve diverse objectives, which can only be realised through careful management of customer contact sequences by the seller. Moreover, sellers must recognise the importance of strategically integrating these contact points into the customer contact sequence.

For example, the contact points consultation at a car dealership with a salesperson and consultation without a salesperson emerge as crucial elements. Although the contact point test drive does not result in the highest frequency, its role in influencing the purchase decision remains vital. Thus, facilitating product testing opportunities should be the seller's primary objective within the customer contact sequence. A seller should consider reallocating financial resources from contact points with minimal utilisation rates to prioritise product testing effectively.

Second, the findings regarding the order of contact points indicate that the top seven rankings primarily consist of transitions within the same category of contact points (e.g., dealer visit → dealer visit). This observation suggests that customers stay within a single category of contact points throughout multiple interactions in the customer contact sequence. Consequently, it implies that if a customer chooses to remain within a specific category of contact points, such as a dealer website, then they are likely to continue engaging within that category, thereby being open to guidance towards subsequent contact points within the same category.

This finding indicates that sellers should focus on developing short sequences of contact point categories throughout the overall customer contact sequence. Such sequences can be conceptualised as contact point category brackets within the customer contact sequence, significantly reducing the complexity of guiding customers through this process. Sellers are advised to prioritise the most significant contact point category brackets – namely dealer visits, WoM, and dealer website – to facilitate the customer's progression towards a test drive. Customers should be effectively guided through individual contact points within these contact point category brackets. The seller can strategically implement calls to action between contact point brackets to ensure customers transition into the next bracket that best aligns with the seller's objectives.

Furthermore, the analysis of the order of contact points at various stages – initial and concluding – within the sequence is grounded in the contact points that are most encountered overall. Notably, the beginning of the customer contact sequence is not primarily instigated by advertising; instead, the dealer visit emerges as a critical contact point, emphasising the need for companies to utilise the dealer visit as a strategic entry point for initiating customer interactions. Additionally, talking to friends and relatives (WoM) ranks as the second most significant contact point at the conclusion of the customer contact sequence. This indicates that the opinions of friends and family play a pivotal role in concluding an information search or affirming the customer's decision.

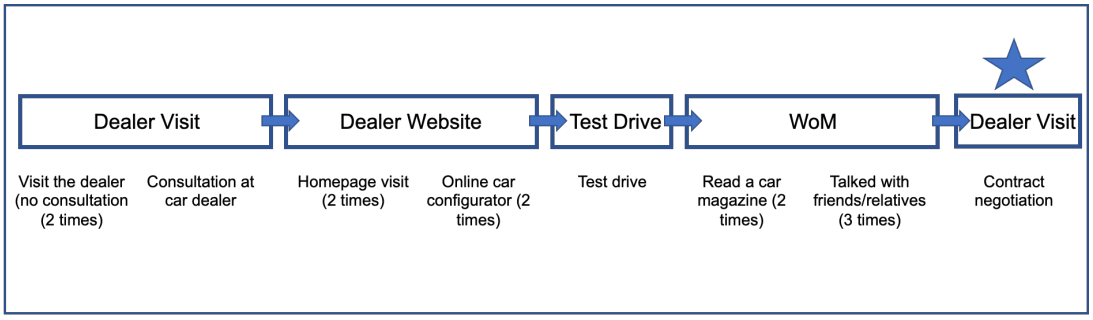
The findings suggest that a successful customer contact sequence can be established, as illustrated in Figure 23. Sellers must develop a contact sequence informed by comprehensive market research and subsequently guide potential customers through it by delivering relevant information at strategically chosen intervals. The customer contact sequence can be further refined by structuring the contact points like a ‘dramatic structure of events’, akin to a cinematic narrative (Zomerdijk and Voss, 2010).

The customer contact sequence comprises key contact points arranged sequentially based on their optimal use in the initial, intermediate, and concluding phases. Beginning with two dealership visits (no consultation), the next predominant contact point is consultation at car dealer. There is a tentative indication that a homepage visit may follow consultation at car dealer; however, this correlation is not strongly substantiated. Consequently, the seller must include a call to action to facilitate the customer's progression. This may be achieved through Quick Response (QR) codes or follow-up emails designed to provide the customer with additional, comprehensive information about their preferred vehicle model. The likelihood of multiple homepage visits is high, as it offers critical information at the early stages of the customer contact sequence. In this instance, it is anticipated to occur twice.

A homepage visit is often succeeded by the online car configurator, a feature that is also expected to be utilised multiple times (twice in this case) due to its extensive options for customising product specifications. The online car configurator is then followed by the opportunity for a test drive. According to this thesis, a test drive is a critical determinant in vehicle purchase decision-making. During a test drive, potential buyers can thoroughly evaluate the vehicle, enabling them to make an informed choice. After a test drive, these individuals often reaffirm their decision or seek additional insights through independent sources. Typically, they begin this process by consulting reviews in automotive publications, often revisiting this step multiple times (e.g., twice). This initial research is then complemented by detailed discussions with their social networks, including car enthusiasts within their peer group, and conversations with family members (e.g., spouses), facilitating a collaborative decision-making

approach that may involve several stakeholders (e.g., three individuals). To assist this process, a seller should aim to influence the conversation by providing relevant information for use during these discussions. For example, after a test drive, a seller could share positive reviews from automotive magazines that endorse the vehicle. The sales process concludes successfully with a dealer visit, where negotiation occurs to finalise the contract and to complete the purchase.

Figure 23: An example of a successful customer contact sequence



The third practical implication pertains to the length of customer contact sequences. In this thesis, the average length was 11.55 contact points, with 30.88% of sequences consisting of 9–20 contact points. The customer contact sequences from this study are longer compared with the existing studies across various product categories. From a practical perspective, companies in the automotive industry need to allocate more resources to managing customer contact sequences. Extended customer contact sequences increase the likelihood of customers straying from the optimal purchasing path. Notably, even sequences averaging 27.49 contact points demonstrated a significant probability of leading to a purchase. This highlights that a seller needs to implement a structured customer contact sequence that includes all critical contact points, facilitating repeated interactions at these stages. A seller must cultivate a purchase-friendly experience during these interactions.

The fourth practical implication regarding the relationship between company-controlled and non-company-controlled contact points underscores the importance of non-company-controlled contact points, particularly WoM. This finding suggests that various contact points can influence one another throughout a customer contact

sequence. Consequently, companies must be aware of the interdependencies between contact points when guiding customers through this sequence. The significance of WoM is particularly pronounced, as it can affect the frequency of the most commonly engaged contact point overall – consultation at car dealer (with salesperson). Such dynamics may present challenges for a seller, given their lack of control over WoM. Therefore, it is essential for a seller to strategically guide WoM by managing the content of their conversations. A potential approach is to provide test reports, which serve as impartial sources of information. A dealer should supply prospective customers with favourable test reports regarding their products in print or digital formats. When potential customers engage in discussions about their purchase decisions within their peer groups, they are more likely to reference the findings of these test reports rather than relying solely on subjective opinions.

The fifth implication stems from the finding that increased positive emotional arousal during customer contact sequences significantly reduce the likelihood of cancellations while simultaneously encouraging purchases. The emotional arousal triggered at each contact point cumulatively amplifies the overall emotional intensity of a customer contact sequence. This observation indicates sellers should aim to foster emotional experiences at contact points whenever possible. For example, test drives and dealer visits are key contact points where sellers can substantially engage customers, as these situations allow for physical interaction with the product. These contact points must evoke positive emotions.

Positive emotional experiences can be created by offering a highly personalised interaction that addresses customer needs. A seller must proactively anticipate these needs and design memorable experiences (termed ‘wow factors’) at contact points that resonate with customers. These exceptional moments should also focus on convenience for the customer, as modern expectations dictate that convenience is vital for generating positive emotions.

The sixth implication relates to the finding that, in the area of personal involvement, pre-knowledge may be the most crucial factor concerning customer contact sequences,

particularly their length. Notably, an increase in a user's familiarity with a brand is associated with a greater number of contact points utilised within a given customer contact sequence. This observation has an important practical implication: if companies can gain insights into consumers' prior knowledge through their customer relationship management strategies, then they could classify customers based on their levels of prior knowledge (i.e., high or low). As a result, organisations could tailor specific customer contact sequences designed to guide consumers toward a desired outcome. In this way, sellers could create effective 'purchase paths' tailored to experienced and novice buyers.

Lastly, it can be asserted that an optimal medium-length customer contact sequence, as shown in Figure 23, which prompts a high level of positive emotional arousal at the contact points, significantly increases the likelihood of a purchase. Sellers must carefully design this optimal customer contact sequence and strategically guide prospective customers through their journey with thoughtfully crafted calls to action. This underscores significant practical implications, urging sellers to adopt the following methodologies in structuring their 'ideal' customer journey.

1. Initially, analyse customer contact sequences for the specific product by interviewing and observing buyers and prospects (e.g., using data analytics) to identify the most significant contact points, the most frequent contact points at the beginning and end of the customer contact sequence, the typical length of the customer contact sequence, the most common combinations of contact points, the clusters of customer contact sequences and their characteristics.
2. Design the most effective customer journey for each sequence cluster, incorporating the findings from step 1.
3. Ensure that every contact point within the customer journey has a built-in call to action to guide the customer to the following contact point in their customer journey.
4. Ensure that each contact point aims to evoke positive emotions for the customer.

5. Initiate a continuous customer research project to validate the findings, keeping them updated and resilient to changes in consumer behaviour influenced by new technologies, etc.

10.4 Limitations and directions for future researchers

Although this thesis has provided several theoretical and practical contributions, thus advancing the field of customer contact sequence research, there are five limitations that must be duly acknowledged.

First, this thesis focused exclusively on a single product category, specifically automobiles, to analyse customer contact sequences. This narrow scope may introduce biases when generalising the findings. From a research perspective, examining customer contact sequences related to a specific product category is inherently complex. It is crucial that research into customer contact sequences remains comprehensive and does not omit any contact points or truncate the research period, as such limitations could lead to misleading conclusions and erroneous implications for future direction.

The researcher encourages future scholars to build upon the comprehensive research methodology demonstrated in this study by thoroughly examining customer contact sequences with respect to type, order, and length for other significant product categories. Software as a Service (SaaS) and e-commerce products are especially appropriate, as customer contact sequences in these domains primarily rely on online information searches. This reliance is anticipated to facilitate tracking customer contact sequences, especially considering the rapid advancements in digital analytics and the evolving capabilities for monitoring online contact points in the foreseeable future.

The second limitation is related to the research design: in particular, during the longitudinal study, the questionnaire was only administered three times. This constraint may have prevented the participants from accurately recalling specific

contact points if there was a significant gap between the usage period and the subsequent interview. Nevertheless, the novel approach adopted in this thesis regarding customer contact sequences represents a significant advancement in research design, indicating a necessary progression towards generating more robust findings. Previous studies have primarily conducted a single interview with participants after a purchase. Analysing customer contact sequences within a longitudinal framework provides a solid basis for deriving new insights, remarkably because the interval between the use of a contact point and the interview was shortened by several months.

Future researchers are strongly encouraged to conduct multiple interviews with participants throughout the purchase process to gain a deeper understanding of the actual utilisation of contact points from the participants' perspectives. An ideal methodological approach would involve the diary technique, wherein participants systematically document their daily interactions with specific contact points and assessments. A diary could be integrated into a mobile app to facilitate ease of use, which would provide participants with structured questions and send daily reminders. This methodological approach should be complemented by data collection through qualitative inquiries and observational studies of the participants' interactions with contact points. Additionally, the application could monitor and analyse the usage of online contact points via the mobile browser. However, offline contact points, such as visits to dealerships, continue to present significant challenges for research.

To further clarify the concept of the diary method, it is essential to consider several factors that may influence the information-gathering approaches of potential customers, such as high product involvement. Individuals may remain in a continual state of information search, initiating the purchase process with abundant information readily available. This phenomenon could shorten customer contact sequences during the purchasing process, as customers would have already interacted with specific contact points before the transaction. Thus, the proposed research method must be applied over an extended period to adequately capture the participants' use of these contact points prior to the start of the purchase. This stage may be referred to as the 'preparing pre-purchase phase', during which the potential customer begins to collect

initial foundational information regarding the product. Although this research design demands significant effort from the researcher(s), it ultimately promises to provide a more nuanced set of insights.

The third limitation is the considerable length of the questionnaire, particularly for the participants who engaged with numerous contact points. This length may have hindered the ability to obtain a larger sample size. While this thesis has made a significant contribution to the field by clarifying that emotional arousal has a notably stronger influence on purchase decisions, future researchers should remember that the repetitive nature of the questions across various contact points can be rather time-consuming for participants. As a result, the number of contact points chosen by a participant directly correlates with an increase in the time required to complete the questionnaire.

There are two potential avenues for future researchers. The first again involves the diary method, which may effectively reduce the participants' workload to a brief daily recording. Participants are anticipated to engage with only a few contact points each day, facilitating a more manageable research process. The second avenue is to exclude specific questions from the research scope, given that this thesis has made substantial contributions to the academic and practitioner communities. Such an exclusion would significantly reduce the length of the questionnaire, enabling future researchers to pursue larger sample sizes more effectively, as shorter questionnaires tend to be more accessible and cost-efficient in recruiting participants.

The fourth limitation relates to participant recruitment, particularly their ability to make purchase decisions within the study's specified timeframe, compounded by the reliance on self-reported data regarding actual purchase decisions. This reliance raises concerns about the honesty of the participants in revealing their genuine purchase behaviours. Although significant effort was made to select highly motivated potential buyers from a reputable provider, there is a possibility that some participants did not represent serious car buyers. Although substantial insights were gained regarding purchase behaviours and the influence of customer contact sequences, the underlying

reasons for postponed or cancelled decisions were not explored in depth. These outcomes were posited to correlate with customer contact sequences without adequately considering potential external factors, such as economic shifts, personal circumstances, or competitive influences. Future research efforts should address this limitation by integrating actual purchase data to clarify decision-making dynamics and including metrics to determine the underlying reasons for the cancellation or postponement of decisions.

The final limitation is that most of the data were collected in 2017, prior to several pivotal global events and technological advancements that have transformed consumer behaviour, potentially leading to divergent outcomes. The coronavirus disease 2019 (COVID-19) pandemic, for example, has triggered substantial changes in purchase patterns, customer interactions, and decision-making frameworks across various sectors. Furthermore, technological advancements, particularly the rise of artificial intelligence–driven tools such as chatbots, have introduced new contact points and altered the dynamics of customer engagement. These developments suggest that customer contact sequences for consumer durables may have undergone considerable evolution, thereby presenting opportunities for updated scholarly research in this area. Future investigations should thoroughly examine the effects of these changes, integrating contemporary consumer behaviour trends and technological innovations to ensure that the findings remain relevant and actionable within modern contexts.

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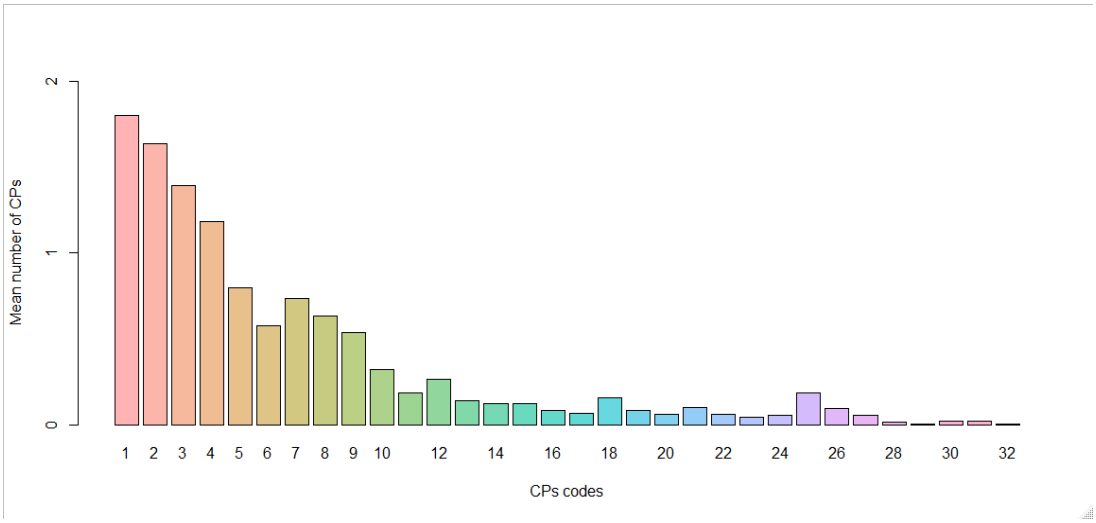
12 Appendices

Appendix A: The number of contact points within a sequence

The average use of individual contact points within a single sequence was analysed by utilising the *seqstatl* function in TraMineR. The primary aim was to assess the occurrence of multiple contact points within a sequence. The existence of multiple contact points indicates that different contact points fulfil distinct roles within a customer contact sequence. The following figure displays each of the 32 contact points along the x-axis, represented in various colours for easy differentiation, while the average frequency of each contact point across all customer contact sequences is shown on the y-axis. This visualisation highlights which contact points are used multiple times within each customer contact sequence, providing insights into the relative significance of each contact point in a customer contact sequence.

The number of specific contact points in sequences



According to the figure, four distinct contact points – (1) consultation at car dealership (with salesperson), (2) visited the dealer (no consultation), (3) talked to friends or relatives, and (4) homepage visit of the manufacturer (on mobile or desktop) – exhibit a frequency greater than 1. This indicates that these contact points are utilised multiple times within each customers contact sequence. Consequently, these contact points are

engaged repeatedly in customer contact sequences. This phenomenon underscores that specific contact points are used multiple times within a singular sequence, suggesting that these contact points address various informational needs of customers, as evidenced by their repetitive engagement. It is imperative for marketers to recognise this fact so that they can strategically incorporate these contact points into the customer contact sequence. Furthermore, the findings imply that studies failing to account for multiple contact point usages may possess inherent limitations in their results.

Appendix B: Analysis of personal involvement

This analysis focused on whether gender influences the selection of contact points. The aim was to identify the most significant factors that can inform strategies for addressing these influences. The literature review indicated that contact point preferences differ between the genders. Specifically, women tend to engage with a larger number of advertising contact points and are more likely to use family and friends as contact points with greater frequency (Steinmann, 2011).

To explore this potential difference, the probability of utilising contact point advertising was determined by calculating the quotient of the total advertising contact points and the sequence length. Subsequently, the mean probability of advertising utilisation was compared across gender groups. The findings indicated that women exhibited a higher frequency of engagement with advertising contact points than men (0.0835 and 0.0830, respectively). However, a t-test conducted with bootstrapping revealed that the difference was not significant ($p = 0.419$). Therefore, there is insufficient evidence to assert that women engage with advertising contact points more frequently than their male counterparts.

Additionally, the likelihood of using the contact point talked with friends or relatives (WoM) was examined for the genders. Women used this contact point more frequently than men (0.131 and 0.117, respectively). However, a t-test revealed that this difference was not significant ($p = 0.460$). Therefore, there is insufficient evidence to suggest that women engage in WoM communications more often than men.

Appendix C: Emotions at contact points

This analysis explored the emotions elicited by various contact points. The aim was to evaluate the specific emotions that arise and to assess their intensity in an effort to enhance understanding of the emotional responses associated with distinct contact points, thus clarifying the diversity of emotions present. The findings from this analysis were not included in the thesis due to the level of detail involved. The following table presents the comprehensive range of emotions identified across all contact points.

Scores for emotions across contact points

Contact points	Anger	Desire	Happiness	Fear	Disgust	Anxiety	Relaxation	Sadness
'Consultation at car dealer (with salesperson)'	2.56	4.38	4.51	2.71	2.63	2.79	4.28	4.76
'Visited the dealer (no consultation)',	2.28	4.40	4.54	2.35	2.34	2.52	4.47	5.13
'Talked to friends or relatives',	2.52	4.21	4.36	2.66	2.59	2.69	4.42	4.45
'Homepage visit of manufacturer (mobile or desktop)',	2.21	4.40	4.53	2.26	2.29	2.37	4.51	5.19
'Online car configurator at the homepage of car manufacturer (mobile or desktop)',	2.12	4.31	4.46	2.18	2.14	2.37	4.37	5.38
'Took a test drive',	2.65	4.53	4.65	2.81	2.75	2.91	4.47	5.02
'Read a car magazine (online or print)',	2.44	4.36	4.41	2.51	2.51	2.61	4.36	4.79
'Saw within the usual traffic (e.g. at traffic lights, on a parking lot or driving by)',	2.14	4.21	4.32	2.18	2.14	2.29	4.36	4.51
'Visited a used car portal on the internet',	2.30	4.12	4.33	2.55	2.33	2.59	4.43	5.20
'Own experience with the car (e.g. drove the car from a friend, colleague; no official test drive)',	2.98	4.08	4.25	3.18	3.20	3.19	4.28	4.27

Contact Points	Anger	Desire	Happiness	Fear	Disgust	Anxiety	Relaxation	Sadness
'Ordered or received a brochure or pricelist',	2.18	4.56	4.63	2.09	2.21	2.48	4.51	5.01
'Saw a TV commercial',	2.48	4.47	4.51	2.66	2.72	2.80	4.61	4.58
'Used a mobile app',	3.36	4.09	4.19	3.32	3.39	3.60	4.14	4.49
'Read/discussed in an internet blog or forum (e.g. motor-talk)',	3.10	4.46	4.59	3.12	3.02	3.17	4.71	4.88
'Saw online advertising (e.g. advertising for the product on another website)',	2.72	4.33	4.22	2.88	2.78	3.00	4.29	4.26
'I was contacted from the dealer or salesperson (e.g. call, newsletter, mail)',	2.99	3.74	3.94	2.88	2.95	3.45	4.36	4.40
'Read/discussed in social media (e.g. Facebook)	2.85	4.71	4.80	2.56	2.68	2.93	4.92	4.93
'Contract negotiations with salesperson',	2.95	4.05	4.17	3.04	3.09	3.32	4.29	3.95
'Repair or service at the dealer',	3.90	4.05	4.00	3.80	3.80	4.03	4.00	4.31
'Read in my personal customer magazine (from my current car manufacturer)',	3.41	3.70	3.78	3.00	3.36	3.56	3.86	4.21
'Got a car replacement offer from my dealer',	2.80	3.86	3.92	2.83	2.83	3.23	3.92	4.35
'Visited a motor show (e.g. IAA Frankfurt)',	2.58	4.75	4.65	2.50	2.33	2.55	3.62	4.73
'Gathered information at a motorsport event (e.g. Formula 1)',	3.61	3.94	4.15	4.22	3.94	4.00	3.50	4.00
'Was invited to an event (e.g. from the car dealer)',	4.19	4.80	4.75	4.26	4.30	4.41	4.74	4.19
'Saw advertising in a magazine or newspaper',	2.09	4.25	4.34	2.16	2.32	2.36	4.06	4.73
'Listened to a radio commercial',	2.13	4.27	4.34	2.15	1.95	2.90	4.31	4.10
'Saw posters or other outdoor advertising (e.g. railway station)',	2.75	3.96	3.83	2.71	2.93	2.89	3.29	3.39

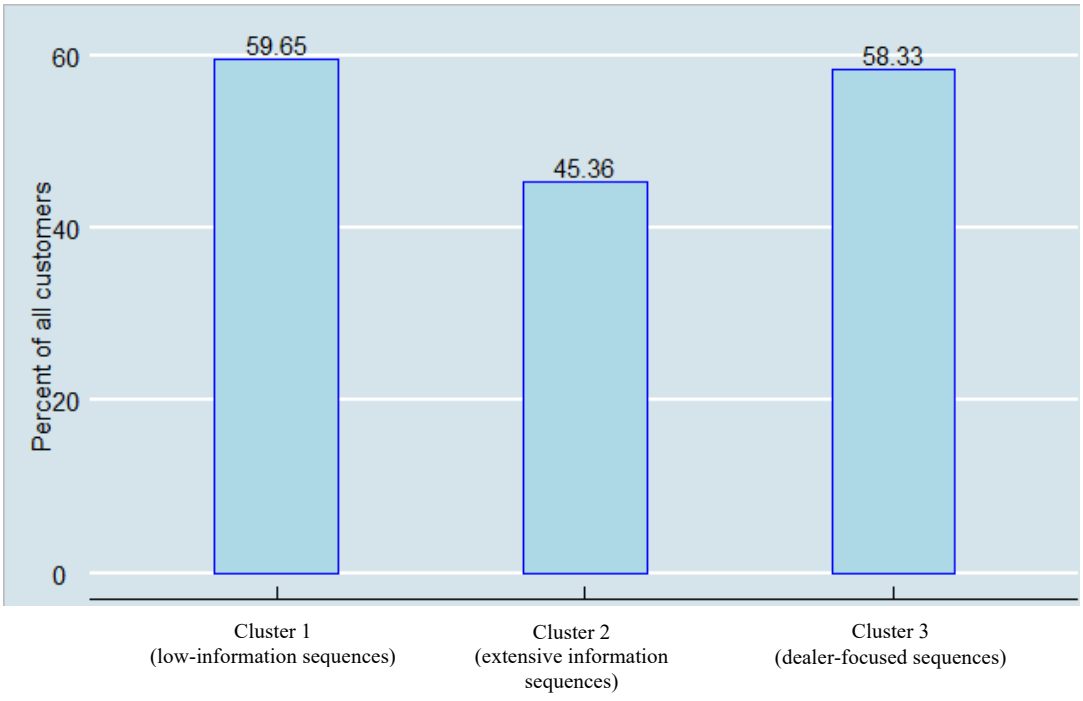
'Customer portal with login'	2.40	4.00	4.20	2.00	2.20	2.80	3.20	4.80

Appendix D: The influence of customer contact sequences on the purchase decision (postpone)

This analysis explored whether specific clusters of customer contact sequences can increase the risk of postponing purchase decisions, a topic that was only briefly addressed in the main thesis. The three clusters of customer contact sequences were utilised: Cluster 1, low-information sequences; Cluster 2, extensive-information sequences; and Cluster 3, dealer-focused sequences. The primary objective was to explore how sellers can strategically adjust customer contact sequences to enhance the likelihood of facilitating a purchase.

This analysis included participants who indicated that they had delayed their purchase decisions. Notably, Cluster 2 demonstrated the lowest likelihood of postponement, as illustrated in the figure below.

Percentages of postponed purchases per cluster



Based on the chi-squared test, there was a significant difference in the probability of postponing purchase decisions between Cluster 1 and Cluster 2 ($\chi^2 = 6.30$, $p = 0.012$). Additionally, there was a trend for a significant difference in probability of postponement between Cluster 2 and Cluster 3 ($\chi^2 = 3.03$, $p = 0.081$). In contrast, there was no difference between Cluster 1 and Cluster 3 ($\chi^2 = 0.05$, $p = 0.825$). The results indicate that Cluster 2 has the lowest likelihood of postponing decisions, followed by Cluster 3. Conversely, Cluster 1 exhibits the highest probability of postponing decisions, significantly surpassing that of Cluster 2. These findings suggest that medium and long customer contact sequences are more effective than short customer contact sequences regarding the examined outcome variables.