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Loyalty Formation for Different Customer Journey Segments

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Abstract

The proliferation of new touchpoints empowers today's customers to design their own journey from search to purchase. To address this new complexity, we segment customers by their use of specific touchpoints in the customer journey, investigate the association of several covariates with segment membership, consider the rise of mobile devices as potential "game changers" of existing segments, and explore how the relationships among product satisfaction, journey satisfaction, customer inspiration, and customer loyalty differ across segments. Based on anticipated utility theory and using latent class analyses on large-scale data from two samples of 2,443 and 2,649 journeys, we identify five time-consistent segments—store-focused shoppers, pragmatic online shoppers, extensive online shoppers, multiple touchpoint shoppers, and online-to-offline shoppers—that differ considerably in their touchpoint and mobile device usage, their segment-specific covariates, and their search and purchase patterns. The five segments remain unchanged in the two data sets even though the usage of mobile devices has increased substantially. Furthermore, we find that the relationships between various loyalty antecedents and customer loyalty differ between the segments. The insights from this paper help retailers develop segment-specific customer journey strategies.
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Keywords: Customer journey; Customer satisfaction; Customer inspiration; Touchpoints; Omnichannel management; Customer segmentation

Introduction

Due to the explosion of digital technologies and the rise of new channels and new devices, customers now interact with retailers through a myriad of touchpoints (Grewal, Roggeveen, and Nordfält 2016; Verhoef, Kannan, and Inman 2015). As a result, customer journeys are becoming more extensive and versatile (Edelman and Singer 2015). To manage these complex customer journeys successfully, retailers need to identify and understand different journey segments and their unique characteristics. This highly relevant topic requires more attention because most retailers—if at all—segment customers based solely on a subset of their own proprietary touchpoints, mostly online, where data are readily available (Anderl, Schuhmann, and Kunz 2016). However, such a segmentation approach neglects offline, competitor, and other important touchpoints that are part of the customer journey and have the potential to affect customers (Baxendale, Mcdonald, and Wilson 2015). In this paper, we define *customer journey segments* as homogenous groups of customers with a similar touchpoint usage during the customer journey, which encompasses not only retailer touchpoints but also the aforementioned touchpoints.

Identifying customer journey segments becomes even more challenging due to the increasing importance of mobile devices (Verhoef et al. 2017). Despite the popularity of mobile devices among customers, knowledge of their impact on the customer journey remains limited (Shankar et al. 2016), and no segmentation study to date has considered mobile device usage as a segmentation criterion. Because mobile devices may influence different multichannel behaviors, for instance, by making research shopping much easier for customers (Gensler, Neslin, and Verhoef 2017; Rapp et al. 2015), mobile devices may affect

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customer segmentation. So far, the major question of whether the mobile device is conflating customer journeys or whether it is "just another device used to shop" (Lemon and Verhoef 2016, p. 80) remains unanswered.

Another top priority among retailers is to better understand the behavior of customers throughout their journey. The Marketing Science Institute (2018) considers understanding sources of loyalty during the customer journey as one of its most important research challenges, particularly in light of the increasing number of touchpoints that may divert customers along their journey. Moreover, creating a positive journey experience should enhance not only short-term sales but also customer loyalty (Court et al. 2009). However, existing research has focused strongly on conversion as the sole outcome of digital journeys (e.g., Kannan, Reinartz, and Verhoef 2016) while failing to consider long-term loyalty effects (Lemon and Verhoef 2016). Creating customer loyalty by satisfying and inspiring customers during their journey is crucial for retailers in order to sustain their competitive advantage (Edelman and Singer 2015).

In light of the gaps outlined above, the purpose of this paper is to address three research objectives associated with different types of customer journeys and customer loyalty along these journeys (Lemon and Verhoef 2016; Marketing Science Institute 2018). First, we identify different customer journey segments. Second, we explore the robustness of the customer journey segments with regard to the rise of the mobile device. Third, we investigate which components of customer experience (i.e., product satisfaction, journey satisfaction, and customer inspiration) contribute most strongly to customer loyalty for the distinct customer journey segments.

We address these objectives by examining two samples of 2,443 and 2,649 journeys of retail customers in 2013 and 2016. We employ latent class analyses to segment customers by their usage of different touchpoints during the search and purchase phase. Three major insights of our analysis deserve particular attention. First, we identify five robust journey segments—store-focused shoppers, pragmatic online shoppers, extensive online shoppers, multiple touchpoint shoppers, and online-to-offline shoppers—and their segment-specific covariates. Each segment represents a unique combination of different touchpoints and mobile device usage varies considerably across the journey segments. Second, we confirm the stability of these segments over time, even though mobile usage increased considerably in our samples. Third, we empirically confirm segment-specific hypotheses for the five customer journey segments and, thus reveal different sources of loyalty for different customer journey segments.

Our findings contribute to the literature in several ways. First, compared to prior segmentation studies, we consider a more extensive set of touchpoints and include non-retailer-owned touchpoints in the search phase. By doing so, we demonstrate the existence of new customer journey segments that have not yet been identified. Specifically, we find two distinct online-focused segments and a dedicated segment of online-to-offline research shoppers. We further explore the existence of segment-specific *moments of truth*, defined as the most important touchpoints in the customer journey for the purchase decision. For example, a consumer who spent hours online to find a new high-quality laptop at an affordable price might experience the moment of truth when comparing customer reviews for several shortlisted products. Furthermore, we shed light onto the most prevalent touchpoint sequences that vary considerably across segments. Mobile usage also differs substantially across segments, with the highest usage of mobile devices among customers in the multi-touchpoint segment. Second, this research is the first to examine whether the usage of mobile devices may change customer journey segments. Despite completely different mobile adoption rates by segments, we find that the five segments remain stable. This result suggests that specific segments are responsible for the rise of mobile usage in customer journeys, but at the same time, that mobile technologies do not have profoundly changed search and purchase patterns in those segments yet. Third, this is the first research within the customer journey domain that explicitly focuses on loyalty creation as an important variable to measure the success of customer journey management (e.g., Kannan et al. 2016). Our results highlight segment-specific differences in the way journey satisfaction and customer inspiration contribute to loyalty beyond product satisfaction.

Regarding managerial implications, our research informs retailers about how to manage the five distinct customer segments along their path to purchase. For each of the segments, we develop specific strategies on how to serve these customers and how to create customer loyalty. Our results suggest that, for most of the segments, retailers can be selective in offering touchpoints and thus allocate their budget accordingly. For the multiple touchpoint segment, however, retailers need to be present in as many touchpoints as possible and create an inspiring and seamless customer journey. While pleasing this segment is challenging for retailers, it might be worth it because of the high spending level in the multiple touchpoint segment. Another important insight of this study is that a showrooming segment is not evident in our data. This suggests that this type of "free-rider problem," where customers search in on retailer's physical stores and then purchase at another retailer online, may not be the biggest concern in current retailing. In contrast, we identify one segment with strong webrooming behavior, which implies that retailers are well-advised to attract customers online and to provide a seamless experience from online touchpoints to their own physical store.

Theoretical Background and Previous Research

From Multi-Channel Retailing to Omni-Channel Retailing and Customer Journeys

Due to digitalization, research on consumer behavior across channels has changed dramatically over the past decades. Initially, studies focused on one specific channel in isolation, such as the catalog or the online channel. Subsequently, researchers began to examine several channels in combination. From a multi-channel perspective, *channels* are defined as customer contact points or the mediums through which the firm and the customer interact (Verhoef et al. 2015). By emphasizing two-way interaction, the domain of channels excludes one-way communication,

such as TV or search engine marketing. From this perspective, multi-channel retailing studies have investigated, for example, the integration of different channels (Herhausen et al. 2015) and the cannibalization of channels (Pauwels and Neslin 2015).

Since researchers have begun to move from a multi-channel approach to a more journey-focused approach by studying customer behavior within omni-channel retailing, the traditional differentiation between two-way communication (interactive) channels and one-way communication channels has become blurred (Verhoef et al. 2015). Currently, the definition of channels is much broader in scope, and researchers often refer to them as *touchpoints*. Contrary to channels, touchpoints encompass all types of one-way or two-way interactions between customers and firms that involve any transactional or informational exchange, including customer-to-customer interactions (Baxendale et al. 2015). In the following, we will use the term touchpoints to explicitly broaden the scope of interactions that are part of the customer journey and to include not only retailer-owned touchpoints but also competitor-owned touchpoints and additional touchpoints (e.g., Lemon and Verhoef 2016; Neslin et al. 2014).

Studies in the context of digital advertising take a different journey perspective by differentiating firm-initiated touchpoints (e.g., newsletter marketing or paid search) and customer-initiated touchpoints (e.g., comparison portals or organic search). These studies identify significant spillover effects from firm-initiated to customer-initiated touchpoints (Li and Kannan 2014), and find that the contribution of firm-initiated touchpoints is underestimated while the contribution of customer-initiated touchpoints is overestimated (Anderl et al. 2016). In this vein, the same studies also distinguish between paid search and organic search and find that spillovers effects from paid to organic search are much stronger than in the reverse direction. While above-mentioned studies contribute significantly to our understanding of digital touchpoints, their classification schemes do not apply to our research because they do not include or classify offline touchpoints such as the physical store or the catalog. The only related study that examines both online and offline touchpoints classifies them as brand-owned touchpoints, competitor-owned touchpoints, and partner/third party touchpoints (Baxendale et al. 2015) — a touchpoint classification scheme that is similar to the one applied in this research.

Defining the Customer Journey

Although the concept of customer journeys is one of the most recent and influential topics in contemporary marketing (e.g., Edelman and Singer 2015; Marketing Science Institute 2018), research on customer journeys already began in the 1960s with the buying process (Howard and Sheth 1969). The buying process describes the journey in which customers move from need recognition to purchase and evaluation of the purchased product. However, digitalization and the associated proliferation of new touchpoints are changing this linear path to purchase into a much more complex journey (Srinivasan, Rutz, and Pauwels 2016). Today's customers do not simply travel from search to purchase using one or two touchpoints offered by the same retailer but rather create their own journey that may include multiple different touchpoints (Grewal et al. 2016). Reflecting on these developments and in line with journey definitions in previous studies (Anderl et al. 2016; Baxendale et al. 2015; Lemon and Verhoef 2016), we define the *customer journey* as customers' search and purchase usage of all online and offline touchpoints from various sources, including retailer-owned, competitor-owned, and additional touchpoints.[1]

Customer Experience and Customer Loyalty

The myriad of new touchpoints in the path-to-purchase provide customers with much more options to design their own journey (Srinivasan et al. 2016), and retailers are challenged to not lose their customers to competing firms along the journey (Lemon and Verhoef 2016). Therefore, one of the major goals of customer experience management is to design journeys that not only induce short-term sales, but also long-term customer loyalty (Homburg, Jozić, and Kuehnl 2017). In the context of customer journeys, we define customer loyalty as a customer's intention to engage again in a journey of touchpoints provided by a given retailer (Homburg et al. 2017) and to transit from post-purchase to repurchase at this retailer (Court et al. 2009). While existing path-to-purchase studies fail to account for long-term effects of customer experience along the journey (Lemon and Verhoef 2016), we aim to integrate the purchase funnel with the loyalty funnel in order to understand both short-term behavioral and long-term attitudinal consequences of designing the customer journey.

Specifically, we aim to empirically test the claim that customer loyalty formation, and, thus, the effective management of customer experience within journeys, follows different rules in different customer journey segments (Homburg et al. 2017; Lemon and Verhoef 2016). In today's highly competitive landscape, retailers must find ways to compete not only for their products but also for the journey that customers travel when purchasing products (Grewal, Levy, and Kumar 2009; Schmitt 2011). To analyze the customer experience conclusively, we will consider both the perceived outcomes of the journey in terms of the product or consumption utility and the perceived journey process, which is important for studying customer–retailer relationships (Lemon and Verhoef 2016). In addition, we examine the importance of inspiring customers along the customer journey to build loyalty (Park, Eisingerich, and Park 2013).

Our conceptual framework for measuring loyalty formation through customer experiences encompasses three components. *Product satisfaction* measures the evaluation of the purchased product as an outcome of the journey. *Journey satisfaction* measures customers' processing of stimuli encountered during the

[1] We acknowledge that the concept of the customer journey has been used in multiple contexts. Anderl et al. (2016) defined the online customer journey to include all online touchpoints prior to a potential purchase decision. Lemon and Verhoef (2016) defined the customer journey as the process a customer goes through across all stages and touchpoints that forms the customer experience. Baxendale et al. (2015) defined the customer journey as the search process consisting of a number of discrete encounters with varying touchpoints.

journey, leading to a global affective evaluation of the journey. *Customer inspiration* measures customers' cognitive transformation of stimuli encountered during the journey, leading to new cognitive insights. These three components may have differing relationships with loyalty based on the varied characteristics of the customer journey. For example, whereas journey satisfaction is associated with consistent experiences along touchpoints that may contribute to loyalty (Lemon and Verhoef 2016), customer inspiration is based on sensations of novelty and therefore may constitute a different connection with loyalty (Böttger et al. 2017).

Prior Segmentation Studies Investigating Touchpoints in the Customer Journey

As summarized in Table 1, our segmentation approach builds on valuable insights from previous studies that advance knowledge in the domain of touchpoint usage along the customer journey. However, existing studies have adopted a multi-channel perspective to segment customers, considering only the use of channels through which a specific firm and the customer interact (typically the physical store, online store, and catalog). We broaden the concept of channels to a journey-focused segmentation approach by segmenting customers based on touchpoint usage in the search and purchase phases. Following an omnichannel perspective and focusing on touchpoints, we include one-way and two-way interactions between customers and various firms as well as customer-to-customer interactions and additional touchpoints in our analyses.

Early studies focused on the purchase phase and segmented customers based on the purchase channel, considering the physical store, the online store, or the catalog as alternatives (Bhatnagar and Ghose 2004; Keen et al. 2004; Knox 2005; Thomas and Sullivan 2005). Examining customer purchase behavior in multiple categories, these studies identified a physical store segment consisting of customers who prefer to purchase offline and additional segments consisting of customers who prefer to purchase products in the online store or the catalog, depending on the alternatives considered. Some of these studies also found segments formed by customers without a clear touchpoint preference for purchasing.

By including the search phase in their analysis, Konus, Verhoef, and Neslin (2008) extended previous studies to a more encompassing view of the customer journey. Investigating attitudes toward the physical store, the online store, and the catalog, the authors identified three distinct segments. In line with the results of previous segmentation studies, store-focused consumers consist of customers who prefer to search and purchase offline, and uninvolved shoppers consist of customers without clear touchpoint preferences. Importantly, these authors also found evidence of a new segment, multichannel enthusiasts. Customers in this segment have a high preference for using multiple touchpoints during search and purchase.

De Keyser, Schepers, and Konuş (2015) replicated the study by Konus et al. (2008) by segmenting the touchpoint use of telecommunication customers and extended the scope of the investigation by including the call center as an additional touchpoint.[2] They identified four distinct segments, including a store-focused segment that prefers to search and purchase offline, a web-focused segment that prefers to search and purchase online, and a research shopper segment consisting of customers who prefer to search online or offline and purchase offline. Furthermore, they found empirical evidence of a call-center-prone segment that prefers to search online and purchase online or via the call center. The latter result exemplifies how the consideration of a new touchpoint in the journey may combine or extend existing customer segments. Notably, De Keyser et al. (2015) did not find a segment of uninvolved customers (i.e., customers without clear touchpoint preferences) and thus stress the growing importance for retailers to actively manage multiple touchpoints along the customer journey.

In addition to the segmentation studies listed in Table 1, researchers have studied the existence of more specific customer segments that were not derived from segmentation analyses. Verhoef, Neslin, and Vroomen (2007) were the first to examine research shoppers, defined as customers who use one touchpoint for search and another touchpoint for purchase. More recently, researchers have distinguished between showrooming and webrooming as two distinct types of research shopping (Gensler et al. 2017).

Mobile Devices in the Customer Journey

Although mobile usage is becoming more important in today's customer journeys (e.g., Verhoef et al. 2017), existing segmentation studies have largely overlooked mobile touchpoints, and only recently researchers have investigated the role of mobile devices in the path to purchase. For example, de Haan et al. (2018) and Xu et al. (2016) show that moving from a mobile device to a desktop increases conversion. Both studies suggest that mobile devices are mainly used for search and that they are important "journey starters", even though many customers still use their desktop or laptop for making purchases online. Researchers have also suggested that mobile devices may be instrumental in fostering showrooming behavior (e.g., Gensler et al. 2017; Rapp et al. 2015) because mobile devices can be used in the physical store to search for better options online. Therefore, mobile devices can have a distinct impact on the customer journey, especially in the search phase.

The question is whether this holds for all customer segments. Especially among segments that move between online and offline touchpoints, the smartphone could be a valuable and frequently used device. On the contrary, for a traditional store-focused segment, a mobile device might be irrelevant. Another important question is whether a specific new segment will emerge that relies predominantly on mobile touchpoints and

[2] We focus on the results of the search and purchase phases because the after-sales phase is less important for retail customers compared to telecom customers and to enable comparison of results with all other segmentation studies. Moreover, the six-segment solution based on search, purchase, and after-sales provided by De Keyser et al. (2015) is nested within their four-segment solution based on search and purchase.

Table 1
Segmentation studies investigating customer journeys.

Study	Phases	Touchpoints	Characteristics	Outcomes	Sample	Method	Segments
This study	Search, purchase	Physical store, online store, catalog, competitor physical store, competitor online store, competitor catalog, search engine, brand website, comparison portal, social media community, news portal, word of mouth	Duration of journey, use of mobile device, number of touchpoints, importance of touchpoints, sequences of touchpoints	Product satisfaction, journey satisfaction, customer inspiration, customer loyalty	Two data sets: T_1: 2,443 DACH customers from multiple categories T_2: 2,649 DACH customers from multiple categories	LCA	Store-focused shoppers (22% | 24%) Pragmatic online shoppers (23% | 22%) Extensive online shoppers (21% | 13%) Multiple touchpoint shoppers (13% | 14%) Online-to-offline shoppers (20% | 26%)
De Keyser et al. (2015)[a]	Search, purchase, after-sales	Physical store, online store, call center	—	—	314 Dutch telecom customers	LCA	Research shopper (46%) Web-focused shoppers (31%) Store-focused shoppers (19%) Call center-prone shoppers (4%)
Konus et al. (2008)[b]	Search, purchase	Physical store, online store, catalog	—	—	364 Dutch customers from multiple categories	LCA	Uninvolved shoppers (40%) Multichannel enthusiasts (37%) Store-focused consumers (23%)
Knox (2005)	Purchase	Online store, catalog	—	—	1,819 US customers (not specified)	LCA	Migration segment (58%) *[online]* Offline segment (42%) *[physical store]*
Thomas and Sullivan (2005)	Purchase	Physical store, online store, catalog	—	—	4,162 US customers from multiple categories	LCA	Segment 1 (27%) *[catalog]* Segment 2 (73%) *[physical store]*
Bhatnagar and Ghose (2004)	Purchase	Physical store, online store	—	—	1,330 US customers from multiple categories	LCA	Segment 1 (23%) *[no general preference]* Segment 2 (69%) *[physical store]* Segment 3 (8%) *[online]*
Keen et al. (2004)	Purchase	Physical store, online store, catalog	—	—	281 US electronics customers	Cluster analysis	Generalists (34%) *[no general preference]* Formatters (16%) *[physical store]* Price sensitives (26%) *[online or catalog]* Experiencers (24%) *[no preference]*

Note: DACH = Germany, Austria, Switzerland. LCA = latent class analysis. We use the term "touchpoints" to explicitly broaden the scope of channels by including additional interactions that are part of the customer journey (e.g., Lemon and Verhoef 2016; Verhoef et al. 2015).

[a] We report the search and purchase solution because after-sales is less important for retail customers compared to telecom customers and to enable comparison with the results of the other studies. Moreover, the six-segment solution based on search, purchase, and after-sales is nested within the four-segment solution.

[b] This study measures attitudes toward touchpoints on a 5-point Likert scale, and all other studies measure touchpoint usage status (Yes/No).

that would be similar to the call center prone segment from De Keyser et al. (2015). By including mobile usage in our segmentation analyses, we provide insights into how mobile devices are used by different customer segments.

Research Model

While previous studies have contributed significantly to our understanding of touchpoint usage along the customer journey, they (1) do not consider non-retailer-owned touchpoints; (2) do not incorporate the usage of mobile devices as a segmentation criterion; and (3) do not relate customer journeys to relevant outcomes. In this study, we address these gaps. Furthermore, we explore additional journey characteristics, such as the duration of the journey and the number of touchpoints used. In addition, we account for potential changes in customer journey segments by collecting data at two points in time. Finally, we also test for segment-specific predictors of customer loyalty. Fig. 1 provides an overview of our research. We first identify distinct customer journey segments (Part I) and then use the obtained results to derive and test hypotheses on how antecedents of loyalty differ between the segments (Part II).

Part I: Customer Journey Segments

Conceptual Development

In line with previous segmentation studies (Konus et al. 2008), we base our conceptual development on anticipated utility theory (Quiggin 1982). Thus, we consider decision making in the journey as a forward-looking process in which customers make decisions regarding the use of certain touchpoints by considering the marginal utility that customers gain during their journey. From the perspective of anticipated utility theory, journeys are a combination of touchpoints that express customers' assessment of the benefits and costs associated with each touchpoint to maximize their utility. Since we consider a broader set of touchpoints during the search phase and the use of mobile devices during the customer journey (as detailed in the measurement section), we expect results that extend previous segmentation studies as summarized in Table 1.

Despite the rise of digital touchpoints, all studies have found an offline segment that includes customers who prefer to search and purchase in a physical store. Moreover, most studies have found an online segment of customers who prefer to search and purchase in an online store. Some segmentation studies suggest additional segments. Konus et al. (2008) found a multichannel segment consisting of customers with favorable attitudes toward multiple channels for search and purchase. Similarly, we might expect a multiple touchpoint segment of customers who use several different touchpoints for search and purchase. De Keyser et al. (2015) found a research shopper segment of customers who prefer to search and purchase at different touchpoints. Finally, De Keyser et al. (2015) introduced the call center channel and found a call-center-prone segment of customers. Similarly, given that this is the first segmentation study to consider mobile usage, we might find a mobile-prone segment of customers. In summary, based on the outcomes of previous segmentation studies, we expect to find several segments of customers that differ in their search and purchase behavior along the journey.

Based on anticipated utility theory, the usage of each touchpoint depends on the anticipated utility for each individual customer. This anticipated utility in terms of, for example, monetary savings and search costs is influenced by individual shopping goals and the shopping context (De Keyser et al. 2015). Shopping goals can be explained by psychographic, sociodemographic, and situational factors. Individual psychographic differences between customers should elicit different benefits and costs from certain touchpoints, different marginal utilities, and thus different touchpoint preferences and journey patterns. In line with prior research, we consider price consciousness, time pressure, and involvement as psychographic covariates. We further expect that anticipated utility from touchpoint usage can be predicted by different sociodemographic characteristics (Konus et al. 2008), such as age, gender, income, education, household size, and urbanization. In addition to these individual characteristics, we account for other co-variates, allowing us to better understand the derived segments. First, we include the duration of the customer journey, which should be related to the number of touchpoints used. Second, we include multiple shopping-related variables, which are online and offline experience, customer duration, buying frequency, and spending. We summarize our predictions for these covariates in Table 2.

Data Collection

We followed Lemon and Verhoef's (2016) recommendation to map the journey from the customer's perspective and collected survey data from a stratified sample of customers in Austria, Germany, and Switzerland at two points in time, in 2013 and 2016. Both samples were drawn randomly from the same population, with quotas for age and gender. An independent panel provider collected the data with an online questionnaire, and respondents received monetary compensation for participation (response rates were 80% and 81%, respectively).[3] We used the Critical Incident Technique and asked participants to reconstruct their last customer journey at a multichannel retailer. In the course of this reconstruction, participants indicated at which retailer they made the purchase, what they had bought, how much time had passed since their purchase, which touchpoints they used, and whether or not they used a mobile device. To minimize a potential recall bias, we presented customers with a predefined list of touchpoints. Furthermore, we limited the interval between the purchase and study participation to a maximum of three months to ensure that customers accurately remembered their journey.[4] To address potential misperception bias,

[3] Given the anonymity of the data, we are unable to conduct within-subject analyses over time.

[4] Similar to other studies on purchase decisions and search behavior, we rely on the recall of past behavior (e.g., De Keyser et al. 2015; Heitmann et al. 2007; Ratchford, Lee, and Talukdar 2003). Thus, following previous work, we tested whether "forgetting touchpoint usage" had a significant impact on the data by splitting the sample into two groups: those who started their journey within the

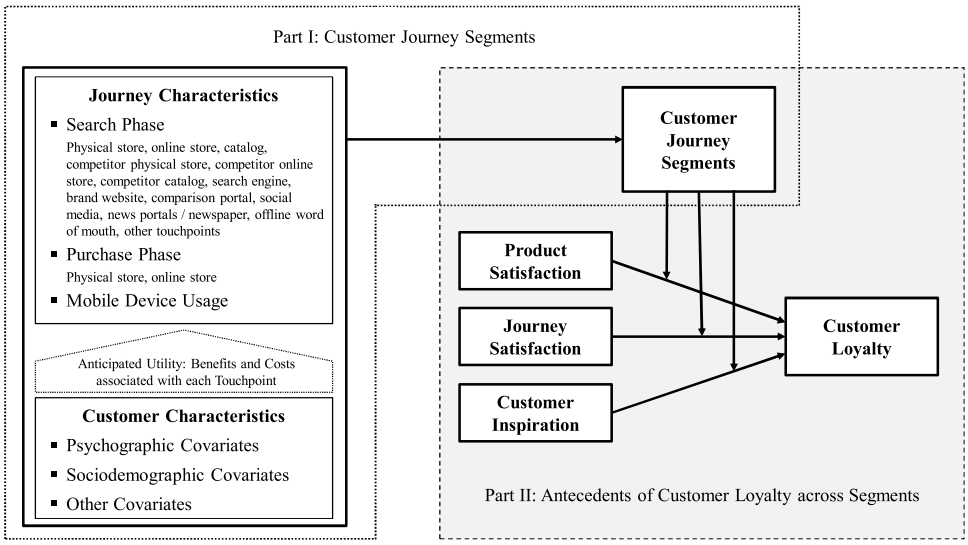


Fig. 1. Overview of the research.
Note: We include age, gender, income, education, household size, and urbanization as sociodemographic covariates; involvement, time pressure, and price consciousness as psychographic covariates; and duration of journey, online experience, offline experience, customer duration, buying frequency, and spending as other covariates. We further control for category (apparel, cosmetics, electronics, entertainment, and other category). We use the customer journey segments identified in Part I to develop the hypotheses in Part II.

we provided respondents with clear definitions of the various touchpoints and extensively pretested our questionnaire.

In summary, we collected data on 2,780 individual journeys in 2013 and 3,105 individual journeys in 2016 (the most frequent product categories were apparel, cosmetics, electronics, entertainment, and groceries). We did not include journeys from the groceries category because groceries differ from other categories due to a much higher buying frequency and a still relatively dominant offline retail network. Less than 6% of European grocery shoppers use online touchpoints in this category (Nielsen 2015). Thus, our final samples consisted of 2,443 journeys in 2013 and 2,649 journeys in 2016.

Measures

We segmented customers based on the use of specific touchpoints for search and purchase and whether they used a mobile device during the customer journey, all captured with dummy variables. The selection for the list of potential touchpoints was based on existing research, on expert interviews in which we asked the upper management of multichannel retailers to report on their most important touchpoints, and on insights from a regular retail customer survey starting in 2011. In the course of this survey, we asked customers every three years to indicate their usage of various touchpoints based on the list, and gave them the opportunity to add touchpoints that were not included, thus continuously developing the list of touchpoints. These efforts resulted in a list of the most common touchpoints for our questionnaire.

In the questionnaire, we followed a three-step process to assess touchpoints in the search phase. First, we captured *touchpoint usage* by providing participants with three retailer-owned touchpoints, three competitor-owned touchpoints, and seven additional touchpoints (see Table 3)[5] and asked them to select all touchpoints that they used and to add touchpoints that were missing in the list[6] . Second, we captured the *moments of truth* by confronting customers with all touchpoints they used and by asking them to rate how important each individual visited touchpoint was for their purchase decision. Third, we captured *touchpoint sequences* by, again, confronting customers with all touchpoints they used and by asking them to assess the order in which they had visited these touchpoints with the help of a drag-and-drop function (to account for multiple touchpoint usage, touchpoints could be selected more than once). For purchase, we differentiated between a retailer's offline touchpoint (physical store) and online touchpoint (online store). In line with other recent studies (e.g., Xu et al. 2016; Wang et al. 2015), we captured the use of a *mobile device* during the journey with a separate, binary variable which captures whether or not the customer has used the mobile device in the course of the journey.

Active covariates. Relying on previous research, we included several covariates that may influence segment membership (e.g.,

previous two months and those who started their journey more than two months earlier. We did not find systematic differences in the use of touchpoints across the two groups.

[5] The survey and expert interviews revealed that—contrary to insurance customers (De Keyser et al. 2015)—call centers are not an important touchpoint for retailing customers.

[6] Because of the restricted capacity of the LCA analysis to manage a multitude of different variables, the similarity of some initial touchpoints, and the small usage rates, we had to merge touchpoints. Comparison portals include price comparison portals and product rating portals, and social media include online communities, video portals, image portals, blogs, and forums. Other touchpoints include all touchpoints that were used to seldom to justify creating a separate category for them.

Table 2
Overview of predictions for covariates.

Covariate	Prediction and selected references
Psychographic covariates	
Price consciousness	Price-conscious customers are more likely to belong to segments that use more touchpoints to learn where they can have the best price and that switch between their own and competitive touchpoints to gain information about potential cost savings (Gensler et al. 2017, Konus et al. 2008, Rapp et al. 2015).
Time pressure	Customers with time pressure are more likely to belong to segments that use only few touchpoints because time is a scarce resource for them and hence they do not want to use multiple touchpoints to search extensively (Kleijnen, De Ruyter, and Wetzels 2007).
Involvement	Customers with higher involvement are more likely to belong to segments that use more and more diverse touchpoints given their high involvement in the buying process, which creates benefits to shop by using more touchpoints (De Keyser et al. 2015).
Sociodemographic covariates	
Age	Older customers are more likely to belong to segments that use few and primarily physical touchpoints and that have a lower usage of mobile devices (Kushwaha and Shankar 2013; Wang, Malthouse, and Krishnamurthi 2015).
Gender	Male customers are more likely to belong to segments that use many and more innovative touchpoints because they are more inclined to try new touchpoints (Li et al. 2015; Narang and Shankar 2016; Strebel, Erdem, and Swait 2004).
Income	Customers with higher income may be more likely to belong to segments that use many touchpoints because income may signal the means to shop across a variety of touchpoints. Alternatively, these customers may be more likely to belong to segments that use fewer touchpoints because it may also signal that customers are less price focused (Konus et al. 2008; Kumar and Venkatesan 2005; van Nierop et al. 2011).
Education	Customers with a higher education are more likely to belong to segments that use a larger number of and more diverse touchpoints because they possess sufficient analytical training to extract the benefits of an extensive search of multiple touchpoints (Kumar and Venkatesan 2005; van Nierop et al. 2011; Strebel et al. 2004).
Household size	Customers with a higher household size are more likely to belong to segments that use a larger number of and more diverse touchpoints because they may strive for the best deal and may need to take into account the preferences of more members, leading to a more extensive search across touchpoints (Kushwaha and Shankar 2013).
Urbanization	Customers from urban regions are more likely to belong to segments that use primarily physical touchpoints because urbanization may increase the availability of and reduce the distance to physical touchpoints (Inman, Shankar, and Ferraro, 2004; Konus et al. 2008).
Other covariates	
Duration of journey	Customers with a longer journey duration are more likely to belong to segments that use many touchpoints because shorter journeys will be more focused and are likely to include less touchpoints (Lemon and Verhoef 2016).
Online channel experience	Customers with higher online channel experience are more likely to belong to segments that use primarily online touchpoints because channel experience may drive customers to use the same channel over time as well as to stay within the same channel (Gensler, Verhoef, and Böhm 2012).
Physical channel experience	Customers with higher physical channel experience are more likely to belong to segments that use primarily physical touchpoints because channel experience may drive customers to use the same channel over time as well as to stay within the same channel (Gensler et al. 2012).
Customer duration	Customers with a longer customer duration are more likely to belong to segments that use few and primarily physical touchpoints because a long customer history may predict use of store-focused touchpoints (Konus et al. 2008).
Buying frequency	Customers with a higher buying frequency are more likely to belong to segments that use few touchpoints because a higher buying frequency may lead to a less extensive search and comparison across different touchpoints (Kushwaha and Shankar 2013).
Spending	Customers with higher spending are more likely to belong to segments that use many touchpoints because higher spending may lead to a more extensive search and comparison across different touchpoints (Kushwaha and Shankar 2013).

Note: We do not include specific hypotheses because we determine the segments ex-post in latent class analyses.

De Keyser et al. 2015; Konus et al. 2008). The rationale for the covariates appears in Table 2, and all measures are provided in Web Appendix 1.

Outcomes. We measured product satisfaction with the scale from Crosby and Stephens (1987; $\alpha = .88/.85$), journey satisfaction with a scale based on Heitmann, Lehmann, and Herrmann (2007; $\alpha = .85/.84$), customer inspiration with a scale based on Böttger et al. (2017; $\alpha = .88$),[7] and customer loyalty with the scale from Zeithaml, Berry, and Parasuraman (1996; $\alpha = .89/.89$). We also included a marker item to control for common method variance.[8]

Web Appendix 3 displays all correlations, and Web Appendix 4 describes the data in 2013 and 2016. Both datasets are com-

[7] Please note that we only measured customer inspiration in 2016.

[8] We used principal component analysis to obtain the orthogonal factors from the multi-item scales. The results of the exploratory factor analyses show that the expected solution explains 76% (75%) of variance (see Web Appendix 2). Additional confirmatory factor analyses confirm our solutions: the goodness-of-fit index is .93 (.96), the confirmatory fit index is .95 (.97), and the root mean squared error of approximation is .09 (.06). All squared correlations were smaller than the average variance extracted, indicating discriminant validity. We used the three items with the highest loadings for journey decision satisfaction, customer inspiration, and customer loyalty. We thank an anonymous reviewer for this suggestion.

Table 3
Touchpoints considered for search and purchase in the customer journey analysis.

Touchpoint	Online vs. offline	Definition	Example (purchase of Apple iPhone at Best Buy)
Search phase			
Retailer touchpoints			
Physical store	Offline	Physical store operated by the retailer.	Visiting a Best Buy physical store.
Online store	Online	Online store operated by the retailer.	Visiting the Best Buy online store.
Catalog	Offline	Catalog dispatched by the retailer.	Consulting a Best Buy catalog.
Competitor touchpoints			
Competitor physical store	Offline	Physical store operated by a competitor.	Visiting a physical WalMart store.
Competitor online store	Online	Online store operated by a competitor.	Visiting www.amazon.com.
Competitor catalog	Offline	Catalog dispatched by a competitor.	Consulting a Target catalog.
Additional touchpoints			
Search engine	Online	Sear engine operated by a third party.	Searching for the term "Apple iPhone" at google or yahoo.
Brand website	Online	Website of the manufacturer of a product.	Visiting the apple website to get information about the iPhone.
Comparison portal	Online	Price or product comparison portal of a third party.	Using PriceGrabber to compare prices of the Apple iPhone.
Social media	Online	Social media site operated by a third party (e.g., community, blog, social networking service).	Following a discussion on the Apple iPhone ion Facebook.
News portals / newspaper	Online / Offline	News provided by a third party online or offline.	Reading an article in The New York Times or on www.nytimes.com about the Apple iPhone.
Offline word of mouth	Offline	Product-related offline conversations among customers.	Talking with family members and friends about the functionality of the Apple iPhone.
Other touchpoints	Online / Offline	Touchpoints not grouped in any of the other categories due to low usage of customers.	Hearing about the Apple iPhone in a radio commercial.
Purchase phase			
Physical store	Offline	Physical store operated by the retailer.	Buying at a Best Buy physical store.
Online store	Online	Online store operated by the retailer.	Buying at the Best Buy online store.

Note: We build our classification of retailer-owned, competitor-owned, and additional touchpoints on Lemon and Verhoef (2016). Other studies use paid-owned-earned classifications (Srinivasan et al. 2016) or customer-, firm- or other-initiated classifications (Anderl et al. 2016; Li and Kannan, 2014). However, in contrast to these studies that only consider online touchpoints, we include both online and offline touchpoints in our study. Other potential classifications would only relate to a subset of our touchpoints.

parable (all Cohen's $d \leq .17$), with the exception of mobile device usage, which increased from 4% in 2013 to 19% in 2016. This increase is expected given that mobile device usage along the customer journey is increasing rapidly (Shankar et al. 2016). The use of mobile devices is significantly related to competitor-owned touchpoints ($r = .12$, $p < .01$), additional touchpoints ($r = .15$, $p < .01$), and the number of touchpoints used ($r = .32$, $p < .01$), indicating that mobile devices increase the number of alternatives searched.

Results of the Segmentation Analysis

We conducted latent class analyses (LCA) to identify different customer journey segments. We present the LCA model, all analyses, and detailed results in Web Appendix 5. The LCA on both the 2013 and 2016 data suggest a five-segment solution that is not affected by nationality.[9] We describe the main characteristics of each segment, covariates, the most important touchpoints, and related segments from previous studies in Table 4.

As expected, we find empirical support for the existence of a *store-focused segment* of customers who hardly ever switch channels throughout their journey. In line with existing research, we find evidence for customers who predominantly search and purchase using online touchpoints. However, contrary to existing research (e.g., De Keyser et al. 2015), our results yield two distinct online segments and thus deliver a more nuanced view of these web-focused customers. We label the first segment *pragmatic online segment* and the second segment *extensive online segment* because the latter segment visits, on average, almost twice as many touchpoints with a much higher usage rate of competitor online stores, search engines, and comparison portals than the other online segment. Similar to previous studies (Konus et al. 2008), we also find a *multiple touchpoint segment*, which consists of customers who frequently include competitor-owned and other touchpoints in their journey. We further find an *online-to-offline segment* of customers who mainly search in online touchpoints but ultimately purchase at the physical store. Therefore, our results indicate that shoppers far more often engage in online-to-offline research shopping (i.e., webrooming) than in offline-to-online research shopping (i.e., showrooming).[10]

[9] We further used a K-means cluster analysis to confirm the LCA findings. The agglomeration coefficients suggests five-segment solutions in both the 2013 and 2016 data. Despite being unable to control for covariates, 68% of cases in 2013 and 69% of cases in 2016 were correctly classified.

[10] Although we could not find evidence of a showrooming segment, 58% of customers in the multiple touchpoint segment used a mobile device in their journey in 2016 and thus may engage in showrooming behavior.

Table 4
Summary of segmentation results.

Segment	Main characteristics	Covariates	Related segments
Store-focused segment	Customers in the store-focused segment use only two touchpoints for searching (2.22 and 2.01), have the lowest share of online touchpoints in the search phase (17% and 15%), and always purchase in the physical store. Only 1% of store-focused customers use mobile devices.	Store-focused shoppers have less online experience and spend less than customers from other segments.	Store-focused consumers (De Keyser et al. 2015; Konus et al. 2008)
Pragmatic online segment	Customers in the pragmatic online segment use only two touchpoints for searching (2.36 and 2.29), have a high share of online touchpoints in the search phase (79% and 80%), and almost always purchase in the online store (99% and 99%). Mobile device usage increased from 5% to 16%.	Pragmatic online shoppers are older, more often female, have a shorter journey duration, more online and less offline experience, and spend more than store-focused customers.	New segment
Extensive online segment	Customers in the extensive online segment use four touchpoints for searching (4.38 and 3.92), have the highest share of online touchpoints in the search phase (87% and 93%), and almost always purchase in the online store (100% and 99%). Mobile device usage increased from 9% to 24%.	Extensive online shoppers are more price consciousness and more often male, have a higher education, more online and less offline experience, and a shorter customer duration, and spend more than store-focused customers.	New segment
Multiple touchpoint segment	Customers in the multiple touchpoint segment use the most touchpoints for searching (6.87 and 6.81), have an average share of online touchpoints in the search phase (61% and 67%), and increasingly purchase in the online store (45% and 78%). Mobile device usage increased drastically from 5% to 58%.	Multiple touchpoint shoppers are more involved, younger, and from a larger household, have a longer journey duration and more online experience, and spend more than store-focused customers.	Multichannel enthusiasts (Konus et al. 2008)
Online-to-offline segment	Customers in the online-to-offline segment use four touchpoints for searching (4.07 and 4.57), and have an average share of online touchpoints in the search phase (60% and 60%). The physical store of the focal retailer is always used for purchase. Mobile device usage increased from 1% to 12%.	Online-to-offline shoppers are more involved and more often male, have a longer journey duration and more online experience, and spend more than store-focused customers.	Research shoppers (De Keyser et al. 2015; Verhoef et al. 2007)

Note: Details on the segmentation results are provided in Web Appendix 5. We used the "Store-focused segment" as the reference category for covariates because it is the most traditional segment in terms of touchpoint usage (e.g., Konus et al. 2008).

Finally, we do not find a designated mobile segment of customers who search and purchase with their mobile phone.

Additional Characteristics of the Segments

Active covariates. We report the results for the covariates predicting segment membership in Web Appendix 5, Table 5. The coefficients represent the impact of each covariate on membership in each segment, compared to the store-focused segment as the reference category because it is the most traditional segment in terms of touchpoint usage (e.g., Konus et al. 2008). Therefore, a positive coefficient means that customers who score high on that antecedent are more likely to appear in that segment, whereas a negative coefficient means customers are not likely to be found in the segment. We summarize our findings in Table 4.

Mobile device usage across segments. Mobile device usage differs considerably across the segments. The higher usage frequency of mobile devices within the customer journey is largely driven by the multiple touchpoint segment (from 5% to 58%). The development within this segment suggests that mobile usage will foster a parallel use of touchpoints rather than leading to a decline in the usage of offline touchpoints. Though on a lower scale, mobile devices are also used more often in the pragmatic online segment (from 5% to 16%), in the extensive online segment (from 9% to 24%), and in the online-to-offline segment (from 1% to 12%). Customers in the store-focused segment show no increasing usage of mobile devices (1% in both years).

Moments of truth across segments. We also analyzed whether the importance of touchpoints differed between segments to identify the segment-specific moments of truth. The perceived

Table 5
Typical journey patterns in the segments.

Journey pattern	n	Percentage of customers with the journey pattern				
		Store-focused segment	Pragmatic online segment	Extensive online segment	Multiple touchpoint segment	Online-to-offline segment
Physical Store → Physical Store	283	***95%***	–	–	–	5%
Online Store → Online Store	202	–	***94%***	1%	4%	–
Additional Touchpoint → Online Store	65	–	***83%***	15%	–	–
Additional Touchpoint → Competitor Touchpoint → Physical Store	51	27%	–	–	–	***73%***
Competitor Touchpoint → Physical Store	46	***76%***	–	–	–	24%
Additional Touchpoint → Competitor Touchpoint → Online Store	42	–	10%	***86%***	5%	–
Additional Touchpoint → Physical Store	41	39%	–	–	–	***61%***
Online Store → Competitor Touchpoint → Online Store	40	–	43%	***58%***	–	–
Online Store → Physical Store	38	26%	–	–	3%	***71%***
Physical Store → Competitor Touchpoint → Physical Store	33	***97%***	–	–	–	3%
Additional Touchpoint → Online Store → Competitor Touchpoint → Online Store	25	–	4%	***88%***	8%	–
Physical Store → Competitor Touchpoint → Additional Touchpoint → Physical Store	25	***64%***	–	–	–	36%
Additional Touchpoint → Competitor Touchpoint → Online Store → Physical Store	22	5%	–	5%	–	***91%***
Catalog → Online Store	21	–	***95%***	–	5%	–
Physical Store → Online Store	21	38%	***57%***	–	5%	–
Catalog → Physical Store	20	***100%***	–	–	–	–
Complex journeys with more than six touchpoints	363	1%	1%	6%	***57%***	35%

Note: Journey patterns from the 2016 data. Only similar journey patterns from at least 20 participants are displayed. The dominant segments are in bold and italics.

importance of all touchpoints differs significantly across segments (all $F > 18.49$, $p < .01$; see Table 4 and Web Appendix 6), indicating that retailers must focus on different touchpoints to successfully target distinct segments. For example, while the store-focused and pragmatic online segments do not use search engines, the same touchpoint is important for the extensive online, multiple touchpoint, and online-to-offline segments. In line with their journey, the retailer's physical store (online store) is the only important touchpoint for the pragmatic store segment (pragmatic online segment). Similarly, for the extensive online segment, the touchpoints that are visited most often (i.e., online store, competitor online store, and search engine) are also crucial for the purchase decision. Interestingly, the online-to-offline segment value the physical store most for their purchase decision while the most important touchpoint for the multiple touchpoint segment is the online store.

Touchpoint sequences across segments. To further validate the obtained segments, we explore segment-specific journey patterns in the 2016 data and display our findings in Table 5. Given the complexity of the journey data, we limit our discussion to journey patterns that we found in the journeys of at least 20 participants. Customers in the store-focused segment most often search and purchase in the physical store of the focal retailer, while customers in the pragmatic online segment most often search and purchase in the online store of the focal retailer. Customers in the extensive online segment often search multiple additional and competitor touchpoints before purchasing in the online store of the focal retailer. Customers in the multiple touchpoint segment have more complex journeys that often span over more than six touchpoints. Customers in the online-to-offline segment often switch touchpoints after searching competitor touchpoints, additional touchpoints, or the retailer's online store to purchase in the physical store of the focal retailer. These prevailing touchpoint sequences across segments are in line with our expectations and validate our interpretation of the five distinct customer journey segments.

Part II: Antecedents of Customer Loyalty across Segments

As discussed in our conceptual model, we focus on three measures of customer experience that may have differing relationships with customers' loyalty toward retailers depending on segment membership and the number of touchpoints used (see Table 6 for an overview of predictions).

Product Satisfaction and Journey Satisfaction

The importance of product and journey satisfaction for loyalty depends on the utility that a customer assigns to the evaluation of the search process versus the overall consumption evaluation as determined by the outcome. Thus, the relationship of journey versus product satisfaction and loyalty is conceptually related to the process- versus outcome-oriented evaluation of the shopping experience. Process-oriented customers consider the quality of the different steps involved in forming an evaluation, whereas outcome-oriented customers focus only on the end-state as the consumption outcome (Thompson, Hamilton, and Pretrova 2009). Therefore, the importance of the distinct facets of satisfaction for loyalty formation may differ substantially among segments depending on the emphasis that customers in the different segments put on the shopping process versus the shopping outcome. Similarly, variety seeking and task orientation are often discussed as two complementary concepts for explaining differences in customer journeys (e.g., Grewal et al. 2009). Variety seeking is the need to maintain an ideal level of stimulation in the form of novelty, complexity, or change (Menon and Kahn 1995). Task orientation refers to the tendency to be highly goal-oriented and focus on the requirements of the purchase task (Homburg, Müller, and Klarmann 2011).

Customers who derive higher utility from using several touchpoints might be particularly concerned with the process of decision-making because they seem to invest considerable time and effort in information acquisition during different stages of the customer journey. Customers in the multiple touchpoint segment use many different types of touchpoints. Therefore, they are more likely to be concerned with enhancing the process that leads to a decision and to place a higher emphasis on journey satisfaction. Product satisfaction is likely to have a comparably smaller influence on loyalty for the multiple touchpoint segment because the exposure to versatile sources of influence may make it unlikely for them to attribute their satisfaction with a product to one specific retailer. Moreover, the outcome for these customers is likely to be less diagnostic for an ex-post evaluation of the retailer than the journey itself. In addition, customers in the multiple touchpoint segment may use different types of touchpoints to gain access to more information and a broader assortment to maintain a high stimulation level associated with variety-seeking. This is further indicated by the high usage of mobile devices. Accordingly, multiple touchpoint-using customers will be more attached to retailers that help them to maximize their journey satisfaction:

H1. Journey satisfaction has a stronger relationship with customer loyalty toward a retailer than product satisfaction does for customers in the multiple touchpoint segment.

In contrast, the store-focused and pragmatic online segments are likely to have a stronger orientation toward the outcome compared with the process. Customers in the store-focused segment are characterized by their tendency to search and purchase products in the physical store of a retailer. Their journey encompasses only two touchpoints on average and focuses mainly on retailer-owned touchpoints. The journey of customers in the pragmatic online segment is equally short, with two touchpoints on average. Furthermore, these customers are less likely to visit touchpoints from other providers within their journey. This self-imposed reduction indicates a low importance of the search process. Thus, customers from the store-focused and pragmatic online segments should attribute purchase outcomes more directly to the retailer. In sum, both segments are less likely to emphasize the journey and place more weight on the purchase:

H2. Product satisfaction has a stronger relationship with customer loyalty toward a retailer than journey satisfaction does

Table 6
Predicted importance of product satisfaction, journey satisfaction, and customer inspiration.

	Loyalty effect of...		
	Product satisfaction	Journey satisfaction	Customer inspiration
Segments			
Store-focused segment	Stronger effect	Weaker effect	Positive effect
Pragmatic online segment	Stronger effect	Weaker effect	No effect
Extensive online segment	Similar effect		No effect
Multiple touchpoint segment	Weaker effect	Stronger effect	Positive effect
Online-to-offline segment	Similar effect		Positive effect
Journey characteristics			
Higher number of touchpoints	Weaker effect	Stronger effect	Stronger effect

for customers in the (a) store-focused and (b) pragmatic online segments.

The relative importance of journey versus product satisfaction in inducing loyalty is ambiguous for the extensive online and online-to-offline segments. On the one hand, members of these segments may use their customer journey to optimize the process and to achieve smart shopper feelings, as reported by Verhoef et al. (2007). On the other hand, they may be concerned with the outcome while switching touchpoints because the reduction of purchase uncertainty may be an important shopping motive. Similarly, it is not straightforward to categorize their behavior into variety-seeking or goal-orientation because, unlike the multiple touchpoint segment, they are rather outcome-oriented. Thus, we do not expect to find significant differences in the relationships between journey versus product satisfaction and loyalty for these two segments. Therefore, we suggest that both components may play a substantial role:

H3. Both product satisfaction and journey satisfaction are positively related to customer loyalty for customers in the (a) extensive online and (b) online-to-offline segments.

Customer Inspiration

In addition to product and journey satisfaction, recent research emphasizes customer inspiration as an important predictor of retailer loyalty (e.g., Böttger et al. 2017). The relationship between customer inspiration and loyalty may vary across segments because the sensory, affective, intellectual, and behavioral aspects that shape customer inspiration may have different roles for the distinct segments (Brakus, Schmitt, and Zarantonello 2009). A retailer's physical store can feature more inspirational content and better contribute to sensory experiences than online touchpoints by enabling customers to try and experience new products (i.e., touching and feeling the product; Kleinlercher et al. 2018). Thus, we expect that the store-focused segment will value this inspirational more because this is clearly one of the advantages of the physical store.

Appealing to customers' imagination is another important antecedent of customer inspiration because it makes customers more receptive to new ideas (Böttger et al. 2017). Therefore, we expect customer inspiration to be positively associated with loyalty for those segments that value intellectual stimulation during the customer journey. Typical characteristics of such customers are a strong interest in (1) thinking about topics in detail, (2) frequently using their imagination, and (3) looking for information sources that stimulate curiosity (Brakus et al. 2009). Customers in the multiple touchpoint segment and the online-to-offline segment value the acquisition of a vast amount of information from both online and offline touchpoints. This could indicate that these customers look for inspiration along multiple touchpoints that may benefit their customer experience on an intellectual or cognitive level. Furthermore, research indicates that inspiration is more powerful among customers who are more capable of leaving their habitual patterns behind because they are more open to new ideas and possibilities (Thrash and Elliot 2003). The multiple touchpoint and online-to-offline segments are vivid examples of shoppers who disrupt habitual patterns by switching between multiple touchpoints.

While we expect that customer inspiration will be positively associated with loyalty for the store-focused, multiple touchpoint, and online-to-offline segments, we do not expect a positive relationship for the extensive and pragmatic online segments. Customers in these latter segments will be more interested in minimizing the effort of the journey process with online touchpoints that are habitually used and warrant a sufficient outcome level (pragmatic online segments) or in enhancing the shopping utility in terms of product satisfaction with online touchpoints for product comparisons (extensive online segments). This outcome-oriented focus of both online segments implies that these customers will be less receptive to inspirational stimuli because they lack the cognitive capacity and commitment to let themselves be inspired:

H4. Customer inspiration has a positive relationship with customer loyalty for customers in the (a) store-focused, (b) multiple touchpoint, and (c) online-to-offline segments but not for customers in the (d) pragmatic online and (e) extensive online segments.

Number of Touchpoints

We predict that a higher number of touchpoints used moderates the relationship between customer loyalty and product satisfaction, journey satisfaction, as well as customer inspiration. A higher number of touchpoints in the customer journey

is associated with more information sources, a higher variety of information, and a stronger focus on the processing of information (Lemon and Verhoef 2016). First, the more different information sources have contributed to the purchase decision, the less consumers will attribute the purchase outcome to the retailer. This weakens the relationship between purchase satisfaction and customer loyalty. Second, as previously argued, a process-orientation is associated with a higher focus on the step-by-step process leading to an outcome (Thompson et al. 2009). More steps within the customer journey will foster a higher consideration of the process towards a decision, and therefore its evaluation, the journey satisfaction, will more strongly determine customers' patronage decisions. Third, the more touchpoints are used, the more stimuli are encountered, increasing the variety of information. This means that the richness of the experience will provide more opportunities that customer become inspired, and, therefore, customer inspiration will receive a higher weighting for the relationship to retailers. To summarize:

H5. An increasing number of touchpoints during the customer journey (a) decreases the effect of product satisfaction and increases the effects of (b) journey satisfaction and (c) customer inspiration on customer loyalty.

Model and Analysis

We use the three-step method from Asparouhov and Muthén (2014) to model segment-specific predictors of customer loyalty. We control for potential effects of sociodemographic, psychographic, and other covariates and the product categories because they may affect customer loyalty (e.g., Homburg et al. 2011). Thus, customer loyalty is predicted as follows:

$$CL = \alpha_c + \beta 1_c\, PS + \beta 2_c JS + \beta 3_c CI + \beta i_c PC + \beta j_c\, SC + \beta k_c\, OC + \beta l_c\, CA + \varepsilon \quad (1)$$

where, CL is customer loyalty, PS is product satisfaction, JS is journey satisfaction, CI is customer inspiration, PC are psychographic covariates, SC are sociodemographic covariates, OC are other covariates, and CA are the categories. All coefficients α_c, $\beta 1_c$, $\beta 2_c$, $\beta 3_c$, βi_c, βj_c, βk_c, and $\beta 1_c$ depend on the latent class variable C. We further analyze the same model for the full sample without considering latent class membership C. Note that we only include customer inspiration in the 2016 sample because this new construct was available only for the 2016 survey. We further use the full sample to model number of touchpoints as a predictor of customer loyalty.

Results for the Predictors of Customer Loyalty

The estimates for the segment-specific predictors of customer loyalty are presented in Table 7 and Web Appendix 7. When considering the full samples, both product ($\beta 1_{2013} = .28$, $p < .01$; $\beta 1_{2016} = .32$, $p < .01$) and journey satisfaction ($\beta 2_{2013} = .21$, $p < .01$; $\beta 2_{2016} = .24$, $p < .01$) are significantly related to customer loyalty. Moreover, customer inspiration is significantly related to customer loyalty ($\beta 3 = .07$, $p < .01$).

Testing our hypotheses with segment-specific analyses reveals a more complex view of the relationships among product satisfaction, journey satisfaction, customer inspiration, and customer loyalty. For the multiple touchpoint segment, journey satisfaction is significantly related to customer loyalty ($\beta 2_{2013} = .58$, $p < .01$; $\beta 2_{2016} = .81$, $p < .01$) but not to product satisfaction ($\chi^2_{diff_2013} = 8.55$, $p < .01$; $\chi^2_{diff_2016} = 37.42$, $p < .01$), supporting H1.

For the store-focused segment, both product ($\beta 1_{2013} = .43$, $p < .01$; $\beta 1_{2016} = .40$, $p < .01$) and journey satisfaction ($\beta 2_{2013} = .14$, $p < .01$; $\beta 2_{2016} = .17$, $p < .01$) are significantly related to customer loyalty, with product satisfaction having a significantly higher parameter than journey satisfaction ($\chi^2_{diff_2013} = 6.67$, $p < .01$; $\chi^2_{diff_2016} = 4.94$, $p < .05$), supporting H2a. For the pragmatic online segment, both product ($\beta 1_{2013} = .48$, $p < .01$; $\beta 1_{2016} = .52$, $p < .01$) and journey satisfaction ($\beta 2_{2013} = .15$, $p < .01$; $\beta 2_{2016} = .20$, $p < .01$) are significantly related to customer loyalty, with product satisfaction having a significantly higher parameter than journey satisfaction ($\chi^2_{diff_2013} = 7.90$, $p < .01$; $\chi^2_{diff_2016} = 9.35$, $p < .01$), supporting H2b.

For the extensive online segment, both product ($\beta 1_{2013} = .26$, $p < .10$) and journey satisfaction ($\beta 2_{2013} = .30$, $p < .01$) are significantly related to customer loyalty in 2013 ($\chi^2_{diff_2013} = .02$, *ns*). However, in 2016, only product ($\beta 1_{2016} = .33$, $p < .01$) but not journey satisfaction ($\beta 2_{2016} = .02$, *ns*) was significantly related to customer loyalty ($\chi^2_{diff_2013} = 4.87$, $p < .05$). Thus, H3a is partially supported. For the online-to-offline segment, both product ($\beta 1_{2013} = .39$, $p < .01$; $\beta 1_{2016} = .37$, $p < .01$) and journey satisfaction ($\beta 2_{2013} = .17$, $p < .01$; $\beta 2_{2016} = .21$, $p < .01$) are significantly related to customer loyalty, with nonsignificant χ^2 difference tests in both years. Thus, H3b is fully supported.

When testing for the segment-specific effects of customer inspiration, we find support for H4. Customer inspiration has a positive relationship with customer loyalty in addition to product satisfaction and journey satisfaction for customers in the store-focused segment (H4a: $\beta 3 = .07$, $p < .05$), multiple touchpoint segment (H4b: $\beta 3 = .22$, $p < .01$), and online-to-offline segment (H4c: $\beta 3 = .08$, $p < .05$). On the other hand, customer inspiration has no significant positive relationship with customer loyalty for customers in the pragmatic online segment (H4d: $\beta 3 = .04$, *ns*) and extensive online segment (H4e: $\beta 3 = .01$, *ns*).

Furthermore, we tested how the number of touchpoints influences the effects of product satisfaction, journey satisfaction, and customer inspiration on customer loyalty. The estimates are presented in Web Appendix 8. We find negative interaction effects of the number of touchpoints used and product satisfaction (2013: $\beta = -.06$, $p < .05$; 2016: $\beta = -.05$, $p < .05$), nonsignificant interaction effects of the number of touchpoints used and journey satisfaction (2013: $\beta = .01$, *ns;* 2016: $\beta = .00$, *ns*), and a positive interaction effect of the number of touchpoints used and customer inspiration ($\beta = .06$, $p < .05$). These results suggest that the importance of product satisfaction decreases while the importance of customer inspiration increases with the number of touchpoints used in the journey. Thus, H5a and H5c are supported while H5b is not supported.

Table 7
Segment-specific predictors of customer loyalty.

	Customer Loyalty					
	Full sample	Store-focused segment	Pragmatic online segment	Extensive online segment	Multiple touchpoint segment	Online-to-offline segment
2013 data						
Product satisfaction ($\beta 1_{2013}$)	.28**	.43**	.48**	.26*	.08	.39**
Journey satisfaction ($\beta 2_{2013}$)	.21**	.14**	.15**	.30**	.58**	.17**
Wald test: $\beta 1_{2013} = \beta 2_{2013}$	*3.04*	*6.67***	*7.90***	*0.02*	*8.55***	*2.78*
R^2	.27	.34	.27	.33	.47	.27
N	2,443	546	568	524	308	497
2016 data						
Step 1						
Product satisfaction ($\beta 1_{2016}$)	.32**	.40**	.52**	.33**	.08	.37**
Journey satisfaction ($\beta 2_{2016}$)	.24**	.17**	.20**	.02	.81**	.21**
Wald test: $\beta 1_{2016} = \beta 2_{2016}$	*4.86**	*4.11**	*9.35***	*4.87**	*37.42***	*3.27*
R^2	.31	.44	.40	.29	.60	.34
Step 1						
Product satisfaction ($\beta 1_{2016}$)	.31**	.38**	.52**	.39**	−.02	.37**
Journey satisfaction ($\beta 2_{2016}$)	.22**	.15**	.18**	.05	.61**	.20**
Customer inspiration ($\beta 3$)	.07**	.07*	.04	.01	.22**	.08*
Wald Test: $\beta 1_{2016} = \beta 2_{2016}$	*5.91**	*4.94**	*10.59***	*4.97**	*14.21***	*3.70*
R^2	.31	.45	.40	.30	.61	.35
N	2,649	645	573	352	381	698

Note: $^{**}p < .01$, $^{*}p < .05$, two-tailed tests. We used the Three-Step Approach to model the distant outcome of the latent classes (Asparouhov and Muthén 2014; Nylund-Gibson et al. 2014). We include all controls in the analyses; full results are available in Web Appendix 6.

General Discussion

This study contributes to the emerging literature on customer journeys by conducting an in-depth segmentation analysis of two samples of 2,443 and 2,649 journeys. Across both data sets, we find strong evidence for the existence of five distinct journey segments that exist in all different product categories: store-focused shoppers, pragmatic online shoppers, extensive online shoppers, multiple touchpoint shoppers, and online-to-offline shoppers. These segments differ considerably, among other things, in their touchpoint and mobile device usage, their segment-specific covariates, and their journey patterns. The five segments remain unchanged in the two data sets even though the usage of mobile devices has increased drastically. Moreover, we find that the effects of product satisfaction, journey satisfaction and customer inspiration on customer loyalty differ substantially between the five segments.

Theoretical Implications

The five identified customer journey segments contribute to the literature by complementing and updating existing multichannel segmentation schemes (see Tables 1 and 4), and by corroborating several findings from "digital-only" clickstream studies (Table 9). We extend Konus et al. (2008) segment of "multichannel enthusiasts" by finding strong evidence for a touchpoint-enthusiastic segment that consists of shoppers who extensively use different touchpoints. The existence of the financially attractive multiple touchpoint segment is in line with existing research that analyses customer clickstreams and find a positive relationship between the amount of touchpoints used and the spending level (Mallapragada, Chandukala, and Liu 2016). Nevertheless, since the number of touchpoints within the journey is negatively associated with conversion probability (Anderl et al. 2016), generating sales from multiple touchpoint users might be a challenging task. This underscores the importance of customer journey management to orchestrate all touchpoints of a retailer when targeting this segment.

Given that we also examined the use of external touchpoints, we were able to deliver insights into the usage of non-retailer-owned touchpoints. Multiple-touchpoint users consider several competitor-owned and additional touchpoints, which were also found to be crucial elements of the customer journey in academic clickstream studies (Park 2017; Montgomery, Srinivasan, and Liechty 2004). Contrary to Konus et al. (2008), we could not find evidence of a segment of "uninvolved shoppers" characterized by no preference for any channel. Our inclusion of more touchpoints, as well as our focus on the actual usage of touchpoints, may explain this finding. The endurance of pragmatic store shoppers is interesting because it underlines the importance of physical stores in times of increased usage of the Internet and mobile devices (Shankar et al. 2016). We find a segment of store-focused customers that was also found in multiple prior studies (Konus et al. 2008: De Keyser et al. 2015). This highlights the fact that store-focused customers still play an important role in today's digitalized market.

Furthermore, we extend more recent segmentation research that highlighs the existence of a web-focused segment (De Keyser et al. 2015). However, while previous research did not differentiate among different web-focused shoppers, we find evidence of two distinct online segments: pragmatic online shoppers and extensive online shoppers. This finding is in line with

clickstream evidence on the existence of two different groups of digital shoppers. One group uses only one or two touchpoints in their journey and the other uses multiple touchpoints (Park 2017). While pragmatic online shoppers rarely visit competitor-owned and additional touchpoints, extensive online shoppers show an extensive usage of different touchpoints. This suggest that retailers need to address web-focused shoppers differently according to their segment-specific preferences and characteristics.

We also find further support for the existence of a research shopper segment (Verhoef et al. 2007). Interestingly, we identify a segment of online-to-offline shoppers that mainly searches online and always purchases offline, but we do not find a dedicated showrooming segment. Although surprising, the lack of a showrooming segment is in line with previous segmentation studies (Konus et al. 2008: De Keyser et al. 2015) and recent industry reports (Sopadjieva, Dholakia, and Benjamin 2017) that indicate that shoppers far more often engage in "reverse showrooming" (i.e., webrooming) than in showrooming. Although some multiple touchpoint shoppers may engage in showrooming behavior (as indicated by frequent use of the physical store for searching together with an increase in online purchases and an increase in the usage of mobile devices), our results indicate that the threat of showrooming in the form of a "free-riding behavior" may be overrated for multichannel retailers. On the contrary, research on webrooming behavior and retailers' possibilities to steer online shoppers to their physical stores requires more attention.

Contrary to previous segmentation studies, we also included the usage of mobile devices in our segmentation analyses. The increasing importance of mobile devices raises the question of whether mobile devices conflate shopper behavior and existing journey segments (e.g., Lemon and Verhoef 2016). Since we collected cross-sectional data at two points in time from comparable samples of shoppers who differed in mobile device usage, we were able gain insight into this question. In line with Rapp et al. (2015), we find that mobile device usage is associated with the number of alternatives searched. This finding indicates that mobile devices indeed facilitate information search. However, we find no evidence that mobile devices conflate any of the five journey segments or lead to a "mobile-only" segment. Instead of replacing other touchpoints, mobile devices are used as an additional search channel (in line with clickstream studies; e.g., de Haan et al. 2018; Xu et al. 2016). Thus, mobile is complementary to other touchpoints and highly prevalent only in the multiple touchpoint segment and, to a lesser extent, in the extensive online segment.[11] Given the rise of the Internet of Things (Verhoef et al. 2017), future customer journey segments may be even more determined by mobile devices.

Investigating the segment-specific effects of customer experience on customer loyalty explicitly addresses the need for research on loyalty effects in the path to purchase (e.g., Kannan et al. 2016). It also extends prior multi-channel segmentation studies that mainly focus on identifying the segments rather than how these segments should be treated differently to create loyalty. While journey satisfaction is more important than product satisfaction for multiple touchpoint shoppers and both are equally important for online-to-offline shoppers, product satisfaction still prevails over journey satisfaction for store-focused shoppers, pragmatic online shoppers, and extensive online shoppers. Importantly, we also included the relatively new construct of customer inspiration as an antecedent of loyalty. For customers in the multiple touchpoint and online-to-offline segments, customer inspiration explains customer loyalty in addition to product and journey satisfaction. Importantly, customer inspiration is also positively related to loyalty for the store-focused segment, which emphasizes the need for physical stores to inspire customers. The distinct characteristics and loyalty antecedents of the five segments can help retailers develop segment-specific customer journey strategies, which we will discuss next.

Managerial Implications

Our findings contribute substantially to managerial practice since the existence of five distinct and stable customer journey segments across multiple shopping categories enables retailers to develop segment-specific marketing strategies. We summarize the moments of truth, loyalty antecedents, and strategic recommendations in Table 8. We clearly show how each segment should be served along different touchpoints in different phases of the journey. For example, when targeting the extensive online segment, it is important for retailers to keep these customers in the retailers' own online store. An option could be to provide immediate attractive offers during the journey that seduce this segment to purchase the required product. For the multiple touchpoint segment, it is important to be present in as many available touchpoints as possible. Satisfying and inspiring these customers in the journey is very important but more costly for the retailer. For each segment, we present important recommendations in the last column of Table 8. Because we find significant differences in average spending and customer loyalty, our segmentation scheme and the segment-specific insights have clear managerial value.

Beyond the segment-specific recommendations in Table 8, we provide additional relevant implications to retailers. The lack of a showrooming segment indicates that the threat of showrooming may be overrated. However, we find that webrooming is a consistent behavior over time. Retailers should expand their online marketing efforts if they want to reach out to online-to-offline shoppers and provide specific incentives to move shoppers to the offline store. For instance, retailers could offer the delivery of online purchases to their physical stores (Herhausen et al. 2015). In doing so, they attract customers to their physical stores, benefit from the inspirational potential of physical stores, and increase the potential of cross-selling.

Importantly, our analyses also identified the moments of truth in the customer journey. While some practitioners propagate the "zero moment of truth" of search engines (Lecinski 2011), our

[11] Note that we should be careful in drawing strong causal conclusions because we cannot follow customers over time given the analysis of two independent cross-sectional data sets.

Table 8
Managerial implications to serve customer journey segments.

Segment	Size	Moments of truth	Loyalty antecedents	Strategic recommendations
Store-focused segment	2013: 22% 2016: 24%	1 Physical store (4.07) 2 Competitor physical store (1.81) 3 Word of mouth (1.72)	• Product Satisfaction (++) • Journey Satisfaction (+) • Customer Inspiration (+)	Still large segment but less valuable due to lower spending that can only be served with the physical store. Aim to keep these customers within own physical store. Provide an attractive assortment with the right mix of products and prices. Only the within-store experience is important, and providing some form of inspiration can provide more value for the retailer.
Pragmatic online segment	2013: 23% 2016: 22%	1 Online store (5.46) 2 Other touchpoints (2.35) 3 Catalog (1.77)	• Product Satisfaction (++) • Journey Satisfaction (+)	Segment that can only be served online. Provide an attractive online assortment with the right mix of products and prices. Provide an efficient journey that enables these customers to buy their required products quickly.
Extensive online segment	2013: 21% 2016: 13%	1 Online store (5.82) 2 Competitor online store (4.32) 3 Search Engine (3.94)	• Product Satisfaction (++)	Decreasing but valuable segment that can only be served online (incl. mobile). Provide extensive online search opportunities and information about products. Aim to keep this customer within own online store. Invest in search engine advertising. Provide an attractive online assortment with the right mix of products and prices. Include mobile as an important device.
Multiple touchpoint segment	2013: 13% 2016: 14%	1 Online store (5.71) 2 Physical store (4.07) 3 Search engine (3.85)	• Journey Satisfaction (++) • Customer Inspiration (+)	Valuable segment that should be served through multiple touchpoints in the search phase, and purchasing opportunities should be provided offline as well as online and mobile. Invest in search engine advertising. Provide a seamless journey and inspiration during the journey. Include mobile as a dominant device.
Online-to-offline segment	2013: 20% 2016: 26%	1 Physical store (5.66) 2 Search engine (3.29) 3 Competitor online store (3.25)	• Product Satisfaction (++) • Journey Satisfaction (+) • Customer Inspiration (+)	Growing segment that should be served online in the search phase and offline in the purchase stage. Provide an attractive online assortment with the right mix of products and prices across channels. Provide a seamless journey within your own touchpoints and provide inspiration.

Note: Details on the Moments of Truth and Loyalty Antecedents are provided in Web Appendix 6 and Web Appendix 7. Moments of Truth refer to the most important touchpoints for the purchase decision in 2016 (1 = not used / not important at all to 7 = very important).

Table 9
Similarities between clickstream studies and our findings.

Study	Online touch-points	Offline touchpoints	Mobile device	Segmentation	Category	Related findings
Montgomery et al. (2004)	Yes	—	—	—	Multiple	Similar to our results, competitor-owned and additional touchpoints are crucial elements of the customer journey.
Li and Kannan (2014)	Yes	—	—	—	Hospitality	The "moment of truth" (i.e., highest conversion probability) is at a firm-owned touchpoint (i.e., paid search) and not at organic search.
Anderl, Schumann, and Kunz (2016)	Yes	—	—	—	Fashion	Average journey duration is 2.7 days. Pragmatic online shoppers and store-focused shoppers have a duration below average and multiple touchpoint shoppers above average.
Anderl et al. (2016)	Yes	—	—	—	Multiple	The number of touchpoints a customer uses within the journey is negatively associated with conversion probability, underscoring the importance of journey satisfaction for the "multiple touchpoint shoppers". In line with our results for multiple touchpoint shoppers, extensive online shoppers, and online-to-offline shoppers, a typical start touchpoint for journeys is the search engine. The average journey length ranges from 1.3 touchpoints to 2.5 touchpoints. Similar to our results, the segment of customers using more than five touchpoints along their journey (i.e., multiple touchpoint shoppers) is the smallest.
Mallapragada et al. (2016)	Yes	—	—	—	Multiple	In line with the "multiple touchpoint shoppers", there is a positive relationship between the amount of touchpoints used and the spending level.
Xu et al. (2016)	Yes	—	Yes	—	Multiple	Instead of replacing other touchpoints, mobile devices are mainly used as an additional search channel (no "mobile shopper segment").
Park (2017)	Yes	—	—	Yes	Air travel	Similar to our results, competitor-owned and additional touchpoints are crucial elements of the customer journey. Existence of two different groups of digital shoppers – those who visit only one or two touchpoints (i.e., "pragmatic online shopping") and those who use multiple touchpoints within a shopping episode (i.e., "extensive online shoppers").
de Haan et al. (2018)	Yes	—	Yes	—	Multiple	Instead of replacing other touchpoints, mobile devices are mainly used as an additional search channel (no "mobile shopper segment").

Note: We only report selected studies. Please consult Kannan et al. (2016) for an in-depth discussion of clickstream studies.

results provide a more nuanced view. Although search engines are also the most important of all additional touchpoints in our sample, our analyses reveal that retailer-owned touchpoints are still more important for making the purchase decision. Interestingly, this finding also holds for the multiple touchpoint segment, whose members reveal the strongest switching behavior. This observation is in line with clickstream research that attributes the highest conversion probability to firm-owned touchpoints (Li and Kannan 2014). Thus, retailers should invest in their own touchpoints to attract, inspire, and retain customers from different segments.

Limitations and Directions for Future Research

Although our research is based on a large data collection at two points in time across multiple retailers and product categories and we were able to replicate the segments and results in both samples, our study has some limitations that offer promising directions for future research. First, in line with other studies of actual channel usage (De Keyser et al. 2015; Kushwaha and Shankar 2013), we were able to examine only completed customer journeys. However, given that we asked a random sample of participants to reconstruct their last journey that ended with a purchase, we believe that the insights generated may still be generalized.

We note that academic studies examining completed and interrupted online customer journeys with the help of customer clickstream data report many similarities to our findings (Table 9), thus increasing the confidence in our results. Furthermore, the anonymity of participants prevented us from collecting behavioral data on customer loyalty. Although using an intentional measure of customer loyalty is in line with other studies (e.g., Homburg et al. 2011), it would have been desirable to complement our measurement with objective sales data. In addition, we did not examine post-purchase touchpoints of the customer journey. While the usage of post-purchase touchpoints is rare among retail customers, we strongly encourage researchers to investigate the role of post-purchase touchpoints in service settings. In addition, we were not able to differentiate between firm-initiated vs. customer-initiated digital touchpoints such as organic vs. paid search or paid content vs. user generated content in our data, and we could not capture mobile phone usage in more detail. We urge future research to do so when investigating customer journeys. Another potential research direction arises from our static analysis. Thus, we call for longitudinal research that studies how customer journeys change over time within specific customer segments.

Executive Summary

The proliferation of new touchpoints empowers today's customers to design their own journey from search to purchase. To address this new complexity, we segment customers by their use of specific touchpoints in the customer journey, investigate the association of several covariates with segment membership, consider the rise of mobile devices as potential "game changers" of existing segments, and explore how the relationships among product satisfaction, journey satisfaction, customer inspiration, and customer loyalty differ across segments. Based on anticipated utility theory and using latent class analyses on large-scale data from two samples of 2,443 and 2,649 journeys, we identify five time-consistent segments—store-focused shoppers, pragmatic online shoppers, extensive online shoppers, multiple touchpoint shoppers, and online-to-offline shoppers—that differ considerably in their touchpoint and mobile device usage, their segment-specific covariates, and their search and purchase patterns. The five segments remain unchanged in the two data sets even though the usage of mobile devices has increased substantially. Furthermore, we find that the relationships between various loyalty antecedents and customer loyalty differ between the segments. The insights from this paper help retailers develop segment-specific customer journey strategies.

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Appendix A. Supplementary data

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WEB APPENDIX

Loyalty Formation for Different Customer Journey Segments

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Web Appendix 1: Measurement and Operationalization

	2013	2016
Product Satisfaction *(Crosby and Stephens 1987) [α, AVE]*	*.88, .72*	*.85, .71*
How would you rate the purchased product? "satisfied vs. dissatisfied"	.91	.85
How would you rate the purchased product? "pleased vs. displeased"	.85	.86
How would you rate the purchased product? "favorable vs. unfavorable"	.78	.81
Journey Satisfaction *(Fitzsimons 2000; Heitmann et al. 2007) [α, AVE]*	*.85, .62*	*.84, .62*
Several good options were available for me to choose between.[a]	.61	.64
I thought the choice selection was good.	.84	.81
I would be happy to have the same options on my next purchase occasion.	.95	.94
I found the process of deciding which product to buy interesting.	.70	.73
Customer Inspiration *(Böttger et al. 2017) [α, AVE]*		*.88, .61*
My imagination was stimulated.[a]		.75
I was intrigued by a new idea.		.80
I was inspired to buy something.		.81
I felt a desire to buy something.		.76
Customer Loyalty *(Zeithaml et al. 1996) [α, AVE]*	*.89, .67*	*.89, .67*
Say positive things about [X] to other people.	.95	.90
Recommend [X] to someone who seeks your advice.	.92	.91
Encourage friends and relatives to buy something from [X].	.86	.86
Consider [X] your first choice to buy a similar product.[a]	.65	.66
Buy more from [X] in the next few years.[a]	.66	.60
Touchpoint Usage for Search		
0 = not used, 1 = used (physical store, online store, catalog, competitor physical store, competitor online store, competitor catalog, search engine, brand website, comparison portal, social media, news portals and newspaper, offline word of mouth, other touchpoints)		
Touchpoint Importance		
How important was [touchpoint X] for you? (1 = not important at all to 7 = very important)		
Touchpoint Order		
Order of all touchpoints used (drag and drop of all selected touchpoints)		
Touchpoint Usage for Purchase		
0 = offline touchpoint (physical store), 1 = online touchpoint (online store)		
Mobile Device		
Indicates whether a mobile device was used during the customer journey (0 = not used, 1 = used)		
Duration of Journey *(Marmorstein et al. 1992)*		
How much time has passed between your first idea to buy [Product X] and your actual purchase? (1 = a few moments, 2 = less than an hour, 3 = 1-2 hours, 4 = 3-4 hours, 5 = 5-8 hours, 6 = 9-12 hours, 7 = a day, 8 = 2-3 days, 9 = 4-6 days, 10 = a week, 11 = 2 weeks, 12 = weeks, 13 = a month, 14 = 2-3 months, 15 = 4-6 months, 15 = 7-12 months, 16 = more than one year)		
Involvement *(Slama and Tashchian 1985)*		
How important is [Product X] for you? (1 = not important at all to 7 = very important)		
Customer Duration		
Since when are you a customer of [X]? (1 = very new customer to 7 = already customer for a long time)		
Buying Frequency *(Hess et al. 2003)*		
How frequently do you buy [Product X]? (1 = not frequently at all to 7 = very frequently)		
Spending		
Spending for [Product X] measured in Euro		
Time Pressure *(Noble et al. 2006)*		
When I shop, I want to find what I am looking for in the least amount of time. (1 = do not agree at all to 7 = fully agree)		
Price Consciousness *(Noble et al. 2006)*		
I often compare product prices to get the lowest price. (1 = do not agree at all to 7 = fully agree)		
Online (Offline) Experience *(Novak et al. 2000)*		
How experienced are you in buying [Product X] in online (physical) stores? (1 = not experienced at all to 7 = very experienced)		
Age		
1 = below 14 years, 2 = 15-18 years, 3 = 19-24 years, 4 = 25-34 years, 5 = 35-44 years, 6 = 45-54 years, 7 = 55-64 years, 8 = above 65 years		
Gender		
0 = male, 1 = female		
Income		
Monthly income (1 = below 1000€, 2 = 1000€ to 200€, 3 = 2001€ to 3000€, 4 =3001€ to 4000€, 5 = more than 4000€)		
Education		
1 = basic education, 2 = secondary school, 3 = high school degree, 4 = university degree		
Household Size		
Number of persons in household		
Urbanization		
0 = rural area, 1 = urban area		
Category		
Differentiation into the following categories: apparel, cosmetics, entertainment, electronics, other category		

Note: [a]These items were excluded from the analysis. We thank an anonymous reviewer for this suggestion.

Web Appendix 2: Results of Principal Components Analysis

	2013 (*N* = 2,443)				2016 (*N* = 2,649)				
Item	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**5**
Product Satisfaction									
How would you rate the purchased product? "satisfied vs. dissatisfied"	.205	.135	***.835***	.000	.209	-.017	.155	***.813***	.050
How would you rate the purchased product? "pleased vs. displeased"	.161	.123	***.881***	.022	.191	.156	.148	***.820***	-.032
How would you rate the purchased product? "favorable vs. unfavorable"	.187	.121	***.896***	.006	.203	.060	.130	***.889***	-.008
Journey Satisfaction									
Several good options were available for me to choose between.	.115	***.830***	.054	.032	.156	.130	***.819***	.066	.051
I thought the choice selection was good.	.214	***.854***	.171	-.045	.224	.060	***.846***	.200	.020
I would be happy to have the same options on my next purchase occasion.	.177	***.847***	.160	-.068	.206	.056	***.832***	.162	-.027
I found the process of deciding which product to buy interesting.[a]	.216	***.686***	.067	.116	.177	.321	***.638***	.087	.010
Customer Inspiration									
My imagination was stimulated.[a]					.160	***.798***	.162	.033	.025
I was intrigued by a new idea.					.113	***.818***	.083	.056	-.017
I was inspired to buy something.					.154	***.856***	.098	.047	.028
I felt a desire to buy something.					.154	***.855***	.117	.075	.029
Customer Loyalty									
Say positive things about [X] to other people.	***.835***	.162	.247	-.014	***.838***	.102	.182	.234	.028
Recommend [X] to someone who seeks your advice.	***.864***	.167	.206	.011	***.853***	.096	.193	.227	.014
Encourage friends and relatives to buy something from [X].	***.861***	.151	.133	-.009	***.824***	.142	.168	.169	-.018
Consider [X] your first choice to buy a similar product.[a]	***.762***	.202	.117	-.019	***.752***	.161	.202	.113	-.026
Buy more from [X] in the next few years.[a]	***.756***	.172	.080	.022	***.725***	.213	.123	.075	.008
Marker Item									
I like philosophical discussions.	-.009	.031	.021	***.993***	-.003	.045	.036	.008	***.996***

Note: All items have been measured with 7-Point Likert scales. [a]These items were excluded from the analysis. We thank an anonymous reviewer for this suggestion.

Web Appendix 3: Correlations in 2013 and 2016

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.
1. Number of Touchpoints		.24	.04	.32	.26	.11	.03	-.05	.26	.13	.09	.07	.03	-.12	-.04	-.01	-.02	.03	.03	-.14	.20	.14	.06	-.08	.11	-.04	-.03	.02
2. Search Online (percent)	.20		.64	.21	.01	.08	-.04	-.06	.19	.31	.11	.24	-.10	-.03	-.06	.04	.00	.02	-.05	-.11	.19	-.03	.05	-.08	.11	.03	-.06	-.01
3. Purchase Online	.03	.65		.20	-.11	.03	.02	.05	.13	.34	.08	.22	-.09	.00	.06	.08	.02	.03	-.06	-.14	.23	.02	.06	.08	-.07	.01	.00	-.03
4. Mobile Device Used	.12	.09	.14		.07	.03	.03	.02	.06	.12	-.01	.09	-.01	-.23	.10	.03	-.03	.09	-.04	-.10	.13	.10	.06	.04	-.04	.00	-.01	.00
5. Duration of Journey	.30	-.02	-.15	.01		.04	-.09	-.24	.26	-.10	-.01	-.12	-.06	-.05	-.07	-.01	.05	-.01	.03	-.10	-.01	-.03	-.07	-.15	.16	-.09	-.06	.13
6. Involvement	.10	.08	.02	.01	.03		.14	.08	.17	.21	.14	.09	.14	.07	.00	-.05	-.14	-.01	-.01	.32	.32	.15	.31	-.11	.08	.01	.03	.02
7. Customer Duration	-.03	-.03	.00	.02	-.11	.15		.34	.01	.14	.07	.20	.32	.12	.08	.06	-.02	.00	-.01	.21	.20	.19	.37	.02	-.10	.03	.08	.01
8. Buying Frequency	-.09	-.04	.06	.01	-.24	.09	.32		-.13	.12	-.01	.15	.24	.00	.17	.05	.03	.06	-.01	.12	.14	.22	.19	.26	-.41	.16	.23	-.15
9. Spending	.28	.19	.10	.04	.28	.18	-.04	-.19		.12	.02	.02	-.02	.11	-.12	.15	-.03	-.02	-.04	.01	.16	.05	.06	-.04	.22	-.20	-.15	.07
10. Time Pressure	-.06	.00	-.01	-.01	-.06	.03	.00	.02	-.03		.36	.24	.04	.06	.04	.03	-.10	-.02	-.03	.06	.29	.17	.20	.01	-.02	.00	.01	.01
11. Price Consciousness	.20	.16	.05	.00	.10	.08	-.03	-.14	.03	.09		.10	.00	.01	.02	-.07	-.05	.03	-.02	.02	.11	.03	.09	-.03	.08	-.05	-.01	-.01
12. Online Channel Experience	.08	.25	.22	.03	-.09	.13	.20	.16	.07	.01	.21		.40	-.04	-.08	.07	.06	.01	.02	.06	.13	.07	.06	.01	.03	.12	-.10	-.08
13. Physical Channel Experience	.04	-.08	-.12	-.01	-.04	.13	.26	.23	.00	-.07	.04	.42		.03	.03	.01	.03	-.01	.09	.15	.12	.14	.18	.09	-.11	.04	.03	-.04
14. Age	-.09	.03	.05	-.12	-.05	.08	.08	.00	.06	.12	.00	-.04	-.03		-.10	.05	-.10	-.33	-.03	.11	.06	-.13	.07	-.14	.11	-.04	.00	.09
15. Gender (female)	-.05	-.07	.04	-.02	-.07	.03	.07	.21	-.16	-.08	-.14	-.09	.00	-.10		-.08	-.04	.07	-.05	.04	.02	.18	.13	.26	-.33	-.03	.16	-.02
16. Income	.01	.10	.06	.03	.00	-.03	.02	.00	.17	-.02	-.03	.08	.03	.05	-.14		.19	.31	-.12	-.05	.03	.00	-.02	.00	.00	-.01	.00	.01
17. Education	.02	.01	.01	-.01	.07	-.10	-.03	.02	.00	.04	.01	.04	.02	-.08	-.05	.11		.03	.12	-.16	-.10	-.08	-.13	.05	-.03	.00	.00	-.02
18. Household Size	.06	.06	.03	.06	.01	.01	.01	.03	.02	-.09	.05	.03	.00	-.24	.03	.30	-.05		-.17	-.04	.01	.04	-.02	.08	-.07	.00	.02	-.02
19. Urbanization	.01	-.02	-.05	-.04	.00	-.01	-.04	-.04	-.03	.03	.01	-.02	.02	-.04	-.07	-.10	.18	-.20		-.01	-.04	-.01	-.04	.03	.03	-.04	.01	-.05
20. Product Satisfaction	.02	.03	.00	-.02	-.04	.30	.19	.12	.06	.00	.04	.09	.13	.09	.03	.03	-.10	.01	-.02		.22	.19	.42	-.04	-.05	.05	.09	.01
21. Journey Satisfaction	.10	.12	.12	.03	-.05	.35	.18	.17	.16	-.08	.00	.11	.12	.15	.02	.03	-.15	.02	-.08	.32		.30	.42	-.03	-.03	.01	.08	.00
22. Customer Inspiration	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		.31	.19	-.24	.00	.05	.02
23. Customer Loyalty	.02	.09	.09	.03	-.05	.34	.31	.19	.07	-.03	-.04	.06	.12	.06	.15	.01	-.11	.02	-.04	.40	.41	–		.05	-.13	-.01	.08	.05
24. Category: Apparel	-.06	-.09	.03	.02	-.07	-.11	-.02	.17	-.01	-.11	-.23	-.07	.04	-.18	.26	-.08	.02	.03	.02	-.08	-.05	–	.01		-.50	-.28	-.22	-.30
25. Category: Electronics	.18	.10	-.09	-.02	.20	.02	-.06	-.44	.30	.02	.24	.05	-.07	.08	-.35	.08	-.01	-.01	.00	-.01	-.03	–	-.09	-.47		-.24	-.19	-.26
26. Category: Entertainment	-.09	.07	.08	.01	-.11	-.02	.08	.22	-.25	.04	.03	.16	.06	.01	-.01	.05	-.01	.02	-.01	.04	.04	–	.00	-.34	-.27		-.11	-.15
27. Category: Cosmetics	-.06	-.07	-.03	.00	-.08	.04	.02	.18	-.16	.08	-.03	-.11	-.01	.07	.15	-.06	.03	-.05	.01	.04	.07	–	.07	-.21	-.17	-.13		-.12
28. Category: Other	-.01	-.02	.01	-.01	.03	.13	.01	-.04	.02	.03	.01	-.05	-.02	.09	-.01	-.01	-.03	-.02	-.02	.06	.02	–	.05	-.28	-.23	-.17	-.10	

Note: 2013 (2016) correlations are reported below (above) the diagonal. For both years, $|r| \geq .04$ is significant at $p < .05$ and $|r| \geq .06$ is significant at $p < .01$ (two-tailed tests).

Web Appendix 4: Data Description 2013 and 2016

	2013		2016				
	Mean	SD	Mean	SD	**Difference**	***p*-Value**	**Cohen's d**
Number of Touchpoints	3.68	2.10	3.75	2.36	.07	.26	.03
Search Online (percent)	61%	.31	59%	.32	-2%	.01	.06
Purchase Online	50%	.50	46%	.50	-4%	.00	.08
Mobile Device Used	4%	.20	19%	.39	+15%	.00	.47
Retailer Touchpoints	***100%***	—	***100%***	—	—	—	—
Physical Store	61%	.49	63%	.48	+2%	.09	.04
Online Store	67%	.47	62%	.49	-5%	.00	.10
Catalog	17%	.38	17%	.38	0%	.76	.00
Competitor Touchpoints	***61%***	***.49***	***59%***	***.49***	***-2%***	***.15***	***.04***
Competitor Physical Store	26%	.44	26%	.44	0%	.57	.00
Competitor Online Store	42%	.49	42%	.49	0%	.88	.00
Competitor Catalog	11%	.31	9%	.29	-2%	.03	.07
Additional Touchpoints	***73%***	***.45***	***70%***	***.46***	***-3%***	***.08***	***.07***
Search Engine	41%	.49	41%	.49	0%	.91	.00
Brand Website	21%	.41	17%	.38	-4%	.00	.10
Comparison Portal	20%	.40	16%	.37	-4%	.00	.10
Social Media Communities	9%	.29	12%	.32	+3%	.01	.10
News Portal	9%	.28	8%	.27	-1%	.47	.04
Word of Mouth	18%	.39	19%	.39	+1%	.52	.03
Other Touchpoints	17%	.38	24%	.43	+7%	.00	.17
Active Covariates							
Psychographic Covariates							
Price Consciousness	5.10	1.78	5.14	1.71	+.04	.37	.02
Time Pressure	4.84	1.74	4.84	1.84	.00	.91	.00
Involvement	5.16	1.58	5.12	1.66	-.04	.30	.02
Sociodemographic Covariates							
Age	5.12	1.60	5.22	1.69	+.10	.02	.06
Gender Female	.50	.50	.50	.50	.00	.94	.00
Income	3.28	1.11	3.23	1.13	-.05	.08	.04
Education	2.73	1.00	2.75	.96	+.02	.36	.02
Household Size	2.46	1.24	2.40	1.26	-.06	.05	.05
Urbanization	.60	.49	.57	.50	-.03	.03	.06
Other Covariates							
Duration of Journey	6.36	4.09	6.38	3.89	+.02	.87	.01
Online Channel Experience	4.77	1.74	4.81	1.80	+.04	.43	.02
Physical Channel Experience	5.15	1.47	5.31	1.54	+.16	.00	.11
Customer Duration	5.55	1.57	5.68	1.58	+.13	.00	.08
Buying Frequency	4.17	2.22	3.98	2.26	-.19	.00	.08
Spending	148.07	579.79	154.39	497.91	+6.32	.68	.01
Outcomes							
Product Satisfaction	6.21	.99	6.13	.93	-.07	.01	.08
Journey Satisfaction	5.20	1.31	5.19	1.35	-.01	.85	.01
Customer Inspiration	–	–	4.04	1.80	–	–	–
Customer Loyalty	5.38	1.21	5.32	1.25	-.06	.10	.05
Categories							
Apparel	36%	.48	36%	.48	0%	.84	.00
Electronics	27%	.45	30%	.46	+3%	.02	.07
Entertainment	17%	.37	12%	.33	-5%	.00	.14
Cosmetics	7%	.26	8%	.27	+1%	.48	.04
Other	12%	.33	14%	.34	+2%	.15	.06

Note: N for 2013 = 2,443 customer journeys, *N* for 2016 = 2,649 customer journeys.

Web Appendix 5: LCA Model, Analysis, and Detailed Results

The latent class analyses (LCA) categorize respondents on the basis of their usage status for different touchpoints in the search and purchase phase and the use of a mobile device during the customer journey while considering active covariates. We use the following model:

$$f\left(y_i \middle| z_i{}^{act_cov}\right) = \sum_{x=i}^{C} \prod_{j=1}^{J} f\left(y_{ij} \middle| x\right) P\left(x \middle| z_i{}^{act_cov}\right) \quad (1)$$

where y_i denotes a set of J indicators that measure customer i's touchpoint use in the search phase, online/offline start and ending, and mobile device usages, and y_j is an indicator of a customer's usage status. The latent variable (x) is categorical, with C classes. C is not predicted a priori but determined by the model selection criteria. $z_i^{act_cov}$ indicates the vector of active covariates that could affect the latent variable, and $f(y_{ij}|x)$ represents the probability distribution of customer i's response to a particular indicator j, given that customer i belongs to class x, and $f(y_i|z_i^{act_cov})$ is the joint probability function of customer i's response to all indicators.

The LCA models were estimated using a robust maximum-likelihood estimator (Asparouhov and Muthén 2014). To avoid converging on a local solution, we estimated each LCA with 1,000 random sets of start values to ensure the best log likelihood value was adequately replicated, with 100 iterations for these random starts, and retained the 100 best solutions for final stage optimization. Following methodological recommendations from Nylund, Asparouhov, and Muthén (2007), we began by testing and evaluating the fit of a one-segment model to the data against decision criteria that involved both empirical and theoretical considerations. We then repeated this process, each time specifying an additional segment, until several fit indices and theoretical considerations are reconciled and optimized. Once the "optimal" number of segments was determined, the relationships between these discrete classes

and various covariates and outcome variables were modeled. For each customer, we determined the most likely class membership (i.e., the segment to which a customer journey most likely belongs) on the basis of the distribution of classification probabilities from the LCA. We then assessed the relationships between the covariates and the pattern solution, taking into consideration the most likely class membership and classification error rate. Following the recommendations of Lanza, Tan, and Bray(2013), we analyzed the covariates and distal outcomes separately.

We estimated our model for solutions with one to eight classes and primarily applied the adapted Akaike Information Criterion (AIC3) to select the best model because AIC3 had the best overall performance in simulation studies (Andrews and Currim 2003), with AIC, BIC, and segment interpretability as a supplementary selection criteria. We obtained minimum AIC3, AIC, and BIC for five-segment solutions both in the 2013 and 2016 data (Web Appendix 5, Table 1). Moreover, the five-segment solution was easy to interpret, so we chose it as our final model. To test for the robustness of our solution, we conducted split-half cross-validations and randomly split both samples in two halves. Results are consistent with the solutions from the full samples (Web Appendix 5, Table 2). Importantly, all five segments can be found in all categories, underlying the general applicability of the five-segment solution (Web Appendix 5, Table 3). We label our five segments store-focused shoppers, pragmatic online shoppers, extensive online shoppers, multiple touchpoint shoppers, and online-to-offline shoppers (Web Appendix 5, Table 4). After having established five segments, we next investigated the predictors of segment membership. To model covariates as latent class predictors of segment membership, we used the three-step method for predictors of the latent class variable (Asparouhov and Muthén 2014). The first step is a regular LCA using only the latent class indicators. In the second step, the nominal

most likely class variable *N* is created using the latent class posterior distribution obtained during the LCA estimation. That is, for each observation, *N* is set to be the class *c* for which $P(C = c|U)$ is the largest, where *U* represents the latent class indicators and *C* is the latent class variable. The classification uncertainty rate for *N* is computed as follows:

$$P_{c_1,c_2} = P(C = c_2|N = c_1) = \frac{1}{N_{c_1}} \sum_{N_{i=c1}} P(C_i = c_2|U_i) \quad (2)$$

where N_{c1} is the number of observations classified in class c_1 by the most likely class variable *N*, N_i is the most likely class variable for the *i*th observation, C_i is the true latent class variable for the *i*th observation, and U_i represents the class indicator variables for the *i*th observation. The probability $P(C_i = c_2|U_i)$ is computed from the LCA model as follows:

$$q_{c_1,c_2} = P(N = c_1|C = c_2) = \frac{p_{c_1,c_2} N_{c_1}}{\sum_c p_{c,c_2} N_c} \quad (3)$$

where N_c is the number of observations classified in class *c* by the most likely class variable *N*. This shows that *N* can be treated as an imperfect measurement of *C* with measurement error defined by $q_{c1,c2}$. In the third step, the most likely class variable is used as a latent class indicator variable with uncertainty rates prefixed at the probabilities $q_{c1,c2}$ obtained in second step, and the *N* variable is specified as a nominal indicator of the latent class variable *C* with logits $log(q_{c1,c2}|q_{K,c2})$, where *K* is the last class. In this way the measurement error in the most likely class variable *N* is taken into account when assessing whether an increase in an antecedent variable results in a higher probability that a customer journey belongs to one class over another class, predicted as follows:

$$C = \alpha_c + \beta i_c PC + \beta j_c SC + \beta k_c OC + \beta l_c CA + \varepsilon \quad (4)$$

where *C* is the latent class fixed to misclassification, *PC* are psychographic covariates, *SC* are sociodemographic covariates, *OC* are other covariates, and *CA* are the categories.

Table 5 in Web Appendix 5 provides the results for the latent class predictors of segment membership, with the store-focused segment as the reference category because it is the most traditional segment in terms of touchpoint usage (Konus, Verhoef, and Neslin2008). These coefficients represent the impact of each covariate on membership in each segment compared to the reference category. Therefore, a positive (negative) coefficient means that customers who score high on that antecedent are more (less) likely to appear in the respective segment. Importantly, we did not find any significant contradicting effects across both data sets. Interestingly, neither income, nor urbanization, time pressure, and buying frequency are predictors of segment membership (with store-focused shoppers as the reference category). This highlights that none of the aforementioned covariates can explain differences in customer journeys.

Web Appendix 5, Table 1: Model Selection

		2013				2016			
		LL	AIC	BIC	AIC3	LL	AIC	BIC	AIC3
Model 1	1-Class Solution	-18,799.85	37,629.70	37,720.31	37,644.70	-20,908.28	41,846.57	41,937.18	41,861.57
Model 2	2-Classes Solution	-16,817.29	33,696.58	33,883.84	33,727.58	-17,283.32	34,628.64	34,815.90	34,659.64
Model 3	3-Classes Solution	-15,990.00	32,074.00	32,357.92	32,121.00	-16,837.30	33,768.59	34,052.51	33,815.59
Model 4	4-Classes Solution	-15,288.62	30,703.23	31,083.80	30,766.23	-14,692.86	29,511.73	29,892.29	29,574.73
Model 5	**5-Classes Solution**	**-14,760.14**	**29,678.28**	**30,155.50**	**29,757.28**	**-13,781.51**	**27,721.01**	**28,198.23**	**27,800.01**
Model 6	6-Classes Solution	-14,914.36	30,018.71	30,592.59	30,113.71	-15,741.72	31,673.44	32,247.32	31,768.44
Model 7	7-Classes Solution	-14,921.75	30,065.50	30,736.02	30,176.50	-14,873.02	29,968.05	30,638.57	30,079.05
Model 8	8-Classes Solution	-14,993.79	30,241.59	31,008.76	30,368.59	-15,560.28	31,374.56	32,141.73	31,501.56

Note: LL = Log-Likelihood, AIC = Akaike Information Criterion, BIC = Bayesian Information Criterion, AIC3 = adapted Akaike Information Criterion with a so-called magic number 3. Robust maximum likelihood estimation. We primarily apply AIC3 for model selection (Andrews and Currim 2003), and use classification error and segment interpretability as supplementary selection criteria.

Web Appendix 5, Table 2: Split-Half Robustness Analysis of Classification

Panel A: 2013 Data

	First Half (*N* = 1,221)					Second Half (*N* = 1,222)				
Full Sample (*N* = 2,443)	1.	2.	3.	4.	5.	1.	2.	3.	4.	5.
1. Store-Focused Segment	0	0	0	20	***258***	0	4	0	58	***206***
2. Pragmatic Online Segment	0	***192***	0	50	6	0	***209***	0	40	0
3. Extensive Online Segment	18	0	***253***	11	0	14	0	***268***	4	0
4. Multiple Touchpoint Segment	***248***	0	15	0	0	***247***	0	14	0	0
5. Online-to-Offline Segment	27	0	0	***123***	0	49	5	2	***102***	0

Panel B: 2016 Data

	First Half (*N* = 1,324)					Second Half (*N* = 1,325)				
Full Sample (*N* = 2,649)	1.	2.	3.	4.	5.	1.	2.	3.	4.	5.
1. Store-Focused Segment	0	0	0	4	***330***	0	0	0	0	***311***
2. Pragmatic Online Segment	8	***263***	13	0	0	0	***285***	3	0	1
3. Extensive Online Segment	9	2	***165***	0	0	0	8	***168***	0	0
4. Multiple Touchpoint Segment	***179***	1	4	4	0	***159***	21	13	0	0
5. Online-to-Offline Segment	12	0	0	***325***	5	23	0	0	***321***	12

Web Appendix 5, Table 3: Segments per Product Category

	Store-Focused Segment		Pragmatic Online Segment		Extensive Online Segment		Multiple Touchpoint Segment		Online-to-Offline Segment	
Category	**2013**	**2016**	**2013**	**2016**	**2013**	**2016**	**2013**	**2016**	**2013**	**2016**
Apparel	26%	28%	29%	27%	17%	11%	14%	17%	15%	18%
Electronics	16%	17%	10%	14%	28%	18%	14%	12%	33%	39%
Entertainment	18%	21%	31%	26%	24%	13%	10%	10%	18%	29%
Cosmetics	39%	38%	27%	25%	16%	9%	7%	15%	12%	13%
Other	22%	25%	26%	19%	20%	12%	15%	16%	17%	27%
Total	22%	24%	23%	22%	21%	13%	13%	14%	20%	26%

Web Appendix 5, Table 4: Segments per Nationality

	Store-Focused Segment		Pragmatic Online Segment		Extensive Online Segment		Multiple Touchpoint Segment		Online-to-Offline Segment	
Nationality	**2013**	**2016**	**2013**	**2016**	**2013**	**2016**	**2013**	**2016**	**2013**	**2016**
Germany	23%	27%	23%	22%	20%	12%	12%	13%	21%	25%
Austria	21%	22%	23%	21%	22%	13%	13%	15%	22%	29%
Switzerland	22%	22%	24%	21%	24%	16%	13%	15%	18%	25%
Total	22%	24%	23%	22%	21%	13%	13%	14%	20%	26%

Web Appendix 5, Table 5: Description of Segments in 2013 and 2016

Segment Name	**Store-Focused Segment**		**Pragmatic Online Segment**		**Extensive Online Segment**		**Multiple Touchpoint Segment**		**Online-to-Offline Segment**		**Test for Mean Equality**	
Year	2013	2016	2013	2016	2013	2016	2013	2016	2013	2016	2013	2016
Number of Touchpoints	2.22	2.01	2.36	2.29	4.38	3.92	6.87	6.81	4.07	4.57	667.30**	716.08**
Search Online (Percent)	17%	15%	79%	80%	87%	93%	61%	67%	60%	60%	1,323.58**	1,655.07**
Purchase Online	0%	0%	99%	99%	100%	99%	45%	78%	0%	0%	3,979.10**	5,182.47**
Mobile Device Used	1%	1%	5%	16%	9%	24%	5%	58%	1%	12%	15.40**	174.06**
Retailer Touchpoints	***100%***	***100%***	***100%***	***100%***	***100%***	***100%***	***100%***	***100%***	***100%***	***100%***	—	—
Physical Store	98%	99%	13%	11%	22%	6%	86%	67%	100%	100%	1169.99**	1757.15**
Online Store	7%	3%	100%	100%	100%	100%	90%	100%	44%	46%	1154.52**	1513.26**
Catalog	14%	13%	24%	17%	8%	3%	48%	40%	3%	14%	93.55**	53.83**
Competitor Touchpoints	***45%***	***35%***	***27%***	***24%***	***86%***	***87%***	***90%***	***89%***	***75%***	***78%***	***213.52****	***289.11****
Competitor Physical Store	35%	26%	5%	11%	14%	10%	60%	53%	33%	32%	112.89**	75.07**
Competitor Online Store	3%	4%	17%	10%	81%	84%	67%	73%	58%	66%	379.75**	531.59**
Competitor Catalog	10%	8%	7%	5%	6%	2%	36%	23%	6%	10%	64.04**	32.05**
Additional Touchpoints	***43%***	***37%***	***53%***	***53%***	***97%***	***96%***	***97%***	***97%***	***88%***	***89%***	***226.32****	***283.15****
Search Engine	6%	7%	11%	16%	75%	73%	68%	72%	62%	61%	366.53**	319.67**
Brand Website	6%	3%	11%	10%	28%	22%	44%	33%	28%	24%	65.45**	56.75**
Comparison Portals	2%	1%	1%	1%	40%	33%	33%	29%	29%	26%	134.06**	113.64**
Social Media	1%	2%	2%	2%	15%	13%	27%	34%	9%	15%	58.88**	88.64**
News Portals and Newspaper	9%	6%	4%	2%	7%	1%	25%	23%	6%	11%	34.16**	44.35**
Offline Word of Mouth	16%	17%	14%	8%	10%	7%	54%	51%	11%	18%	86.05**	94.25**
Other Touchpoints	12%	12%	24%	31%	17%	24%	24%	37%	10%	21%	15.59**	28.05**
Psychographic Covariates												
Price Consciousness	4.48	4.81	4.60	5.00	5.76	5.71	5.56	5.36	5.37	5.16	252.09**	97.27**
Time Pressure	4.78	3.90	4.91	5.41	4.80	5.71	4.52	5.46	5.04	4.47	17.49**	437.28**
Involvement	4.85	4.86	5.01	5.13	5.32	5.13	5.54	5.29	5.29	5.24	54.97**	22.38**
Sociodemographic Covariates												
Age	5.14	5.34	5.47	5.69	5.11	5.17	4.55	4.34	5.05	5.24	69.57**	172.83**
Gender Female	55%	56%	61%	60%	36%	36%	65%	59%	36%	38%	119.89**	108.30**
Income	3.17	3.17	3.25	3.27	3.53	3.48	3.07	3.26	3.31	3.11	47.70**	29.83**
Education	2.69	2.75	2.59	2.67	2.90	2.90	2.74	2.80	2.74	2.72	27.32**	14.00**
Household Size	2.33	2.37	2.44	2.24	2.54	2.47	2.63	2.72	2.46	2.34	15.02**	29.90**
Urbanization	60%	59%	59%	51%	54%	54%	62%	59%	67%	51%	17.76**	15.25**
Other Covariates												
Duration of Journey	5.62	5.59	4.71	4.77	6.13	5.82	8.75	8.42	7.83	7.61	294.35**	326.75**
Online Channel Experience	3.98	4.04	5.05	5.19	5.36	5.48	4.65	5.01	4.78	4.77	200.38**	203.50**
Physical Channel Experience	5.26	5.45	4.94	5.08	4.96	5.07	5.38	5.34	5.35	5.46	41.53**	31.93**
Customer Duration	5.60	5.70	5.84	5.84	5.21	5.30	5.60	5.82	5.48	5.64	48.11**	23.18**
Buying Frequency	4.40	4.22	4.69	4.46	3.86	3.43	4.04	4.05	3.74	3.61	70.08**	71.48**
Spending	73.52	132.20	91.49	104.18	180.24	160.18	321.75	262.82	153.08	154.00	195.18**	168.25**

Note: N for 2013 = 2,443 customer journeys, *N* for 2016 = 2,649 customer journeys. $^{**}p < .01$, $^{*}p < .05$, two-tailed tests. All means are based on most likely class membership. The three-step method is used to test for mean equality across segments of active covariates (Asparouhov and Muthén 2014).

Web Appendix 5, Table 6: Predictors of Segment Membership

Segment Name	**Pragmatic Online Segment**		**Extensive Online Segment**		**Multiple Touchpoint Segment**		**Online-to-Offline Segment**	
Year	2013	2016	2013	2016	2013	2016	2013	2016
Psychographic Covariates								
Price Consciousness (βi_3)	.02	-.19**	**.48****	**.63****	.49**	.03	.23**	.06
Time Pressure (βi_2)	.02	.45**	-.09	.22**	-.10	-.03	.09*	.05
Involvement (βi_1)	-.04	-.01	.20**	-.06	**.29****	**.64****	**.18****	**.15****
Sociodemographic Covariates								
Age (βj_1)	**.20****	**.15****	-.04	-.16**	**-.34****	**-.62****	-.10	-.13**
Gender Female (βj_2)	**.33***	**.36****	**-.39***	**-.62****	1.20**	.27	**-.35***	**-.43****
Income (βj_3)	-.08	-.06	.16	.08	-.24*	-.04	.01	-.16*
Education (βj_4)	-.07	.00	**.35****	**.28****	.06	.02	.05	.00
Household Size (βj_5)	.14*	-.07	.08	.03	**.20***	**.15***	.11	.04
Urbanization (βj_6)	.18	.27	-.31	-.16	.34	.16	.34*	.06
Other Covariates								
Duration of Journey (βk_1)	**-.07****	**-.07****	-.02	.03	**.22****	**.26****	**.14****	**.15****
Online Channel Experience (βk_2)	**.57****	**.55****	**.71****	**.70****	**.14***	**.37****	**.21****	**.24****
Physical Channel Experience (βk_3)	**-.53****	**-.50****	**-.56****	**-.43****	.02	-.24**	-.03	-.01
Customer Duration (βk_4)	.07	.00	**-.28****	**-.27****	-.01	.04	-.12*	-.05
Buying Frequency (βk_5)	-.03	-.01	-.04	-.16**	.06	.00	-.01	-.02
Spending (βk_6)	**.50****	**.52****	**.77****	**.62****	**.90****	**.96****	**.34****	**.45****
Category								
Apparel (βl_1)	-.04	.20	-.05	-.09	-.38	.10	-.14	-.44
Electronics (βl_2)	-1.10**	-.29	-.07	.55	-.18	-.01	**.68***	**.10****
Entertainment (βl_3)	.36	.53	.67*	.51	.08	.39	.50	.56*
Cosmetics (βl_4)	.26	.16	-.10	.26	-.34	.26	-.46	-.64

Note: N for 2013 = 2,443 customer journeys, *N* for 2016 = 2,649 customer journeys. $^{**}p < .01$, $^{*}p < .05$, two-tailed tests. We used the "Store-Focused Segment" as the reference category because it is the most traditional segment in terms of touchpoint usage (e.g., Konus et al. 2008). Bold coefficients are significant in both data collections.

Web Appendix 6: Moments of Truth in the Search Phase across Segments

Touchpoint	Full Sample	Store-Focused Segment	Pragmatic Online Segment	Extensive Online Segment	Multiple Touchpoint Segment	Online-to-Offline Segment	Test for Mean Equality
Retailer Touchpoints							
Physical store	3.79	1.09	5.46	5.82	5.71	2.85	849.03**
Online store	3.87	5.38	1.47	1.22	4.07	5.66	769.21**
Catalog	1.70	1.54	1.77	1.14	2.59	1.58	42.67**
Competitor Touchpoints							
Competitor physical store	1.87	1.81	1.33	1.27	2.84	2.13	64.52**
Competitor online store	2.52	1.13	1.36	4.32	3.64	3.25	353.09**
Competitor catalog	1.26	1.24	1.14	1.07	1.62	1.28	18.49**
Additional Touchpoints							
Search engine	2.60	1.22	1.68	3.94	3.85	3.29	231.10**
Brand website	1.64	1.12	1.37	1.90	2.25	1.89	44.21**
Comparison portal	1.70	1.04	1.02	2.58	2.23	2.11	102.24**
Social media	1.39	1.04	1.05	1.51	2.18	1.49	71.02**
News portals / newspaper	1.27	1.15	1.08	1.05	1.75	1.37	35.56**
Offline word of mouth	1.81	1.72	1.35	1.29	3.22	1.78	83.89**
Other touchpoints	2.00	1.46	2.35	1.96	2.75	1.82	35.82**

Note: $^{**}p < .01$, $^{*}p < .05$, two-tailed tests. Moments of Truth refer to the most important touchpoints for the purchase decision in 2016 (1 = not used / not important at all to 7 = very important).

Web Appendix 7: Segment-Specific Predictors of Customer Loyalty

	Customer Loyalty																	
	Full Sample			**Store-Focused Segment**			**Pragmatic Online Segment**			**Extensive Online Segment**			**Multiple Touchpoint Segment**			**Online-to-Offline Segment**		
	2013	**2016**		**2013**	**2016**		**2013**	**2016**		**2013**	**2016**		**2013**	**2016**		**2013**	**2016**	
Psychographic Covariates																		
Price Consciousness *(βi3)*	-.01	.01	.01	-.01	-.02	-.01	-.03	.05*	.05*	-.02	-.09	-.10	-.03	.00	-.01	-.01	.02	.03
Time Pressure *(βi2)*	.00	.04**	.04**	.00	.04	.03	-.02	-.01	-.01	.04	.09	.08	.01	.05	.02	-.03	.04	.03
Involvement *(βi1)*	.12**	.07**	.07**	.12**	.06	.06	-.03	.03	.04	.19**	.16*	.13	.08	.02	.06	.13**	.06*	.06
Sociodemographic Covariates																		
Age *(βj1)*	-.01	-.01	.00	-.01	.00	.01	-.02	-.06*	-.05*	-.07*	.09	.12	.08	.02	.01	.00	.00	.01
Gender Female *(βj2)*	.22**	.15**	.13**	.24*	.31**	.26**	.09	.08	.04	.15	-.26	-.12	.39	.17	.08	.24**	.22**	.21*
Income *(βj3)*	.02	-.02	-.02	-.03	-.02	-.02	.00	.00	.00	.04	.09	.06	.18	-.05	-.08	.07	-.04	-.04
Education *(βj4)*	-.04	-.03	-.03	-.01	-.06	-.06	-.08	.00	.00	.00	-.02	.07	-.12	-.10	-.10	-.04	-.01	-.01
Household Size *(βj5)*	.01	-.02	-.01	.06	.01	.02	-.01	-.01	-.01	.03	-.07	-.04	-.14	-.02	-.03	-.03	-.02	-.02
Urbanization *(βj6)*	.02	-.06	-.06	-.10	.00	-.02	.13	-.09	-.11	-.14	-.03	-.02	.20	-.21*	-.21*	.15	.04	.05
Other Covariates																		
Duration of Journey *(βk1)*	.00	-.01	-.01	.00	.00	.00	.00	-.03*	-.03*	.00	-.01	-.02	.00	-.02	-.01	-.01	.00	-.01
Online Channel Experience *(βk2)*	-.02	-.04**	-.04**	-.07*	-.02	-.02	.02	-.03	-.03	-.02	.03	.04	.13	-.04	-.04	-.07*	-.07*	-.06*
Physical Channel Experience *(βk3)*	-.01	.03*	.03	-.03	-.05	-.06	.03	.03	.03	-.03	-.09	-.12	-.05	.06	.06	.03	.10**	.08*
Customer Duration *(βk4)*	.15**	.18**	.17**	.23**	.38**	.39**	.23**	.12**	.13**	.08*	.15*	.09	.06	.06	.11	.08	.10**	.09*
Buying Frequency *(βk5)*	.01	.00	-.01	.03	-.01	-.01	-.03	.01	.01	-.01	-.05	-.08	-.12	.03	.02	.04	.02	.01
Spending *(βk6)*	.03	.01	.00	.06	-.01	-.03	.00	.00	-.01	.01	-.05	-.09	-.25*	.06	.08	.03	.01	.01
Predictors																		
Product Satisfaction *(β1)*	**.28****	**.32****	**.31****	**.43****	**.40****	**.38****	**.48****	**.52****	**.52****	**.26***	**.33****	**.39****	**.08**	**.08**	**-.02**	**.39****	**.37****	**.37****
Journey Satisfaction *(β2)*	**.21****	**.24****	**.22****	**.14****	**.17****	**.15****	**.15****	**.20****	**.18****	**.30****	**.02**	**.05**	**.58****	**.81****	**.61****	**.17****	**.21****	**.20****
Customer Inspiration *(β3)*			**.07****			**.07***			**.04**			**.01**			**.22****			**.08***
N	2,443	2,649		546	645		568	573		524	352		308	381		497	698	
R^2	.27	.31	.31	.34	.44	.45	.27	.40	.40	.33	.29	.30	.47	.60	.61	.27	.34	.35
Wald Test: β1= β2	**3.04**	**4.86***	**5.91***	**6.67****	**4.11***	**4.94***	**7.90****	**9.35****	**10.59****	**0.02**	**4.87***	**4.97***	**8.55****	**37.42****	**14.21****	**2.78**	**3.27**	**3.70**

Note: $^{**}p < .01$, $^{*}p < .05$, two-tailed tests. We used a Three-Step Approach to model the distant outcome of the latent classes (Asparouhov and Muthén 2014; Nylund-Gibson et al. 2014). We control for category (apparel, electronics, entertainment, cosmetics, and other category as reference) in all analyses.

Web Appendix 8: Interaction Effects for Number of Touchpoints

	Customer Loyalty		
	2013	**2016**	
Psychographic Covariates			
Price Consciousness *(βi_3)*	-.01	.01	.01
Time Pressure *(βi_2)*	.00	.04**	.04**
Involvement *(βi_1)*	.12**	.07**	.07**
Sociodemographic Covariates			
Age *(βj_1)*	-.01	-.01	.00
Gender Female *(βj_2)*	.22**	.15**	.13**
Income *(βj_3)*	.02	-.02	-.02
Education *(βj_4)*	-.04	-.03	-.03
Household Size *(βj_5)*	.01	-.02	-.01
Urbanization *(βj_6)*	.02	-.06	-.06
Other Covariates			
Duration of Journey *(βk_1)*	.00	-.01	-.01
Online Channel Experience *(βk_2)*	-.02	-.04**	-.04**
Physical Channel Experience *(βk_3)*	-.01	.03*	.03
Customer Duration *(βk_4)*	.15**	.18**	.17**
Buying Frequency *(βk_5)*	.01	.00	-.01
Spending *(βk_6)*	.03	.00	.00
Predictors			
Product Satisfaction *($\beta 1$)*	.28**	.34**	.32**
Journey Satisfaction *($\beta 2$)*	.21**	.24**	.22**
Customer Inspiration *($\beta 3$)*			.07**
Number of Touchpoints *($\beta 4$)*	-.01	-.02	.01
Interaction Effects			
Product Satisfaction × Number of Touchpoints *($\beta 5$)*	**-.06***	**-.04***	**-.05***
Journey Satisfaction × Number of Touchpoints *($\beta 6$)*	**.01**	**.02**	**.00**
Customer Inspiration × Number of Touchpoints *($\beta 7$)*			**.06***
N	2,443	2,649	
R^2	.27	.31	.32

Note: $^{**}p < .01$, $^{*}p < .05$, two-tailed tests. We control for category (apparel, electronics, entertainment, cosmetics, and other category as reference) in all analyses.

References to the Web Appendix

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