

Customer Journeys in Insurance

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Summary

Through the proliferation of channels and ways to engage in these channels, customers today have an unprecedented range of interaction options as they research, purchase, and use products and services. As customers capitalize on these options, the resulting diversity in interactions leads to highly individual customer journeys, which pose a variety of challenges for theory and practice. However, interactions are central in creating value for both customers and firms. Therefore, this dissertation contributes to better understanding customers' journeys through four articles that collectively provide the basis to develop superior customer strategies that help to enhance customers' experiences and improve firms' outcomes.

Following the introduction, which theoretically frames the customer journey concept, outlines its relevance, and provides an overview of the interrelated objectives in each of the four articles, the first article explores the detailed reasons for customers' interaction choices along their journeys, distills determinants for choices, and provides avenues for further research. One such avenue is the quantitative investigation of a theoretically and empirically grounded segmentation approach, which the second article shows to be effective in light of the complexity of today's customer journeys. Building on the findings of the first two articles, the third article quantitatively examines the determinants for interaction choices and links them to satisfaction and loyalty to derive implications for customer strategy development. The fourth article provides information on the relevance of and customers' willingness to pay for multiple interaction options, which provides firms with the final clue to offering customers optimal interaction options along their journeys.

Zusammenfassung

Durch die Zunahme an zur Verfügung stehenden Kanälen und Arten, um diese in Anspruch zu nehmen, haben Kunden heute eine beispiellose Zahl an Interaktionsmöglichkeiten, wenn sie sich über Produkte und Dienstleistungen informieren, diese kaufen und nutzen. Indem Kunden die Diversität der Interaktionsmöglichkeiten nutzen, entstehen hochgradig individuelle Customer Journeys, was eine Reihe von theoretischen und praktischen Herausforderungen bedingt; gerade wenn man bedenkt, dass Interaktionen für die Schaffung von Wert sowohl für Kunden wie für Firmen von zentraler Bedeutung sind. Vorliegende Dissertation trägt durch vier Beiträge zu einem besseren Verständnis von Customer Journeys bei, sodass gesamthaft die Basis für die Entwicklung überlegener Kundenstrategien gelegt wird, die die Kundenerfahrungen und die Resultate für Firmen verbessern können.

Nach der Einleitung, die das Customer-Journey-Konzept theoretisch fasst, dessen Relevanz darlegt und einen Überblick über die eng verwobenen Ziele der vier Artikel gibt, untersucht der erste Artikel explorativ die detaillierten Gründe für die Interaktionswahl von Kunden entlang ihrer Journeys, destilliert Determinanten für die jeweilige Entscheidung und leitet Stossrichtungen für zukünftige Forschung ab. Eine dieser Stossrichtungen ist die quantitative Analyse eines theoretisch und empirisch fundierten Segmentierungsansatzes, der sich im Rahmen des zweiten Artikels als effektiv erweist, um mit der Komplexität heutiger Customer Journeys umzugehen. Aufbauend auf den Ergebnissen der ersten beiden Artikel, werden im dritten Artikel die Determinanten für die Interaktionswahl quantitativ untersucht und mit der Kundenzufriedenheit sowie -loyalität verknüpft, um Implikationen für die Entwicklung von Kundenstrategien abzuleiten. Der vierte Artikel untersucht schliesslich, welche Relevanz die Wahlmöglichkeit zwischen Interaktionsoptionen für Kunden hat und wie viel Zahlungsbereitschaft hierfür besteht, was Firmen das letzte Puzzleteil liefert, um Kunden optimale Interaktionsmöglichkeiten entlang ihrer Journeys anbieten zu können.

I Introduction

Before the main body of this dissertation unfolds in parts II through V, the introduction serves to theoretically frame the customer journey concept, outline its relevance for research and practice, and illustrate how the four articles relate to each other. Collectively, the articles help to better understand customers' interaction choices along the customer journey, uncover relations to relevant outcomes, and provide guidance to develop customer strategies that are value accretive for both customers and firms.

1 Theoretical framing

Customers engage in numerous interactions, whether to search information, make a purchase, or get advice when using products and services. Such interactions, which can be characterized by the concurrent choice of channel (i.e., interaction partner) and means of interaction (i.e., media), have been a focal topic in marketing research since the 1980s (e.g., Håkansson, 1982; Solomon, Surprenant, Czepiel, & Gutman, 1985). While numerous streams of research developed, particular focus has been on better understanding customers' interaction choices. In the evolution from distinguishing two choice options (most commonly two channels) for the purchase, research expanded in two directions. On the one hand, more interaction options for customers have been considered, which culminates in the most recent impetus to move from multi- (e.g., Montoya-Weiss, Voss, & Grewal, 2003) to omnichannel perspectives (e.g., Bianchi, Cermak, & Dusek, 2016). On the other, more phases (i.e., interaction situations) have been considered, first adding the pre-purchase phase (e.g., Verhoef, Neslin, & Vroomen, 2007) and then the post-purchase phase (e.g., Frambach, Roest, & Krishnan, 2007).

The customer journey concept goes one step further and considers all interactions that are relevant for a customer, from the initial need recognition to the termination of product/service use within the realm of the respective firm. This definition of the customer journey concept consequently takes the customers' perspective, on which this dissertation rests, and expands existing definitions (e.g., Halvorsrud, Kvale, & Følstad, 2016). Interactions in different phases occur for varying purposes, so that the perceived customer value provided by a channel and means of interaction differs (Woodruff, 1997). Situational theory suggests

that customers will not always choose the same channel or means of interaction in each instance (Balasubramanian, Raghunathan, & Mahajan, 2005). Therefore, the resulting customer journeys tend to take many different forms. To illustrate this, Figure 1 depicts two exemplary customer journeys with customers' concurrent channel and means of interaction choices in each phase that collectively represent their customer journeys.

On the conceptual level, the customer journey has recently received considerable attention due to its role in tangibilizing the customer experience and its relevance for customer experience management (Homburg, Jozić, & Kuehnl, 2017; Lemon & Verhoef, 2016). Customer experience, in turn, is linked to further relevant outcomes, such as customer satisfaction, loyalty, and ultimately profitability (e.g., Eisenbeiss, Cornelißen, Backhaus, & Hoyer, 2014; Morgan & Rego, 2006; Watson, Beck, Henderson, & Palmatier, 2015). Consequently, there have been multiple calls for empirical investigations to better understand customer journeys, and specifically customers' interaction choices across phases, to derive relevant implications for optimization of the customer experience and related outcomes (e.g., Lemon & Verhoef, 2016; Verhoef, Kannan, & Inman, 2015). The Marketing Science Institute (2016) has in fact made understanding the influencing factors for customers' choices in the complex omnichannel environment and their relationships with customer experience the number one and two research priorities for the current 2016-2018 period. The four articles of this dissertation attend to various facets of these calls for research and collectively help to close the identified research gap.

2 Practical relevance

In some industries, particularly services, interactions take a central role in value creation for both customers and firms since they are based on intangibles (Kumar & Reinartz, 2016). In insurance, this is even more pronounced since interactions practically represent the only opportunity for insurers to influence the customer experience. Other measures, such as whether a claim is settled or not, are largely determined by law or standardized contracts, leaving little or no room for insurers to be proactive (Vaughan & Vaughan, 2014). Thus, it is paramount for service providers in general and insurers in particular to better understand customer journeys to craft and implement value-accretive strategies.

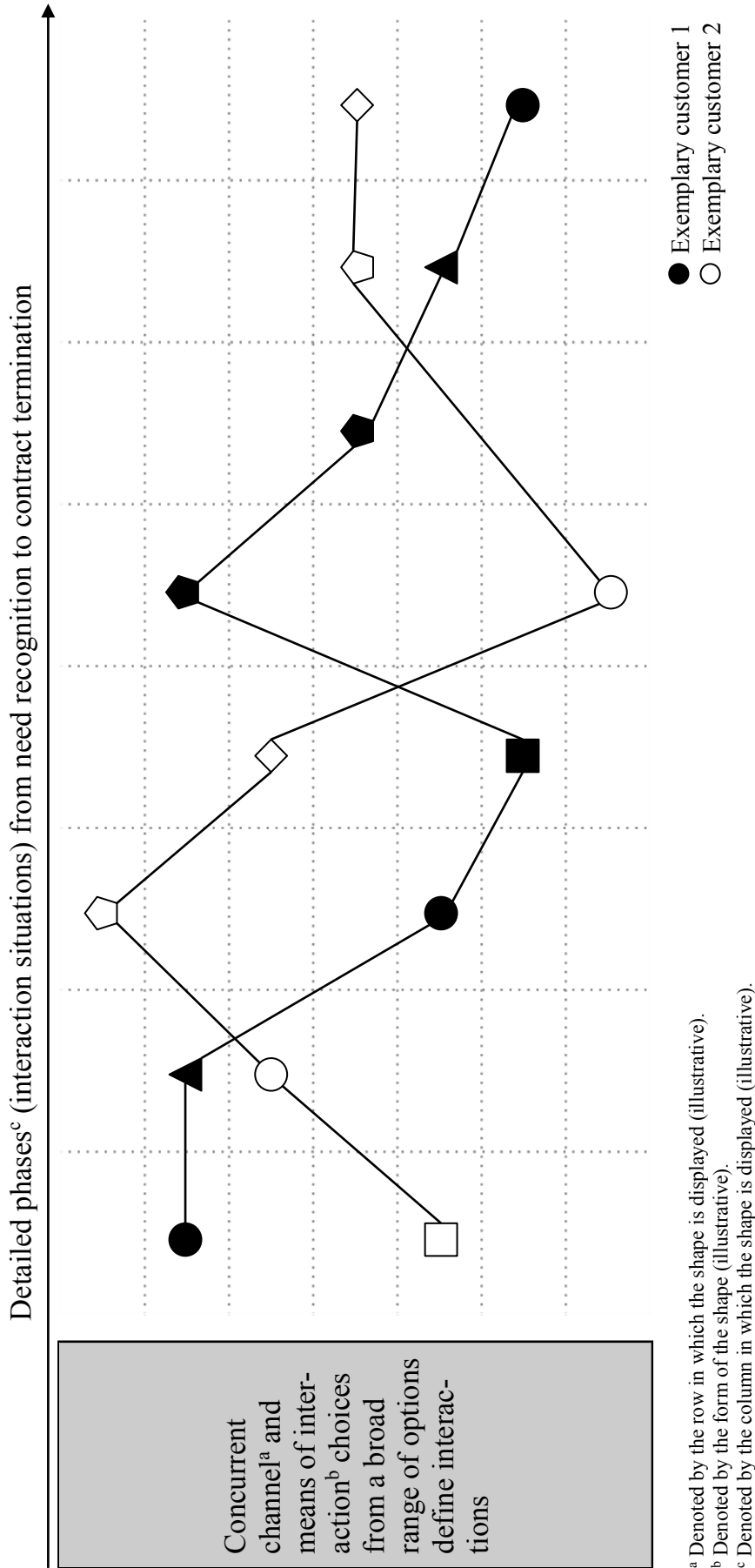


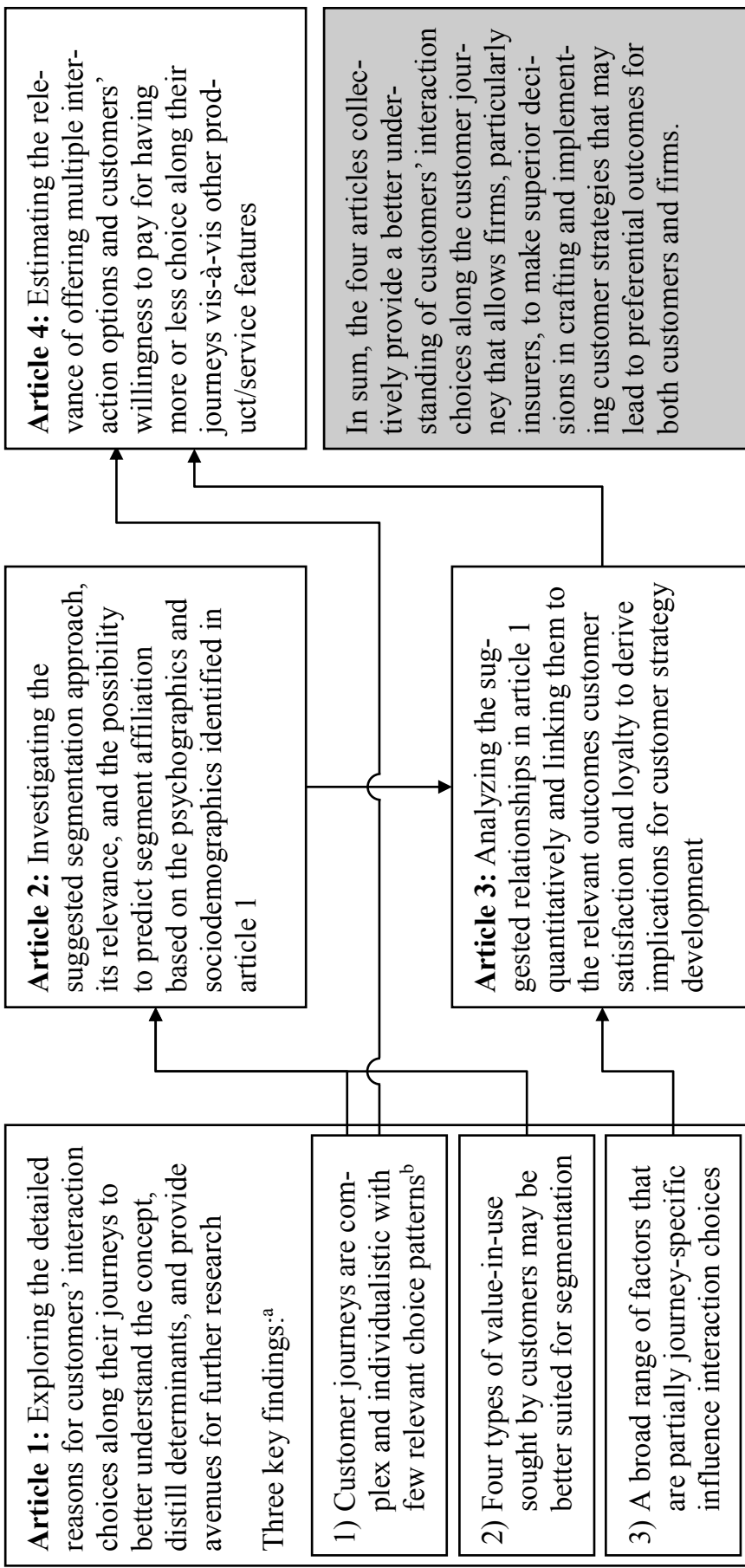
Figure 1. Illustrative customer journeys based on interaction choices.

In light of this relevance, practitioners have broadly advocated multi- and omnichannel strategies in recent years, hoping to better serve customers (Brynjolfsson, Hu, & Rahman, 2013; Rawson, Duncan, & Jones, 2013). However, many struggle with the complexity of customer journeys due to the proliferation of channels, increasing number of means of interaction, and frequency of interactions (Chheda, Duncan, & Roggenhofer, 2017). Particular areas of concern are the identification of customers' interaction preferences, the segmentation of customers in such a complex environment, in which observable channel choices are no longer sufficiently helpful, and the substantial costs associated with the provision of services through numerous channels and means of interaction (Bianchi et al., 2016; Edelman & Singer, 2015).

If firms had a better understanding of customer journeys, they could craft superior customer strategies (i.e., organizational strategies regarding the value proposition for customers that are based on customer insights). Specifically, this understanding would allow firms to make more effective fundamental strategic decisions, such as on which customer segments to focus, which interaction options to provide to these customers, and how to organize the multiplicity of interaction options. In addition, these insights would also allow firms to derive concrete measures that help to operationalize their respective strategies. This may ultimately lead to preferential outcomes for both customers, for example, through better customer experiences and higher satisfaction, and firms, for example, through lower costs, stronger differentiation from competitors, and optimized yield due to better understanding the drivers of customers' loyalty and willingness to pay.

3 Objectives and overview of dissertation

Based on the discussion of the theoretical and practical relevance of the topic, the overarching objective of this dissertation is to enhance knowledge and understanding of customer journeys to derive relevant implications for the scientific discourse as well as managerial practice. To achieve this main objective, the four articles cover different but strongly related facets of this objective (see Figure 2 for a graphical representation of the interrelations of the articles).



^a Next to providing additional explanations for customers' observable interaction behavior.

^b Since most customers tend to use a large number of different channels and means of interaction in their journeys, this highlights the relevance of providing customers with multiple interaction options.

Figure 2. Overview of the four articles and their interrelations.

The first article contributes to the multi-/omnichannel, segmentation, and customer experience literature through the exploration of overt and underlying reasons for customers' channel choices along the customer journey. The more profound understanding of customer journeys in insurance provides the basis for further research; specifically, the resulting three main findings lend themselves to quantitative investigations in subsequent articles. First, customer journeys are inherently complex and individualistic with few relevant patterns. Second, the ultimate underlying reasons for customers' interaction choices are four types of value-in-use customers seek in interactions – utilitarian, hedonic, cost/sacrifice minimizing, and relational – which may be better suited for segmenting customers in such a complex environment. Third, in addition to the four customer orientations, a broad range of determinants, some of which are journey-specific, drive interaction choice.

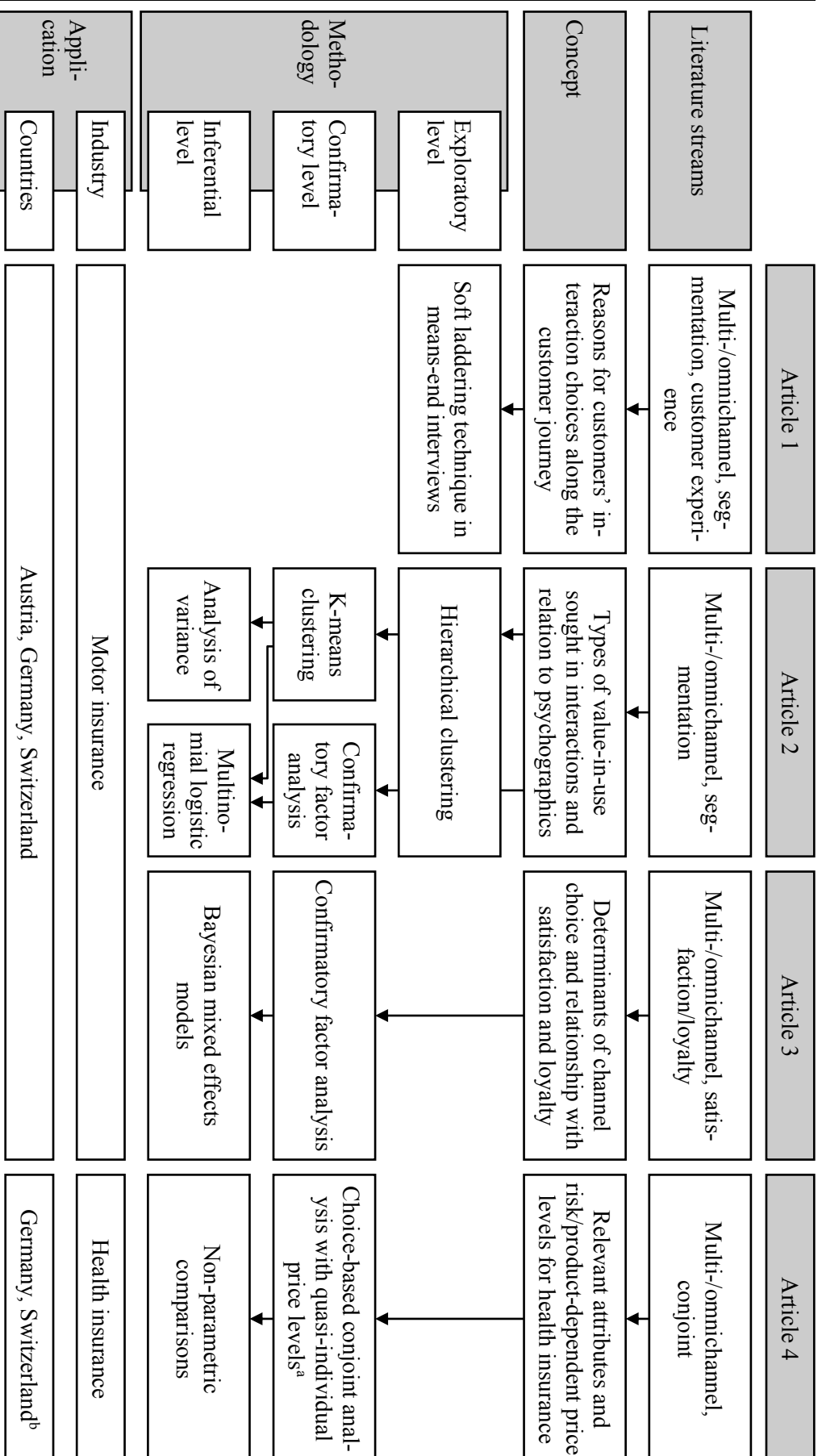
Building on the first two findings, the second article contributes to the segmentation literature in the complex multi-/omnichannel environment, in which traditional segmentation strategies, such as the use of observable interaction choices, are no longer sufficiently helpful. The quantitative investigation of the segmentation approach suggested in the first article indicates that four substantial segments according to the customer orientations indeed exist, that each behaves differently regarding interaction behavior along the customer journey, and that predicting segment affiliation is possible through psychographics and, to a lesser extent, sociodemographics.

Using this segmentation as well as the determinants identified as the third main finding from the first article, the third article contributes to the multi-/omnichannel and satisfaction/loyalty literature. The inferential analysis of the relationships between antecedents and interaction choice as well as with satisfaction and loyalty as relevant outcomes provides theoretically and managerially critical information for better understanding customer journeys, which allows for developing more successful customer strategies. These findings specifically suggest that firms may benefit from offering a range of better integrated interaction options for targeted customers.

The fourth article analyzes the relevance of interaction choice, quantifies customers' willingness to pay (WTP), and provides information on which customer groups particularly value having more or less such choice. These findings not only contribute to the multi-/omnichannel literature but also supply the last clue firms need to make optimal decisions as to which interaction options they should offer their target customers along the customer journey, how they may want to compose product/service bundles, and how they should be priced.

According to the particular theoretical and managerial contributions, the methodologies were adapted to the respective purpose and the current state of knowledge (Edmondson & McManus, 2007). Each article thus employs different methodologies, which, as a whole, reflect the methodological variety of this dissertation and enhance the foundation on which the findings rest. For instance, the methodologies range from exploratory qualitative research in the first article, to clustering and multinomial logistic regressions in the second, to Bayesian mixed effects models in the third. Notably, the fourth article makes a methodological contribution since for the first time quasi-individual price levels were implemented in choice-based conjoint analyses. While this was necessary for the application in insurance with its heterogeneous pricing among insureds, the results indicate that quasi-individual pricing may substantially increase the validity of choice-based conjoint analyses, which has implications for future application of the methodology.

To summarize this discussion, Figure 3 illustrates the adjacent literature streams to which the respective articles contribute, the conceptual underpinnings, methodologies employed, and their concrete application in the insurance environment. There, the focus lies on motor and health insurance since these policies are, on the one hand, prevalent in the broader population, thereby accumulating the largest share of customers' non-life insurance spending (Insurance Europe, 2016; Statista, 2017), and, on the other, because they feature the most interactions among all insurance lines of business (Berger-de Leon, Kühn, Ring, & Straub, 2016). Germany, Austria, and Switzerland are then particularly well suited for the above mentioned research due to their overall relevance, shared language, and comparable market mechanics in motor insurance and, with the exception of Austria, private health insurance (Eling & Parnitzke, 2006; Insurance Europe, 2015, 2016).



^a Adapted to the respondent's risk and subsequent product availability.

^b Austrian health insurance market differs substantively from Germany and Switzerland.

Figure 3. Literature streams, concepts, methodologies, and applications.

4 Summary of articles and publication process

Article 1: Understanding the Omnichannel Customer Journey: Determinants of Interaction Choice

Niklas Barwitz and Peter Maas

Through the proliferation of channels and ways to engage in these channels, customers today have an unprecedented range of options to individualize their customer journeys. This study attends to the resulting complexity by investigating the overt and underlying reasons for customers' interaction choices along the omnichannel customer journey. Data collected from focus groups, expert interviews, and laddering interviews with motor insurance customers illustrate that omnichannel customer journeys are inherently individualistic but driven by three types of effects. Some effects apply to singular interaction choices and are hence journey independent, while the strength of inertia between subsequent interactions depends on customers' satisfaction with the interaction. Customer journey patterns, which pertain to specific portions of the journey, include research shopping and the novel impersonalization/interactivity reduction effect. Our findings further provide additional explanations for these customer journey patterns and customers' limited motor insurance search efforts. Based on the ultimate underlying motives for interaction choice, the four types of value-in-use customers seek in their interactions, a segmentation approach that is more effective than predominant efforts using observable interaction behavior is suggested.

This article is currently in preparation for second-round review at the Journal of Interactive Marketing, where it has passed the first review round. Earlier versions of this article were presented at the Frontiers in Service Conference 2016 in Bergen, Norway, the La Londe Conference for Service Management 2016 in La Londe, France, and the GIKA Conference 2016 in Valencia, Spain. It is also included in the respective proceedings.

Article 2: Segmenting Omnichannel Customers: Embracing Messy Customer Journeys

Niklas Barwitz and Peter Maas

With channels and ways to engage in these channels proliferating in recent years, customers today have nearly unlimited options to assemble unique customer journeys. In such a complex setting, firms struggle to provide sizable customer groups with optimal experiences since traditional segmentation strategies based on observable interaction choices have proven less helpful. Instead, this study investigates a theoretically grounded segmentation

approach based on the underlying type of value-in-use customers seek in their interactions. Using a sample of 3,007 motor insurance customers, the segmentation approach is found to be relevant since the segments behave differently regarding their interaction choices along the customer journey. Furthermore, the approach is operationalizable since segment affiliation can be anticipated through psychographics and, to a lesser extent, sociodemographics, which can be observed prior to an initial interaction. The segmentation strategy therefore provides strategic and operational guidance that allow firms to better serve customers along their journeys.

This article is currently under review for publication in the Journal of the Association of Consumer Research's special issue on the "Consumer response to the evolving retailing landscape." Earlier versions of this article were presented at the Frontiers in Service Conference 2017 in New York, USA, the Association of Consumer Research Thought Leader Conference in Philadelphia, USA, and the ICMI Conference 2016 in Paris, France, where it is also included in the proceedings.

Article 3: The Omnichannel Customer Journey: Linking Determinants with Channel Choice and Outcomes to Inform Strategy Development

Niklas Barwitz and Peter Maas

In their journeys, customers can use a vast number of channels for their interactions in multiple pre-purchase, purchase, and post-purchase phases. The resulting proliferation of distinct journeys poses challenges for managers who require a more integrative understanding of customers' channel choices along their omnichannel journeys to develop successful customer strategies. This study empirically analyzes the relationships among determinants, channel choice behavior, and outcomes. The results indicate that next to factors that apply in each situation, inertia and specific journey patterns substantially influence channel choice. Further analyses of these patterns reveal that not all customers are equally prone to using them, which has implications for firms' multi- and omnichannel conduct. Investigation of the relationship with the managerially relevant outcomes of satisfaction and loyalty provides actionable recommendations for the development and execution of customer strategies.

This article is currently under review for publication in the Journal of the Academy of Marketing Science's special issue on "Consumer journeys: Developing consumer-based

strategy.” Earlier versions of this article were presented at the Frontiers in Service Conference 2017 in New York, USA and at the QUIS Conference 2017 in Porto, Portugal. It is also included in the respective proceedings.

Article 4: The Relevance of Interaction Choice: Customer Preferences and Willingness to Pay

Niklas Barwitz

As the number of available channels and ways to use these channels proliferate, current literature and managerial practice assume that broader interaction choice invariably generates value for customers. In light of the costs and complexity of offering these interaction options, the questions become how important having interaction choice is for customers, how much actual willingness to pay exists, and which customer groups particularly value such choice. To investigate this domain, two choice-based conjoint analyses are implemented in the health insurance industry, which provides a unique research opportunity since regulation naturally limits the relevant attributes of offerings. To cope with the substantial heterogeneity in prices for health insurance depending on the insureds’ risks, the methodological innovation of quasi-individual pricing is introduced, which leads to highly satisfactory validity of the estimation results. The results indicate that customers have considerable additional willingness to pay for more interaction choice; however, in contrast to the extant literature, this does not hold for all interaction options. Customers’ elicited preference structures further show that health insurers can optimize the configuration and pricing of their offerings to improve customers’ experiences and to create value.

This article is currently under review at the International Journal of Research in Marketing. An earlier version of this article was presented at the European Marketing Academy Conference 2017 in Groningen, the Netherlands, where it is also included in the proceedings. A managerially more accessible version of this article has been accepted for publication in the McKinsey Quarterly. A German version aimed at practitioners has been published in 2017 in I.VW Management-Information, 39(1), 15-17.

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II Understanding the Omnichannel Customer Journey: Determinants of Interaction Choice

Niklas Barwitz and Peter Maas¹

Abstract

Through the proliferation of channels and ways to engage in these channels, customers today have an unprecedented range of options to individualize their customer journeys. This study attends to the resulting complexity by investigating the overt and underlying reasons for customers' interaction choices along the omnichannel customer journey. Data collected from focus groups, expert interviews, and laddering interviews with motor insurance customers illustrate that omnichannel customer journeys are inherently individualistic but driven by three types of effects. Some effects apply to singular interaction choices and are hence journey independent, while the strength of inertia between subsequent interactions depends on customers' satisfaction with the interaction. Customer journey patterns, which pertain to specific portions of the journey, include research shopping and the novel impersonalization/interactivity reduction effect. Our findings further provide additional explanations for these customer journey patterns and customers' limited motor insurance search efforts. Based on the ultimate underlying motives for interaction choice, the four types of value-in-use customers seek in their interactions, a segmentation approach that is more effective than predominant efforts using observable interaction behavior is suggested.

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1 Introduction

Through rapid technological advancements, customers have gained access to a multitude of ways to interact with product and service providers (Chheda, Duncan, & Roggenhofer, 2017; Leeflang, Verhoef, Dahlstrom, & Freundt, 2014). Capitalizing on the nearly unlimited interaction options in the pre-purchase, purchase, and post-purchase phases, customers design their personal customer journeys, which are increasingly challenging to understand and influence (Van Bruggen, Antia, Jap, Reinartz, & Pallas, 2010; Verhoef, Kannan, & Inman, 2015). However, these interactions take a central role in value creation for both firms and customers (Baxendale, Macdonald, & Wilson, 2015; Kumar & Reinartz, 2016). It is therefore critical to understand customers' interaction choices to provide superior customer experiences.

To better meet customer needs and preferences, executives have embraced the customer journey concept and broadly implemented multi- or omnichannel strategies (Bianchi, Cermak, & Dusek, 2016; Brynjolfsson, Hu, & Rahman, 2013). However, given the subject's inherent complexity, firms struggle to generate the insights required to provide their customers with superior experiences along the customer journey (Homburg, Jozić, & Kuehnl, 2017). Particular areas of concern are understanding the reasons for customers' interaction choices and adopting an effective segmentation approach that provides better customer experiences in this complex environment at sufficient scale (Edelman & Singer, 2015; Konuş, Verhoef, & Neslin, 2008).

While prior research has progressed in identifying reasons for channel choices and suggested approaches for segmenting multichannel customers, existing efforts have focused on selected interaction options (i.e., using a subset of all channels and ways to use these channels) or parts of the customer journey (i.e., using a subset of the interaction situations in which customers engage). Through focus group discussions, expert interviews, and 40 semi-structured interviews with motor insurance customers, this study accounts for the complexity of today's omnichannel customer journeys and thus provides an expansion of the extant literature in three central dimensions.

The first contribution pertains to the expansion of multi-/omnichannel literature through a more integrative understanding of what drives customers' interaction choices along the customer journey, thereby heeding repeated calls to close this research gap (e.g., Baxendale et al., 2015; Dholakia et al., 2010; Neslin et al., 2006). In doing so, we uncover and structure a broad range of determinants for interaction choice, which include novel

effects, such as impersonalization/interactivity reduction from purchase to post-purchase phases. We summarize this information in a more comprehensive conceptual model that can guide future research (e.g., Balasubramanian, Raghunathan, & Mahajan, 2005; Dalla Pozza, 2014; Dholakia et al., 2010; Lemon & Verhoef, 2016).

The second contribution relates to the explanation of previously found effects, which is also managerially relevant since it allows firms to approach the root causes of customers' observable behavior. Accepting the call to go beyond investigating interaction choice by gaining a detailed understanding of the motives underlying customer journeys, that is, how and why customers choose which set of interactions (Lemon & Verhoef, 2016; Verhoef et al., 2015), we elicit underlying goal structures for customers' behavior along their journeys. This provides more comprehensive explanations of observed effects such as that research shopping may not only have absolute but also relative components. In the more specific motor insurance context, it also offers explanations beyond search costs for the observation that customers limit their search efforts for motor insurance (e.g., Honka, 2014; Honka & Chintagunta, 2017).

The third contribution is to the segmentation literature. Current research uses customers' observable behavior to segment customers (e.g., De Keyser, Schepers, & Konuş, 2015; Konuş et al., 2008; Wang, Yang, Song, & Sia, 2014); however, these descriptive approaches seem less helpful in light of highly individualistic omnichannel customer journeys that lack frequent patterns (Dholakia et al., 2010). This study instead suggests a segmentation approach based on the underlying types of value-in-use customers seek in interactions, which allows firms to better manage the customer experience. Through the relationship with psychographics, we further propose that segment affiliation can be predicted even before an initial interaction, which makes this approach particularly valuable for executives.

2 Overview of multi- and omnichannel research

Extant research on customer behavior in the multi- and, more recently, omnichannel environment concentrates on two major questions, both of which rest on customers' interactions. On the one hand, literature on the determinants of channel choice is expanding from singular instances to sequences and portions of the customer journey. On the other, a second research stream focuses on profiling and segmenting customers. In our quest to complement

the set of determinants of channel choice along the customer journey, to investigate the underlying reasons for customers' interaction choices, and to suggest a new segmentation approach, we integrate existing knowledge with the data we collect. Therefore, we provide an overview of current knowledge, so that we can more clearly indicate our contributions.

2.1 Determinants of singular channel choices

Earlier research has identified various determinants of channel choice from the customer's perspective, particularly focusing on the purchase situation (Kumar & Venkatesan, 2005; Valentini, Montaguti, & Neslin, 2011). For instance, channel attributes such as perceived price, quality, convenience, risk, and general availability influence channel choice (e.g., Ganesh, Reynolds, Lockett, & Pomirleanu, 2010; Gupta, Su, & Walter, 2004; Inman, Shankar, & Ferraro, 2004; Verhoef, Neslin, & Vroomen, 2007; Yu, Niehm, & Russell, 2011). The relative importance of such channel attributes, however, varies across the buying process depending on customers' purpose and objective for the interaction (Balasubramanian et al., 2005; Lee & Ariely, 2006).

In addition to channel attributes, scholars have turned their attention to customer characteristics. Product or service knowledge, past purchase behavior, sociodemographics and psychographics, social influence, and channel experience effects, that is, the extent of prior exposure to a channel, drive customer behavior in a multi- and omnichannel environment (e.g., Ansari, Mela, & Neslin, 2008; Bilgicer, Jedidi, Lehmann, & Neslin, 2015; Frambach, Roest, & Krishnan, 2007; Melis, Campo, Breugelmans, & Lamey, 2015; Noble, Griffith, & Weinberger, 2005). These findings help in understanding the customer's singular channel choice processes, but they cannot account for the journey perspective, that is, the relevance of the set of prior and subsequent interactions.

2.2 Determinants of customer journey choices

Research has addressed this need by investigating customers' channel choice patterns across the pre-purchase, purchase, and in some instances post-purchase phases of the customer journey. Throughout this process, customers generally do not revert to the same channel for all their interactions (e.g., Burke, 2002; Frambach et al., 2007; Venkatesan, Kumar,

& Ravishanker, 2007). Although the literature remains inconclusive regarding typical patterns since many different behaviors are observed (Noble et al., 2005), some effects are empirically supported.

Verhoef et al. (2007) provide evidence of the research-shopper phenomenon, highlighting that customers may gather information in one channel but purchase in another, which has been further analyzed by considering the showrooming (research in store, buy online) and webrooming (search online, buy in store) phenomena (e.g., Brynjolfsson et al., 2013; Gensler, Neslin, & Verhoef, 2017; Rapp, Baker, Bachrach, Ogilvie, & Beitelspacher, 2015). Confirmed underlying reasons for this behavior are differing attribute advantages of channels for certain purposes, cross-channel synergies, and insufficient channel lock-in (Verhoef et al., 2007). In recent years, channel lock-in may have further decreased as firms have undertaken efforts to provide seamless transition opportunities between channels (Banerjee, 2014; Homburg et al., 2017).

A number of studies has investigated channel spillover effects and inertia. For example, Gensler, Verhoef, and Böhm (2012) find that channel use in the previous phase is positively related to channel choice in the next phase (see also Thomas & Sullivan, 2005; Verhoef et al., 2007). Melis et al. (2015) and Konaş, Neslin, and Verhoef (2014) discuss loyalty to channels and providers as well as stickiness to previous decisions. One underlying reason for such behavior may be customers' quest for consistency (Staw, 1981). The perception of previous experiences, most notably satisfaction, positively influence channel reengagement behavior through expectation formation and stickiness effects (e.g., Bolton & Drew, 1991; Rego, Morgan, & Fornell, 2013; Van Doorn & Verhoef, 2008). In fact, the links among prior experience, current satisfaction, and future interaction choice have been empirically demonstrated in various instances (e.g., Bolton & Lemon, 1999; Devaraj, Ming, & Kohli, 2002; Dholakia et al., 2010; Van Birgelen, De Jong, & De Ruyter, 2006).

From a journey perspective, the integration and synergistic effects of multiple channels may further drive channel choice and the customer experience. While both positive and negative synergies between channels have been found (Falk, Schepers, Hammerschmidt, & Bauer, 2007; Neslin et al., 2006), more recent studies suggest that channel integration is positively related to outcomes such as sales growth (Cao & Li, 2015) and perceived risk reduction, as well as quality enhancement of online stores and lower cannibalization of offline stores (Herhausen, Binder, Schoegel, & Herrmann, 2015). In this regard, Patrício, Fisk, and e Cunha (2008) attempt to extend service blueprinting to design

touchpoint journeys that optimize the customer experience by explicitly taking the relationships between channels along multiple phases into account.

Recently, mobile devices have gained academic attention due to their broad adoption in practice and potential influence on transforming the customer journey. Early indications suggest that mobile devices are better suited for the pre-purchase phases than the purchase or post-purchase phases (De Haan, Kannan, Verhoef, & Wiesel, 2015). Also, mobile devices may enable or catalyze certain customer behavior. For example, showrooming may be fueled by the new opportunity to concurrently perform online research while in a brick-and-mortar store (Rapp et al., 2015).

Finally, customer habits and personal characteristics, such as sociodemographic and psychographic factors, are identified to influence the choice of interaction sequences along the customer journey (e.g., Konuş et al., 2008; Pieterse & Van Dijk, 2007; Yu et al., 2011). Furthermore, dynamic effects might occur within customers, for example, when brand relationships are developed (Fournier, 1998), extraordinary experiences have lasting effects (Sheth & Parvatiyar, 1995), or decisions become routinized (Arnould & Price, 1993). Collectively, research on determinants of channel choice that embraces the journey perspective has identified an array of influencing factors in relatively controlled environments. Interestingly, however, a more integrative understanding that fits the complexity of today's omnichannel customer journeys has not been approached.

2.3 Segmenting multichannel customers

To support the critical development of channel strategies from the firm perspective (Neslin et al., 2006), several studies have focused on segmenting customers based on their observable channel usage. This approach can be differentiated into singular interaction choices, primarily focusing on the purchase decision, and such choices across multiple phases by employing the customer journey perspective. Papatla and Bhatnagar (2002) and, to a similar extent, McGoldrick and Collins (2007) cluster customers into four segments depending on whether they buy in stores, via catalogs, online, or through multiple channels in repeat purchases. Thomas and Sullivan (2005) investigate the same channels but allow for any one-, two-, or three-way combination of them; through their analysis of behavioral differences between and prevalence of these segments using actual data from a US retailer, they contribute significantly to a better understanding of the multichannel shopper phenomenon.

Considering the information and purchase phases of the customer journey, Konoş et al. (2008) apply latent-class cluster analysis in a multi-industry setting in which they identify three segments: multichannel enthusiasts, uninvolved shoppers, and store-focused customers. This analysis has been replicated and extended to include the post-purchase phase, which leads to an expansion to six clusters indicating the increased complexity when considering larger portions of the actual customer journey (De Keyser et al., 2015). Wang et al. (2014) identify two segments comprising innovative and conventional customers in terms of online versus offline channel use for the pre-purchase and purchase phases. Therefore, it becomes apparent that the number of segments identified depends on the exact setting of the respective analysis and the methodology used. In fact, the number of customer types is further affected by customers' shopping motivations and by the consideration of online or offline shopping environments (Ganesh et al., 2010).

While these efforts to segment customers based on their observable behavior have contributed significantly to the current understanding of channel choice and provided practical advice for firms to interact with customers more effectively, the approach has inherent limitations. On the one hand, the technique is constrained to a relatively small number of channels and instances in the customer journey, which makes it less suitable for the multitude of options that exist in omnichannel customer journeys. On the other hand, the approach is descriptive in nature and thus has a post hoc focus due to using observed channel choices as the main segmentation criteria, which complicates predicting segment affiliation early in the customer journey. This ability, however, would be particularly valuable for firms.

3 Methodology

In our quest to fully understand the reasons for customers' omnichannel interaction choices along their customer journeys, we employed customer-centric exploratory research (Miles, Huberman, & Saldaña, 2014). To elicit the underlying motives for interaction choices, means-end chains, in which relationships among attributes (means), consequences, and personal goals or values (ends) are revealed, are considered a standard method for assessing cognitive structures (Gengler & Reynolds, 2001; Perkins & Reynolds, 1988). Laddering is the most popular and a particularly well suited method to reveal such means-end chains (Veludo-de-Oliveira, Ikeda, & Campomar, 2006; Woodruff & Gardial, 1996).

We studied the motor insurance industry for three main reasons that provided a superior opportunity to improve our understanding of customers' interaction choices. First, the industry has a long history of providing offerings through multiple channels (Stone, 2009). Second, customers view insurance products as complex services, leading to conscious customer choices that support recall of the respective journeys (Bühler, Eling, Maas, & Milanova, 2015; Crosby, Evans, & Cowles, 1990). Third, customers engage in interactions along a multi-year customer journey that can readily be differentiated into distinct phases (Kankainen, Vaajakallio, Kantola, & Mattelmäki, 2012). In such situations, soft laddering is recommended because it provides sufficient flexibility and context for customers to reveal more complex choice processes (Botschen & Thelen, 1998; Grunert & Grunert, 1995; Russell et al., 2004). However, this requires interviewers to structure and guide the interview to elicit rich information from the participants (Mitchell & Harris, 2005). We thus implemented a more extensive research procedure, as detailed in Figure 4. Following consultation of extant literature to delineate the research objectives, we detailed the research procedure, selected expert interview and focus group participants, and developed an interview guide for discussions (Eisenhardt, 1989; Strauss, 1987).

3.1 Expert interviews and focus groups

The expert interviews and focus groups served the development of the interview guideline for the laddering interviews based on a better understanding of the detailed structure of motor insurance customer journeys, that is, which relevant phases exist, and how interaction choice along these journeys is conceptualized. We interviewed eight executives from leading insurance companies as well as industry experts from management consultancies and insurance associations in German-speaking countries. Also, we conducted two focus groups with six and seven participants, respectively, from Germany, Austria, and Switzerland. Each focus group discussion lasted approximately two hours, allowing the facilitator to establish group dynamics and thoroughly explore the questions of interest, while not exhausting participants (Morgan, 1996). Participants discussed their experiences of motor insurance buying and use as well as their expectations of providers, which information was subsequently transcribed, coded, and analyzed (Carson, Gilmore, Perry, & Gronhaug, 2001).

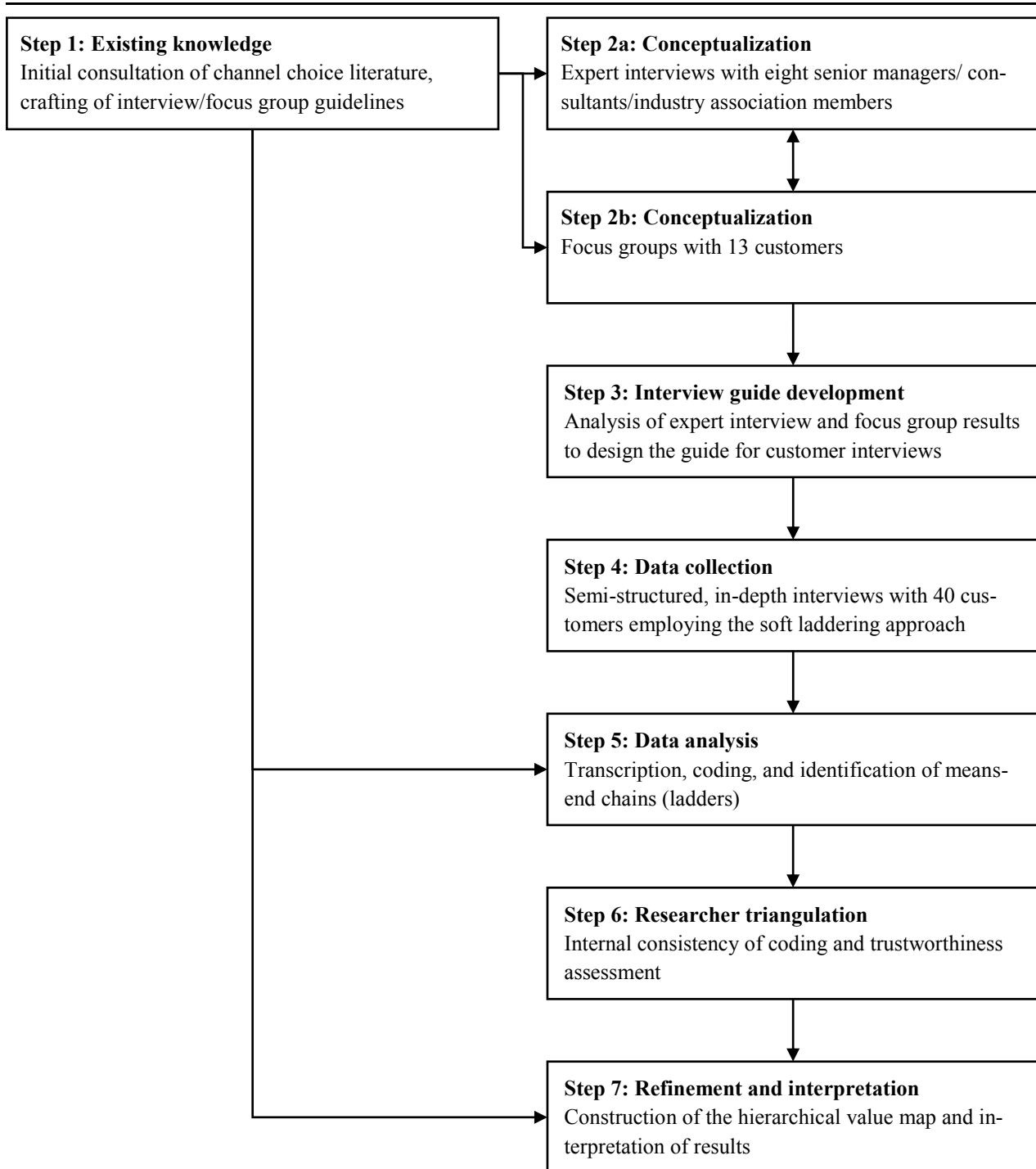


Figure 4. Research procedure.

These interviews and focus groups yielded two main results. First, the customer journey was divided into eight distinct phases from need recognition to search, evaluation, purchase, in-force (contract duration), claim, and contract adaptation to contract termination. Compared to earlier research (e.g., Gensler et al., 2012; Konuş et al., 2014; Verhoef et al.,

2007), this is a very detailed view with distinct interaction purposes in each phase but still sufficiently general to be operationalized.

Second, it became clear that customers perceive interactions along their customer journey not as one-dimensional channel choices but as two-dimensional and concurrent choices of an interaction partner (who or what, i.e., the channel in the classical sense) and a means of interaction (how). Specifically, both focus groups agreed that each dimension could fundamentally transform an interaction. For example, interactions with an insurance agent provide a different experience depending on whether customers have an in-person discussion or write a letter. In most instances, distinguishing the two dimensions was clear-cut; however, this was slightly more challenging in the digital space, where we also encountered some strong correlations between the two dimensions (e.g., mobile apps can only be used with smartphones/tablets). We therefore discussed the classification of all potential channels (interaction partners) and means of interaction with the industry experts and focus group participants, reaching the consensus depicted in Appendices A and B.

In addition, we asked participants to cluster channels and means of interaction to allow for better interpretability. Thus, channels were clustered into personal, semi-personal, and impersonal (see Appendix A). Personal channels are those with whom customers have built a relationship and it is generally important to them that one specific person attends to them. Semi-personal channels are persons whose name is known in interactions; however, the person may change from interaction to interaction. Therefore, these are more a collective of persons (e.g., a company representative) than a specific person. Finally, impersonal channels are not represented by a human but by an anonymous algorithm. In parallel to channels, the means of interaction were clustered into high and low interactivity (see Appendix B). High interactivity means of interaction allow for synchronous two-way discussions in real time, while low interactivity means are asynchronous one-way discussions with generally delayed answers.

3.2 Laddering interviews

The aim of the laddering interviews is to understand the reasons why customers choose which interactions along their customer journeys. Complying with the size recommendations for laddering interviews (Reynolds & Olson, 2001), we conducted interviews with 40 customers of motor insurance coverage in Germany, Austria, and Switzerland to avoid single-country bias. We asked a renowned market research agency to recruit participants who

had good memory of their motor insurance journey and adequately represented policyholders. Respondents ranged in age from 19 to 74 years, drove different cars, insured them with a range of insurers with both traditional and direct-insurance foci, and had mostly experienced a full customer journey, that is, all eight phases. Table 1 summarizes the key characteristics of the sample and contains identifiers (first column labeled “ID”) that are used to reference quotations in the remainder of the article.

An experienced interviewer conducted the interviews, which focused on a customer’s most recent journey and were structured along the eight phases defined previously. For each of these instances, participants revealed all interactions they had, regardless of whether these interactions happened within or outside the insurer’s area of influence, thereby resembling the omnichannel perspective (Libai et al., 2010; Verhoef et al., 2015). For each interaction, participants stated the channels and means of interaction they used. From there, the interviewer asked for the reasons (attributes) of the choice and probed the respondent to reveal consequences and values until saturation was reached. Interviews, which were conducted by phone due to the geographic distribution of respondents over three countries, lasted 57 minutes on average (ranging from 34 to 79 minutes), totaling approximately 38 hours of material.

Understanding the Omnichannel Customer Journey

ID	Country	Sex	Age	Car make	Insurer	Start of most recent customer journey	Experienced all eight phases
DE_1	Germany	Male	62	Multiple	HUK Coburg	2008	Yes
DE_2	Germany	Male	74	Porsche	HUK Coburg	2010	Yes
DE_3	Germany	Female	43	Toyota	HUK Coburg	2012	Yes
DE_4	Germany	Female	50	BMW	Zurich	2015	Yes
DE_5	Germany	Female	62	Dacia	Signal Iduna	2013	Yes
DE_6	Germany	Female	41	Opel	HUK Coburg	2015	No
DE_7	Germany	Male	46	Opel	Alsecure	2015	Yes
DE_8	Germany	Male	36	Toyota	HUK24	2006	Yes
DE_9	Germany	Female	36	Audi	Cosmos Direkt	2015	Yes
DE_10	Germany	Female	58	VW	VHV	2013	Yes
DE_11	Germany	Male	19	VW	Zurich	2014	Yes
DE_12	Germany	Female	50	Citroen	HDI	2011	Yes
DE_13	Germany	Female	39	Ford	HUK Coburg	2013	Yes
DE_14	Germany	Female	29	Mazda	Aachen Münchner	2010	Yes
DE_15	Germany	Female	47	Opel	HUK Coburg	2013	Yes
DE_16	Germany	Male	49	Honda	AXA	2014	Yes
DE_17	Germany	Male	42	Opel	GMAC	2007	No
DE_18	Germany	Male	37	VW	AXA	2013	Yes
DE_19	Germany	Male	36	Skoda	HUK24	2015	Yes
DE_20	Germany	Male	61	VW	R&V Versicherung	2009	No
AT_1	Austria	Male	53	Multiple	Zurich Kosmos	2010	No
AT_2	Austria	Male	36	Opel	SK Versicherung	2014	No
AT_3	Austria	Female	27	Ford	Zurich Kosmos	2006	Yes
AT_4	Austria	Female	45	Renault	Unika	2011	Yes
AT_5	Austria	Male	52	Suzuki	Donauversicherung	2013	No
AT_6	Austria	Female	30	Renault	Wüstenrot	2013	Yes
AT_7	Austria	Male	27	Opel	Vienna Ins. Group	2012	Yes
AT_8	Austria	Female	58	Ford	Unika	2010	Yes
AT_9	Austria	Male	33	VW	Allianz	2012	Yes
AT_10	Austria	Female	21	BMW	Muki	2015	Yes
CH_1	Switzerland	Male	44	Volvo	Allianz	2015	Yes
CH_2	Switzerland	Male	53	Mazda	AXA Winterthur	2011	Yes
CH_3	Switzerland	Female	27	Smart	Mobilair	2012	Yes
CH_4	Switzerland	Female	44	Mini	Zurich	2011	Yes
CH_5	Switzerland	Female	46	Audi	Zurich Connect	2012	Yes
CH_6	Switzerland	Female	57	Ford	Basler	2013	Yes
CH_7	Switzerland	Male	61	Audi	Helvetia	2014	Yes
CH_8	Switzerland	Female	38	Seat	Mobilair	2010	Yes
CH_9	Switzerland	Male	22	Seat	Zurich	2013	Yes
CH_10	Switzerland	Male	42	Mitsubishi	Allianz	2009	Yes

Table 1. Laddering interviews sample characteristics.

This material was recorded and subsequently transcribed. Following the original analysis procedure suggested by Reynolds and Gutman (1988), two researchers independently coded and content-analyzed the verbatim transcripts. In three iterations, a codification and categorization of goals, that is, the attribute-consequence-value relationships (ladders), was established through comparison of the emerging themes by the two researchers as well as in relation to existing themes in the literature (Lincoln & Guba, 1985). The initial inter-judge agreement (i.e., after the first round of coding) was .82 and thus exceeds the recommended .70 threshold for exploratory research, indicating highly satisfactory reliability (Kassarjian, 1977; Rust & Cooil, 1994). Disagreements primarily related to using the same English terms since a translation effort was required from the interviews, which were conducted in German. These disagreements were relatively easily resolved through discussion and in relation to the extant literature until a common concept was established (Yin, 2014). In the next step, the categorized goals were placed in the implication matrix, which quantifies the relationships between goals (Aurifeille & Valette-Florence, 1995). Accounting for both direct and indirect links, the incoming and outgoing relationships of each goal allowed for placing them adequately in the hierarchical value map (HVM), which symbolizes the overall relationships (Kaciak & Cullen, 2006). For the construction of the HVM, a cut-off value for the minimum strength of the relationships was defined so that relevant and stable connections are shown. Reynolds and Gutman (1988) recommended a cut-off value of four for the present sample size, which led to a relatively comprehensive but still clear HVM.

4 Results

Before discussing the HVM and customers' reasons for interaction choices, we capitalize on the opportunity to make the qualitative data more accessible by pointing to Appendices A-C. Since participants were asked for their channel and means of interaction choices in each phase of their customer journey, we can display this information. While these data are not representative and do not allow for an actual quantitative analysis, they provide the descriptive basis for a more substantial discussion and interpretation of what drives customers' journey choices. Three indications are, however, notable.

First, customers' journeys are inherently heterogeneous if observed in sufficient detail. Appendices A and B indicate that customers tended to use multiple channels and means

in each phase, including pre-purchase search phases, while Appendix C emphasizes that this also holds true for individuals along their journeys. Specifically, most interview participants used three to five different channels and means of interaction. In the omnichannel world, we can hence conclude that customers assemble individual customer journeys by capitalizing on the large number of interaction options available.

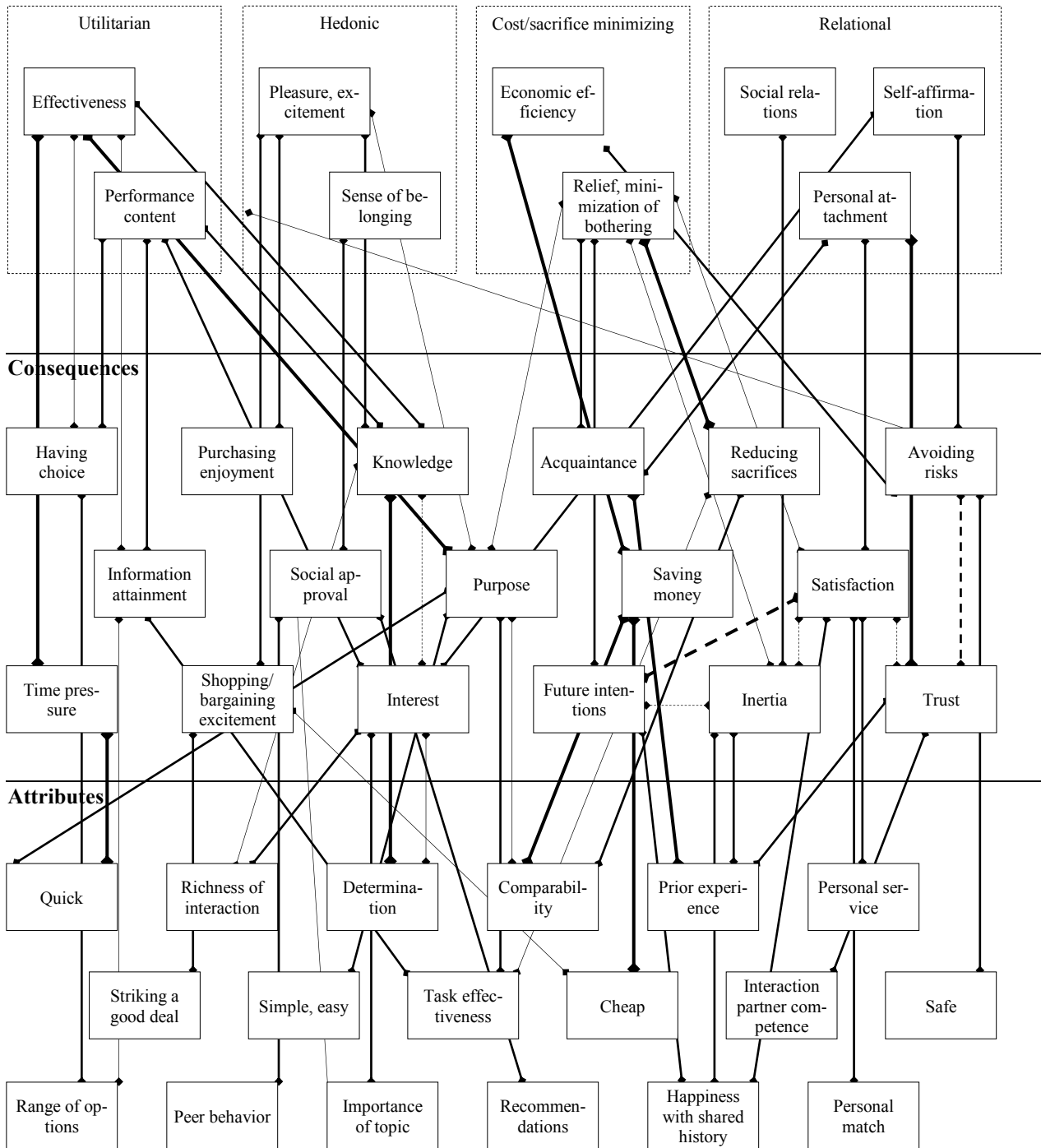
Second, when more closely analyzing the transition from pre-purchase (i.e., need recognition, information, and evaluation) phases to purchase, some research shopping behavior in the form of webrooming (more so than showrooming) is apparent in Appendix A (Brynjolfsson et al., 2013; Verhoef et al., 2007). Customers more strongly consult comparison sites in pre-purchase phases but purchase from more personal, offline channels.

Third, there seems to be switching behavior to semi-personal and impersonal channels and lower interactivity means of interaction from the purchase to the post-purchase phases. For channels, this effect appears most pronounced for the service center and self-service options, such as the insurer's website/online portal, while for means of interaction, long-distance communication in the form of telephone calls, letters, and emails are used more frequently after the purchase.

4.1 Reasons for channel and means of interaction choices

Figure 5 represents the HVM, which is based on the ladders uncovered in customer interviews and represents the attribute-consequence-value structures for customers' interaction choices. The thickness of the lines further indicates the tie strength beyond the cut-off level of four. While the HVM is created bottom-up, motivational chains are interpreted top-down (Davies & Gutsche, 2016). In analyzing these, we uncovered three main types of effects. First, some effects apply to singular interaction choices and are thus journey independent. Second, inertia depends on subsequent interactions but does not differentiate between the particular phases under consideration. Third, customer journey patterns hint at specific usage interdependencies that only apply to specific phases.

Values



Note. The thickness of the lines linking constructs indicates the tie strength between them. The dashed lines indicate direct linkages within a hierarchy level.

Figure 5. Hierarchical value map (minimum tie strength cut-off = 4, n = 40).

4.2 Singular interaction choices

As the ultimate values that underlie the reasons for interaction choice, we found nine values that we classified into four clusters: utilitarian, hedonic, cost/sacrifice minimizing, and relational. These four clusters are consistent with the customer orientations and goals that Lemke, Clark, and Wilson (2011) identified. These represent the value-in-use that customers seek from their interactions, with value-in-use defined as the actual usefulness and the benefits and value derived from customers' interaction behavior (Edvardsson, Enquist, & Johnston, 2005; Vargo & Lusch, 2008). Value-in-use designates the cognitive evaluation of the customer experience that different types of customers pursue (Sandström, Edvardsson, Kristensson, & Magnusson, 2008).

According to Chitturi, Raghunathan, and Mahajan (2008), customers with utilitarian goals are concerned with the practical, functional, and instrumental benefits those interactions provide, thereby fulfilling needs and necessities. In contrast, customers seeking hedonic value-in-use look for experiential, approving, and enjoyment-related benefits (Chitturi et al., 2008). Customers who want to minimize costs and sacrifice look to reduce both monetary and non-monetary costs, including the time and effort required (Smith & Colgate, 2007). Also, customers who seek relational value-in-use are interested in the benefits derived from the presence of a personal relationship, such as social benefits (Barnes, 1994). Here, value is jointly co-created through repeated interactions (Grönroos, 2008; Vargo & Lusch, 2004).

We found that these four value clusters linked to specific consequences that represent relevant psychographics in the interaction choice context. Utilitarian value-in-use connected with having choice (i.e., assortment seeking) and information attainment (Noble et al., 2005) as well as time pressure (Kleijnen, De Ruyter, & Wetzels, 2007; Srinivasan & Ratchford, 1991). Elaborating on assortment seeking, participant DE_7 noted,

I consulted a comparison site through my laptop when I was gathering information because I wanted to choose from a range of providers and policies. To me, this is important because having choice means I can make sure to get the best policy for me.

Similarly, respondent DE_12 explained how time pressure influenced her interaction choice:

I called my insurer's service center to change my address because that is the fastest way to get this done. [...] I am unbelievably impatient and always

pressed for time. So, I am always looking for the most effective way to get something done.

Hedonic value linked to purchasing enjoyment and shopping/bargaining excitement (Babin, Darden, & Griffin, 1994; Dawson, Bloch, & Ridgway, 1990). A third element is social approval (also motivation to conform – opinion seeking), manifested when customers turn to their social environment for guidance, which is connected to hedonic value (Ailawadi, Neslin, & Gedenk, 2001; Flynn, Goldsmith, & Eastman, 1996; Konoş et al., 2008). In that regard, interview partner CH_3 explained,

I met with two friends and asked them how I should proceed to get my car insured. They both went to an insurance agency, so I did the same. [...] It felt like an easy decision because we belong together in this clique and even if I ended up with a contract that is not perfect, I at least had approval from my friends about the process.

Cost/sacrifice minimizing value connected with saving money (i.e., monetary price consciousness) (Smith & Colgate, 2007) and reducing sacrifices (i.e., non-monetary price consciousness) (Yu et al., 2011). Illustrating one of the more common laddering paths, CH_1 argued,

I called the broker who advised me on my home insurance because he always gives me a discount so that I get the cheapest policy. [...] I want to spend as little as possible to save money on insurance because I don't have much and rather want to spend money on other things.

In a similar vein, AT_7 explained how reducing the non-monetary costs drove his decision:

At the dealership where I bought my car, the car dealer mentioned insurance for the new car and offered to pass my details, which he already had on record, on to the insurer they were working with. I found this to be a big relief because I did not have to deal with it. This is nice because I don't want to spend time and energy on this.

Relational value was linked to trust, which is important in building lasting relationships for personal advisors such as insurance agents and brokers (Sharpe, Anderson, White, Galvan, & Siesta, 2007). AT_8 noted that she profited from and invested in the trust-based personal relationship with her agent:

I have built a relationship with an agent, having insured two cars with them in prior instances. Based on this, I fully trust him to advise me well. So, whenever I need anything around insurance I visit him in person because I actually like meeting him.

Finally, risk aversion is considered a key psychographic in the insurance industry (Tversky & Kahneman, 1992). However, we found links to multiple value clusters, which is also in line with prior literature. For example, Alba and Hutchinson (1987) and Moorthy, Ratchford, and Talukdar (1997) suggested that lower customer perceived risk is a utilitarian benefit that risk-averse customers value. However, individuals with pronounced hedonic shopping motives may experience a form of shopping enjoyment risk that influences their interaction choices (Sarkar, 2011). Furthermore, Smith and Colgate (2007) argued that lowering operational risk reduces non-monetary costs and hence also fits with cost/sacrifice minimizing value. Finally, relationship-oriented customers may seek to reduce their perceived risks through trust-based interactions with subject matter experts (Doney & Cannon, 1997). Therefore, risk aversion may be connected with more than one value depending on the exact type of risk under consideration.

In aggregate, we found through the ladders that the type of value-in-use pursued substantially influenced customers' interaction behavior. This influence seemed relatively stable across the customer journey. Specifically, utilitarian customers tended to evaluate their interaction options in every instance, choosing the partner and means of interaction that seemed most useful in a specific situation. Due to the higher dependence on situational factors, utilitarian-oriented customers used the largest number of channels and means of interaction, which they also changed most frequently. Also, utilitarian customers were most prone to using impersonal channels and low interactivity means of interaction, which can provide utilitarian benefits, such as remote access (Frambach et al., 2007).

Customers more strongly concerned with the hedonic benefits of interactions tended to use means of interaction that allowed for high interactivity and engagement, such as in-person discussions and telephone calls. Accordingly, these respondents also leaned toward personal or semi-personal channels with whom to lead these discussions. It was important, however, that these channels allowed for content-rich discussions. In line with our findings, Childers, Carr, Peck, and Carson (2001) and Sarkar (2011) found that customers who highly value such enjoyment-related attributes preferred higher over lower interactivity.

Customers who tried to minimize their costs and sacrifices tended to use impersonal channels and low interactivity means of interaction more intensely, particularly due to potential cost savings (Gensler et al., 2017). However, they did so less than utilitarian customers since impersonal channels and low interactivity means of interaction require more self-service effort that is difficult to delegate. Similarly, they also switched channels less frequently to avoid switching costs, for example, in the form of having to reenter data.

Relationship-oriented customers showed a strong tendency toward personal channels, such as agents, brokers, and, in some instances, friends on whom they knew they could rely. These customers tended to stick to their personal channels more strongly throughout their journeys, which is consistent with previous research reporting that loyalty is primarily attached to individuals rather than institutions (Palmatier, Scheer, & Steenkamp, 2007). To further intensify relationships and provide reassurance, these customers tended to use highly interactive means of communication, such as in-person meetings and telephone calls.

Beyond the psychographics that related to value clusters, the ladders suggested four other consequences that influenced customers' interaction choices in any phase. These may more strongly link to certain types of value-in-use but they were not clearly related to any one type of value and, most importantly, may change over time since they are not engrained in personalities. First, acquaintance with channels and means of interaction outside the current journey positively influenced reengagement. Participant AT_3 illustrated this:

I know my agent very well since I have insured two cars with him in prior instances and, hence, directly contacted him to insure the new car as well. To me, it is important to know someone because that gives me a better feeling and helps intensify the relationship.

Second, the purpose of the interaction drove customers' choices. In the information phase, for example, some interactions were primarily initiated for information gathering (e.g., through comparison sites and insurer websites), while others served to reassure process and content validity (e.g., with friends and family). For instance, respondent DE_8 mentioned,

What helped me is to discuss the matter with colleagues and friends who have different opinions. They can help understand how to go about finding a product that fits my needs. [...] I don't think I could have gotten such advice elsewhere, so for that it was very effective.

For the purchase, customers indicated that they sought assistance from personal channels which could advise on the choice for a complex service (Frambach et al., 2007; Wooten & Reed II, 1998). This was further accentuated when customers needed to file claims, which for many is the moment of truth; an immediate need for high interactivity tended to exist. Participant DE_10 explained:

I was looking for direct interaction to discuss the accident with someone. So, I called [the service center] and was very happy that they were helpful. [...] It felt best suited to just call in that situation and I was quite relieved when they offered help and guided me through this.

Contract terminations, finally, were perceived as rather unpleasant. In such situations, customers aimed to reduce the unpleasantness and chose low interactivity interactions to conclude the termination without much discussion (Sussman & Sproull, 1999). Participant CH_4 illustrated her reasoning:

I just wanted to get over the termination and not lead discussions in which they would try to win me back. So, I just set up a letter and sent it to the insurer's service center. I was determined to do this and knew that this would work without having to discuss much.

Third, service knowledge was identified as a relevant factor. Customers with detailed knowledge tended to choose channels and means of interaction that allowed them to capitalize on this knowledge but this may lead to various choice patterns. Participant DE_19 explained,

I knew exactly what I wanted to have, so I was just trying to get that quickly and cheaply. [...] I know quite a bit about insurance, so I don't need advice but it still seemed most effective to call up an agent and fix this right away.

In contrast, customers with little knowledge tended to choose options that were more supportive and better suited to fill knowledge gaps. Respondent DE_14 illustrated,

I don't know much about insurance. So, I need help because I don't know which deductible to choose, which options I need and so on. [...] I then went to an agency where the very competent agent explained everything to me.

Fourth, the interviews indicated that interest in the service influenced the interaction choice. Specifically, interested customers tended to prefer means of interaction that allowed them to gather rich information on market developments, possibly using multiple interactions to indulge in more substantive discussions. Elaborating on this, respondent CH_10 explained,

I care about insurance and feel it's a product that is often underestimated. When I was thinking about changing my insurance, I wanted to really optimize my coverage because I really care. So, I gathered a lot of information online and arranged a meeting with a broker who covers multiple insurers to discuss this with him in detail.

4.3 Inertia

In addition to determinants that affect customers' choices across their journeys, we found evidence of inertia. Specifically, choices in the prior phase positively influenced use in the

following phase (Gensler et al., 2012). This effect was apparent throughout the journey and across macro phases, but the argument tends to be stronger for channels than for means of interaction choice, as respondent DE_16 asserted:

When I wanted to update my contract, I called the agent, who I bought the initial insurance from and who assisted me when I had to change my address and particularly when I recently had an accident. Based on these experiences, it just seemed natural to reach out to him again. [...] because we have basically built a relationship over these interactions.

Inertia was especially strong when customers were satisfied with the prior interaction, which respondent CH_7 elaborated on,

I had met with the broker to look at some offers to insure my new car and was very happy with how he explained the different policies, advantages, and disadvantages, and so on. So, shortly before I got the car, I had to make the actual purchase and went back to the broker because I was really happy with the previous interaction.

In some cases, interaction satisfaction was further supported by customers' intention to reengage the same channel or means of interaction. Illustrating this link, participant DE_17 explained why he stuck with the insurer's online portal:

When I wanted to change my address, I had to call the service center, which I found quite annoying. But they explained that they now have this online portal. I thought that was a great way to get this done and was very happy with how this worked. So, I was pretty sure that I would use this more often. [...] When I had an accident I went back to the online portal and filled out a claims form.

4.4 Customer journey patterns

While inertia, which applies along all phases of the customer journey, is characterized by positive inertia, we also found two disruptive usage patterns at specific points in the customer journey. For instance, numerous participants explained why they switched channels and means from pre-purchase to purchase (i.e., conduct research shopping) and from purchase to post-purchase. These behaviors are also apparent in the aggregate views shown in Appendices A and B; however, the rationales given by customers are particularly interesting.

Participants' reasons for research shopping both confirmed and expanded current literature. In line with Verhoef et al. (2007), we found that the attribute advantages of channels and synergies between them drive research shopping behavior. Customers explained that they thought some interaction options were better suited for information and evaluation purposes than the actual purchase, which is in line with the earlier discussion of the purpose of the interaction as a driver of interaction choice. Importantly, there were also legal and insurer policy-based restrictions for some interactions of the customer journey. For example, it was not possible in all countries to make the actual purchase directly through a comparison site. In addition, some insurers insisted on a signed contract, leading customers to use physical letters although they frequently voiced a preference for digital means of interaction for purchases as well. Synergies were further apparent because some customers felt that using a different channel to research options allowed them to make better decisions when buying from a different channel. Our interview participants cited savings potential and a better knowledge base that reassured and enabled more advanced purchasing discussions (Balasubramanian et al., 2005). Respondent CH_9 argued,

I configured a few options on different insurer websites and evaluated choices on a comparison site on my tablet to get an understanding for what the insurance may cost. So when I went to an agent, I knew quite well what I could get online but the agent's offer was in the same price range. For me, this is important because I don't want to spend too much on insurance but rather save if possible.

Beyond the established, absolute notion of research shopping (i.e., switching from one channel to another), we found a relative effect of selecting one of the multiple channels used in the pre-purchase phases for the actual purchase. Particularly in the information phase, customers engaged in multiple interactions to augment the information received in one instance with information from other sources. Often, this set of interactions included the channel later used for the purchase. Customers explained that the main underlying reason for such augmentation behavior was that buying motor insurance was perceived to be a relatively important decision, which customers mostly did not confront in their everyday lives. Therefore, customers were more strongly concerned with their choice and reached out to multiple channels. Participant DE_4 elaborated on this notion:

When I bought my new car, the car dealer offered an insurance package but I wasn't sure whether this was the right thing to buy. I don't really know how much insurance for such a car should cost. I can only compare the quote with what I currently pay. So, when I got home I asked my husband what he thought of the offer. He recommended checking quotes online because they're easier

to compare, so we went to our PC and checked a comparison site but that was very confusing because there were so many different options. [...] The next day I called an insurance agent who explained this to me, ultimately leading to an offer that I accepted.

In contrast, from purchase to post-purchase, customers elucidated an impersonalization/interactivity reduction effect, that is, active switching from a personal channel and high interactivity means of interaction for the purchase to semi-personal and impersonal channels as well as lower interactivity means of interaction in post-purchase situations. For this effect, we found two main reasons. First, semi-personal and impersonal channels as well as lower interactivity means of interaction were perceived to perform better for typical tasks in the post-purchase phases. In particular, routine administrative tasks could be executed more effectively, for example, through self-service offerings, or help to reduce unpleasantness in contract terminations, which linked with the findings regarding the relevance of the purpose of the interaction. Respondent DE_3 explained,

I switched to the online portal, which I can also access through my mobile, to get invoices in the electronic format. It is much easier for me to pay them this way, so this feels just more appropriate. [...] I'm really happy how smoothly this works.

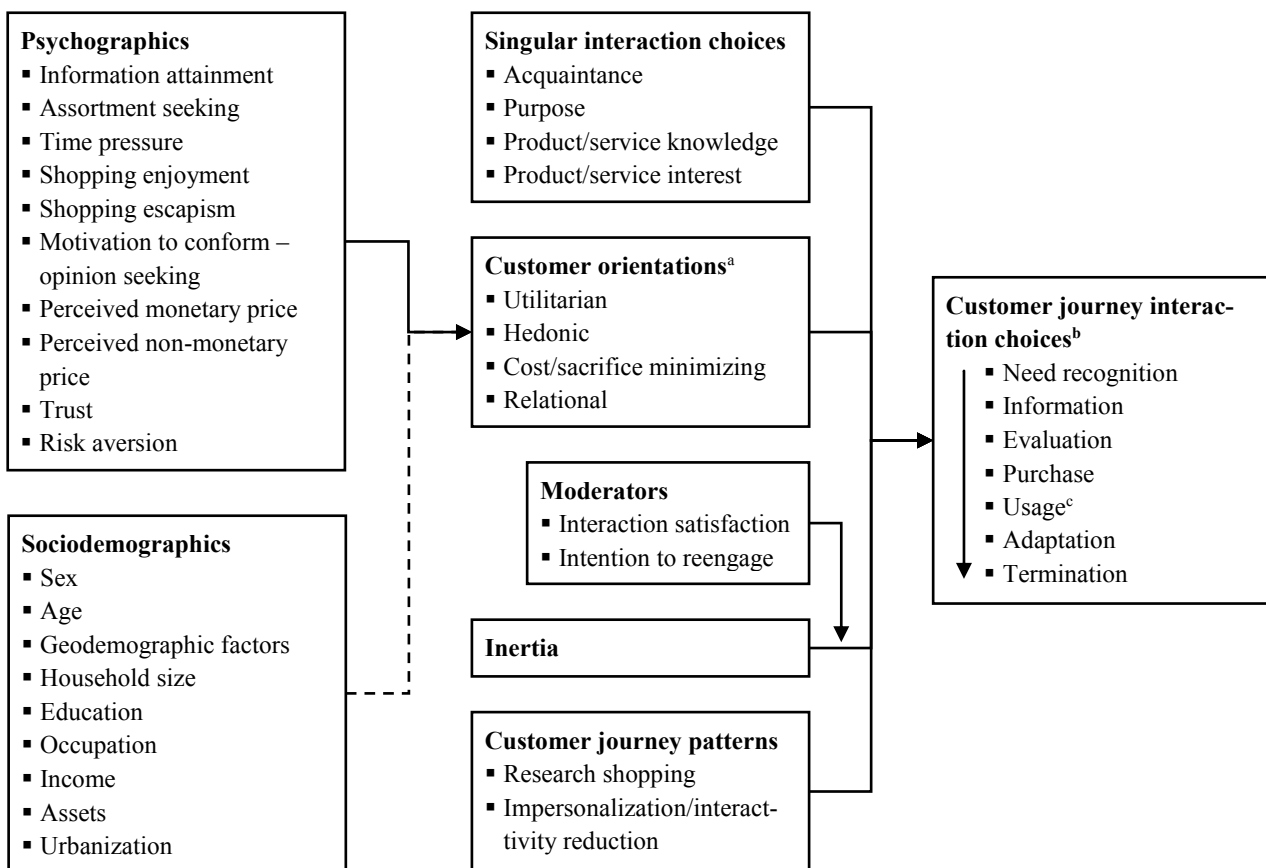
Second, and going beyond static advantages of certain channels and means of interaction in specific situations, lock-in effects of personal channels and high interactivity means of interaction were comparably weak from purchase to post-purchase phases. In fact, agents and brokers are incentivized for customer acquisition and retention regardless of conducting routine, administrative tasks (Cummins & Doherty, 2006). As long as they do not sense churn risk or cross-selling potential, they may instead not mind customers transitioning to other channels since this can help to save costs.

4.5 Conceptual model

Based on these results, we developed the conceptual model for the determinants of customers' interaction choices along the customer journey, as depicted in Figure 6. We conceptualized customers' interaction choices as dyadic channel and means of interaction choices along a fine-grained customer journey that may further have an iterative character (i.e., contract termination may lead to the start of a new journey). The drivers of these choices are singular interaction choice effects, including the customer orientations, that is, the types of value-in-use customers seek in interactions. Representing the dynamics of the customer

journey, other factors are inertia, which is moderated by perceived interaction satisfaction and the intention to reengage the respective channel or means of interaction, and customer journey patterns, particularly research shopping and impersonalization/interactivity reduction effects.

Uncovered in the laddering interviews, we found specific psychographics to link with the four types of value-in-use. Since psychographics are engrained in customers’ personalities and considered stable (McCrae & Terracciano, 2005), we conceptualized them in relation to the customer orientations. In addition, sociodemographics may also relate to these types of value-in-use. While prior research suggests a number of relevant sociodemographics in the omnichannel customer journey context (e.g., Ansari et al., 2008; Kushwaha & Shankar, 2013), our sample is too small to draw reliable conclusions, particularly since a considerable number of other influencing factors is present.



Note. Dashed arrow indicates a suspected relationship. ^a Singled out from “singular interaction choices” for better comprehensibility; customer orientations represent the type of value-in-use sought by customers in interactions. ^b Concurrent channel and means of interaction choices in the respective phases of the customer journey. ^c May be further differentiated depending on the product/service under consideration.

Figure 6. Conceptual model.

5 Discussion

We summarize this study's substantive findings in Table 2 and discuss its main implications in this concluding section to detail the contributions of our research and to offer opportunities for further research. Through the more detailed understanding of customers' interaction choices along their customer journeys, we developed a more integrative picture of the determinants of interaction choice in the complex omnichannel customer journey environment, provided novel explanations for observed customer behavior, and suggested a theoretically grounded segmentation approach.

Determinants of interaction choice along the customer journey	Underlying reasons for observed customer interaction behavior ^a	Types of value-in-use sought in interactions to segment customers
Singular interaction choices <ul style="list-style-type: none"> ▪ Acquaintance ▪ Purpose ▪ Product/service knowledge ▪ Product/service interest ▪ Customer orientations 	Research shopping <ul style="list-style-type: none"> ▪ Attribute advantages ▪ Synergies ▪ Insufficient lock-in ▪ <i>Augmentation</i> 	<i>Customer orientations</i> <ul style="list-style-type: none"> ▪ Utilitarian ▪ Hedonic ▪ Cost/sacrifice minimizing ▪ Relational
Inertia <ul style="list-style-type: none"> ▪ <i>Interaction satisfaction</i> ▪ <i>Intention to reengage</i> 	Impersonalization/interactivity reduction <ul style="list-style-type: none"> ▪ Task congruency ▪ <i>Transition/lock-in effects</i> 	<i>Psychographics^b</i> <ul style="list-style-type: none"> ▪ Information attainment ▪ Assortment seeking ▪ Time pressure ▪ Shopping enjoyment ▪ Shopping escapism ▪ Motivation to conform – opinion seeking ▪ Perceived monetary price ▪ Perceived non-monetary price ▪ Trust ▪ Risk aversion
Customer journey patterns <ul style="list-style-type: none"> ▪ Research shopping ▪ <i>Impersonalization/interactivity reduction</i> 	Motor insurance search behavior <ul style="list-style-type: none"> ▪ Search costs ▪ <i>Multi-phase process</i> ▪ <i>Search objectives</i> 	Sociodemographics <ul style="list-style-type: none"> ▪ Perceived monetary price ▪ Perceived non-monetary price ▪ Trust ▪ Risk aversion

Note. Italics indicate highlighted contributions. ^a Focused on journey-specific effects (i.e., covering multiple phases of the customer journey). ^b To predict segment affiliation.

Table 2. Summary of findings and contributions.

Based on the notion that customers' journeys are inherently complex and individualistic when considering all channels and means of interaction available to customers, we contribute to the multi-/omnichannel literature by providing a more integrative conceptual

model (see Figure 6) of determinants that drive customers' interaction choices. In doing so, we both confirmed the applicability of existing effects in this environment and found novel relationships. Specifically, we uncovered the impersonalization/interactivity reduction effect from the purchase to post-purchase phases and provided a better understanding of inertia (Gensler et al., 2012) by finding its strength to depend on satisfaction with the previous interaction as well as the intention to reengage the same channel and means of interaction.

The second main contribution rests on the means-end chains through which we identified underlying reasons that helped explain observable customer behavior. In particular, we found that the research shopping phenomenon (Verhoef et al., 2007) can be partially explained by augmentation effects in addition to the reasons identified by earlier research. Furthermore, the impersonalization/interactivity reduction effect seems not only driven by potential advantages of impersonal and semi-personal channels and low interactivity means of interaction for typical tasks in post-purchase phases but also by low lock-in. This finding is particularly interesting in light of the potential to actively and situationally influence lock-in strength depending on whether a specific customer will be transferred to semi-personal or impersonal channels, which may be cheaper, or retained in a personal channel, which may offer better opportunities for cross-selling. Finally, our findings also contribute to the extensive search literature (see Ratchford, 2008), particularly in the motor insurance industry. Based on consideration sets, Honka (2014) found substantial search costs, which limit customers' search efforts. Our findings contextualize this insofar as customers have a substantial number of interactions when searching (i.e., in pre-purchase phases but specifically in the information phase, which also includes informal information gathering that has not been considered by earlier research); however, they tend to have limited consideration sets since insurance policies are difficult to compare due to individual configurations. Also, while customers may adapt their search strategies depending on the price savings found (Honka & Chintagunta, 2017), we also find other objectives, such as establishing and growing personal relationships, that may limit customers' search efforts.

The third contribution is to the segmentation literature. Since customers' journeys are highly individual when accounting for all channels and means of interaction, descriptive segmentation approaches primarily used in the extant literature do not yield sufficiently helpful results for uniformly managing sizable portions of the markets. In contrast, the ultimate value-in-use customers seek in their interactions seems to be effective for three main reasons. First, the results clearly indicate that customers who seek utilitarian, hedonic, cost/sacrifice minimizing, or relational value in fact behave differently. Second, since this

approach rests on customer personalities, it is relatively stable along the journey and exerts its influence across phases. Third, through the fixed number of segments, the approach is operationalizable in practice. In addition, the mentioned segmentation does not have an inherent post hoc focus since no observations are required for the prediction of segment affiliation. Instead, this research indicates that the value-in-use clusters are linked to specific psychographics, which can be used to predict segment membership (Konus et al., 2008). Therefore, benefits from segmentation may also be available in the early phases of the customer journey, which is particularly important to acquire new business.

5.1 Managerial implications

Many firms appreciate the relevance of managing interactions along the customer journey well due to their direct relation with the customer experience and creation of customer value, which ultimately links to a firm's bottom line (Court, Elzinga, Mulder, & Vetvik, 2009; Kumar, Dalla Pozza, & Ganesh, 2013). Therefore, executives have undertaken significant efforts in recent years to employ the customer journey concept, hoping to serve customers better, reduce churn, and increase revenues (Rawson, Duncan, & Jones, 2013). However, incumbents in established markets have experienced relatively little success with these measures (Edelman & Singer, 2015). The enormous diversity and complexity of customers' interaction choices found in this study provide an explanation.

However, the results further suggest that instead of providing customers with select paths, firms may want to invest in better integrating their channels and means of interaction to provide customers opportunities to seamlessly switch between channels and means of interaction. While this applies to the firms' direct areas of control, the intensity of interactions outside this area suggests that it is particularly important to consider service networks. If firms manage to reduce customers' switching costs from one channel or means of interaction to another within their network, this also automatically increases the hurdles to switch to a competitor outside the network, where higher transition costs are borne by customers. To achieve this, firms likely need to invest in information technology systems to make relevant information available in any situation and align incentives throughout the organization or network with this objective. Particularly in insurance, in which the customer ownership concept with limited data sharing is still widespread, customer-facing employees should be aligned on providing customers with superior interactions and experience.

Firms can also capitalize on the identified segmentation approach based on the four types of value-in-use customers seek in interactions. This approach can influence firms' strategic conduct, especially when value creation largely rests on interactions. Specifically, firms can choose to concentrate exclusively on a subset of customer types and provide superior interactions with tailored underlying products and services. Alternatively, executives can focus on all types of customers but decide to implement measures that either help improve service perception or reduce costs by more effectively identifying customers' preferred channels and means. For example, our results suggest that firms will be more successful in targeting customers seeking utilitarian or cost/sacrifice minimizing value when they introduce self-service offerings to reduce costs.

To effectively implement this approach, firms must be able to predict segment affiliation. The results of this study indicate that concrete psychographics may be good predictors for this. Prior research has developed scales that successfully measure these psychographics; however, they may be challenging to implement in a corporate environment. Instead, firms can use the wealth of available internal and external information through advanced analytics, which may be particularly well suited for this task (Verhoef, Kooge, & Walk, 2016; Wedel & Kannan, 2016). Prediction algorithms can improve over time if predictions are constantly evaluated against actual behavior and adjusted accordingly. This, in turn, can provide a sustainable competitive advantage.

5.2 Limitations and further research

As this discussion reveals, we believe that the qualitative findings of this research provide a rich set of theoretical and managerial implications for interaction choice along the customer journey. However, this study is subject to limitations that can be addressed in future research. First, laddering relies on researchers' interpretations and thus cannot be directly replicated (Miles et al., 2014; Strauss, 1987). Future research can operationalize the elicited constructs in this research and quantitatively test the suggested relationships in our conceptual model. In addition, the links to outcomes such as satisfaction, loyalty, revenue, and profitability can be investigated, which can further illustrate the relevance of such efforts to practitioners.

Furthermore, we take an integrative approach by including all channel and means of interaction choices along a detailed customer journey structured in eight phases. Because of the complexity of such an approach, this study focuses on only one industry. While we

made a careful selection of the insurance industry, and have initial indications that insurance customer journeys feature substantial similarities with some other industries, for example, in terms of the uniqueness of customer journeys and the prevalence of multichannel usage (e.g., Käuferle & Reinartz, 2015; Konuş et al., 2008), future research can address this issue through cross-sector insights. Further lending to the complexity covered in this study, we decided to focus on three German-speaking countries in Europe. While some cultural differences among these countries exist (Hofstede, Hofstede, & Minkov, 2010), applicability to other countries cannot be observed.

Finally, we conducted in-depth interviews to understand the overt and underlying reasons for interaction choices but did not observe actual behavior or providers' efforts that may have influenced these choices despite customers not being aware of them. Combining information from both providers and customers might give rise to further insights into how the relationships among customers, providers, and potentially third parties develop along the journey, depending on concrete actions. In addition, this may also provide more information on the relative strength of influencing factors, which we can only partially observe through our qualitative data.

Appendix A

Cluster	Channel	Need recog- nition	Information	Evaluation	Purchase	In-force	Claim	Contract ad- aptation	Contract ter- mination
Personal	Agent	26	29	32	34	36	27	29	19
	Broker	10	10	10	12	6	4	7	5
	Family and friends	19	24	11	1	2	3	1	3
Semi-personal	Car sales representative	8	6	4	5	0	5	1	2
	Service center	1	2	2	7	43	31	29	30
	Social media ^b	0	0	0	0	0	0	0	0
Impersonal	Website/online portal	1	3	1	5	4	4	8	7
	Mobile app	0	0	0	0	0	1	0	0
	Comparison site	4	8	7	2	0	0	0	0
Total ^a		69	82	67	66	91	74	75	66

^a Some respondents use multiple channels in a given phase.

^b Respondents mention that they would consider this channel in future instances.

Table 3. Number of channels (interaction partners) engaged per phase.

Appendix B

Means cluster	Means of interaction	Need recognition	Information	Evaluation	Purchase	In-force	Claim	Contract adaptation	Contract termination
High interactivity	In person	30	34	33	21	6	5	7	6
	Telephone	22	13	10	9	32	41	20	13
	Online chat ^b	0	0	0	0	0	0	0	0
Low interactivity	Letter	1	9	5	22	26	18	30	22
	Email	3	6	2	5	23	5	12	20
	PC/laptop	13	19	16	9	4	4	6	5
	Smartphone/tablet	0	1	1	0	0	1	0	0
Total ^a		69	82	67	66	91	74	75	66

^a Some respondents use multiple means of interaction in a given phase.

^b Respondents mention that they would consider this means of interaction in future instances.

Table 4. Number of means of interaction used per phase.

Appendix C

Number of channels engaged	Number of respondents	In %	Number of means of interaction used	Number of respondents	In %
1	2	5%	1	0	0%
2	0	0%	2	0	0%
3	8	20%	3	9	23%
4	18	45%	4	11	28%
5	10	25%	5	18	45%
6	2	5%	6	2	5%
Total	40	100%	Total	40	100%

Table 5. Choice of channels and means along the customer journey.

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III Segmenting Omnichannel Customers: Embracing Messy Customer Journeys

Niklas Barwitz and Peter Maas¹

Abstract

With channels and ways to engage in these channels proliferating in recent years, customers today have nearly unlimited options to assemble unique customer journeys. In such a complex setting, firms struggle to provide sizable customer groups with optimal experiences since traditional segmentation strategies based on observable interaction choices have proven less helpful. Instead, this study investigates a theoretically grounded segmentation approach based on the underlying type of value-in-use customers seek in their interactions. Using a sample of 3,007 motor insurance customers, the segmentation approach is found to be relevant since the segments behave differently regarding their interaction choices along the customer journey. Furthermore, the approach is operationalizable since segment affiliation can be anticipated through psychographics and, to a lesser extent, sociodemographics, which can be observed prior to an initial interaction. The segmentation strategy therefore provides strategic and operational guidance that allow firms to better serve customers along their journeys.

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1 Introduction

Owing to technological advancements, customers have gained access to a multitude of ways to interact with firms, other customers, and third parties along their customer journeys (Chheda, Duncan, & Roggenhofer, 2017). When considering multiple pre-purchase, purchase, and post-purchase phases, nearly unlimited interaction configurations exist and customer journeys become more individualistic (Leeflang, Verhoef, Dahlstrom, & Freundt, 2014; Verhoef, Kannan, & Inman, 2015). In fact, a large-scale survey, in which we asked customers to describe their primary interactions in each of eight situations of the customer journey (i.e., a detailed but still simplified setting), found that 89% of journeys is unique.

Because of the importance of interactions for value creation (e.g., Baxendale, Macdonald, & Wilson, 2015; Kumar & Reinartz, 2016), firms have started to implement omnichannel strategies based on a more integrative view of the customer journey (Bianchi, Cermak, & Dusek, 2016; Brynjolfsson, Hu, & Rahman, 2013). However, firms struggle to generate relevant insights that will allow them to take a more proactive role in shaping the customer journey and experience (Homburg, Jozić, & Kuehnl, 2017). One particular concern is identifying relevant customer segments, which allows firms to provide targeted services and materials through interactions consistent with customer preferences on a sufficiently large scale (Edelman & Singer, 2015; Konaş, Verhoef, & Neslin, 2008). Such segmentation efforts are particularly valuable when segment affiliation can be anticipated early in a customer journey or even before initial contact is established.

Previous research has predominantly identified segments from customers' observable interaction behavior and characterized these segments through a number of covariates (e.g., Cervellon, Sylvie, & Ngobo, 2015; De Keyser, Schepers, & Konaş, 2015; Ganesh, Reynolds, Lockett, & Pomirleanu, 2010; Konaş et al., 2008; Schlager & Maas, 2013; Thomas & Sullivan, 2005). However, on one hand, these approaches tend to be descriptive in nature (Dholakia et al., 2010) and thus less helpful once more than 89% of journeys is unique and, on the other, they tend to have a post hoc focus due to using observed interaction choices as the main segmentation criteria. Instead, we set out to investigate a segmentation approach based on the underlying types of value-in-use customers seek in interactions (i.e., customer orientations), which are considered key drivers of customers' interaction choices in complex environments (e.g., Barwitz & Maas, 2016; Lemke, Clark, & Wilson, 2011). In addition, we explore psychographics and sociodemographics through focus groups, expert interviews, in-depth customer interviews, and a survey of 3,007 customers

that may be particularly well suited to anticipate segment affiliation a priori due to their relevance (e.g., Ailawadi, Neslin, & Gedenk, 2001; Konoş et al., 2008) and stability (e.g., McCrae & Terracciano, 2005).

Given the challenges and existing state of knowledge, this study provides two main contributions. The first pertains to the segmentation and multi-/omnichannel literature through its response to Lemon and Verhoef's (2016) call to develop a refined segmentation approach for omnichannel customers that is less descriptive (Dholakia et al., 2010). Specifically, our results suggest that the types of value-in-use customers seek in interactions are indeed relevant and helpful in segmenting omnichannel customers since the four segments behave differently regarding their interaction choices along the customer journey. Furthermore, segment affiliation can be anticipated through psychographics and sociodemographics that are obtainable a priori, which allows for operationalizing the approach even before an initial interaction has occurred (Baxendale et al., 2015).

The second contribution is managerial. Based on the effectiveness of the suggested segmentation approach, the findings help retail-oriented firms make fundamental strategic and operational decisions, such as which customers to focus on, which interaction options to invest in, and how to approach different segments along the customer journey. This may allow firms to take the more proactive role in shaping customer experiences they are hoping to take.

2 Conceptual development

To develop the conceptual model, presented in Figure 7, we need to define (1) the operationalization of interactions along the customer journey, (2) the segmentation approach, and (3) the psychographic and sociodemographic variables that may help anticipate segment affiliation. To do so, we chose the motor insurance industry for this study for three main reasons. This industry has provided offerings through multiple channels and means of interaction for a long time (Stone, 2009). Also, customers encounter a relatively large number of interactions along multi-year journeys that can be differentiated into distinct phases (Kankainen, Vaajakallio, Kantola, & Mattelmäki, 2012). Moreover, insurance products are perceived to be complex services, so customers tend to have made conscious choices leading to good memory of the respective journeys (Bühler, Eling, Maas, & Milanova, 2015; Crosby, Evans, & Cowles, 1990). In this context, we draw on two focus group discussions,

eight expert interviews, and 40 semi-structured in-depth interviews with 40 customers that complement the extant literature for our conceptualization.²

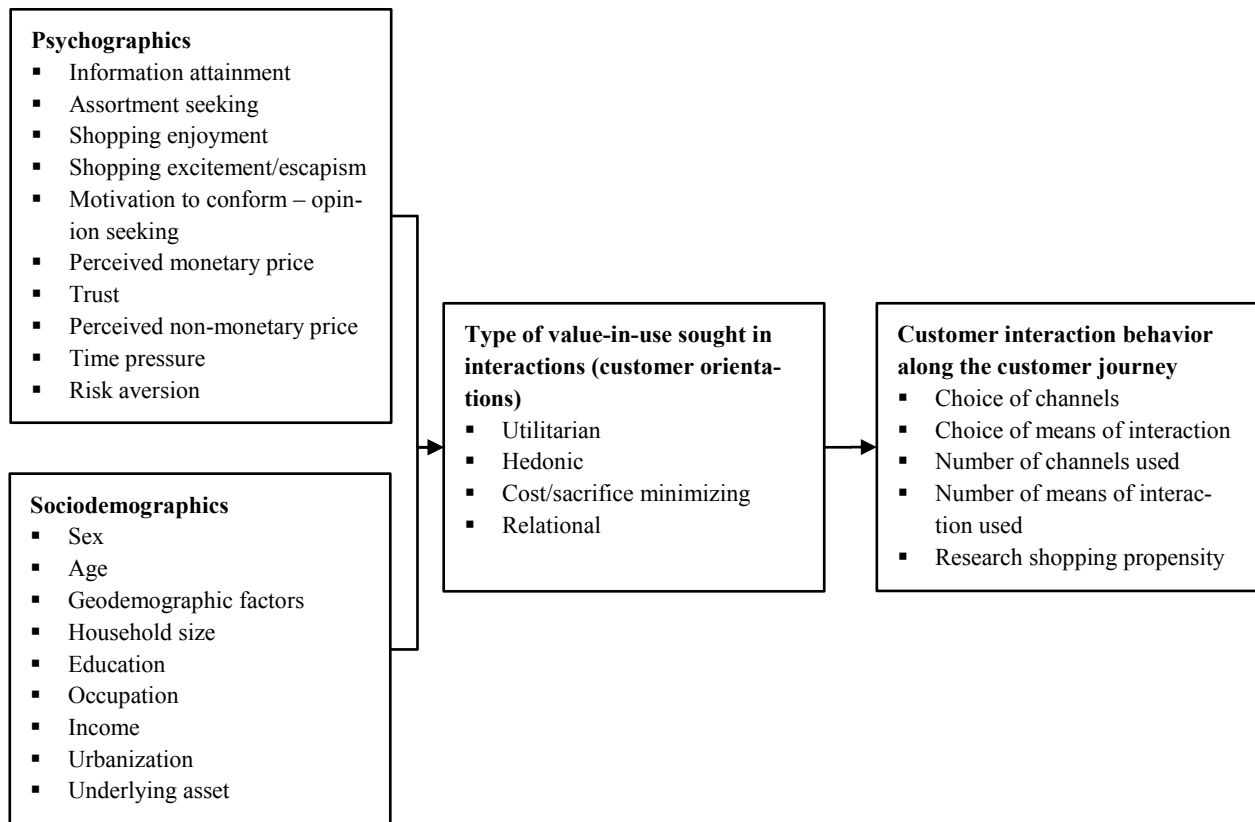


Figure 7. Conceptual model.

The result of the focus groups and expert interviews is twofold. On one hand, the discussions led us to operationalize interactions as the concurrent choice of channel (i.e., who or what) and means of interaction (i.e., how) due to the perceived relevance of this distinction for customers. On the other, we divide the customer journey into eight phases from need recognition to search, evaluation, purchase, in-force (contract duration), claim, and contract adaptation to contract termination, which leads to a relatively detailed operationalization compared to earlier research (e.g., De Keyser et al., 2015; Gensler, Verhoef, & Böhm, 2012).

² A web appendix with further information on the focus groups and interviews, which are detailed in the first article, accompanies the submission to the Journal of the Association for Consumer Research.

Using this information as a structuring element, we asked participants in the 40 in-depth customer interviews to note all channels and means of interactions used in each interaction. We therefore account for all channels (i.e., using the omnichannel view) and means of interaction from the customers' perspective. Appendix A provides an overview of these channels and means of interaction and includes the classification of channels into online or offline channels and means of interaction into high and low interactivity means. This allows for better interpretability of the analyses in this study and corresponds with recent research on the topic (e.g., Barwitz & Maas, 2016; Herhausen, Binder, Schoegel, & Herrmann, 2015). Along the customer journey, it is relevant to not only understand interaction choices in singular instances but also whether and how customers switch between different channels and means of interaction. Specifically, the research shopping phenomenon has received considerable academic and managerial attention since Verhoef, Neslin, and Vroomen (2007) introduced it, leading to the differentiation of webrooming (research in an online channel, purchase in an offline channel) and showrooming (research in an offline channel, purchase in an online channel) (e.g., Brynjolfsson et al., 2013; Gensler, Neslin, & Verhoef, 2017). While we account for both types of research shopping, webrooming tends to be more prevalent in insurance according to our expert and customer interviews.

In the in-depth interviews, participants also conveyed the reasons for their interaction choices as we employed the soft laddering technique. The resulting means-end chains allowed us to uncover both overt and underlying reasons for customers' interaction choices. Thus, we identify four types of value as the ultimate underlying reasons for interaction choices in line with the customer orientations Lemke et al. (2011) identify: utilitarian, hedonic, cost/sacrifice minimizing, and relational value.³ Customers with utilitarian goals in their interactions are primarily concerned with the practical, functional, and instrumental benefits of different types of interactions (Chitturi, Raghunathan, & Mahajan, 2008). Hedonic customers seek experiential, aesthetic, and enjoyment-related benefits (Chitturi et al., 2008). Those who want to minimize costs and sacrifices aim to reduce both monetary costs and the time and effort required (J. B. Smith & Colgate, 2007). Relational customers, finally, gain value-in-use from the presence of a personal relationship with trusted advisors

³ We also refer to the four types as utilitarian, hedonic, cost/sacrifice minimizing, or relational customers instead of customers seeking the respective type of value-in-use in their interactions in the remainder of the article.

(Barnes, 1994), effectively co-creating value through repeated interactions (e.g., Grönroos, 2008).

Furthermore, the means-end chains suggest that 10 specific psychographics relate to these types of value-in-use. Psychographics have a long-standing tradition in marketing research (e.g., Anderson & Golden, 1984; Wells, 1975) due to their demonstrated influence on customer behavior, observability, and relative stability. This may make them particularly well suited for the anticipation of segment affiliation. In addition, sociodemographic differences may exist between the segments. While we cannot draw reliable conclusions from the qualitative methods used, the interviews suggest that the underlying asset, in this case the car, may influence customers' interaction choices beyond routinely analyzed demographic variables.

2.1 Customer interaction behavior along the customer journey

2.1.1 Choice of channels and means of interaction

Based on the characterization of utilitarian, hedonic, cost/sacrifice minimizing, and relational customers, we expect utilitarian customers to be most prone to using online channels and low interactivity means of interaction due to the functional benefits these can provide, including around-the-clock remote access to broader assortments (Frambach, Roest, & Krishnan, 2007). In contrast, relational customers, who look to establish and foster long-term relationships, may strongly prefer offline channels and high interactivity means of interaction since these are better suited for relationship building (Crosby et al., 1990). Hedonic customers may generally enjoy high interactivity discussions with experts in the offline world; however, they may want to enrich these through low interactivity interactions in online channels. Such channels can, for example, provide information on recent developments in the markets and offer stimulating experiences in mobile apps (Peterson & Merino, 2003). Thus, we expect hedonic customers to use online channels more than relational but less than utilitarian customers and high interactivity means more than utilitarian but less than relational customers. Cost/sacrifice minimizing customers, finally, may find online channels to be attractive, particularly due to potential savings (e.g., Gensler et al., 2017). However, using these channels is associated with some effort that is difficult to delegate, which may lead these customers to use offline channels more strongly than utilitarian customers but less so than relational customers. Similarly, cost/sacrifice minimizing cus-

tomers may in principle prefer low interactivity means of interaction but find high interactivity means of interaction require less effort in some instances (e.g., calling instead of logging into an online portal and filling out a form to inquire about a submitted claim). We thus expect these customers to use low interactivity means of interaction more often than relational and hedonic customers but less so than utilitarian customers.

P1a: Utilitarian customers use online (vs. offline) channels more than any other segment.

P1b: Relational customers use offline (vs. online) channels more than any other segment.

P2a: Utilitarian customers use low (vs. high) interactivity means of interaction more than any other segment.

P2b: Relational customers use high (vs. low) interactivity means of interaction more than any other segment.

P2c: Hedonic customers use high (vs. low) interactivity means of interaction more than utilitarian and cost/sacrifice minimizing customers but less than relational customers.

2.1.2 Number of channels and means of interaction used

Utilitarian customers tend to choose the channel and means of interaction that seem most suitable in a given situation. They may thus use the highest number of channels and means of interaction in their journey. Hedonic customers may engage a similar number of distinct channels since these offer different experiences; however, they may use relatively fewer means of interaction than utilitarian customers since not all means are similarly experiential and offer the richness that may suit hedonic customers (Chitturi et al., 2008). Cost/sacrifice minimizing customers may engage fewer different channels since these customers do not want to incur switching costs, for example, in the form of having to repeat their concerns or to reenter data (J. B. Smith & Colgate, 2007). This is less pronounced for means of interaction, however, so the number of means used may be closer to that of hedonic customers. Relational customers, finally, are expected to use the fewest channels and means of interaction since they build, foster, and capitalize on personal relationships (i.e., repeatedly choosing a few channels or the same channel), which is easiest through high interactivity means (Crosby et al., 1990).

P3a: Utilitarian and hedonic customers use more distinct channels in their journeys than other segments.

- P3b: Relational customers use fewer distinct channels in their journeys than any other segment.
- P4a: Utilitarian customers use more distinct means of interaction in their journeys than any other segment.
- P4b: Relational customers use fewer distinct means of interaction in their journeys than any other segment.

2.1.3 *Research shopping propensity*

Hedonic and utilitarian customers may be most prone to research shopping but for different reasons. Hedonic customers may use online channels in their research to prepare for offline discussions, after which they tend to purchase in the offline environment, while utilitarian customers may engage in both webrooming, but to a lesser degree than hedonic customers, and showrooming. Specifically, they may use online channels for information and evaluation purposes and then selectively purchase from an expert, who can offer reassurance for the decision. Alternatively, utilitarian customers may also access experts' knowledge in pre-purchase phases and then purchase online, for example, to realize cost savings (Cervellon et al., 2015). Relational customers, in contrast, are expected to stick with their preferred channel and may thus be least prone to research shopping (Burnham, Frels, & Mahajan, 2003). Since research shopping is inherently linked to switching channels, cost/sacrifice minimizing customers may be less prone to research shop than utilitarian and hedonic customers due to the transition costs they incur, despite the potential monetary savings. Therefore, we still expect these customers to be more prone to research shopping than relational customers.

- P5a: Hedonic and utilitarian customers are more prone to research shopping than other segments.
- P5b: Relational customers are less prone to research shopping than any other segment.

2.2 **Psychographic and sociodemographic covariates**

2.2.1 *Information attainment*

Information attainment refers to the knowledge structures about a service or product available to a customer (R. E. Smith & Swinyard, 1982). These increase customers' ability to

evaluate products and services to make informed decisions, thereby providing a means to an end (e.g., Rao & Monroe, 1988). Based on this relationship, information attainment exerts a significant utilitarian influence on customers' interaction choices (Noble, Griffith, & Weinberger, 2005). We therefore anticipate it to be positively related to utilitarian value.

2.2.2 *Assortment seeking*

Exposure to a variety of merchandise in one instance allows customers to easily examine complementary and substitute products or services, thereby supporting the optimization of time, place, and possession needs (Noble et al., 2005). Also, assortment offers customers option value (Kahn, 1995) and reduces search costs (Hoch, Bradlow, & Wansink, 1999). Consistent with prior research (e.g., Noble, Griffith, & Adjei, 2006), we expect assortment seeking to be positively related to utilitarian value. At the same time, a negative relationship is expected with hedonic value since some customers may perceive searching for and spending time to find the right product or service not as a cost but rather as pleasure and excitement (e.g., Babin, Darden, & Griffin, 1994; Forsythe, Chuanlan, Shannon, & Gardner, 2006).

2.2.3 *Time pressure*

Time pressure refers to customers' consideration that time is a scarce resource (Kleijnen, De Ruyter, & Wetzels, 2007). Customers who are pressed for time tend to plan the use of their time carefully and seek opportunities to leverage their time, which leads them to conduct less extensive searches (Konus et al., 2008; Moorthy, Ratchford, & Talukdar, 1997). Hence, time-pressured customers particularly value efficient and timely interactions, which is linked to utilitarian value (Childers, Carr, Peck, & Carson, 2001).

2.2.4 *Shopping enjoyment*

Experiential shopping is a form of recreation for customers who are motivated by the enjoyment of shopping (Bellenger & Korgaonkar, 1980). Enjoyment represents the hedonic aspect and value provided through shopping activities (e.g., Childers et al., 2001). Therefore, we expect shopping enjoyment to be positively related to hedonic value.

2.2.5 *Shopping excitement/escapism*

Shopping excitement leading up to escapism refers to customers who enjoy the excitement of shopping, often also of bargaining, or who escape from their day-to-day world (e.g., Mathwick, Malhotra, & Rigdon, 2002). Shopping is therefore perceived as a pleasant and experiential activity that creates value for hedonic but to a much lesser extent utilitarian customers (Babin et al., 1994; Mathwick et al., 2002), leading us to expect a positive relationship with hedonic and a negative relationship with utilitarian value.

2.2.6 *Motivation to conform – opinion seeking*

Motivation to conform represents the extent to which customers seek approval from and the opinion of people around them when shopping (Ailawadi et al., 2001; Chandon, Wansink, & Laurent, 2000). As a form of self-expression, Verhoef et al. (2007) find reference groups' channel choice to influence customers' channel selection behavior. Consistent with Konuş et al. (2008), we expect motivation to conform to be positively related to hedonic value.

2.2.7 *Monetary price consciousness*

Price-conscious customers aim to minimize the price paid for a product or service. While the term has been used for a number of price-related cognitions (see Zeithaml, 1984), the core meaning is the degree to which a customer focuses exclusively on paying low prices (e.g., Lichtenstein, Ridgway, & Netemeyer, 1993; Sproles & Sproles, 1990). J. B. Smith and Colgate (2007) find monetary price consciousness to be a primary component of cost/sacrifice minimization. While paying lower prices is part of generating utilitarian value in the classical quality/price conceptualization (e.g., Rao & Monroe, 1988), it is the primary focus for cost/sacrifice minimization-oriented customers. Therefore, we expect a positive relationship with cost/sacrifice minimizing value-in-use in comparison to all other values, including utilitarian value. In relation to hedonic and relational value, however, we expect price consciousness to be positively related to utilitarian customers.

2.2.8 *Non-monetary price consciousness*

Next to monetary price, non-monetary price (i.e., time, effort, search, and psychic cost) is a second component of perceived price (Yu, Niehm, & Russell, 2011). The higher customers' perception of such sacrifices, the higher their perceptions of price (Babin et al., 1994). Customers who seek to minimize these costs and sacrifices select interactions from which they expect lower perceived prices (Baker, Parasuraman, Grewal, & Voss, 2002). In contrast to time pressure, which is expected to drive customers to seek utilitarian value out of necessity, non-monetary price consciousness is the preference of cost/sacrifice minimizing customers.

2.2.9 *Trust*

Trust refers to customers' willingness to rely on a partner in whom they have confidence (Moorman, Deshpandé, & Zaltman, 1993). This confidence stems from a trusting party's belief in the integrity of the counterpart, which is associated with qualities such as competence, honesty, consistency, and benevolence (e.g., Sharpe, Anderson, White, Galvan, & Siesta, 2007). Trust is positively related to relationship commitment (e.g., Morgan & Hunt, 1994), with some researchers even finding trust to be the most influential antecedent for client commitment in the financial planning context (Christiansen & DeVaney, 1998). Therefore, we expect a positive relationship between trust and relational value-in-use.

2.2.10 *Risk aversion*

Risk aversion refers to customers being more sensitive to losses than to gains under uncertainty (Tversky & Kahneman, 1992). The concept has received considerable scholarly attention with differing links to values being suggested in the existing interaction choice literature. Specifically, Forsythe et al. (2006) argue that financial or product performance risks, which may be more pronounced in certain channels, are utilitarian in nature. Similarly, Moorthy et al. (1997) argue that lower customer perceived risk is an instrumental or functional benefit that risk-averse customers value. However, Sarkar (2011) identifies a form of shopping enjoyment risk, for example, not being able to interact with products in online channels (Childers et al., 2001), which may be relevant for hedonism-oriented customers. The risk of not paying a low price, for example, through suboptimal price comparisons (Noble et al., 2005), may be highly relevant for cost/sacrifice minimization-oriented

customers. In addition, operational risk may be related to non-monetary costs and hence further strengthen the link between risk aversion and cost/sacrifice minimization (J. B. Smith & Colgate, 2007). Finally, trust-based relationships with knowledgeable experts in the field may reduce risks for relationship-oriented customers (Doney & Cannon, 1997). Therefore, risk aversion may be related to all four customer values, depending on which types of customers perceive risk most importantly.

2.2.11 Summary of expected relationships with psychographics

To summarize our expectations regarding the relationships between the psychographics and the four types of value, we provide an overview in Table 6.

Psychographic construct	Utilitarian	Hedonic	Cost/sacrifice	
			minimizing	Relational
Information attainment	+	+/-	+/-	+/-
Assortment seeking	+	-	+/-	+/-
Time pressure	+	+/-	+/-	+/-
Shopping enjoyment	-	+	+/-	+/-
Shopping excitement/escapism	-	+	+/-	+/-
Motivation to conform – opinion seeking	+/-	+	+/-	+/-
Perceived monetary price	+/-	-	+	-
Perceived non-monetary price	+/-	+/-	+	+/-
Trust	+/-	+/-	+/-	+
Risk aversion	+/-	+/-	+/-	+/-

Note. Relative to other segments, + denotes a positive expected relationship, - a negative expected relationship, and +/- neither a particularly positive or negative relationship.

Table 6. Expected relationship of psychographics and segment affiliation.

2.2.12 Sociodemographic variables

In addition to psychographic constructs, sociodemographic variables may influence segment affiliation. Thus, sex, age, geodemographic factors, household size, education, occupation, income, and urbanization have routinely been analyzed with varying outcomes (e.g., Ansari, Mela, & Neslin, 2008; Inman, Shankar, & Ferraro, 2004; Kushwaha & Shankar, 2013). As discussed, the underlying asset (i.e., the car to be insured) may further influence customers' segment affiliation due to varying emotional attachments to their cars (Dhar &

Wertenbroch, 2000; Malär, Krohmer, Hoyer, & Nyffenegger, 2011). For segmenting customers, Soopramanien and Robertson (2007) conclude that demographic variables may be less important than psychographic factors. Thus, we provide an overview of the broad range of sociodemographic variables used in Appendix B; however, we do not expect strong overall relationships.

3 Methodology

3.1 Data collection

Following the qualitative research discussed earlier, we collected survey data from a sample of 3,007 customers of motor insurance coverage. To ensure unbiased selection of participants, we asked a market research agency to recruit three individual samples of 1,000 participants from Germany, Austria, and Switzerland. The resulting sample is representative of motor insurance customers in the three countries (for details, see Appendix B).

To minimize common method effects, we conducted a quantitative pretest with 507 participants in Germany (Hulland, Baumgartner, & Smith, 2017). Furthermore, we physically separated the measure of independent and dependent variables in the questionnaire and used different scales (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Rindfleisch, Malter, Ganesan, & Moorman, 2008). In the first section of the questionnaire, we asked participants to indicate their psychographic and sociodemographic characteristics using seven-point scales in multi-item constructs. In a separate section, participants then conveyed the channels and means of interaction they used and ranked the main reasons for their choices in each of the eight phases,⁴ representing deterministic choices and rankings to differentiate the measures from the seven-point scales. In addition, the qualitative interviews indicated that customers do not perceive any channel, means of interaction, or reason for using it to be more socially desirable than another, making this survey less susceptible to common method bias (MacKenzie & Podsakoff, 2012). Beyond these *ex ante* measures, we tested for common method variance in our data. Neither the statistical test for the existence of a single latent factor (Podsakoff et al., 2003) nor Harman's single-factor test indicated any issues with regard to common method bias.

⁴ Or fewer if participants had not experienced the respective situation; for example, not all customers may have filed a claim yet, which is the case for 33.5% of respondents.

3.2 Measurement

3.2.1 *Customer interaction behavior*

The dependent variables rest on customers' interaction choices in each of the phases of the customer journey. As discussed, we accounted for all channels and means of interaction and subsequently clustered them for better interpretability (see Appendix A). With this information, we calculated the propensity for engaging online and offline channels and high and low interactivity means of interaction as the share of using the respective category in (a) all interactions, (b) pre-purchase interactions (i.e., during need recognition, information, and evaluation phases), (c) the purchase interaction, and (d) post-purchase interactions (i.e., during in-force, claim, contract adaptation, and contract termination phases). In addition, we counted the number of distinct channels and means of interaction customers used in their journeys. Research shopping, finally, was defined as the use of an online channel in the information or evaluation phases and an offline channel for the purchase or vice versa.

3.2.2 *Type of value-in-use sought in interactions*

To operationalize the types of value-in-use customers seek in interactions, we asked participants to rank four attribute collections that represent definitions of utilitarian, hedonic, cost/sacrifice minimizing, and relational value (see Table 7 for the definitions used) according to the perceived importance of their channel and means of interaction choice in each phase. To derive the primary value-in-use customers seek in their interactions along the customer journey, we then calculated the weighted averages of the rankings, which is necessary for two main reasons. On the one hand, our primary interest is in the main reason that leads a customer to choose the respective channel and means of interaction and secondarily in the ordering of subsequent reasons, and on the other, because the interval difference cannot be assumed to be the same for all ranks (Agresti, 2010). Therefore, we weighted the resulting averages for the four types of value-in-use with the inverse (a smaller value indicating a higher priority) of the number of times the respective reason was indicated as the main motive for choosing a channel and means of interaction (for a more detailed discussion of weighted ordinal means, see Kolesárová, Mayor, & Mesiar, 2007). The resulting scores for each of the four types of value-in-use thus revealed what customers generally seek in interactions across the customer journey and provided the basis for segmenting customers.

Motive	Mean scores (standard deviation in parentheses)						F (3, 3003)	Pairwise contrasts ^a
	Utilitarian (U)	Hedonic (H)	Cost/sacrifice min. (C)	Relational (R)	Total sample			
Practical, functional, instrumental (Chitturi et al., 2008)	.47 (.29)	1.86 (1.01)	2.19 (.64)	2.03 (.96)	1.60 (1.04)	987.58	*** U<H; H<R; R<C	
Experiential, aesthetic, and enjoy- ment-related (Chitturi et al., 2008)	3.45 (.50)	1.04 (.49)	3.54 (.47)	3.49 (.54)	3.26 (.89)	2063.75	*** H<U,R; U<C	
Minimizing costs and sacrifices (J. B. Smith & Colgate, 2007)	1.57 (.89)	1.97 (1.08)	.43 (.30)	2.47 (.72)	1.60 (1.09)	1171.58	*** C<U; U<H; H<R	
Personal relationship (Barnes, 1994)	2.92 (.68)	1.84 (1.09)	2.19 (1.05)	.49 (.37)	1.80 (1.25)	1653.57	*** R<H; H<C; C<U	
Number of observations	886	292	813	1016				
Percentage of observations	30	10	27	34				

Note. *** $p < .01$; ** $p < .05$; * $p < .1$. ^a Duncan's post hoc multiple-range test ($\alpha = .05$).

Table 7. Motives for interaction choices by cluster.

3.2.3 Psychographic variables

For psychographic constructs, we used established and validated multi-item scales, which we adapted to the insurance context where necessary (see Table 8).

Segmenting Omnichannel Customers

Constructs and items	Factor loading	CR	AVE
Information attainment (adapted from Noble et al., 2005)		.91	.71
I often seek out information regarding which insurance to buy.	.76		
I spend a lot of time looking for information about insurance products and brands before I make a purchase.	.81		
I like to have a great deal of information before I buy insurance.	.91		
I usually seek out insurance product information before making a purchase.	.88		
Assortment seeking (adapted from Noble et al., 2005)		.88	.79
I like to have access to many insurance brands when I shop.	.89		
I like to have access to a wide selection of insurance products when I shop.	.89		
Time pressure (Konus et al., 2008; Srinivasan & Ratchford, 1991)		.73	.58
I am always busy.	.88		
I usually find myself pressed for time.	.62		
Shopping enjoyment (adapted from Babin et al., 1994; Dawson, Bloch, & Ridgway, 1990)		.91	.71
Shopping for insurance is truly a joy.	.84		
Compared to other things I could have done, the time spent shopping for insurance was truly enjoyable.	.89		
I enjoy insurance shopping for its own sake, not just for the items I may have purchased.	.90		
During insurance shopping, I feel the excitement of the hunt.	.74		
Shopping excitement/escapism (adapted from Babin et al., 1994; Mathwick et al., 2002)		.88	.71
While insurance shopping, I am able to forget my problems.	.79		
I get so involved when I shop for insurance that I forget everything else.	.90		
When insurance shopping, I feel like I am in another world.	.83		
Motivation to conform—opinion seeking (adapted from Flynn, Goldsmith, & Eastman, 1996)		.90	.76
Other people influence my choice of insurance products.	.76		
When I consider buying insurance, I ask other people for advice.	.94		
I like to get other people's opinions before I buy insurance.	.91		
Perceived monetary price (adapted from Lichtenstein et al., 1993; Sproles & Sproles, 1990)		.80	.51
I generally shop around for lower prices on insurance products, but they still must meet certain minimum quality requirements.	.70		
I compare the prices of various insurance products before I make a choice.	.86		
I shop at more than one insurer to find low prices.	.76		
It is important for me to have the best price for insurance.	.69		
Perceived non-monetary price (adapted from Baker et al., 2002)		.83	.56
Searching information for insurance costs a lot of time and effort.	.62		
Insurance shopping takes a lot of time and effort.	.83		
Finding the right insurance products and services takes a lot of time and effort.	.80		
Comparing insurance offers is very cumbersome.	.70		
Trust (adapted from Sharpe et al., 2007)		.94	.77
I have confidence in my insurance advisor's integrity.	.76		
I have confidence in my insurance advisor's skills and expertise.	.87		
I can rely on my insurance advisor to follow through on his/her commitments.	.93		
I trust my insurance advisor.	.93		
I view my insurance advisor as a sincere person.	.89		
Risk aversion (Mandrik & Bao, 2004)		.79	.56
I do not feel comfortable about taking chances regarding insurance.	.62		
I prefer situations that have foreseeable outcomes.	.83		
Before I make a decision on insurance, I like to be absolutely sure how things will turn out.	.78		
Fit Statistics			
CFI	.96		
GFI	.94		
AGFI	.92		
SRMR	.05		
RMSEA	.04		

Note. Parameter abbreviations with recommended thresholds (Bagozzi & Yi, 1988; Hu & Bentler, 1999). CR = Composite reliability ($\geq .60$); AVE = Average variance extracted ($\geq .50$); CFI = Comparative Fit Index ($\geq .95$); GFI = Goodness of Fit Index ($\geq .90$); AGFI = Adjusted Goodness of Fit Index ($\geq .90$); SRMR = Standardized Root Mean Square Residual ($\leq .08$); RMSEA = Root Mean Square Error of Approximation ($\leq .06$). All items were measured on seven-point scales anchored by “strongly agree” and “strongly disagree.”

Table 8. Psychographic construct measurement and reliability.

We performed a confirmatory factor analysis to assess the reliability and validity of these scales. Convergent validity is confirmed by all factor loadings clearly exceeding the minimum threshold and construct-level reliabilities exceeding the conservative .70 threshold (Bagozzi & Yi, 1988; Hulland et al., 2017). Furthermore, each of the average variances extracted exceeds the .50 threshold and is greater than the respective squared inter-construct correlations, thereby confirming discriminant validity (Fornell & Larcker, 1981; Jindal, Reinartz, Krafft, & Hoyer, 2007). The overall model fit statistics further indicate a highly satisfactory fit (Bagozzi & Yi, 1988; Hu & Bentler, 1999).

3.3 Segmentation

To segment customers, we performed a hierarchical cluster analysis using Ward's minimum variance method with squared Euclidean distances (Ganesh et al., 2010; Rohm & Swaminathan, 2004). Since no outliers were apparent, we examined the dendrogram, cluster criterion plots, and silhouette widths, based on which we reconfirmed a four-factor solution, which complies with the theoretical model. Using the cluster centers of the four-cluster solution obtained by the hierarchical procedure as initial seeds, we then employed K-means non-hierarchical clustering to minimize the sum-of-squares, which led to the final clusters. We confirmed these by analyzing the average silhouette width, which exceeded that of the hierarchical clustering (Rousseeuw, 1987).

To further confirm the segmentation results, we analyzed how well the resulting clusters fit the scores for the four types of value-in-use. We report the means and standard deviations of the scores for each cluster as well as one-way analysis of variance (ANOVA) results in Table 7. The results show that the four factors consisting of the definitions for utilitarian ($F(3, 3003) = 987.58, p < .01$), hedonic ($F(3, 3003) = 2063.75, p < .01$), cost/sacrifice minimizing ($F(3, 3003) = 1171.58, p < .01$), and relational value ($F(3, 3003) = 1653.57, p < .01$) significantly differ between the clusters. We then also analyzed post hoc pairwise contrasts to validate the findings by confirming the stability and uniqueness of the four clusters obtained due to the significant differences between them (Dant & Gundlach, 1999). This also allowed us to label the clusters consistent with the theorized relationships as utilitarian, hedonic, cost/sacrifice minimizing, or relational.

4 Results

4.1 Customer interaction behavior along the customer journey

4.1.1 *Choice of channels and means of interaction*

The results from a one-way ANOVA indicate that significant differences between the four segments exist regarding the use of online (vs. offline) channels ($F(3, 3003) = 125.45, p < .01$) as well as high (vs. low) interactivity means of interaction ($F(3, 3003) = 111.87, p < .01$). Figure 8 graphically represents the differences between each of the segments, which we obtained through Duncan's post hoc multiple range tests. Supporting P1a and P1b, these highlight that utilitarian customers use online channels significantly more often ($p < .01$) than any other segment, while relational customers use offline channels significantly more often than any other segment ($p < .01$). Regarding means of interaction, we find support for P2a and P2b in that utilitarian customers use low interactivity means of interaction significantly more than any other segment ($p < .01$), while the opposite holds for relational customers ($p < .01$). For the difference between hedonic and cost/sacrifice minimizing customers, we find a significant difference ($p = .04$) for the means of interaction, thus supporting P2c, while this difference is not significant for channels ($p = .12$). The analyses for pre-purchase, purchase, and post-purchase phases, as detailed in Appendix C, indicate that differences among the segments are significant across the customer journey ($p < .01$). Interestingly, hedonic customers tend to use online channels relatively more often in post-purchase phases (i.e., significantly more than cost/sacrifice minimizing customers and up to the level of utilitarian customers), indicating that these channels, which are partially new offerings such as mobile apps that can be used for claims, may be perceived as more experiential than instrumental or effort saving.

4.1.2 *Number of channels and means of interaction used*

As expected, we find significant differences between segments for the number of channels ($F(3, 3003) = 39.39, p < .01$) and means of interaction used ($F(3, 3003) = 36.78, p < .01$), as depicted in Figure 9. Specifically, utilitarian and hedonic customers use significantly more channels ($p < .02$) than cost/sacrifice minimizing customers, who in turn use significantly more channels than relational customers ($p < .01$), thus supporting P3a and P3b. Utilitarian customers use more distinct means of interaction than all other customers ($p <$

.03) and relational customers use the fewest means ($p < .01$), which further supports our expectations in P4a and P4b.

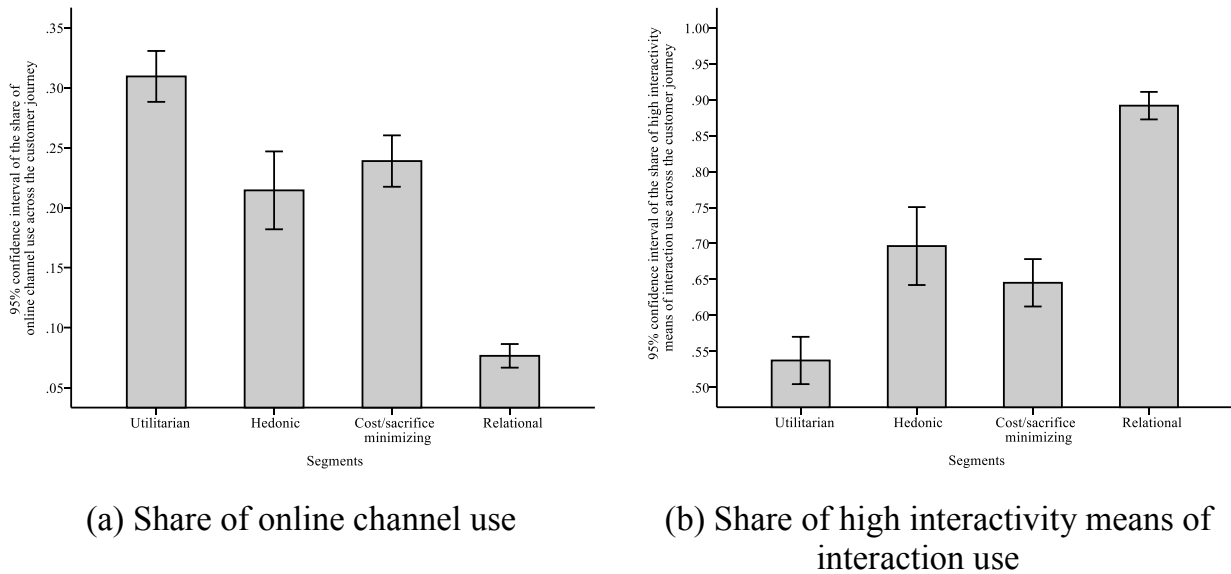


Figure 8. Choice of channels and means of interaction across the customer journey by segment.

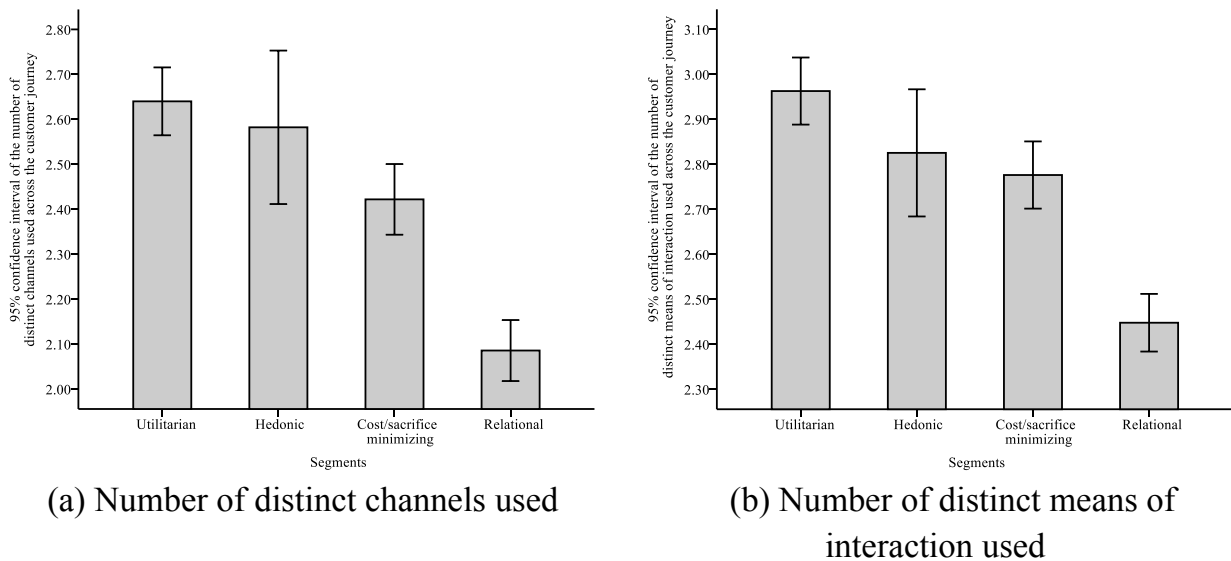


Figure 9. Number of distinct channels and means of interaction used across the customer journey by segment.

4.1.3 Research shopping propensity

For the propensity to research shop, we find that significant differences between the segments exist ($F(3, 3003) = 11.66, p < .01$) and, in support of P5a, that utilitarian and hedonic

customers are particularly prone to engaging in research shopping ($p = .04$). Cost/sacrifice minimizing customers also research shop significantly more than relational customers ($p = .02$), thus supporting P5b (see Figure 10).

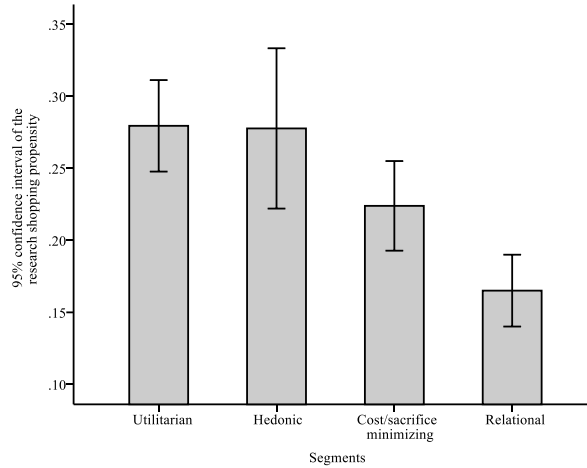


Figure 10. Research shopping propensity by segment.

4.2 Segment affiliation

Table 9 presents the odds ratios and standard errors for each of the psychographic and sociodemographic variables obtained through a multinomial logistic regression on the four segments. To evaluate the predictive accuracy, we used the average area under the receiver operating characteristic (AUC) since the power of standard metrics, such as percentage correctly classified, to measure classification performance is limited when class distribution is skewed, as is the case here (He & Garcia, 2009). Furthermore, the AUC of .68 (95% confidence interval .66 and .71) allows us to assess the effect strength as relatively large and the model as significantly better than the null model ($p = .00$) (Rice & Harris, 2005). Also, no issues of multicollinearity appear, with all variance inflation factors < 1.7 .

Variable category	Parameter	Odds ratios (standard errors in parentheses)					
		Utilitarian vs. hedonic	Utilitarian vs. cost/sacrifice	Utilitarian vs. relational	Hedonic vs. cost/sacrifice	Hedonic vs. relational	Cost/sacrifice vs. relational
Psychographics	Information attainment	1.062 (.097)	1.053 (.063)	1.070 (.061)	.992 (.098)	1.007 (.095)	1.016 (.062)
	Assortment seeking	1.212 ** (.085)	1.027 (.057)	1.047 (.055)	.847 * (.085)	.863 * (.083)	1.019 (.056)
	Time pressure	1.095 (.088)	1.074 (.057)	1.031 (.057)	.981 (.089)	.941 (.087)	.959 (.058)
	Shopping enjoyment	.670 *** (.103)	.999 (.063)	.957 (.062)	1.490 *** (.104)	1.428 *** (.102)	.959 (.063)
	Shopping excitement/escapism	.682 *** (.092)	.902 * (.062)	.980 (.061)	1.324 *** (.093)	1.438 *** (.090)	1.087 (.062)
	Motivation to conform – opinion seeking	.758 *** (.096)	1.069 (.064)	1.103 (.061)	1.409 *** (.096)	1.455 *** (.093)	1.033 (.062)
	Perceived monetary price	1.445 *** (.083)	.824 *** (.063)	1.360 *** (.057)	.570 *** (.086)	.941 *** (.079)	1.651 *** (.061)
	Perceived non-monetary price	.952 (.087)	.911 * (.055)	.960 (.055)	.957 (.087)	1.008 (.085)	1.053 (.055)
	Trust	1.054 (.087)	.988 (.055)	.653 *** (.056)	.937 (.088)	.620 *** (.087)	.661 *** (.057)
	Risk aversion	.966 (.086)	.944 (.055)	1.031 (.053)	.978 (.087)	1.067 (.084)	1.091 (.055)
	Sex (base = male)	Female	1.845 *** (.155)	1.026 (.107)	1.036 (.104)	.556 *** (.156)	.561 *** (.152)
Age	Age	1.026 *** (.007)	.998 (.005)	.994 (.005)	.973 *** (.007)	.968 *** (.007)	.995 (.005)
Country (base = Switzerland)	Austria	1.095 (.222)	.889 (.156)	1.004 (.148)	.812 (.223)	.917 (.215)	1.130 (.150)
	Germany	1.094 (.211)	1.177 (.152)	1.812 *** (.147)	1.076 (.215)	1.656 ** (.209)	1.539 *** (.154)
Citizens. (base = foreign)	Native	1.143 (.286)	.897 (.214)	.770 (.210)	.785 (.293)	.674 (.285)	.859 (.489)
	1	.567 (.365)	1.063 (.249)	.790 (.243)	1.877 * (.374)	1.394 (.364)	.743 (.256)
Household size (base = more than 4)	2	.554 * (.343)	.933 (.228)	.814 (.225)	1.684 (.351)	1.470 (.343)	.873 (.237)
	3	.938 (.372)	.922 (.242)	.823 (.239)	.983 (.381)	.878 (.373)	.893 (.252)
	4	.620 (.373)	.753 (.249)	.678 (.246)	1.213 (.380)	1.093 (.371)	.900 (.256)
Education (base = university)	High school (low level)	.423 *** (.329)	.880 (.215)	.855 (.219)	2.081 ** (.333)	2.024 ** (.332)	.973 (.227)
	Professional apprenticeship	.480 *** (.281)	.780 (.176)	.714 * (.176)	1.626 * (.285)	1.488 (.282)	.915 (.183)
	High school (high level)	.681 (.300)	.896 (.183)	.746 (.185)	1.314 (.304)	1.095 (.302)	.833 (.193)
	College of professional education	.646 (.310)	1.133 (.199)	1.072 (.197)	1.754 * (.318)	1.660 (.312)	.946 (.210)
	University of applied sciences	.754 (.332)	1.252 (.217)	1.103 (.214)	1.660 (.345)	1.463 (.338)	.881 (.234)

Table 9. Segment affiliation multinomial logistic regression results.

Segmenting Omnichannel Customers

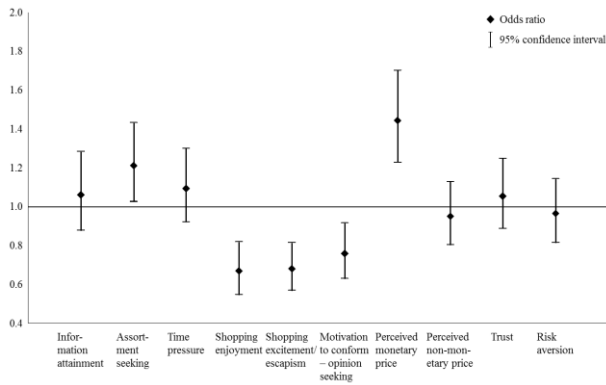
Variable category	Parameter	Utilitarian vs. hedonic	Utilitarian vs. cost/sacrifice	Utilitarian vs. relational	Hedonic vs. cost/sacrifice	Hedonic vs. relational	Cost/sacrifice vs. relational
Occupation (base = retired)	In education, unemployed, other	2.124 ** (.352)	1.159 (.232)	1.478 (.242)	.545 * (.350)	.696 (.350)	1.275 (.240)
	Self-employed	1.866 * (.321)	1.318 (.212)	1.106 (.202)	.706 (.325)	.593 * (.314)	.839 (.208)
	Executive management	.642 (.341)	.742 (.261)	.619 * (.252)	1.157 (.330)	.965 (.318)	.834 (.236)
	Employee with supervisory function	1.763 * (.306)	1.166 (.204)	.917 (.198)	.662 (.308)	.520 ** (.299)	.787 (.201)
	Employee without supervisory function	2.090 *** (.279)	1.246 (.181)	1.043 (.178)	.596 * (.278)	.499 ** (.272)	.837 (.177)
	Housewife, househusband	2.996 ** (.434)	1.886 ** (.268)	1.542 * (.257)	.630 (.441)	.515 (.432)	.817 (.272)
	Gross household income per month (base = undisclosed)	Up to EUR 1,500	.600 (.319)	.930 (.230)	.680 * (.228)	1.549 (.316)	1.132 (.310)
EUR 1,501–3,000		1.155 (.253)	.881 (.166)	.854 (.168)	.762 (.250)	.740 (.247)	.970 (.163)
EUR 3,001–4,500		1.721 ** (.270)	1.535 ** (.174)	1.143 (.167)	.892 (.274)	.664 (.266)	.744 * (.174)
EUR 4,501–6,000		1.883 ** (.272)	1.282 (.182)	1.297 (.177)	.681 (.275)	.689 (.268)	1.011 (.181)
EUR 6,001–7,500		1.523 (.318)	1.151 (.222)	1.571 ** (.224)	.756 (.321)	1.031 (.316)	1.365 (.228)
EUR 7,501–9,000		1.356 (.351)	1.450 (.265)	1.466 (.254)	1.070 (.364)	1.081 (.344)	1.011 (.264)
EUR 9,001–10,500		1.678 (.409)	1.691 * (.309)	2.165 *** (.292)	1.008 (.435)	1.291 (.416)	1.281 (.329)
More than EUR 10,501		1.316 (.319)	1.208 (.244)	.976 (.223)	.917 (.326)	.742 (.306)	.808 (.235)
Urbanization (base = rural)	Urban	.691 ** (.165)	1.045 (.113)	.723 *** (.110)	1.512 ** (.166)	1.047 (.162)	.692 *** (.112)
	Suburban	.770 (.218)	1.108 (.154)	1.025 (.151)	1.440 (.223)	1.332 (.217)	.925 (.157)
Car ownership (base = used)	New	.705 * (.181)	1.017 (.126)	.858 (.121)	1.443 ** (.183)	1.217 (.178)	.844 (.125)
	Up to EUR 10,000	1.882 * (.363)	1.196 (.289)	1.329 (.285)	.635 (.357)	.706 (.346)	1.111 (.276)
Car price (base = undisclosed)	EUR 10,001–20,000	2.802 *** (.362)	1.369 (.286)	1.264 (.280)	.489 ** (.356)	.451 ** (.344)	.923 (.272)
	EUR 20,001–30,000	2.078 * (.378)	1.083 (.299)	1.368 (.293)	.521 * (.372)	.658 (.360)	1.263 (.285)
	EUR 30,001–40,000	1.571 (.398)	1.006 (.320)	1.038 (.312)	.640 (.392)	.661 (.377)	1.032 (.304)
	EUR 40,001–50,000	1.712 (.463)	1.132 (.369)	1.468 (.359)	.661 (.463)	.858 (.446)	1.297 (.359)
	More than EUR 50,001	2.090 (.499)	1.338 (.400)	1.183 (.369)	.640 (.507)	.566 (.472)	.884 (.381)

Note. *** p < .01; ** p < .05; * p < .1.

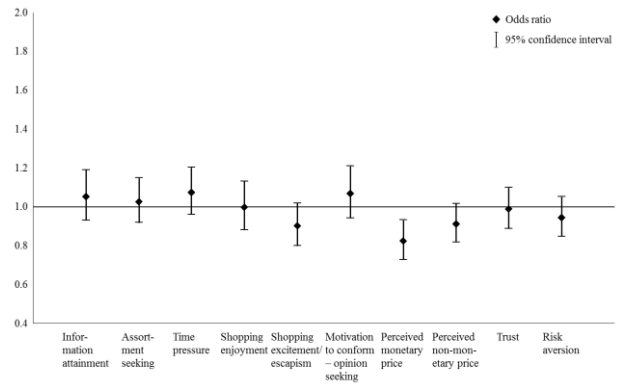
Table 9. continued.

In line with expectations, we find that psychographic variables help anticipate customer segment affiliation. Compared to a model with only sociodemographics, the full model performs significantly better (p = .00). To assist the interpretation and provide a

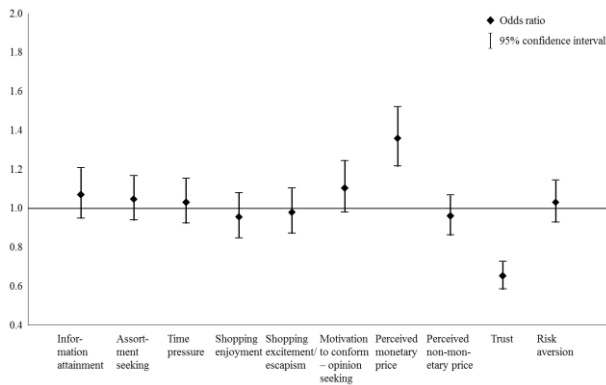
better overview of the respective influences, Figure 11 graphically represents the odds ratios and their 95% confidence intervals.



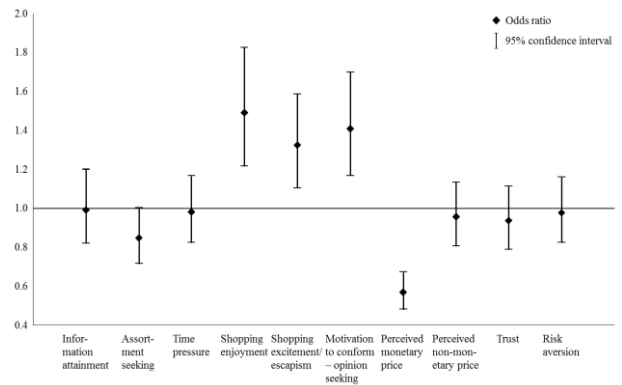
(a) Utilitarian vs. hedonic



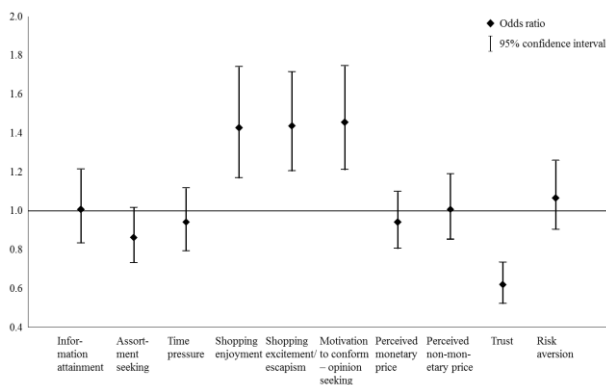
(b) Utilitarian vs. cost/sacrifice minimizing



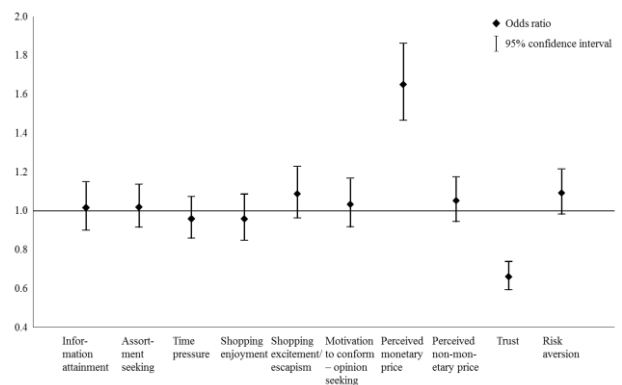
(c) Utilitarian vs. relational



(d) Hedonic vs. cost/sacrifice minimizing



(e) Hedonic vs. relational



(f) Cost/sacrifice minimizing vs. relational

Figure 11. Segment affiliation multinomial logistic regression results for psychographics.

We expected information attainment, assortment seeking, and time pressure to be positively related to utilitarian value. When analyzing the results, a tendency toward this may be apparent; however, none of the relationships is statistically significant except for assortment seeking in comparison to hedonic value ($p = .02$). In fact, assortment seeking was expected to be particularly negatively related to hedonic value, which is also demonstrated by the marginally significant relationships ($p < .08$) versus cost/sacrifice minimizing and relational customers.

Shopping enjoyment, escapism, and motivation to conform – opinion seeking were expected to be positively related to hedonic value. These relationships are significant ($p < .01$) in all instances. Furthermore, a marginally significant ($p = .09$) relationship exists between shopping excitement/escapism and cost/sacrifice minimizing value when compared to utilitarian value. While a negative relationship with utilitarian value is expected, the underlying reason for a comparably positive relationship with cost/sacrifice minimizing value may be that finding and bargaining for the lowest price can in itself provide excitement.

As expected, perceived monetary price and non-monetary price are positively linked to cost/sacrifice minimizing value. For monetary price, this relationship is significant ($p < .01$) versus all other types. In addition, significant ($p < .01$) positive links exist for utilitarian value versus hedonic and relational value, which is in line with our expectations. For non-monetary price, only a marginally significant ($p = .09$) relationship is found for utilitarian value, while in comparison to hedonic and relational value the tendencies are non-significant.

Consistent with our expectations, trust is strongly related to relational value ($p < .01$). In contrast, risk aversion, which may be linked to multiple orientations, indeed does not show any significant relationships. It may seem that the perception of price risk is the strongest in the motor insurance context; however, in light of the inconclusive literature, the tendencies are too weak to warrant further interpretation.

While most sociodemographic variables exert significant influence overall (except for nationality, household size, car ownership, and price),⁵ the results presented in Table 9 less clearly differentiate between the segments compared to psychographic variables. Particularly notable findings are that hedonic customers are significantly younger ($p < .01$) and more likely to be male ($p < .01$). Furthermore, relational customers tend to be Austrian or

⁵ Dropping these variables does not change the conclusions regarding the significant variables.

Swiss rather than German ($p < .02$). This supports external validity due to the consistency with observable market structures since Swiss and Austrian markets have higher propensities of personal distribution through agents and brokers than the German market.

5 Discussion

Customers have reacted to the proliferation of interaction options – both channels and means of interaction – in recent years by assembling customer journeys that are messy when observed from the outside. In fact, in our research setting that accounts for all channels and means of interaction in eight phases, more than 518 trillion different journeys would be theoretically viable. From this notion, the present study set out to explore and investigate whether a segmentation approach exists that fits this complexity and helps to bring more structure to these journeys. Following the qualitative exploration in focus groups, expert interviews, and in-depth interviews with customers, we developed a theoretically grounded segmentation approach based on the types of value-in-use customers seek in their interactions. Furthermore, the results of the interviews suggested that specific psychographics may be well suited to anticipate segment affiliation due to the direct link between psychographics and, potentially, sociodemographics with the types of value-in-use. We collected a sample of 3,007 motor insurance customers to investigate the suggested relationships.

In conducting the segmentation, we found four substantive segments with utilitarian, cost/sacrifice minimizing, and relational clusters being of approximately equal size. The segment that looks for hedonic value in interactions is somewhat smaller, which is to be expected in the insurance context (Konus et al., 2008), but still sizable. These four segments differ substantially regarding the channels and means of interaction they engage, how many different options they use, and how prone they are to research shopping. Therefore, this segmentation approach proves relevant and helpful since it allows for tailoring interactions more strongly toward the value-in-use sought by customers. This enables better management of the customer experience and the creation of value for both customers and firms, for example, through customers' higher commitment, purchasing, and retention (Homburg et al., 2017; Lemke et al., 2011).

The investigation of the relationships among the psychographics that were identified in the in-depth interviews and sociodemographics with the segments further indicated that they can help anticipate segment affiliation (see also Ailawadi et al., 2001; De Keyser et

al., 2015; Konoş et al., 2008). In this context, the empirical analyses revealed interesting results beyond the associations outlined above. First, a given psychographic may serve the overall prediction beyond distinguishing the segment to which it is mainly linked from all other segments. For example, shopping excitement/escapism, which is strongly related to the hedonic orientation, may also serve to differentiate utilitarian from cost/sacrifice minimizing customers. Second, consideration of all relationships between psychographics and each of the segments allows for deriving a more complete picture of the types of customers in the respective segment (Reynolds & Darden, 1974). Third, while sociodemographics are not as well suited to anticipate segment affiliation as psychographics, this information can still help to better characterize customer segments and support the recognition of such customers (Gilbert & Warren, 1995). Hedonic customers, for example, tend to be young, urban males and are therefore easier to locate and approach if targeted by a firm.

Overall, we believe that this study makes rich contributions to the segmentation and multi-/omnichannel literature. On the one hand, the theoretically and empirically grounded segmentation approach expands prior segmentation literature in two ways. First, it fits the complexity of today's customer journeys for which existing, more descriptive approaches based on observable interaction behavior are suboptimally suited (Dholakia et al., 2010; Lemon & Verhoef, 2016). Second, by demonstrating that segment affiliation can be anticipated through specific psychographics and sociodemographics, this study also provides an extension of prior literature in that it allows for implementation of measures based on the segmentation throughout the customer journey, including the first interaction (Baxendale et al., 2015). On the other hand, the findings provide a better understanding of customers' interaction choices along the omnichannel customer journey (Lemon & Verhoef, 2016; Verhoef et al., 2015). Specifically, the results shed light on the characteristics and values different customer groups pursue and how this influences their customer journeys.

5.1 Managerial implications

In light of technological advancements and competitive pressure, numerous firms have employed omnichannel and customer journey strategies; however, the inherent complexity has left managers struggling to differentiate between customer groups and to be more proactive in providing experiences through tailored interactions (Bianchi et al., 2016; Edelman &

Singer, 2015). This study's findings may help executives more effectively segment customers, choose on which customers to focus, select channels and means of interaction in which to invest, and define how to approach different segments communicatively.

In a first step, firms may want to operationalize the segmentation strategy. To do so, they need to assess which of their current and potential customers belongs to which cluster. The approach used in this study was shown to be effective; however, firms may find adaptations of this strategy to better fit their resources. For example, customer relationship data may be well suited for an initial estimation of segment affiliation of existing customers, which can be updated as new data become available (Thomas & Sullivan, 2005). Similarly, firms can develop prediction models for segment affiliation of new or potential customers depending on data availability, resource constraints, and aspired complexity levels. While the psychographics used in this study demonstrate explanatory power, their operationalization may take different forms in practice. For example, firms can develop approaches to obtain information that allows them to derive inferences about customers' psychographics through big data analytics on the wealth of available internal and external data, which may be a particularly attractive alternative for this task (e.g., Wedel & Kannan, 2016).

Next, firms may want to define which customer groups they want to target due to the substantial differences between the segments that require differentiated offerings and treatments for optimal results. On the one hand, firms can choose to focus on one or a few segments and consequently direct investments toward resources that better serve the respective segment. For example, if an insurer elects to focus on relational customers, it may want to invest in its physical agency network through which it can provide high-interactivity interactions and targeted services that help build and foster relationships to create value (Crosby et al., 1990). In contrast, a firm targeting utilitarian customers may invest in better integration between channels and a broad range of available means of interaction since these customers use more interaction options and more frequently switch between them. On the other hand, firms can still approach multiple or all segments. The findings of this study provide information on how to differentiate the services and communication among the segments. This requires substantial resources, however, since each of the segments has different requirements, so this strategy may be better suited for firms with sufficient scale. In using this approach, firms can provide customers with a more tailored interaction experience across the customer journey, specifically since segment affiliation can be anticipated, which allows firms to be proactive from the initial interaction onward.

5.2 Limitations and further research

In light of the discussion of implications, this study is also subject to limitations that can be addressed in future research. While we consider a holistic set of channels and means of interaction from the customer's perspective and a granular customer journey, this study focuses on only one industry due to the inherent complexity covered. While the motor insurance industry was carefully selected, we cannot observe generalizability to other industries. Further research can therefore investigate the proposed segmentation approach and predictability of segment affiliation in a range of other industries. Similarly, this study focuses on participants from three German-speaking countries in Europe. Although some cultural differences exist among the three countries (Hofstede, Hofstede, & Minkov, 2010), the motor insurance markets in Germany, Austria, and Switzerland may seem relatively similar when examined from a more international perspective, warranting an extension to other countries and markets.

Further research might also use behavioral data from sources other than a survey, such as firms' records, which may help cross-validate the findings and allow for investigating the predictability of segment affiliation through other variables that may be easier to operationalize for firms. Most importantly, however, future studies can investigate channel and means of interaction choices along the customer journey by accounting for the types of value-in-use as well as other situational and journey-specific variables that have been highlighted in our qualitative as well as extant research (e.g., Gensler et al., 2012; Lemon & Verhoef, 2016; Neslin et al., 2006). Furthermore, demonstrating the relationship with business outcomes such as satisfaction, loyalty, revenue, and profitability may help advance the research and illustrate its relevance for practitioners (Verhoef et al., 2015).

Appendix A

Channel	Online/offline cluster ^a	Means of interaction	Interactivity cluster ^b
Agent	Offline	In person	High
Broker	Offline	Telephone	High
Family/friend	Offline	Online chat	High
Car sales representative	Offline	Letter	Low
Service center	Offline	Email	Low
Social media	Online	PC/laptop	Low
Website/online portal	Online	Smartphone/tablet	Low
Mobile app	Online	Other	–
Comparison site	Online		
Other	–		

Note. The classification of channels and means of interaction is based on focus group discussions, expert interviews, and in-depth interviews with customers. ^a Channels are clustered based on whether interactions in these channels are primarily conducted online or offline. ^b High interactivity means of interaction allow for synchronous two-way discussions in real time. In contrast, low interactivity means are asynchronous one-way discussions with generally delayed answers.

Table 10. Clustering of channels and means of interaction.

Appendix B

Sex	%	Age	Years
Female	49.6	Mean	46.9
Male	50.4	Standard deviation	13.8
Country of residence	%	Citizenship	%
Germany	33.6	Native	94.0
Austria	33.1	Foreign national	6.0
Switzerland	33.3		
Household size (adults and children)	%	Education	%
1	19.8	University	11.2
2	44.4	University of applied sciences	9.2
3	16.6	College of professional education	14.0
4	13.8	High school (high level)	19.2
More than 4	5.4	Professional apprenticeship	35.4
		High school (low level)	11.0
Occupation	%	Gross household income per month	%
Self-employed	10.7	Up to EUR 1,500	8.3
Executive management	7.9	EUR 1,501–3,000	19.7
Employee with supervisory function	15.6	EUR 3,001–4,500	15.5
Employee without supervisory function	32.4	EUR 4,501–6,000	13.2
Housewife/househusband	5.5	EUR 6,001–7,500	7.0
Retired	19.1	EUR 7,501–9,000	5.1
In education, unemployed, other	8.9	EUR 9,001–10,500	3.3
		More than EUR 10,501	7.4
		Undisclosed	20.5
Urbanization	%	Car ownership	%
Urban	42.5	New	47.8
Suburban	15.7	Used	52.2
Rural	41.8		
Car price	%		
Up to EUR 10,000	27.4		
EUR 10,001–20,000	30.5		
EUR 20,001–30,000	19.5		
EUR 30,001–40,000	9.9		
EUR 40,001–50,000	4.6		
More than EUR 50,000	4.0		
Undisclosed	4.3		

Table 11. Sociodemographic variables and sample characteristics.

Appendix C

Share of use	Mean				F (3, 3003)	Pairwise contrasts ^a
	Utilitarian (U)	Hedonic (H)	Cost/sacrifice minimizing (C) (R)	Relational		
Online channels in pre-purchase phases	.46	.29	.36	.14	123.52	*** U>C; C>H; H>R
Online channels in the purchase phase	.28	.17	.21	.03	78.47	*** U>C,H ^b ; C,H>R
Online channels in post-purchase phases	.17	.17	.13	.03	53.92	*** U,H>C; C>R
High interactivity means of interaction in pre-purchase phases	.51	.62	.63	.86	101.41	*** U<H,C; H,C<R
High interactivity means of interaction in the purchase phase	.55	.65	.64	.83	64.47	*** U<H,C; H,C<R
High interactivity means of interaction in post-purchase phases	.54	.66	.60	.81	57.42	*** U<H; H<C; C>R

Note. *** p < .01; ** p < .05; * p < .1. ^a Duncan's post hoc multiple-range test (α=.05). ^b Difference between cost/sacrifice and hedonic is marginally significant at p < .1.

Table 12. Choice of channels and means of interaction in pre-purchase, purchase, and post-purchase phases.

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IV The Omnichannel Customer Journey: Linking Determinants with Channel Choice and Outcomes to Inform Strategy Development

Niklas Barwitz and Peter Maas¹

Abstract

In their journeys, customers can use a vast number of channels for their interactions in multiple pre-purchase, purchase, and post-purchase phases. The resulting proliferation of distinct journeys poses challenges for managers who require a more integrative understanding of customers' channel choices along their omnichannel journeys to develop successful customer strategies. This study empirically analyzes the relationships among determinants, channel choice behavior, and outcomes. The results indicate that next to factors that apply in each situation, inertia and specific journey patterns substantially influence channel choice. Further analyses of these patterns reveal that not all customers are equally prone to using them, which has implications for firms' multi- and omnichannel conduct. Investigation of the relationship with the managerially relevant outcomes of satisfaction and loyalty provides actionable recommendations for the development and execution of customer strategies.

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1 Introduction

Through technological advancements, an unprecedented range of interaction channels is available to today's customers (Chheda, Duncan, & Roggenhofer, 2017; Leeflang, Verhoef, Dahlstrom, & Freundt, 2014). Practitioners appreciate that the customer journey – in effect, customers' channel choices for interactions in multiple pre-purchase, purchase, and post-purchase situations – plays an important role in customer experience management and value creation (Homburg, Jozić, & Kuehnl, 2017; Kumar & Reinartz, 2016). Firms thus broadly invest in the development of new channels and the coordination between channels to reflect how customers want to interact with firms. Customers capitalize on the consequential proliferation of channels, which leads to highly differentiated customer journeys that are increasingly challenging to understand and influence (Van Bruggen, Antia, Jap, Reinartz, & Pallas, 2010; Verhoef, Kannan, & Inman, 2015).

Despite the considerable scholarly attention to the question of what determines channel choice, there have been repeated calls for a more integrative understanding of the customer journey since existing studies mostly focus on selected channels or selected phases of the customer journey (e.g., Lemon & Verhoef, 2016; Verhoef et al., 2015). As the overview in Table 13 indicates, examinations of a broad range of channel choice determinants in omnichannel (i.e., including all potential channels from the customer's point of view) and customer journey settings (i.e., including all major phases) are rare. This constitutes a research gap since such settings offer the opportunity to, on the one hand, examine the applicability of previously found effects in the omnichannel environment and, on the other, investigate effects pertaining to the detailed view of the customer journey. This can help firms craft more successful strategies based on a superior understanding of customers' journeys and, in turn, lead to desired outcomes (Edelman & Singer, 2015). Thus, our main objective is to develop and empirically investigate a framework that allows us to address the following three research questions: (1) Which determinants drive customers' channel choices along the omnichannel customer journey? (2) Which customers are prone to using specific channel choice patterns? (3) How do customers' channel choices and their determinants link to relevant outcomes, particularly, customer satisfaction and loyalty?

Study	Type	Omnichannel perspective ^a	No. of channels	Journey perspective ^b	No. of phases	Predictors					Outcomes	
						Customer attributes	Interaction attributes	Journey sequences/patterns	Sociodemographics	Others ^c		
Ackermann and von Wangenheim (2014)	Empirical		4									✓
Anderl, Becker, von Wangenheim, and Schumann (2016)	Empirical		7/8	✓	Multiple		✓					
Anderl, Schumann, and Kunz (2016)	Empirical		8	✓	Multiple			✓				
Balasubramanian, Raghunathan, and Mahajan (2005)	Conceptual		Multiple	✓	3	✓						
Banerjee (2014)	Empirical		6	✓	Multiple	✓						✓
Biglier, Jedidi, Lehmann, and Neslin (2015)	Empirical		2			✓					✓	
Burke (2002)	Empirical		6	✓	4	✓					✓	
Cambra-Fierro, Kamakura, Melero-Polo, and Sese (2016)	Empirical		4			✓						✓
Cervellon, Sylvie, and Ngobo (2015)	Empirical		8			✓						
Chou, Shen, Chiu, and Chou (2016)	Empirical		2			✓						
Dalla Pozza (2014)	Empirical		7			✓						
Dawes and Nencyz-Thiel (2014)	Empirical		2			✓						
De Keyser, Schepers, and Konuş (2015)	Empirical		3	✓	3	✓						
Dholakia et al. (2010)	Conceptual		Multiple	✓	Multiple	✓						✓
Easingwood and Storey (1996)	Empirical		5									
Falk, Schepers, Hammerschmidt, and Bauer (2007)	Empirical		2			✓						
Frambach, Roest, and Krishnan (2007)	Empirical		2	✓	3	✓						✓
Gensler, Verhoef, and Böhm (2012)	Empirical		4	✓	3	✓						✓
Gupta, Su, and Walter (2004)	Empirical		2			✓						✓
Hammerschmidt, Falk, and Weijters (2016)	Empirical		2			✓						✓
Heitz-Spahn (2013)	Empirical		2	✓	2	✓						
Huang, Lu, and Ba (2016)	Empirical		2									✓
Inman, Shankar, and Ferraro (2004)	Empirical		4									✓
Jindal, Reinartz, Krafft, and Hoyer (2007)	Empirical		13			✓						✓
Kollmann, Kuckertz, and Kayser (2012)	Empirical		2	✓	2	✓						✓
Konuş, Neslin, and Verhoef (2014)	Empirical		3	✓	2	✓						✓
Konuş, Verhoef, and Neslin (2008)	Empirical		3	✓	2	✓						✓
Kumar and Venkatesan (2005)	Empirical		4			✓						✓
Kushwaha and Shankar (2013)	Empirical		2			✓						✓
Lemon and Verhoef (2016)	Conceptual	✓	Multiple	✓	3	✓						✓
Li, Konuş, Pauwels, and Langerak (2015)	Empirical		2			✓						✓
Mathwick, Malhotra, and Rigdon (2002)	Empirical		2			✓						✓

Table 13. Overview of research on channel choice and outcomes.

Study	Type	Predictors				Outcomes				
		Omnichannel perspective ^a	No. of channels	Journey per-pective ^b	No. of phases		Customer attributes	Interaction attributes	Journey sequences/patterns	Socio-demographics
McGoldrick and Collins (2007)	Empirical	3	2	✓	✓	✓	✓	✓	✓	✓
Melis, Campo, Breugelhans, and Lamey (2015)	Empirical	2	2	✓	✓	✓	✓	✓	✓	✓
Montoya-Weiss, Voss, and Grewal (2003)	Empirical	2	2	✓	✓	✓	✓	✓	✓	✓
Neslin et al. (2006)	Conceptual	Multiple	3	✓	✓	✓	✓	✓	✓	✓
Neslin and Shankar (2009)	Conceptual	Multiple	2	✓	✓	✓	✓	✓	✓	✓
Noble, Griffith, and Weinberger (2005)	Empirical	3	2	✓	✓	✓	✓	✓	✓	✓
Oppewal, Tojib, and Louvriens (2013)	Empirical	8	2	✓	✓	✓	✓	✓	✓	✓
Pierson and Van Dijk (2007)	Empirical	Multiple	Multiple	✓	✓	✓	✓	✓	✓	✓
Polo and Sese (2016)	Empirical	3	5	✓	✓	✓	✓	✓	✓	✓
Puccinelli et al. (2009)	Conceptual	Multiple	5	✓	✓	✓	✓	✓	✓	✓
Rohm and Swaminathan (2004)	Empirical	2	2	✓	✓	✓	✓	✓	✓	✓
Schoenbachler and Gordon (2002)	Conceptual	3	3	✓	✓	✓	✓	✓	✓	✓
Shankar, Smith, and Rangaswamy (2003)	Empirical	2	2	✓	✓	✓	✓	✓	✓	✓
Soopramanien and Robertson (2007)	Empirical	2	2	✓	✓	✓	✓	✓	✓	✓
Streibel, Erdem, and Swait (2004)	Empirical	5	5	✓	✓	✓	✓	✓	✓	✓
Thomas and Sullivan (2005)	Empirical	3	3	✓	✓	✓	✓	✓	✓	✓
Valentini, Montagut, and Neslin (2011)	Empirical	3	3	✓	✓	✓	✓	✓	✓	✓
Van Birgelen, De Jong, and De Ruyter (2006)	Empirical	3	3	✓	✓	✓	✓	✓	✓	✓
Van der Veen and Van Ossenberg (2015)	Empirical	6	3	✓	✓	✓	✓	✓	✓	✓
Verhoef and Donkers (2005)	Empirical	8	3	✓	✓	✓	✓	✓	✓	✓
Verhoef, Neslin, and Vroomen (2007)	Empirical	3	2	✓	✓	✓	✓	✓	✓	✓
Wallace, Geise, and Johnson (2004)	Empirical	3	2	✓	✓	✓	✓	✓	✓	✓
Q. Wang, Yang, Song, and Sia (2014)	Empirical	2	2	✓	✓	✓	✓	✓	✓	✓
R. J.-H. Wang, Malthouse, and Krishnamurthi (2015)	Empirical	3	2	✓	✓	✓	✓	✓	✓	✓
Yu, Niehm, and Russell (2011)	Empirical	3	2	✓	✓	✓	✓	✓	✓	✓
This study	Empirical	9	8	✓	✓	✓	✓	✓	✓	✓

Note: ^a Inclusion of all relevant interaction channels from the customer's point of view. ^b Inclusion of more than one phase. ^c Other predictors include macroeconomic factors, industry-level attributes, firm activities (incl. marketing efforts), and channel attributes.

Table 13. continued.

To develop this framework, we conduct focus group discussions, expert interviews, and semi-structured interviews with motor insurance customers² and integrate this deeper understanding of customers' channel choices with the extant literature to derive expectations for the links among determinants, channel choices, and outcomes. To examine these, we collect data on customers' motor insurance journeys, which we analyze through Bayesian mixed effects models. We survey 3,007 customers on their channel choices with their insurer, other customers, and third parties in eight differentiated phases, thereby resembling the omnichannel perspective along a detailed customer journey.

Overall, this study provides two main contributions. The first pertains to the extension of prior multi-/omnichannel literature through a more integrative investigation of channel choices from a holistic spectrum of channels along detailed customer journeys. Specifically, we examine links between a broad range of predictors and channel choice, providing the first analysis of some effects, such as impersonalization, and further substantiating previously established effects through information on the conditions under which they apply across the customer journey. Moreover, we analyze the predictors of a customers' propensity to use channel choice patterns, specifically research shopping and impersonalization, which is decisive due to their strategic implications for managing multiple channels, but has not been approached by earlier research. In relation to outcomes, finally, we provide the first investigation of the influence of customer journey patterns on satisfaction and loyalty and partially find alternative relationships between established determinants and these outcomes. While most existing studies, for example, suggest a positive relationship between the use of multiple channels and loyalty (e.g., Kumar & Venkatesan, 2005; Neslin et al., 2006), we find a negative relationship when also considering channels other than those managed by the respective firm.

The second contribution is managerial. Building on the insights into customer journeys, we distill implications for firms on both the strategy crafting and execution levels. The better understanding of the relationships among determinants, channel choices, and outcomes helps firms answer fundamental questions, such as on which types of customers

² While we agree with Hamilton (2016) that the term "consumer" is generally more appropriate, we use "customer" in the context of this study since there is no consumption process in motor insurance and all users of the underlying asset must carry motor insurance coverage in the countries we examine. Therefore, there is no consumer segment outside the market (i.e., non-users). By "customer," we thus mean all market participants, not only customers of a specific firm.

to focus, which investments to prioritize, and how to organize the channel multiplicity around customers. We further supplement this with actionable recommendations to implement the respective strategies through the prioritization of certain levers and the management of channel collaboration, both internally and in network structures.

2 Conceptual development and propositions

Interactions have been a focal topic in the broader marketing literature since the 1980s (e.g., Håkansson, 1982; Solomon, Surprenant, Czepiel, & Gutman, 1985). While numerous streams of research developed, the advent of multiple channels has led to a particular focus on understanding channel choice. From distinguishing two channels for the actual purchase, efforts have expanded in two directions. On the one hand, more interaction situations are taken into account, first adding pre-purchase (i.e., search or information) situations (e.g., Verhoef, Neslin, & Vroomen, 2007), then the post-purchase (i.e., use or service) phase (e.g., Frambach, Roest, & Krishnan, 2007), and, finally, partially expanding to the customer journey view with multiple phases (e.g., Halvorsrud, Kvale, & Følstad, 2016). On the other hand, more and more channels are distinguished, including the partial move from multi- (e.g., Montoya-Weiss, Voss, & Grewal, 2003) to omnichannel perspectives (e.g., Bianchi, Cermak, & Dusek, 2016).

To understand customers' channel choices along the customer journey, this study consequently takes the customer's perspective. Expanding the definition suggested by Halvorsrud et al. (2016), we define the omnichannel customer journey as the purposeful sequence of customer-relevant interactions using any channel from a holistic set of channels. Along the customer journey, interactions happen for varying purposes, so the perceived value provided by a channel differs (Woodruff, 1997). Situational theory suggests that customers' channel choices may differ across interaction situations (Balasubramanian, Raghunathan, & Mahajan, 2005). This dynamic along the customer journey imposes four requirements for the development of a conceptual model; we need to define (1) relevant phases according to interaction purposes at the right granularity level, (2) the spectrum of channels to resemble the omnichannel perspective from the customer's point of view, (3) relevant determinants of channel choice, and (4) related outcomes of importance for firms.

2.1 Conceptual model

To develop the conceptual model, we drew on three sources of information: focus group discussions and expert interviews, semi-structured in-depth interviews with 40 customers, and the extant literature.³ We conducted two focus group discussions with six and seven customers, respectively, and eight interviews with senior executives, consultants, and association representatives to conceptualize the customer journey with its relevant phases. Since these are partially industry-specific, we chose the motor insurance industry as the subject of our study for three main reasons. First, motor insurance journeys generally span multiple years, which facilitates the distinction of phases in customers' perception (Kankainen, Vaajakallio, Kantola, & Mattelmäki, 2012). Second, multichannel offerings have a long-standing history in the industry (Stone, 2009). Third, motor insurance tends to be viewed as a relatively complex service that customers consciously evaluate and, thus, they remember their choices very well (Bühler, Eling, Maas, & Milanova, 2015; Crosby, Evans, & Cowles, 1990). The results from a total of four hours of focus group discussions and eight hours of expert interviews in Germany, Austria, and Switzerland led us to divide the customer journey into eight phases from need recognition to search, evaluation, purchase, in-force (contract duration), claim, and contract adaptation to contract termination. Each of these phases has a purpose for the interaction and is thus very detailed compared to earlier research (e.g., Gensler, Verhoef, & Böhm, 2012; Konyuş, Neslin, & Verhoef, 2014; Verhoef et al., 2007) but still operationalizable.

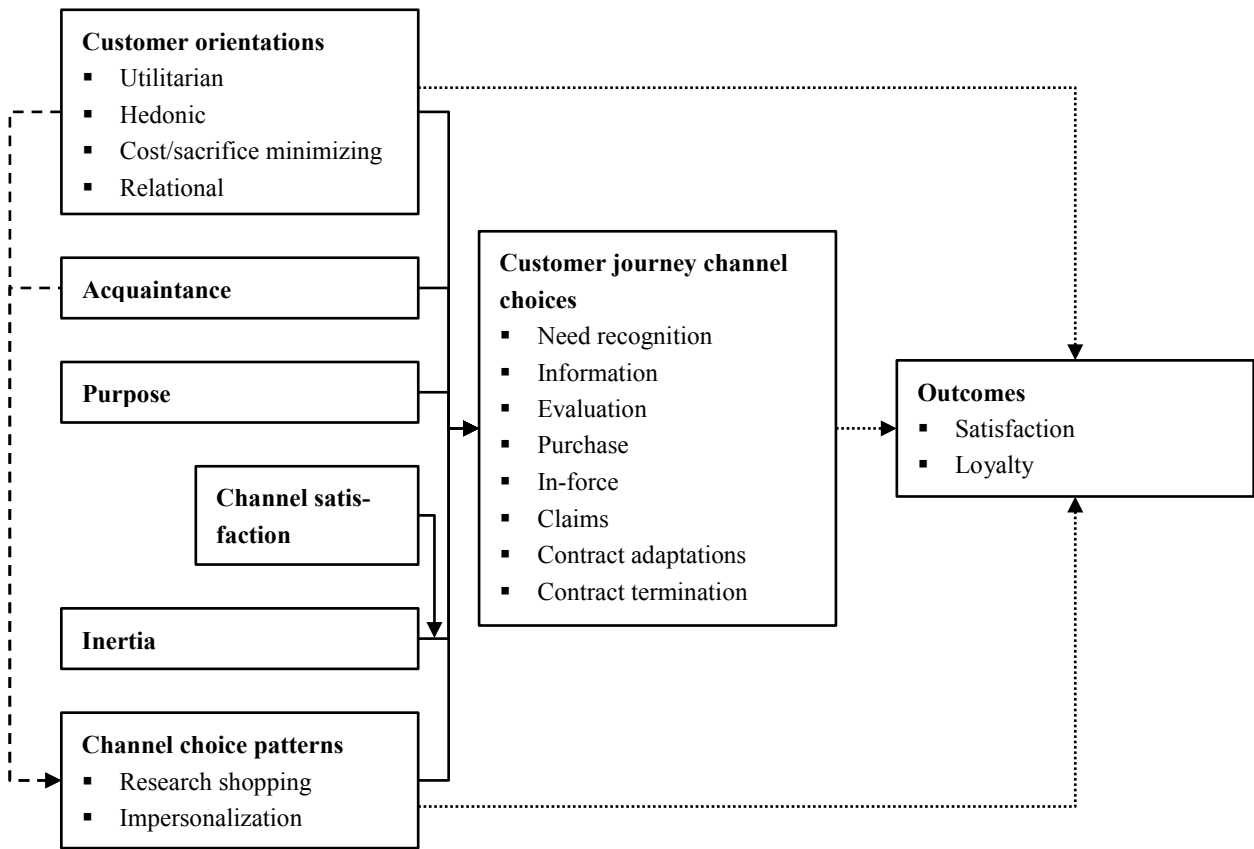
Using this structuring element of the customer journey, we conducted 40 in-depth interviews with motor insurance customers in Germany, Austria, and Switzerland totaling 38 hours of material. Specifically, customers confirmed the conceptualization along the eight elicited phases and conveyed all channels they had used across their respective customer journeys. Appendix A provides an overview of these channels, including the classification into online or offline and personal, semi-personal, or impersonal clusters. This is adequate for our customer-centric perspective in light of the extant research on the topic (e.g., Barwitz & Maas, 2016; Herhausen, Binder, Schoegel, & Herrmann, 2015; Melis, Campo, Breugelmans, & Lamey, 2015) and was confirmed in our interviews from the customers' point of view.

³ A web appendix with further information on the focus groups and interviews, which are detailed in the first article, accompanies the submission to the Journal of the Academy of Marketing Science.

For each of the interactions, we further discussed the reasons for choosing a specific channel with the 40 interviewees. Integrating this information with the extant literature, we elicited a number of determinants, which we clustered according to their applicability along the journey. First, some effects apply to each channel choice. This category includes customer orientations, that is, the value-in-use customers seek in interactions (Lemke, Clark, & Wilson, 2011), channel acquaintance (i.e., experience stemming from earlier journeys or other instances in a customer's life), and the purpose of the interaction for which a channel is chosen. The purpose of the interaction indirectly also accounts for channel attributes since customers generally choose the channel they perceive most useful for fulfilling the task (Balasubramanian et al., 2005; Konuş, Verhoef, & Neslin, 2008). Second, inertia, that is, the interdependency between any two subsequent channel choices (Gensler et al., 2012), seems to depend on the satisfaction with the previous channel. Third, we discover specific journey patterns, that is, the well-established research-shopping effect (e.g., Rapp, Baker, Bachrach, Ogilvie, & Beitelspacher, 2015; Verhoef et al., 2007) and the emerging impersonalization effect.

While these patterns may influence channel choices, our interviews indicated that not all customers are similarly likely to use them. In particular, customer-specific attributes may both influence the prevalence of channel choice patterns and provide firms with the opportunity to characterize such customers early and resource-efficiently (Brynjolfsson, Hu, & Rahman, 2013; Dholakia et al., 2010). The analysis of specific channel choice patterns further allows us to obtain more detailed explanations for the relationship of determinants and channel choices.

Finally, we include relevant outcomes for firms. Satisfaction and loyalty, which are not substitutes for each other (e.g., Oliver, 1999), are particularly valuable metrics for firms per se (e.g., Kumar, Dalla Pozza, & Ganesh, 2013; Szymanski & Henard, 2001) and in relation to other frequently used objectives such as revenue growth, profitability, share-of-wallet, and recommendation/promotion behavior (e.g., Eisenbeiss, Cornelißen, Backhaus, & Hoyer, 2014; N. A. Morgan & Rego, 2006; Watson, Beck, Henderson, & Palmatier, 2015). Consistent with the customer-centric approach of this study, we focus on satisfaction and loyalty, which are directly attainable through customers, and present the proposed conceptual model in Figure 12.



Note. —> Model 1.1-1.2, ---> Model 2.1-2.2,> Model 3.1-3.2

Figure 12. Conceptual model.

2.2 Determinants of channel choice

2.2.1 Customer orientations

Customer orientations, that is, the type of value-in-use sought in interactions, have received considerable attention with regard to channel choice (e.g., Cervellon, Sylvie, & Ngobo, 2015; Yu, Niehm, & Russell, 2011). In our interviews, we found four types of value that customers pursue in their interactions, all of which are in line with the customer orientations Lemke et al. (2011) suggested, that is, utilitarian, hedonic, cost/sacrifice minimizing, and relational.⁴ In their pursuit to fulfill needs and obtain necessities, utilitarian customers look for instrumental and functional benefits of a channel, while hedonic customers are primarily

⁴ In the remainder of the article, we also refer to the four types as utilitarian, hedonic, cost/sacrifice minimizing, or relational customers instead of customers seeking the respective type of value-in-use in their interactions.

concerned with experiential and enjoyment-related benefits (Babin, Darden, & Griffin, 1994; Chitturi, Raghunathan, & Mahajan, 2008). Cost/sacrifice minimizing customers want to minimize the monetary costs, time, and effort required for the purpose of the interaction (Smith & Colgate, 2007). Relational customers place particular value on the presence of a personal relationship (Barnes, 1994), leading to value co-creation through repeated interactions (e.g., Grönroos, 2008). Accordingly, we expect utilitarian customers to use online channels most intensely since these can provide superior functional benefits, such as price comparisons, 24-hour remote access, and immediate feedback (Frambach et al., 2007). Hedonic customers, in contrast, may enjoy personal offline discussions with experts but they may want to go into these discussions well prepared and inform themselves in impersonal online channels regarding the latest developments. They may also want to experience a broader range of interaction options in usage phases to add to their overall experience. Cost/sacrifice minimizing customers may in principle value the advantages of online channels; however, the associated self-service effort may also lead them to engage in offline interactions to delegate some portions of these efforts, so we expect them to use online channels more than hedonic but less than utilitarian customers. Relational customers, finally, are expected to strongly prefer personal offline channels since only these provide the opportunity to establish long-term relationships.

P1a: Utilitarian customers are more likely to use online channels.

P1b: Cost/sacrifice minimizing customers are more likely to use online channels than relational and hedonic customers, but less likely than utilitarian customers.

P1c: Relational customers are more likely to use personal channels.

2.2.2 *Acquaintance*

In times when technological advancements spread, experience with novel channels has received considerable scholarly attention in relation to channel choice. Multiple studies, for example, show that online experience positively influences online buying behavior (e.g., Frambach et al., 2007; H. Li, Kuo, & Rusell, 1999). More generally, however, acquaintance with a channel from earlier journeys or experiences in other instances enhances customers' knowledge about the channel (Albesa, 2007), thereby reducing perceived risk (Montoya-Weiss et al., 2003; Schoenbachler & Gordon, 2002) and ultimately leading to a higher probability of reengaging the channel under consideration (Dawes & Nenycz-Thiel, 2014; Melis et al., 2015).

P2: Customers' channel acquaintance positively influences channel choice.

2.2.3 *Purpose*

Customers generally engage in interactions for a specific purpose. By dividing the customer journey into eight granular phases that each resemble a purpose, we can directly investigate the respective influence for channel choice. In the first three phases of the journey, when customers recognize their need, seek information, and evaluate offers, customers do not face direct consequences since they can still opt out at any time without incurring costs. For such interactions, earlier research indicates that customers are more likely to use impersonal online interactions since they do not yet need to reduce risk through expert advice (e.g., Burke, 2002; Peterson & Merino, 2003). In contrast, for the following purchase with its contractual consequences, customers may seek advice from personal, offline channels to make their choice for a complex service (Frambach et al., 2007; Wooten & Reed II, 1998). When customers have a claim, that is, in the one situation that their policy materializes, a need for higher interactivity exists because customers feel the urge to discuss matters with someone, leading them to consult offline channels (Barwitz & Maas, 2016; Choudhury & Karahanna, 2008). In addition, interview participants voiced that they did not perceive online channels to be sufficiently well suited for filing claims in all instances, especially when customers had limited experience with the task or cases were more complicated. In situations with a negative connotation, such as contract termination, customers may try to avoid straining a personal relationship, leading them to revert to non-personal channels (Balasubramanian et al., 2005; Sussman & Sproull, 1999). In relation to the in-force phase, we thus expect:

P3a: In pre-purchase phases, customers are more likely to use impersonal online channels.

P3b: For the purchase, customers are more likely to use personal offline channels.

P3c: For claims, customers are more likely to use offline channels.

P3d: For the contract termination, customers are less likely to use personal channels.

2.2.4 *Inertia*

Along the customer journey, channel choice in the previous phase can positively influence channel choice in the next phase (e.g., Gensler et al., 2012; Thomas & Sullivan, 2005).

Reasons can involve channel lock-in (Verhoef et al., 2007) or perceived advantages through more convenience, lower transaction costs (Xue & Harker, 2002), and customers' quest for consistency (Staw, 1981). However, the same channel may not be equally well suited for the differing purposes of each interaction and a less-than-satisfactory quality in the experience may also lead customers to engage a different channel. Satisfaction with previous experiences in fact positively influences reengagement behavior in repeat instances (e.g., Bolton & Drew, 1991; Van Doorn & Verhoef, 2008) and reduces channel switching behavior (Falk, Schepers, Hammerschmidt, & Bauer, 2007). Inertia may thus depend on customers' satisfaction with the previous channel choice.

P4a: Inertia positively influences channel choice in the next phase.

P4b: Satisfaction with the channel in the previous phase moderates inertia effects.

2.2.5 *Research shopping*

The research shopping pattern (i.e., customers acquiring information in one type of channel but purchasing from another) has received considerable attention in both academic and managerial publications since Verhoef et al. (2007) introduced the phenomenon. Specifically, both webrooming (research online, purchase offline) and showrooming (research offline, purchase online) effects have been differentiated (e.g., Brynjolfsson et al., 2013; Gensler, Neslin, & Verhoef, 2017; Rapp et al., 2015). In insurance, where the use of offline channels is still prevalent, research-shopping customers are expected to be more likely to use online channels in their journeys. In addition, customers and experts affirmed in the interviews that webrooming is generally more common in insurance, further supporting this notion since multiple pre-purchase phases but only one purchase phase may exist.

P5: Research shopping customers are more likely to use online channels.

2.2.6 *Impersonalization*

Beyond the more established research shopping effect, the customer interviews revealed a second pattern from the often personal purchase to impersonal or semi-personal interactions in use phases. Specifically, we elicited two main reasons for this behavior. On the one hand, personal channels are perceived to perform better for the actual purchase, while impersonal or semi-personal channels may be more suitable for routine administrative or even unpleasant tasks post-purchase. On the other, personal channels exhibit relatively low channel lock-

in. Agents and brokers are incentivized for the acquisition and retention of customers but not for administrative tasks (Cummins & Doherty, 2006). Unless personal channels sense additional selling potential or churn risk, they might in fact be pleased if customers revert to other channels to reduce their own effort. Due to the number of post-purchase interactions in the customer journey, we expect impersonalizing customers to be more likely to use impersonal or semi-personal rather than personal channels.

P6: Impersonalizing customers are less likely to use personal channels.

2.3 Determinants of channel choice patterns

2.3.1 Customer orientations

Hedonic customers are drawn into using different channels across interactions since these offer different experiences (Alba et al., 1997; Chitturi et al., 2008). In support of research shopping, hedonic customers may benefit from readily available information on the latest developments in the market in online channels to enhance the personal offline purchase experience (Peterson & Merino, 2003). Post-purchase, impersonal and semi-personal channels can offer complementary experiences, which particularly suggests that hedonic customers may be more prone to using the impersonalization pattern than other customers. In contrast, relational customers, who build, foster, and capitalize on personal relationships, tend to prefer interactions with the same personal channel across phases (Burnham, Frels, & Mahajan, 2003; Price & Arnould, 1999). Hence, they are less likely to consult other channels and are consequently expected to be less prone to using research shopping or impersonalization patterns. This generally applies to both pre- and post-purchase situations; however, since the relationship can grow stronger with more shared interactions (e.g., R. M. Morgan & Hunt, 1994; Sheth & Parvatiyar, 1995), the impersonalization effect may be even less pronounced. Utilitarian customers may be most prone to using online channels in pre-purchase phases and selectively choose offline channels for the purchase, for example, to obtain reassurance from an expert, but they are overall most likely to purchase in impersonal online channels (Cervellon et al., 2015). Therefore, utilitarian customers are expected to be less likely to engage in webrooming than hedonic customers; however, they may be more likely to engage in showrooming. Utilitarian customers may benefit from experts' knowledge in pre-purchase phases and then purchase online, for example, to capitalize on potential savings. However, this leads them to be less prone to impersonalization, which

requires a personal offline purchase, than hedonic customers but still more prone than relational customers. Cost-sacrifice minimizing customers, finally, incur transition costs when switching channels (Smith & Colgate, 2007). This perceived effort needs to be outweighed by other types of savings, such as more efficient task fulfillment in a channel or monetary benefits. We therefore expect some research shopping and impersonalization behavior from cost/sacrifice minimizing customers but less than from hedonic customers.

P7: Impersonalization is most pronounced for hedonic customers.

P8: Research shopping (a) and impersonalization (b) are least pronounced for relational customers.

2.3.2 *Acquaintance*

Research shopping by definition involves the use of both online and offline channels (Verhoef et al., 2007). Customers who have experience with online and offline channels may exert less effort in using research shopping patterns (Balasubramanian et al., 2005) and, thus, may be more prone to research shopping. More customers are well acquainted with the historic default, offline channels, than with online channels, which only became available in the industry fairly recently. Thus, we expect both online and offline channel acquaintance to have a positive relationship, but it may be stronger for online channels. In a similar fashion, we expect acquaintance with personal, semi-personal, and impersonal channels to positively influence the prevalence of the impersonalization pattern since it rests on the use of a personal channel for the purchase and semi-personal or impersonal channels thereafter.

P9a: Research shopping is more pronounced for customers acquainted with online and offline channels.

P9b: Impersonalization is more pronounced for customers acquainted with personal, semi-personal, and impersonal channels.

2.4 **Determinants of satisfaction and loyalty**

2.4.1 *Channel choice*

Earlier research has identified online channel users to be more satisfied than offline channel users (e.g., Shankar, Smith, & Rangaswamy, 2003). Underlying reasons may include that

online interactions feature preferential attributes for certain tasks (Meuter, Ostrom, Roundtree, & Bitner, 2000), so their availability and customers' explicit choice vis-à-vis generally offered offline channels is satisfaction-accretive. At the same time, the availability of online channels may also encompass a signaling effect because firms offering them may be more customer-centric and provide overall better services that lead to higher customer satisfaction. In relation to the classic expectation confirmation framework, online channels may also convey what can be expected more clearly than offline channels. For example, the configuration and comparison of product/service bundles as well as peer opinions can help customers gauge what they can expect (Bitner, Brown, & Meuter, 2000). Offline channel usage, however, may be linked to higher behavioral loyalty. Specifically, offline interactions offer the opportunity to build and foster personal relationships with individuals, to whom loyalty is primarily attached rather than to institutions (Palmatier, Scheer, & Steenkamp, 2007). In addition, it might be easier for a firm in an offline context to adapt to customers' changing needs and to react when customers are about to defect since concerns can be directly addressed through product/service adaptations and counteroffers (e.g., Berry, 1995; Verhoef, 2003). In the more anonymous online environment, this may be more challenging to manage. In fact, customers who interact online may be more aware of competitive offerings and face fewer hurdles to switch (e.g., Chiu, Hsieh, Roan, Tseng, & Hsieh, 2011; Dholakia et al., 2010).

P10a: Online channel usage is positively related to satisfaction.

P10b: Offline channel usage is positively related to loyalty.

2.4.2 *Number of channels*

The majority of prior research identifies multichannel customers to be both more satisfied and loyal (e.g., Kumar & Venkatesan, 2005; Neslin et al., 2006; Wallace, Giese, & Johnson, 2004). However, these analyses pertain to customers using multiple channels over which the firm exhibits control. In such a setting, firms can directly influence customers' experiences, which may be satisfaction-accretive, and raise switching barriers to competitors through more intense multichannel tie-ins, particularly when channels are strongly integrated (Sousa & Voss, 2006; Verhoef et al., 2015). When moving from a multi- to an omnichannel perspective, however, firms see themselves confronted with customers using both theirs and others' channels over which they may have limited or no control. This is particularly the case in pre-purchase and purchase phases; overall, however, we do not expect the

resulting friction from moving between these channels to outweigh the specific advantages of the respective channels, so using more channels may add to customers' satisfaction. At the same time, customers are exposed to a higher number of competitive offerings, which may make it increasingly easy to switch since only some channels would need to be transferred while others might remain the same (e.g., brokers, comparison sites, and social media).

P11a: The number of distinct channels used is positively related to satisfaction.

P11b: The number of distinct channels used is negatively related to loyalty.

2.4.3 *Customer orientations*

Earlier research indicates the relevance of customer orientations for outcomes (e.g., Lee & Kim, 2008; Lemke et al., 2011). In line with this literature and the characterization of the four customer orientations, we expect hedonic customers to be more satisfied than utilitarian, cost/sacrifice minimizing, and relational customers. Hedonic customers seek experiential benefits in their interactions (Chitturi et al., 2008) and, thus, may find the overall service more pleasant and satisfactory than other customers, who may consider insurance rather a necessity. In terms of loyalty, we expect relational customers, who strongly depend on grown relationships, to be most loyal. Unless their advisors proactively encourage switching to another firm, which is relatively rare, relational customers experience the highest switching costs because of the substantial effort required to transfer or rebuild relationships.

P12a: Hedonic customers are more satisfied than utilitarian, cost/sacrifice minimizing, or relational customers.

P12b: Relational customers are more loyal than utilitarian, hedonic, or cost/sacrifice minimizing customers.

2.4.4 *Channel choice patterns*

The relationship between the use of channel choice patterns and overall outcomes has, to the best of our knowledge, not received dedicated scholarly attention to date. Inferring from the characteristics of the patterns, we suspect that research shopping may be linked to less satisfaction, while it may be higher for impersonalizing customers. The semi-personal and impersonal channels suitable for post-purchase interactions (e.g., online portals, mobile

apps, service centers) tend to be managed or at least strongly influenced by the respective firms that have undertaken efforts to reduce friction between these channels, which may be satisfaction-accretive (Bianchi et al., 2016; Brynjolfsson et al., 2013). As outlined, research shopping customers, in contrast, may be exposed to encountering different channel owners (e.g., comparison sites, insurer websites, agents) as they switch channels from pre-purchase to purchase phases (Heitz-Spahn, 2013; Kollmann, Kuckertz, & Kayser, 2012). The integration between channels of different firms may be intentionally or unintentionally weak, leading to lower satisfaction (Neslin & Shankar, 2009). Once research shopping customers have made the purchase, however, they may be similarly loyal as other customers. Impersonalizing customers, in contrast, may experience stronger tie-in with the firm as they use and experience multiple different channels that tend to be managed by the firm and thus increase switching costs (Sousa & Voss, 2006; Verhoef et al., 2015).

P13a: Research shopping customers are less satisfied.

P13b: Impersonalizing customers are more satisfied.

P13c: Impersonalizing customers are more loyal.

3 Research design

3.1 Data collection

Following the qualitative grounding discussed earlier, we collected quantitative data to test the proposed relationships in our conceptual model. In line with the customer-centric view of this study, we gathered detailed customer journey information from 3,007 participants through a dedicated survey. To minimize common method effects, we employed a number of ex ante and ex post measures. First, we followed the recommendations of Hulland, Baumgartner, and Smith (2017) and conducted a quantitative pretest with 507 participants in Germany in addition to our qualitative interviews to optimize the questionnaire. We separated the measure of the independent and dependent variables in terms of both the physical positioning in the questionnaire and the scales used where possible (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Rindfleisch, Malter, Ganesan, & Moorman, 2008). Specifically,

participants conveyed the phase-independent determinants and the channels they had primarily used in each of the eight phases⁵ in two separate sections of the questionnaire. Moreover, we used multi-item constructs with seven-point scales for the determinants where sensible, while the dependent variables were primarily deterministic choices. This further minimized the level of abstraction and difficulty, which, in conjunction with very limited social desirability,⁶ made this survey less susceptible to common method bias (MacKenzie & Podsakoff, 2012).

Second, we asked a renowned market research agency to recruit three individual samples of 1,000 motor insurance customers in Germany, Austria, and Switzerland, respectively. The total sample is representative of motor insurance customers in the three countries with women comprising 49% of the sample. Respondents' average age is 47 years (standard deviation 14 years) and 20% of the participants has a university degree, 49% has received professional degrees, and 30% has completed varying levels of secondary school education.

Third, we employed analyses for common method variance in the resulting data. On the one hand, we statistically tested the existence of a single latent factor as recommended by Podsakoff et al. (2003) but did not find systematic variance among the variables. On the other, we employed Harman's single-factor test despite its debatable applicability (e.g., Hulland et al., 2017) and did not encounter issues with regard to common method bias. In addition, we triangulated the obtained data with information from insurers where possible. Specifically, insurance executives from all three countries confirmed that the relative utilization of insurer-owned channels in our sample corresponds with their accounts and experiences. Participants' stated loyalty to their insurer furthermore corresponds with insurers' records.

3.2 Measurement

While most of the variables in our conceptual model received dedicated attention in the extant literature, allowing us to build on existing operationalizations, some measures (e.g.,

⁵ Or fewer if participants had not experienced the respective situation; for example, not all customers may have filed a claim, which is the case for 33.5% of respondents.

⁶ The qualitative interviews conveyed that customers do not perceive any channel to be more desirable than another.

impersonalization) required novel definitions. We provide an overview of all variable operationalizations and their respective use in Models 1.1-3.2 in Table 14 and descriptive statistics and the correlation matrix in Appendix B.

3.2.1 *Channel choice*

The dependent variables in Models 1.1 and 1.2 are based on the actual channels used by customers in each of the phases along their customer journeys. As noted previously, we clustered the nine different channels into online/offline (Model 1.1) and personal/semi-personal/impersonal (Model 1.2) to allow for a meaningful analysis and interpretation of results in line with the expectations outlined (e.g., Barwitz & Maas, 2016; Herhausen et al., 2015). The detailed allocation of channels to the respective clusters is provided in Appendix A.

3.2.2 *Channel choice patterns*

Both focal channel choice patterns rely on specific usage sequences of channels. Research shopping is defined as the use of an online channel in information or evaluation phases and an offline channel for the purchase or vice versa. To capture the impersonalization effect as outlined in the discussion of the conceptual model, we defined it as the use of a personal channel for the purchase and semi-personal or impersonal channels in all subsequent phases.

3.2.3 *Outcomes*

To measure satisfaction with the firm, we adapted the wording of validated scales to enhance the applicability of the items in our context (for details, see Appendix C). For the measurement of loyalty, we reverted to behavioral loyalty for three main reasons. First, it provides more of a complement to the measurement of satisfaction (Kumar et al., 2013). Second, motor insurance contracts in the markets we consider renew on an annual basis when they can also be adapted, switched, or canceled, so that the length of the relationship resembles customers' actual willingness to stay loyal to their respective insurer over time. Third, firms are usually more interested in behavioral loyalty since it is directly and strongly linked to other relevant outcomes, such as revenues and profits (Watson et al., 2015).

Variable	Definition	Model 1.1 (binomial)	Model 1.2 (multinomial)	Model 2.1 (binomial)	Model 2.2 (binomial)	Model 3.1 (Gaussian)	Model 3.2 (Gaussian)
Channel choice on/off	Channel i used by customer j in interaction k (clustered by online/offline) ^a	D	D	C ^b	C ^b	I ^b	I ^b
Channel choice p/sp/tp	Channel i used by customer j in interaction k (clustered by personal/semi-personal/impersonal) ^a	D	D	C ^b	C ^b	I ^b	I ^b
Research shopping	Online channel i _{on} used in phase 2 (information) or 3 (evaluation) and offline channel i _{off} used in phase 4 (purchase) or offline channel i _{off} used in phase 2 (information) or 3 (evaluation) and online channel i _{on} used in phase 4 (purchase) by customer j ^a (indicator variable)	I	I	D	D	I	I
Impersonalization	Personal channel i _p used in phase 4 (purchase) and semi-personal i _{sp} or impersonal channel i _{ip} used in phases 5-8 (post purchase) by customer j ^{a,b} (indicator variable)	I	I	D	D	I	I
Satisfaction	Overall assessment of the satisfaction with insurer l of customer j ^c					D	C
Loyalty	Number of years customer j has a motor insurance policy with insurer l ^d					C	D
Customer orientations	Type of value-in-use pursued by customer j ^e	I	I	I	I	I	I
Acquaintance	Prior use of channel i by customer j (indicator variable)	I	I	I	I		
Purpose	Interaction k of customer j in phase p ^f	I	I				
Inertia	Equivalence of channel i (clustered) used in phase p and phase p+1 by customer j (indicator variable)	I	I				
Channel satisfaction	Satisfaction of customer j with channel i in interaction k-1 ^g	M	M				
Number of channels	Number of distinct channels i used by customer j in interactions k					I	I
Sex	Sex of customer j	C	C	C	C	C	C
Age	Age of customer j in years	C	C	C	C	C	C
Country	Country of residence of customer j	C	C	C	C	C	C
Knowledge	Overall assessment of subjective knowledge of motor insurance of customer j ^c	C	C	C	C	C	C
Interest	Overall assessment of interest in motor insurance of customer j ^c	C	C	C	C	C	C

Note: D = dependent, M = moderator, I = independent, C = control. ^a While we asked respondents to indicate the actual channel used to resemble the omnichannel perspective, we cluster these channels for better interpretability (for details, see Appendix A). ^b Use of a semi-personal or impersonal channel in either of the phases 5-8. ^c For details, see Appendix C. ^d Representing behavioral loyalty; contracts renew on an annual basis. ^e For details, see Barwitz and Maas (2017). ^f Each of the eight phases of the customer journey resembles a specific interaction purpose that was described to respondents in the questionnaire (e.g., “acquiring information” in the information phase). ^g Item “How satisfied were you with this interaction?” measured on a seven-point scale anchored by “very satisfied” and “very dissatisfied.” ^h Variable transformed to account for the phase-insensitivity of the dependent variable and model; represents usage intensity through the share of use in all experienced phases.

Table 14. Variable operationalization and role.

3.2.4 *Determinants*

To operationalize customer orientations, we closely followed the procedure suggested by Barwitz and Maas (2017). Acquaintance and channel satisfaction, which was assessed in each phase (i.e., up to eight times), were measured through single-item constructs since they are sufficiently easily and uniformly imagined by customers and the use of more complex multi-item scales could have exhausted participants (Bergkvist & Rossiter, 2007). Purpose (i.e., the phase under consideration), inertia (i.e., whether the same channel is used in subsequent interactions), and the number of channels (i.e., the count of different channels used), finally, can be directly inferred from customers' channel choices, as outlined in Table 14.

3.2.5 *Controls*

Across all six models we included customers' sex, age, and country of residence (i.e., market), knowledge (i.e., perceived subject-matter expertise), and interest in the product/service as control variables since these are relevant in the channel choice context (e.g., Bilgicer, Jedidi, Lehmann, & Neslin, 2015; Jindal, Reinartz, Krafft, & Hoyer, 2007; Polo & Sese, 2016). Knowledge and interest were measured through adapted versions of previously used and validated multi-item scales (for details, see Appendix C). We investigated the reliability and validity of these scales through a confirmatory factor analysis. Item reliabilities (all factor loadings exceed the recommended .70 threshold) and construct-level reliabilities (composite reliability between .87 and .94) indicate convergent validity (Hulland et al., 2017). In addition, we confirmed discriminant validity since each of the average variances extracted is greater than the respective squared inter-construct correlations (Fornell & Larcker, 1981; Jindal et al., 2007). The overall model fit statistics further indicate a highly satisfactory fit (Bagozzi & Yi, 1988; Brown, 2015). In addition, we controlled for channel choice in our analysis of patterns due to the expected relationship as outlined in propositions 6 and 7, as well as for loyalty in the satisfaction model (3.1) and for satisfaction in the loyalty model (3.2) due to the demonstrated relationship between these two variables (see Kumar et al., 2013).

3.3 Data analysis

We used Bayesian mixed effects models for our estimations. The flexibility provided by Bayesian approaches allows us to account for multinomial dependent variables and complex random effect structures in a multilevel framework, which in our case stems from the dynamics of the customer journey (i.e., multiple interactions per individual). In addition, the distinction between fixed and random effects technically does not exist in a Bayesian context⁷ since both location and variance/covariance parameters are represented as random variates, thereby overcoming a common challenge in non-Bayesian mixed models (Gelman et al., 2013). To estimate the relationships in our conceptual model, we thus specify Models 1.1-3.2 as follows:

$$y = \mathbf{X}\beta + \mathbf{Z}u + \varepsilon,$$

where X is the design matrix of fixed effects with associated parameter vector β , Z is the design matrix of random effects with associated parameter vector u , and ε is a vector of residuals. The variables used for the design matrix of fixed effects in each of the models are denoted in Table 14.

We employed the well-established MCMCglmm package in R developed by Hadfield (2010) for analysis of generalized linear mixed models. MCMCglmm uses inverse-Wishart priors for the variance and covariance structures and a normally distributed prior for the fixed effects. To minimize any potential auto-correlation among Markov Chain Monte Carlo iterations, we used a thinning interval of 50 iterations on 25,000 burn-in iterations and 100,000 sampling iterations, resulting in a sampling domain of 2,000 observations. We confirmed sampling convergence based on the trace plots⁸ of the Markov chains and the Gelman-Rubin potential scale reduction statistic.

4 Results

4.1 Model fit and predictive accuracy

To investigate model fit and the predictive accuracy of our multi- and binomial models, we used 10-fold cross-validation, which uses all the data as the hold-out once as opposed to

⁷ We still make the terminological distinction since it is well established and understood.

⁸ The 128 trace plots are available from the authors upon request.

bootstrapping or leave-one-out validation (Sood, James, & Tellis, 2009). In our models, class distribution is skewed, which limits the power of standard metrics, such as percentage correctly classified, in measuring classification performance (He & Garcia, 2009). We thus use the average area under the receiver operating characteristic (AUC), which also enables estimation of the strength of the effects. Thus, we found that Model 1.1 (AUC = .87), Model 1.2 (AUC = .87), Model 2.1 (AUC = .74), and Model 2.2 (AUC = .76) exhibit high predictive accuracy with large effects that represent a significant improvement compared to the null model (all $p < .001$) (Rice & Harris, 2005). The average R^2 from 10-fold cross validations for Models 3.1 and 3.2 are .41 and .21, respectively.

4.2 Determinants of channel choice

The results of Models 1.1 and 1.2 are displayed in Table 15 and Table 16, respectively. As expected in P1a, the results indicate that utilitarian customers were most likely to use online channels (.41 in reference to cost/sacrifice minimizing customers and larger differences versus hedonic and relational customers, all $p < .02$). P1b is only partially supported because cost/sacrifice minimizing customers were indeed significantly more likely to use online channels than relational customers (1.97, $p < .001$), but in comparison to hedonic customers the difference was not significant (.14, $p > .1$). Finally, relational customers were most likely to use personal channels for their interactions (1.09 and more, all $p < .001$), thus supporting P1c. We found acquaintance with a channel to positively influence the probability of using the respective channel (3.88 online, $p < .001$, 4.97 personal, $p < .001$; 2.56 impersonal, $p < .001$), such that P2 is supported. Furthermore, the purpose of the interaction had substantial influence on channel choice. In pre-purchase phases, customers were more likely to use impersonal online channels (all $p < .01$), while personal offline channels were preferred for the purchase (.40 offline, $p = .003$, 1.87 personal, $p < .001$), offline channels for claims (1.97, $p < .001$), and non-personal channels for contract terminations (-.46 personal, $p < .01$), leading support for P3a-d.

Investigation of the influence of the previous channel choice on the current choice (i.e., inertia) yielded interesting results. For offline channel choice, we encountered a higher likelihood if the previous channel choice had been offline. However, this only applied if customers' satisfaction with the previous channel was high (-.06 direct, $p > .1$; .17 moderated, $p = .003$). When turning to personal channels, we found inertia effects to be stronger (.52 direct, $p = .097$; .23 moderated, $p < .001$), indicating that personal channels may be

more successful at locking in customers. For impersonal channels, in contrast, lock-in seemed to be relatively weak (.39 direct, $p > .1$; -.03 moderated, $p > .1$). In addition to less lock-in, this may also be linked to the indication that impersonal channels were not perceived as equally suitable for all interaction purposes (Frambach et al., 2007). Therefore, the results partially support P4a and P4b.

As expected, research shopping customers had a higher likelihood of using online channels (1.69, $p < .001$) and impersonalizing customers had a lower likelihood of using personal channels (-.81, $p < .001$), thereby supporting P5 and P6.

Channel cluster	Parameter	Model 1.1 (ref. online)	
		Posterior mean	95% PCI
Offline	Intercept	1.86 ***	(1.16; 2.67)
	Customer orientation utilitarian (ref. cost/sacrifice minimizing)	-.41 *	(-.71; -.08)
	Customer orientation hedonic (ref. cost/sacrifice minimizing)	.14	(-.34; .59)
	Customer orientation relational (ref. cost/sacrifice minimizing)	1.97 ***	(1.58; 2.34)
	Acquaintance with online channels	-3.05 ***	(-3.35; -2.77)
	Acquaintance with offline channels	3.88 ***	(3.41; 4.30)
	Phase 1 (need recognition, ref. phase 5)	-.50 **	(-.76; -.22)
	Phase 2 (information, ref. phase 5)	-2.20 ***	(-2.47; -1.94)
	Phase 3 (evaluation, ref. phase 5)	-2.83 ***	(-3.12; -2.59)
	Phase 4 (purchase, ref. phase 5)	.40 **	(.14; .66)
	Phase 6 (claim, ref. phase 5)	1.97 ***	(1.64; 2.30)
	Phase 7 (contract adaptation, ref. phase 5)	1.02 ***	(.73; 1.34)
	Phase 8 (contract termination, ref. phase 5)	.89 ***	(.58; 1.20)
	Inertia	-.06	(-.68; .56)
	Inertia x channel satisfaction	.17 **	(.05; .29)
	Research shopping	-1.69 ***	(-1.99; -1.42)
	Sex	.41 **	(.14; .66)
	Age	.00	(-.01; .01)
	Country Germany (ref. Austria)	-1.90 ***	(-2.22; -1.59)
	Country Switzerland (ref. Austria)	-.84 ***	(-1.17; -.50)
Knowledge	.13 +	(-.01; .25)	
Interest	.10	(-.04; .23)	

Note. PCI = posterior credible interval; ref. = reference. *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$.

Table 15. Bayesian estimated coefficients for channel choice (Model 1.1).

Linking Determinants with Channel Choice and Outcomes

		Model 1.2 (ref. semi-personal)	
Channel cluster	Parameter	Posterior mean	95% PCI
Personal	Intercept	.32	(-.41; 1.09)
	Customer orientation utilitarian (ref. cost/sacrifice minimizing)	-.37 *	(-.71; .00)
	Customer orientation hedonic (ref. cost/sacrifice minimizing)	-.07	(-.58; .41)
	Customer orientation relational (ref. cost/sacrifice minimizing)	1.09 ***	(.75; 1.42)
	Acquaintance with personal channels	4.97 ***	(4.52; 5.37)
	Acquaintance with semi-personal channels	-3.21 ***	(-3.50; -2.92)
	Acquaintance with impersonal channels	-.85 ***	(-1.15; -.55)
	Phase 1 (need recognition, ref. phase 5)	2.34 ***	(2.03; 2.69)
	Phase 2 (information, ref. phase 5)	.80 ***	(.51; 1.11)
	Phase 3 (evaluation, ref. phase 5)	.51 ***	(.21; .83)
	Phase 4 (purchase, ref. phase 5)	1.87 ***	(1.59; 2.16)
	Phase 6 (claim, ref. phase 5)	-.64 ***	(-.92; -.37)
	Phase 7 (contract adaptation, ref. phase 5)	.33 *	(.06; .59)
	Phase 8 (contract termination, ref. phase 5)	-.46 **	(-.74; -.15)
	Inertia	.52 +	(-.05; 1.17)
	Inertia x channel satisfaction	.23 ***	(.12; .35)
	Impersonalization	-.81 ***	(-1.34; -.28)
	Sex	.09	(-.16; .35)
	Age	-.01 *	(-.02; .00)
	Country Germany (ref. Austria)	-2.18 ***	(-2.49; -1.79)
Country Switzerland (ref. Austria)	-1.15 ***	(-1.49; -.79)	
Knowledge	.07	(-.08; .22)	
Interest	.04	(-.10; .18)	
Impersonal	Intercept	.49	(-.17; 1.16)
	Customer orientation utilitarian (ref. cost/sacrifice minimizing)	.14	(-.16; .44)
	Customer orientation hedonic (ref. cost/sacrifice minimizing)	-.28	(-.76; .17)
	Customer orientation relational (ref. cost/sacrifice minimizing)	-.86 ***	(-1.20; -.52)
	Acquaintance with personal channels	-.12	(-.44; .19)
	Acquaintance with semi-personal channels	-2.54 ***	(-2.83; -2.31)
	Acquaintance with impersonal channels	2.56 ***	(2.22; 2.82)
	Phase 1 (need recognition, ref. phase 5)	1.86 ***	(1.55; 2.17)
	Phase 2 (information, ref. phase 5)	2.53 ***	(2.24; 2.82)
	Phase 3 (evaluation, ref. phase 5)	2.93 ***	(2.64; 3.24)
	Phase 4 (purchase, ref. phase 5)	.73 ***	(.43; 1.03)
	Phase 6 (claim, ref. phase 5)	-2.04 ***	(-2.36; -1.78)
	Phase 7 (contract adaptation, ref. phase 5)	-.78 ***	(-1.13; -.50)
	Phase 8 (contract termination, ref. phase 5)	-1.03 ***	(-1.34; -.76)
	Inertia	.39	(-.27; 1.10)
	Inertia x channel satisfaction	-.03	(-.15; .10)
	Impersonalization	.71 **	(.30; 1.12)
	Sex	-.34 **	(-.59; -.10)
	Age	-.01 *	(-.02; .00)
	Country Germany (ref. Austria)	.18	(-.10; .50)
Country Switzerland (ref. Austria)	-.13	(-.43; .21)	
Knowledge	-.09	(-.20; .06)	
Interest	.02	(-.11; .14)	

Note. PCI = posterior credible interval; ref. = reference. *** p < .001; ** p < .01; * p < .05; + p < .1.

Table 16. Bayesian estimated coefficients for channel choice (Model 1.2).

4.3 Determinants of channel choice patterns

Table 17 and Table 18 display the results of Models 2.1 and 2.2. In line with our expectations in P8a and P8b, research shopping (-.37 and -.15 in reference to hedonic and utilitarian customers, respectively, $p < .01$; -.10 in reference to cost/sacrifice minimizing customers, $p = .068$) and impersonalization (.42 and more, all $p < .001$) were least pronounced for relational customers. Hedonic customers, in contrast, seem to be most likely to use impersonalization patterns, thus supporting P7.⁹ As expected in P9a, acquaintance with online (1.38, $p < .001$) and offline channels (.62, $p < .001$) increased the likelihood of research shopping. Regarding the impersonalization effect, we found acquaintance with personal (.40, $p < .001$) and impersonal channels (1.01, $p < .001$) to be significantly positively related to the usage likelihood, while the effect was not significant for semi-personal channels (.08, $p > .1$). The underlying reason may be that semi-personal channels, which include the insurer’s service center, were perceived to be options for which little dedicated experience is needed since it is a common format across industries and thus involves limited risk, both in technological (primary medium is the telephone) and relational terms (the interaction partner is human but not personally known) (Albesa, 2007). Thus, P9b is partially supported.

Pattern	Parameter	Model 2.1	
		Posterior mean	95% PCI
Research shopping	Intercept	-1.63 ***	(-1.87; -1.38)
	Customer orientation utilitarian (ref. relational)	.15 **	(.04; .26)
	Customer orientation hedonic (ref. relational)	.37 ***	(.22; .53)
	Customer orientation cost/sacrifice minimizing (ref. relational)	.10 +	(-.02; .21)
	Acquaintance with online channels	1.38 ***	(1.28; 1.46)
	Acquaintance with offline channels	.62 ***	(.45; .77)
	Offline channel use (ref. online)	-.58 ***	(-.68; -.47)
	Sex	-.08 +	(-.16; .01)
	Age	-.01 ***	(-.02; -.01)
	Country Germany (ref. Austria)	.17 ***	(.07; .28)
	Country Switzerland (ref. Austria)	.42 ***	(.32; .52)
	Knowledge	.08 ***	(.03; .12)
	Interest	-.10 ***	(-.14; -.06)

Note. PCI = posterior credible interval; ref. = reference. *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$.

Table 17. Bayesian estimated coefficients for research shopping (Model 2.1).

⁹ While it is not possible to use multiple reference categories (rotate them) in Bayesian analyses to derive the exact test statistics, the results in Table 18 clearly hint at this result.

Pattern	Parameter	Model 2.2	
		Posterior mean	95% PCI
Impersonal- ization	Intercept	-4.14 ***	(-4.56; -3.68)
	Customer orientation utilitarian (ref. relational)	.73 ***	(.50; .92)
	Customer orientation hedonic (ref. relational)	1.25 ***	(1.00; 1.50)
	Customer orientation cost/sacrifice minimizing (ref. relational)	.42 ***	(.20; .63)
	Acquaintance with personal channels	.40 ***	(.18; .59)
	Acquaintance with semi-personal channels	.08	(-.08; .24)
	Acquaintance with impersonal channels	1.01 ***	(.82; 1.19)
	Personal channel use (ref. semi-personal)	-.96 ***	(-1.18; -.75)
	Impersonal channel use (ref. semi-personal)	.07	(-.14; .25)
	Sex	.20 *	(.05; .34)
	Age	-.01 ***	(-.02; -.01)
	Country Germany (ref. Austria)	-.06	(-.26; .12)
	Country Switzerland (ref. Austria)	.62 ***	(.44; .80)
	Knowledge	.23 ***	(.16; .30)
	Interest	.08 *	(.00; .15)

Note. PCI = posterior credible interval; ref. = reference. *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$.

Table 18. Bayesian estimated coefficients for impersonalization (Model 2.2).

4.4 Determinants of satisfaction and loyalty

The results of Models 3.1 and 3.2 are depicted in Table 19 and Table 20, respectively. In accordance with earlier research (e.g., Shankar et al., 2003) our results revealed a positive relationship between online channel usage and satisfaction (.16, $p < .001$), thereby supporting P10a. Offline channel usage, in turn, was linked to higher loyalty (2.63, $p < .001$), in support of P10b. The results for the relationship between the number of distinct channels used and satisfaction also support P11a and thus the findings of the extant research (.01, $p = .032$). Still in line with our expectations in P11b but in contrast to earlier studies, we found using more distinct channels to be linked to less loyalty (-.51, $p < .001$).

Hedonic customers were expected to be more satisfied with their firm than any other customer orientation. We found this to be supported in our results in reference to cost/sacrifice minimizing (.06, $p = .013$) and relational customers (.13, $p < .001$); however, the difference to utilitarian customers was not significant (.03, $p > .1$), thus providing only partial support of P12a. P12b is fully supported by the results since loyalty was higher for relational customers than utilitarian (.96, $p < .001$), hedonic (.61, $p = .015$), and cost/sacrifice minimizing customers (1.71, $p < .001$).

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Parameter	Model 3.1	
	Posterior mean	95% PCI
Intercept	.44 ***	(.37; .51)
Offline channel use (ref. online)	-.16 ***	(-.19; -.13)
Number of channels	.01 *	(.00; .03)
Customer orientation utilitarian (ref. hedonic)	-.03	(-.07; .02)
Customer orientation cost/sacrifice minimizing (ref. hedonic)	-.06 *	(-.11; -.02)
Customer orientation relational (ref. hedonic)	-.13 ***	(-.17; -.08)
Research shopping	-.03 *	(-.06; -.01)
Impersonalization	.04	(-.01; .09)
Loyalty	.00 ***	(.00; .00)
Sex	-.26 ***	(-.28; -.23)
Age	.00 ***	(-.01; .00)
Country Germany (ref. Austria)	.13 ***	(.10; .16)
Country Switzerland (ref. Austria)	.02	(-.01; .05)
Knowledge	.59 ***	(.58; .60)
Interest	.07 ***	(.06; .08)

Note. PCI = posterior credible interval; ref. = reference. *** p < .001; ** p < .01; * p < .05; + p < .1.

Table 19. Bayesian estimated coefficients for satisfaction (Model 3.1).

Parameter	Model 3.2	
	Posterior mean	95% PCI
Intercept	-1.41 **	(-2.14; -.72)
Offline channel use (ref. online)	2.63 ***	(2.30; 2.99)
Number of channels	-.51 ***	(-.65; -.38)
Customer orientation utilitarian (ref. relational)	-.96 ***	(-1.31; -.62)
Customer orientation hedonic (ref. relational)	-.61 *	(-1.11; -.13)
Customer orientation cost/sacrifice minimizing (ref. relational)	-1.71 ***	(-2.03; -1.36)
Research shopping	-.12	(-.45; .18)
Impersonalization	1.58 ***	(1.02; 2.17)
Satisfaction	.40 ***	(.22; .56)
Sex	-.57 ***	(-.83; -.30)
Age	.23 ***	(.22; .24)
Country Germany (ref. Austria)	-.27	(-.59; .06)
Country Switzerland (ref. Austria)	1.59 ***	(1.26; 1.90)
Knowledge	-.20 *	(-.38; -.04)
Interest	.73 ***	(.60; .86)

Note. PCI = posterior credible interval; ref. = reference. *** p < .001; ** p < .01; * p < .05; + p < .1.

Table 20. Bayesian estimated coefficients for loyalty (Model 3.2).

We found that research shopping customers were indeed less satisfied (-.03, p = .017), which supports P13a. However, impersonalizing customers were not significantly

more satisfied than other customers (.04, $p > .1$), thus not supporting P13b. A potential explanation is that the switch from personal to semi-personal or impersonal channels was not perceived as so favorable that it led to significantly higher satisfaction compared to other customers due to insufficient channel integration or suboptimal channel performance in certain situations. Impersonalizing customers were more loyal (1.58, $p < .001$) though, indicating stronger tie-in, which supports P13c.

4.5 Robustness checks

To investigate the robustness of our results beyond the triangulations in discussions with industry experts as outlined in the section on our data collection, we conducted two additional types of checks. First, we separately reran all six models for each of the three countries, in which individual samples had been collected, and found the results to be largely consistent despite partially small sub-samples (see Appendix D). Second, we tested the alternative option to include the channels clustered by personal, semi-personal, and impersonal instead of online and offline for Models 3.1 and 3.2. Again, we found the results as provided in Appendix E to correspond with those in Table 19 and Table 20.

5 Discussion

5.1 Summary of findings and theoretical contributions

To detail the contributions of our study in light of our three research questions, we summarize its substantive findings in Table 21 and discuss its implications for a better understanding of customers' channel choices along the omnichannel customer journey, customers' varying propensity to use journey patterns, and the link to subsequent outcomes.

Variable	Channel choice (M 1.1)		Channel choice (M 1.2)		Research shopping (M 2.1)		Impersonalization (M 2.2)		Satisfaction (M 3.1)		Loyalty (M 3.2)	
	Proposition	Result	Proposition	Result	Proposition	Result	Proposition	Result	Proposition	Result	Proposition	Result
Channel choice online/offline									P10a (+ on)	+	P10b (+ off)	+
Channel choice personal/semi-personal/impersonal												
Number of channels									P11a (+)	+	P11b (-)	-
Customer orientation												
Utilitarian	P1a (+ on)	+					P7 (+)	+	P12a (+)	+ ^b		
Hedonic												
Cost/sacrifice minimizing	P1b (+ on) ^a	+ ^b										
Relational			P1c (+ p)	+	P8a (-)	- ^e	P8b (-)	-			P12b (+)	+
Acquaintance	P2 (+)	+	P2 (+)	+	P9a (+)	+	P9b (+)	+ ^b				
Purpose												
Pre-purchase	P3a (+ on)	+	P3a (+ ip)	+								
Purchase	P3b (+ off)	+	P3b (+ p)	+								
Claims	P3c (+ off)	+										
Contract termination			P3d (- p)	-								
Inertia	P4a (+)	+ ^b	P4a (+)	+ ^b								
Inertia x channel satisfaction	P4b (+)	+ ^b	P4b (+)	+ ^b								
Research shopping	P5 (+ on)	+							P13a (-)	-		
Impersonalization			P6 (- p)	-					P13b (+)	0	P13c (+)	+

Note: M = Model, 0 = no effect. ^a Compared to hedonic and relational customers only. ^b Partially supported. ^c Marginally significant (p < .1).

Table 21. Summary of the results.

First, our results provide a more comprehensive understanding of how customers design their journeys, thereby helping to close a major gap in the extant literature (Lemon & Verhoef, 2016; Verhoef et al., 2015). Based on the consideration of a holistic spectrum of channels relevant for interactions from the customer's perspective along a fine-grained and theoretically and empirically grounded journey, we account for a large number of influencing factors and distill three types of effects that appear essential for a more comprehensive understanding of customer journeys. Some predictors (i.e., customer orientations, acquaintance with channels, and purpose of the interaction) are independent of the journey since they apply to any given phase, while others are sequence-dependent (i.e., inertia and the moderating effect of channel satisfaction on inertia). Channel choice patterns (i.e., research shopping and the emerging impersonalization effect), finally, have a specific influence on channel choice across multiple interactions and thus have major implications for the management of multiple channels within and outside individual organizations (Banerjee, 2014; Van Bruggen et al., 2010).

Second, the more detailed investigation of these channel choice patterns, which has not been conducted to date, indicates that not all customers are equally prone to engaging in them. Specifically, hedonic value-seeking customers, who are well acquainted with most channel types, engage more strongly in the impersonalization pattern. Relational customers, in contrast, rely less on both research shopping and impersonalization patterns and more strongly on their personal advisors. These insights offer avenues to better serve customers because these attributes are attainable a priori or early in the journey (e.g., Barwitz & Maas, 2017) and allow for effectively targeting attractive customer groups.

Third, the results of this study provide explicit links to relevant outcomes, specifically, satisfaction and loyalty. Some of our findings supplement earlier research (e.g., Shankar et al., 2003; Wallace et al., 2004) through the more detailed omnichannel customer journey view but largely in line with the extant literature (i.e., hedonic value-seeking customers, who use online and generally more distinct channels, tend to be more satisfied while relational value-seeking customers, who use offline channels, are more loyal). Some findings, however, suggest relationships that dispute earlier research (i.e., the negative relationship between number of distinct channels used and loyalty when not only firm-owned channels are considered) or provide the initial analysis of relationships (i.e., the negative relationship between research shopping and satisfaction and the positive relationship between impersonalization and loyalty).

5.2 Managerial implications

Based on the superior understanding of customer journeys, managerially relevant implications unfold for customer strategy crafting and execution that help firms enhance value creation in the more complex environment of today's omnichannel customer journeys (Bianchi et al., 2016; Edelman & Singer, 2015). Fundamentally, our findings encourage firms to clearly define which customer groups they want to target in light of their strategic objectives. The substantial differences in customers' channel choices require differentiated offerings and treatment of customer groups to provide optimal experiences. Thus, firms can choose to focus on one or a few subsets of customers they can target with tailored interactions, products, and services to create value (Franke, Keinz, & Steger, 2009). Alternatively, firms can still approach large portions of the respective markets or even all customers, as is most common in the insurance industry, but then they need to invest in the resources required by each of the customer groups and develop strategies to differentiate service provision in accordance with customers' preferences.

Following the definition of target customers, our findings recommend adapting the channel strategy accordingly. When a specific customer group is targeted, investments in channels preferred by the respective customer group should be disproportionately high. For example, a firm aiming to approach relational customers due to their high loyalty may want to invest in personal offline channels, such as its agency network. For other customer groups, firms may be well advised to shift resources toward providing superior experiences through a multitude of channels since most customers use more than one channel across their journeys. The differing relationships of channel choice patterns with satisfaction and loyalty further indicate that firms may want to better integrate channels so that customers can easily transition between them, which enhances their experiences and, ultimately, their satisfaction and loyalty (Bianchi et al., 2016; Sousa & Voss, 2006). In addition, this can also help firms to lower costs. Since semi-personal and impersonal interactions are generally less cost-intensive than personal interactions (Campbell & Frei, 2010), it is value-accretive if customers switch from a personal purchase to impersonal channels in post-purchase phases, which include administrative tasks that have limited value creation potential. For firms following this recommendation, the results shown in Table 18 provide guidance on which customers may be most promising to approach.

Our analyses of the omnichannel environment, which by definition goes beyond the channels owned by one firm, further suggest a more deliberate management of channel networks. Specifically, firms should consider establishing networks, which may in the case

of motor insurance include car dealerships or comparison sites, and aim to reduce channel switching costs within their network. On the one hand, this helps to capitalize on research shopping, which we find to be prevalent but currently satisfaction-degressive. On the other, a seamless experience increases the hurdles for customers to switch to a competitor outside the network since the relationships and overall experience are more difficult to transfer (Tax, McCutcheon, & Wilkinson, 2013). To implement this, firms likely need to invest in information technology platforms to make the same information available across channels and align incentives throughout the network toward collectively providing customers with superior interactions and experiences.

5.3 Limitations and further research

Despite the theoretical and managerial contributions of this study, it is also subject to some limitations that may provide fruitful avenues for future research. First, we took a customer-centric approach in this research and investigated customers' journeys from their perspective. While this allowed us to employ an omnichannel view (i.e., including all channels customers have knowingly used along their customer journeys) and to use a large number of predictors, we still encountered some limitations as to the influencing factors we can consider. Future research can build on other data sources and investigate the influence of firms' actions, such as the integration of channels, engagement in networks, and proactive encouragement of customers to use certain patterns, as well as the differences in the performance of channels between firms. In addition, it would be beneficial to employ the firm perspective to integrate further outcomes, which are not accessible through customers. Demonstrating the direct relationship of customers' channel choices and determinants with revenues and profits could reveal additional insights and further illustrate the relevance for practitioners.

Finally, we took an integrative view of the detailed eight-phase omnichannel customer journey. Due to the complexity and inherent specificity of such an approach, our study focused on one industry, which naturally limits the generalizability of the results. While we deliberately chose the insurance industry and performed initial checks that indicated substantial similarities of insurance customer journeys with some other industries, for example, in terms of the prevalence of multichannel usage (e.g., Käuferle & Reinartz, 2015; Konuş et al., 2008), future research can address category-specific differences through cross-sector analyses. Furthermore, we conducted our research in three countries that feature

some cultural differences despite sharing the German language (Hofstede, Hofstede, & Minkov, 2010); however, applicability to other countries and contexts would need to be observed in future research.

Appendix A

Channel	Online/offline cluster ^a	Personalization cluster ^b
Agent	Offline	Personal
Broker	Offline	Personal
Family/friend	Offline	Personal
Car sales representative	Offline	Personal
Service center	Offline	Semi-personal
Social media	Online	Semi-personal
Website/online portal	Online	Impersonal
Mobile app	Online	Impersonal
Comparison site	Online	Impersonal

Note. ^a Channels are clustered based on whether interactions in these channels are primarily conducted online or offline following focus group discussions and interviews with customers and industry representatives. ^b In line with Barwitz and Maas (2016), we define personal channels as those channels that imply that one particular person is expected to attend to the interaction. Semi-personal channels are defined as channels, in which not one dedicated person but a pool of persons is expected to attend to the interaction with the respective persons identifying themselves. Impersonal channels are channels that generally do not feature human-to-human interaction or happen with an anonymous person (e.g., through a contact form on the website)

Table 22. Clustering of channels.

Appendix B

Variable	Mean	SD	1	2a	2b	2c	3	4	5	6	7a	7b	7c	7d	7e	8a	8b	8c	8d	8e	8f	8g	8h	9a	9b	9c	9d	10	11	12	13	14	15a	15b	15c	16	17	
1 Channel choice on/off ^a (online)	.24	n.a.	1.00																																			
2a Channel choice p/sp/tp ^a (personal)	.15	n.a.	-.21	1.00																																		
2b Channel choice p/sp/tp ^a (semi-personal)	.62	n.a.	-.71	-.53	1.00																																	
2c Channel choice p/sp/tp ^a (impersonal)	.24	n.a.	.99	-.23	-.71	1.00																																
3 Research shopping ^a	.31	n.a.	.18	.09	-.22	.17	1.00																															
4 Impersonalization ^a	.16	n.a.	.12	.06	-.14	.12	.20	1.00																														
5 Satisfaction ^b	5.51	1.11	.08	.01	-.08	.08	.04	.06	1.00																													
6 Loyalty (years)	9.76	9.40	-.17	-.01	.16	-.17	-.08	-.01	.00	1.00																												
7a Acquaintance ^a (online)	.53	n.a.	.35	.08	-.36	.35	.28	.13	.11	-.16	1.00																											
7b Acquaintance ^a (offline)	.92	n.a.	-.29	.00	.25	-.29	.00	-.02	-.03	.09	-.09	1.00																										
7c Acquaintance ^a (personal)	.86	n.a.	-.30	-.18	.39	-.29	-.01	-.02	-.04	.10	-.04	.75	1.00																									
7d Acquaintance ^a (semi-personal)	.47	n.a.	.07	.28	-.26	.07	.15	.07	.07	-.04	.39	.27	.05	1.00																								
7e Acquaintance ^a (impersonal)	.53	n.a.	.35	.08	-.36	.35	.28	.14	.10	-.16	.99	-.09	-.04	.39	1.00																							
8a Purpose ^a (phase 1)	.14	n.a.	.03	-.07	.02	.03	.00	-.01	-.01	.00	-.01	.00	-.01	.00	1.00																							
8b Purpose ^a (phase 2)	.13	n.a.	.14	-.07	-.07	.14	.03	.00	.00	-.02	.02	-.02	.00	.02	-.15	1.00																						
8c Purpose ^a (phase 3)	.13	n.a.	.21	-.08	-.12	.20	.04	.00	.01	-.03	.04	-.01	-.02	.00	.04	-.15	1.00																					
8d Purpose ^a (phase 4)	.16	n.a.	-.05	-.05	.08	-.05	.00	-.01	-.03	.00	.00	.00	.00	.00	.00	-.18	-.17	1.00																				
8e Purpose ^a (phase 5)	.12	n.a.	-.05	.03	.02	-.05	-.03	.01	.00	.02	.02	.01	.01	-.01	-.02	-.15	-.14	-.14	1.00																			
8f Purpose ^a (phase 6)	.12	n.a.	-.13	.15	.05	-.10	-.02	.00	.01	.04	-.02	.02	.02	.02	-.02	-.15	-.14	-.14	-.16	1.00																		
8g Purpose ^a (phase 7)	.12	n.a.	-.10	.05	.05	-.10	-.02	.00	.01	.04	-.02	.02	.03	.00	-.02	-.15	-.14	-.14	-.16	-.14	1.00																	
8h Purpose ^a (phase 8)	.09	n.a.	-.06	.08	.00	-.06	-.02	.00	.03	.03	.00	-.01	.00	.00	-.12	-.12	-.12	-.13	-.11	-.11	1.00																	
9a Customer orientation ^a (utilitarian)	.30	n.a.	.19	.07	-.21	.19	.08	.07	.00	-.06	.21	-.03	-.07	.12	.21	.01	.01	.02	.01	-.01	-.01	.00	1.00															
9b Customer orientation ^a (hedonic)	.10	n.a.	.02	.01	-.02	.01	.03	.06	.13	-.03	-.06	-.09	-.09	-.08	-.06	-.01	.01	-.01	-.02	.00	.01	.01	.01	1.00														
9c Customer orientation ^a (cost/sacrifice min.)	.27	n.a.	.06	.02	-.07	.06	.00	-.02	-.01	-.07	.03	-.02	.03	.05	.04	.01	.01	.01	.00	-.01	-.01	.00	-.40	1.00														
9d Customer orientation ^a (relational)	.33	n.a.	-.24	-.10	.28	-.24	-.09	-.09	-.07	.14	-.20	.10	.15	-.11	-.19	-.01	-.02	-.02	.01	.02	.02	.01	.01	-.46	-.23	1.00												
10 Inertia ^a	.54	n.a.	-.16	-.13	.23	-.16	-.26	-.15	.00	.06	-.14	.04	.04	-.12	-.14	-.43	.05	.06	.02	.14	.03	.08	.09	-.07	-.01	.00	.08	1.00										
11 Channel satisfaction	5.36	1.17	-.11	-.08	.15	-.11	-.07	-.01	.04	.04	-.03	.11	.11	.00	-.02	.03	.01	.00	.06	.00	.02	-.03	-.10	-.06	-.07	-.05	.15	.05	1.00									
12 Number of channels	2.40	1.17	.29	.17	-.37	.28	.46	.28	.04	-.15	.31	-.10	-.11	.25	.30	-.01	.03	.02	.00	-.05	.01	.00	.14	.08	.00	-.18	-.41	-.14	1.00									
13 Sex ^a (female)	.49	n.a.	-.06	.01	.05	-.06	-.03	.00	-.19	-.07	.06	.03	.03	.01	-.06	.00	-.01	-.01	.01	.01	.00	-.01	.02	-.07	.01	.01	.06	.02	1.00									
14 Age (years)	46.86	13.80	-.05	.02	.03	-.05	-.09	-.05	-.07	.37	-.07	.07	.05	-.02	-.07	-.01	-.01	-.01	.01	.00	.01	.02	.00	-.03	-.11	.03	.08	.06	.07	-.14	-.11	1.00						
15a Country ^a (Austria)	.34	n.a.	-.17	-.13	.24	-.17	-.08	-.06	-.06	-.02	-.11	.09	.14	-.08	-.11	.00	-.01	-.01	.00	.01	.01	.00	.02	-.07	-.04	.06	.04	.08	.04	-.15	.00	-.04	1.00					
15b Country ^a (Germany)	.33	n.a.	.22	.12	-.28	.22	.05	.00	.09	-.08	.16	-.11	-.17	.09	.16	.00	.01	.01	.00	.00	-.03	.00	.00	.10	-.01	.03	-.13	-.04	.01	.10	.00	.04	-.50	1.00				
15c Country ^a (Switzerland)	.33	n.a.	-.05	.00	.04	-.05	.04	.06	-.03	.10	-.05	.02	.03	-.01	-.05	.01	.00	-.01	.00	.00	.02	.00	-.02	-.04	.05	-.09	.09	-.04	-.05	.06	-.01	.00	-.50	-.50	1.00			
16 Knowledge ^b	3.50	1.46	-.02	.00	.02	-.02	.04	.05	.62	-.01	.02	.00	.01	.00	-.02	.02	.01	.00	-.03	.01	.00	.01	.03	-.07	.17	-.02	-.02	.02	.07	.01	-.11	-.08	-.01	.02	-.01	1.00		
17 Interest ^b	3.44	1.41	-.08	-.03	.08	-.07	-.05	.00	.09	.17	-.02	.13	.12	.03	-.01	-.01	-.01	-.01	.00	.02	.01	.02	-.02	-.07	-.07	-.04	.16	.04	.46	-.12	.02	.18	-.03	.01	.02	.07	1.00	

Note. M = mean, SD = standard deviation, n.a. = not applicable. ^a A categorical variable; mean displays the proportion of agreement along the customer journey (where indicated for the category in brackets). ^b For details, see Appendix C. Correlations > .015 are significant at the p < .05 level.

Table 23. Descriptive statistics and correlation matrix.

Appendix C

Constructs and items	Factor loading	CR	AVE
Satisfaction (adapted from Hui, Zhao, Fan, & Au, 2004; Westbrook, 1980)		.94	.77
The motor insurance policies my insurer provides are very good.	.91		
I am generally very satisfied with the service my motor insurer provides.	.86		
My motor insurer always reacts very quickly.	.88		
I can count on my motor insurer's service.	.96		
My motor insurance policy provides good value for money.	.75		
Knowledge (adapted from Goldsmith & Goldsmith, 1997)		.89	.74
I know pretty much about motor insurance.	.87		
Among my circle of friends, I am one of the "experts" on motor insurance.	.87		
Compared to others, I know more about motor insurance.	.84		
Interest (adapted from Chandrashekar, 2004; Srinivasan & Ratchford, 1991)		.87	.64
I enjoy reading and talking about motor insurance.	.77		
I am interested in buying motor insurance.	.72		
I am particularly interested in insurance topics.	.82		
I am quite involved in motor insurance.	.87		
Fit statistics			
CFI	.99		
GFI	.98		
AGFI	.97		
SRMR	.04		
RMSEA	.05		

Note. Parameter abbreviations with recommended thresholds (Bagozzi & Yi, 1988; Hu & Bentler, 1999). CR = Composite reliability ($\geq .60$), AVE = Average variance extracted ($\geq .50$), CFI = Comparative Fit Index ($\geq .95$), GFI = Goodness of Fit Index ($\geq .90$), AGFI = Adjusted Goodness of Fit Index ($\geq .90$), SRMR = Standardized Root Mean Square Residual ($\leq .08$), RMSEA = Root Mean Square Error of Approximation ($\leq .06$). All items are measured on seven-point scales anchored by "strongly agree" and "strongly disagree."

Table 24. Construct measurement and reliability.

Appendix D

Channel cluster	Parameter	Posterior mean (ref. online)		
		Germany	Austria	Switzerland
Offline	Intercept	1.56 *	.48	.41
	Customer orientation utilitarian (ref. cost/sacrifice minimizing)	.04	.13	.09
	Customer orientation hedonic (ref. cost/sacrifice minimizing)	-.31	-.50 ⁺	-.18
	Customer orientation relational (ref. cost/sacrifice minimizing)	1.90 ***	2.41 ***	1.79 ***
	Acquaintance with online channels	-2.28 ***	-3.76 ***	-2.77 ***
	Acquaintance with offline channels	3.86 ***	4.01 ***	3.64 ***
	Phase 1 (need recognition, ref. phase 5)	.06	-.96 ***	-.35
	Phase 2 (information, ref. phase 5)	-2.14 ***	-2.43 ***	-2.07 ***
	Phase 3 (evaluation, ref. phase 5)	-2.88 ***	-2.90 ***	-2.76 ***
	Phase 4 (purchase, ref. phase 5)	.87 **	-.17	.91 ***
	Phase 6 (claim, ref. phase 5)	1.50 ***	2.38 ***	1.86 ***
	Phase 7 (contract adaptation, ref. phase 5)	1.63 ***	.80 ***	1.03 **
	Phase 8 (contract termination, ref. phase 5)	1.26 **	.57 *	1.20 ***
	Inertia	-.37	-.43	.42
	Inertia x channel satisfaction	-2.87 ***	-.62 *	-1.95 ***
	Research shopping	.56 *	.69 **	.08
	Sex	.00	.00	.02 ⁺
	Age	.34 ***	.15	.14
	Knowledge	.03	.12	.19 ⁺
	Interest	.18	.05	.05

Note. ref. = reference. *** p < .001; ** p < .01; * p < .05; ⁺ p < .1.

Table 25. Bayesian estimated coefficients for channel choice by country (Model 1.1).

Linking Determinants with Channel Choice and Outcomes

Channel cluster	Parameter	Posterior mean (ref. semi-personal)		
		Germany	Austria	Switzerland
Personal	Intercept	-1.13	-.54	-1.31 *
	Customer orientation utilitarian (ref. cost/sacrifice minimizing)	-.28	-.65	-.28
	Customer orientation hedonic (ref. cost/sacrifice minimizing)	-.80 +	.11	.25
	Customer orientation relational (ref. cost/sacrifice minimizing)	1.27 ***	1.71 ***	.69 *
	Acquaintance with personal channels	5.02 ***	5.84 ***	4.91 ***
	Acquaintance with semi-personal channels	-3.39 ***	-3.90 ***	-2.83 ***
	Acquaintance with impersonal channels	-.09	-1.75 ***	-.84 ***
	Phase 1 (need recognition, ref. phase 5)	2.56 ***	1.85 ***	2.84 ***
	Phase 2 (information, ref. phase 5)	1.10 **	.38	1.08 ***
	Phase 3 (evaluation, ref. phase 5)	1.32 ***	-.33	1.03 ***
	Phase 4 (purchase, ref. phase 5)	2.27 ***	1.57 ***	2.00 ***
	Phase 6 (claim, ref. phase 5)	.03	-.22	-1.31 ***
	Phase 7 (contract adaptation, ref. phase 5)	-.41	.25	.99 ***
	Phase 8 (contract termination, ref. phase 5)	-.31	-.20	-.88 ***
	Inertia	-.06	.09	1.85 **
	Inertia x channel satisfaction	.47 ***	.21 *	.01
	Impersonalization	-.79	-1.12 +	-.44
	Sex	.37	-.10	.05
	Age	.00	-.03 *	.00
	Knowledge	.02	.14	.04
Interest	.03	.00	.11	
Impersonal	Intercept	-.51	.79	.55
	Customer orientation utilitarian (ref. cost/sacrifice minimizing)	.34	.12	.03
	Customer orientation hedonic (ref. cost/sacrifice minimizing)	-.62	-.26	-.04
	Customer orientation relational (ref. cost/sacrifice minimizing)	-.64 *	-1.18 ***	-.77 *
	Acquaintance with personal channels	.22	-.56 *	.29
	Acquaintance with semi-personal channels	-2.49 ***	-2.68 ***	-2.70 ***
	Acquaintance with impersonal channels	2.37 ***	2.98 ***	2.40 ***
	Phase 1 (need recognition, ref. phase 5)	1.84 ***	1.72 ***	2.24 ***
	Phase 2 (information, ref. phase 5)	2.88 ***	2.39 ***	2.68 ***
	Phase 3 (evaluation, ref. phase 5)	3.82 ***	2.49 ***	3.32 ***
	Phase 4 (purchase, ref. phase 5)	.90 **	.76 ***	.53 *
	Phase 6 (claim, ref. phase 5)	-1.35 ***	-2.29 ***	-2.29 ***
	Phase 7 (contract adaptation, ref. phase 5)	-1.64 ***	-.74 ***	-.44 +
	Phase 8 (contract termination, ref. phase 5)	-1.28 ***	-.70 **	-1.57 ***
	Inertia	-.07	.64	.89
	Inertia x channel satisfaction	.08	-.07	-.14
	Impersonalization	1.43 **	.21	.91 **
	Sex	-.26	-.68 ***	-.08
	Age	.00	-.01	-.02 *
	Knowledge	.06	-.05	-.22 +
Interest	-.13	.06	.08	

Note. ref. = reference. *** p < .001; ** p < .01; * p < .05; + p < .1.

Table 26. Bayesian estimated coefficients for channel choice by country (Model 1.2).

Linking Determinants with Channel Choice and Outcomes

Pattern	Parameter	Posterior mean		
		Germany	Austria	Switzerland
Research shopping	Intercept	-1.46 ***	-1.87 ***	-.09
	Customer orientation utilitarian (ref. relational)	.70 ***	.05	.12
	Customer orientation hedonic (ref. relational)	.57 ***	.86 ***	.24 *
	Customer orientation cost/sacrifice minimizing (ref. relational)	.30 **	.29 **	.22 *
	Acquaintance with online channels	1.50 ***	.96 ***	1.62 ***
	Acquaintance with offline channels	.29	.99 ***	.17
	Offline channel use (ref. online)	-1.45 ***	.04	-.88 ***
	Sex	.06	-.09	-.22 **
	Age	.00	-.01 ***	-.02 ***
	Knowledge	.10 *	.10 **	.02
	Interest	-.12 ***	-.17 ***	.01

Note. ref. = reference. *** p < .001; ** p < .01; * p < .05; + p < .1.

Table 27. Bayesian estimated coefficients for research shopping by country (Model 2.1).

Linking Determinants with Channel Choice and Outcomes

Pattern	Parameter	Posterior mean		
		Germany	Austria	Switzerland
Imperso- nalization	Intercept	-3.05 ***	-4.26 ***	-4.45 ***
	Customer orientation utilitarian (ref. relational)	-.05	1.42 ***	.88 ***
	Customer orientation hedonic (ref. relational)	.46	1.93 ***	1.38 ***
	Customer orientation cost/sacrifice minimizing (ref. relational)	-.17	.93 ***	.59 **
	Acquaintance with personal channels	-.22	.75 ***	.40 *
	Acquaintance with semi-personal channels	.79 ***	-.14	-.20
	Acquaintance with impersonal channels	1.04 ***	.37 *	1.54 ***
	Personal channel use (ref. semi-personal)	-1.08 ***	-1.16 ***	-.65 ***
	Impersonal channel use (ref. semi-personal)	.25	-.16	.28 ⁺
	Sex	.31 *	.00	.32 **
	Age	-.02 ***	-.01 ⁺	.00
	Knowledge	.20 *	.36 ***	.38 ***
	Interest	.15 ⁺	.16 *	.00

Note. ref. = reference. *** p < .001; ** p < .01; * p < .05; ⁺ p < .1.

Table 28. Bayesian estimated coefficients for impersonalization by country (Model 2.2).

Linking Determinants with Channel Choice and Outcomes

Parameter	Posterior mean		
	Germany	Austria	Switzerland
Intercept	.42 ***	.53 ***	.50 ***
Offline channel use (ref. online)	-.10 **	-.21 ***	-.10 ***
Number of channels	.03 **	.02 *	-.01
Customer orientation utilitarian (ref. hedonic)	-.11 *	-.05	.04
Customer orientation cost/sacrifice minimizing (ref. hedonic)	-.12 **	-.08 *	-.02
Customer orientation relational (ref. hedonic)	-.18 ***	-.17 ***	-.07 *
Research shopping	.01	-.08 **	.00
Impersonalization	-.03	-.06	.17 ***
Loyalty	.00	.00 ***	.01 ***
Sex	-.30 ***	-.24 ***	-.23 ***
Age	.00 ***	.00 **	-.01 ***
Knowledge	.55 ***	.62 ***	.60 ***
Interest	.09 ***	.09 ***	.04 ***

Note. ref. = reference. *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$.

Table 29. Bayesian estimated coefficients for satisfaction by country (Model 3.1).

Linking Determinants with Channel Choice and Outcomes

Parameter	Posterior mean		
	Germany	Austria	Switzerland
Intercept	.85	-1.76 **	-1.17 +
Offline channel use (ref. online)	1.39 ***	3.33 ***	2.27 ***
Number of channels	-.33 **	-.49 ***	-.63 ***
Customer orientation utilitarian (ref. relational)	-.72 *	-.02	-2.18 ***
Customer orientation hedonic (ref. relational)	-.53	.20	-1.39 ***
Customer orientation cost/sacrifice minimizing (ref. relational)	-1.46 ***	-1.72 ***	-1.72 ***
Research shopping	-.47	.87 **	-1.17 ***
Impersonalization	1.86 **	3.23 ***	.35
Satisfaction	.15	.56 ***	.73 ***
Sex	-.62 *	-.34	-.47 +
Age	.20 ***	.21 ***	.29 ***
Knowledge	-.36 **	-.55 ***	-.59 **
Interest	.55 ***	.63 ***	1.10 ***

Note. ref. = reference. *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$.

Table 30. Bayesian estimated coefficients for loyalty by country (Model 3.2).

Appendix E

Parameter	Model 3.1	
	Posterior mean	95% PCI
Intercept	.34 ***	(.26; .42)
Personal channel use (ref. semi-personal)	-.05 **	(-.09; -.02)
Impersonal channel use (ref. semi-personal)	.12 ***	(.08; .16)
Number of channels	.01	(.00; .02)
Customer orientation utilitarian (ref. hedonic)	-.03	(-.08; .01)
Customer orientation cost/sacrifice minimizing (ref. hedonic)	-.07 **	(-.11; -.02)
Customer orientation relational (ref. hedonic)	-.12 ***	(-.17; -.08)
Research shopping	-.03 *	(-.06; .00)
Impersonalization	.04	(-.01; .10)
Loyalty	.00 ***	(.00; .00)
Sex	-.26 ***	(-.28; -.24)
Age	.00 ***	(-.01; .00)
Country Germany (ref. Austria)	.12 ***	(.09; .15)
Country Switzerland (ref. Austria)	.02	(-.01; .05)
Knowledge	.59 ***	(.58; .60)
Interest	.07 ***	(.06; .08)

Note. PCI = posterior credible interval; ref. = reference. *** p < .001; ** p < .01; * p < .05; + p < .1.

Table 31. Bayesian estimated coefficients for satisfaction with personal/semi-personal/impersonal channel choice (Model 3.1).

Parameter	Model 3.2	
	Posterior mean	95% PCI
Intercept	.27	(-.49; 1.08)
Personal channel use (ref. semi-personal)	.84 ***	(.47; 1.28)
Impersonal channel use (ref. semi-personal)	-2.05 ***	(-2.49; -1.61)
Number of channels	-.47 ***	(-.60; -.33)
Customer orientation utilitarian (ref. relational)	-.85 ***	(-1.21; -.50)
Customer orientation hedonic (ref. relational)	-.55 *	(-1.05; -.06)
Customer orientation cost/sacrifice minimizing (ref. relational)	-1.63 ***	(-1.97; -1.26)
Research shopping	-.09	(-.41; .22)
Impersonalization	1.61 ***	(1.06; 2.20)
Satisfaction	.41 ***	(.25; .58)
Sex	-.58 ***	(-.87; -.31)
Age	.24 ***	(.23; .25)
Country Germany (ref. Austria)	-.14	(-.48; .16)
Country Switzerland (ref. Austria)	1.65 ***	(1.34; 1.97)
Knowledge	-.22 **	(-.39; -.07)
Interest	.73 ***	(.61; .87)

Note. PCI = posterior credible interval; ref. = reference. *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$.

Table 32. Bayesian estimated coefficients for loyalty with personal/semi-personal/impersonal channel choice (Model 3.2).

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V **The Relevance of Interaction Choice: Customer Preferences and Willingness to Pay**

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Abstract

As the number of available channels and ways to use these channels proliferate, current literature and managerial practice assume that broader interaction choice invariably generates value for customers. In light of the costs and complexity of offering these interaction options, the questions become how important having interaction choice is for customers, how much actual willingness to pay exists, and which customer groups particularly value such choice. To investigate this domain, two choice-based conjoint analyses are implemented in the health insurance industry, which provides a unique research opportunity since regulation naturally limits the relevant attributes of offerings. To cope with the substantial heterogeneity in prices for health insurance depending on the insureds' risks, the methodological innovation of quasi-individual pricing is introduced, which leads to highly satisfactory validity of the estimation results. The results indicate that customers have considerable additional willingness to pay for more interaction choice; however, in contrast to the extant literature, this does not hold for all interaction options. Customers' elicited preference structures further show that health insurers can optimize the configuration and pricing of their offerings to improve customers' experiences and to create value.

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1 Introduction

Through recent technological developments, an unprecedented range of potential interaction options challenges firms regarding what interaction choices to offer customers (Chheda, Duncan, & Roggenhofer, 2017; Sousa & Voss, 2006). The multi- and omnichannel literature as well as managerial practice implicitly or explicitly suggest that greater interaction choice, defined as broader choice of channels and more ways for customer to engage in these channels for interactions along the customer journey, always generates value for customers since their preferences can be better accommodated (e.g., Bitner, Brown, & Meuter, 2000; Lemon & Verhoef, 2016; Neslin et al., 2006). However, interaction choice is costly and challenging to provide due to the resulting complexity (Bianchi, Cermak, & Dusek, 2016; Van Bruggen, Antia, Jap, Reinartz, & Pallas, 2010), thus triggering the questions of how important this feature is vis-à-vis other attributes, whether substantial willingness to pay (WTP) exists, and for which customers it may be particularly pronounced.

Health insurance provides a distinct opportunity to study these questions for two main reasons. On the one hand, health insurance provides unique methodological advantages since prevailing regulation naturally limits the factors that can influence customers' choice of insurance provider and coverage. This allows the implementation of choice-based conjoint (CBC) analyses, which have preferential properties in estimating the relative importance of attributes and WTP but are limited to a comparably small number of attributes that can be considered (Braidert, Hahsler, & Reutterer, 2006; Orme, 2013).

On the other hand, the challenge to capitalize on optimal interaction choice is particularly prevalent for health insurers, which face rising healthcare costs well above gross domestic product growth (OECD, 2017). Coupled with strong competition among insurers and comparably low innovation, improving customers' experiences at lower cost is a key priority (Andrews, Cordina, & Kumar, 2016). In light of this, it is surprising that very few empirical investigations of customers' preferences have been conducted in health insurance in general, with some notable exceptions that pertain to the perspective of social welfare and policy making, particularly in times of scheme changes (Booske, Sainfort, & Hundt, 1999; Kerssens & Groenewegen, 2005; Van den Berg et al., 2008). Therefore, this study provides three main contributions.

The first contribution is to the multi- and omnichannel literature. Through the research opportunity in health insurance, it can be investigated whether and to what extent the assumption that more interaction choice creates value for customers holds. While recent

indications suggest that offering more interaction choice may not in all cases be value accretive for firms (e.g., Konus, Neslin, & Verhoef, 2014), the case has not been contested for customers. In addition, not all interaction options are equally valuable to customers. By estimating the WTP for these options, this study provides insights that enable firms to make informed decisions about which interaction options to offer and how to price them to optimize outcomes for customers and themselves (e.g., Patricio, Fisk, & e Cunha, 2008; Polo & Sese, 2016; Verhoef et al., 2009).

The second contribution pertains to health insurance. When considering that this industry settles expenses in excess of USD 7 trillion globally each year (OECD, 2017), health insurance is often underrepresented in the marketing literature. This study provides rich insights into customer preferences that insurers can use to make better decisions about which product and service bundles to offer and where to place the focus in innovation. In particular, WTP for certain features is a helpful indicator that also allows for pricing offerings more effectively by supplementing traditional cost-based pricing approaches with preference-based pricing. For auto, home, and house insurance, for example, Hansen, Jacobsen, and Lau (2016) illustrate substantial additional profit potential through such pricing procedures.

The third contribution is to the conjoint literature. While health insurance features specific advantages for this research, it also poses a methodological challenge since prices can differ enormously depending on the insureds' demographic particulars and health status. This study tackles this challenge by introducing a methodological advancement in the form of quasi-individual pricing, that is, showing each participant in the CBC experiment price levels that are relevant for the specific participant and most likely differ from all other participants. This approach has not been implemented to date; instead, earlier research has circumvented this complexity, for example, by conducting separate analyses for a number of risk groups that each feature fixed prices (e.g., Braun, Schmeiser, & Schreiber, 2016). While such an approach can only approximate the prices individuals encounter in the marketplace, quasi-individual pricing has the potential to increase analyses' validity whenever prices are heterogeneous, which may be the case for more and more products and services as firms more strongly differentiate and individualize prices.

This paper proceeds as follows. First, the interaction choice literature is reviewed to delineate the state of knowledge to which this study contributes. Next, the CBC design and

the data collection process are detailed, and then the results are reported. The paper concludes with a discussion of theoretical and practical implications, the study's limitations, and potential future research directions.

2 Review of interaction choice literature

Research on interactions has a relatively long-standing tradition in the marketing literature (e.g., Bitner, Booms, & Tetreault, 1990; Håkansson, 1982; Solomon, Surprenant, Czepiel, & Gutman, 1985). One reason for this extent of scholarly attention is the demonstrated importance of interactions for relevant outcomes such as overall customer satisfaction (e.g., Durvasula, Lysonski, & Mehta, 2005), perceived service quality and value (e.g., Bolton & Drew, 1992), loyalty (e.g., Crosby & Stephens, 1987), customer experience (e.g., Wu & Liang, 2009), and value creation (e.g., Kumar & Reinartz, 2016). The advent of multi- and omnichannel management in recent years has further led to the investigation of whether and why offering interaction choice to customers may be beneficial despite the cost that accompanies maintaining and coordinating these options.

2.1 Attractiveness of multichannel customers

A first stream of research has investigated the attractiveness of multichannel customers. Engaging in diverse channels in their customer journeys, studies suggest that these customers are particularly appealing. For instance, Thomas and Sullivan (2005) find that multichannel customers tend to generate higher revenues and buy more items, which Kushwaha and Shankar (2013) extend to the overall value of such customers. Similarly, Kumar and Venkatesan (2005) report that multichannel customers provide increasing lifetime revenues, share of wallet, and ultimately profitability. In addition, multichannel customers are more satisfied and loyal (e.g., Wallace, Giese, & Johnson, 2004) and innovative (e.g., Konuş, Verhoef, & Neslin, 2008). However, Cambra-Fierro, Kamakura, Melero-Polo, and Sese (2016) show that fully multichannel customers, who use all available channels, are not necessarily most profitable. Still, offering interaction choice may benefit firms regardless of the underlying reasons for customers' use of multiple channels.

2.2 Organizational benefits and costs

A second stream of research focuses on firm- and market-level reasons to offer interaction choice to customers. Specifically, Coelho and Easingwood (2004) discuss increased market coverage, cost reduction if added channels provide relatively cheaper interactions, information gain, which may be easier to elicit in some channels than in others, and the diversification of business risks as firm-level drivers for providing customers with interaction choice; however, they also highlight potential disadvantages and issues in managing the channel multiplicity. Jindal, Reinartz, Krafft, and Hoyer (2007) add a firm's customer orientation to be directly linked to the breadth of interaction options offered. Other authors, including Cespedes and Corey (1990), Coelho and Easingwood (2008), and Easingwood and Storey (1996), elaborate on these findings, suggesting that from a firm-centric perspective offering multiple interaction choices tends to be beneficial despite the inherent management challenges.

Further expanding the perspective to account for competitive forces, Payne and Frow (2005) argue that increased competition drives firms to create both direct (i.e., owned) and indirect (i.e., outsourced) interaction channels to reduce costs. Frazier and Antia (1995) supplement market share considerations in more competitive markets as another factor. In addition, channel conflict (e.g., Falk, Schepers, Hammerschmidt, & Bauer, 2007; Webb & Lambe, 2007) and cooperation (Banerjee, 2014; Wiertz, de Ruyter, Keen, & Streukens, 2004) between organizations lead to employing more channels. Further increasing the attractiveness of maintaining multiple interaction options, strategies to improve the challenging management of these channels in competitive environments are recommended (e.g., Sharma & Mehrotra, 2007; Van Bruggen et al., 2010).

However, offering more interaction options also has some drawbacks, such as cross-channel conflicts (Vinhas & Anderson, 2005) and cannibalization (e.g., Deleersnyder, Geyskens, Gielens, & Dekimpe, 2002; Pauwels, Leeflang, Teerling, & Huizingh, 2011). In addition, the coordination effort and costs increase with each channel addition (Neslin & Shankar, 2009). In light of this, Konuş et al. (2014) show that eliminating a search channel can have both positive (e.g., increased order size) and negative consequences (e.g., reduced order incidence), leading to a net positive profit impact when taking the lower costs due to the channel elimination into account.

2.3 Customer preferences

A third and more extensive stream of research centers on customers and argues that providing interaction choice helps in better matching customers' preferences. Along their customer journeys (i.e., the sequence of interactions with the firm and possibly third parties), customers generally do not revert to the same channel but choose one that best fits their needs (Lemon & Verhoef, 2016; Venkatesan, Kumar, & Ravishanker, 2007). A wealth of research focuses on the determinants of customers' interaction choices. Considering singular interaction choices, previous research has identified channel attributes such as availability, cost, and convenience to be relevant antecedents (e.g., Ganesh, Reynolds, Luckett, & Pomirleanu, 2010; Inman, Shankar, & Ferraro, 2004; Yu, Niehm, & Russell, 2011); however, their importance varies depending on customers' interaction purposes and objectives (Lee & Ariely, 2006). In addition, customer attributes, including sociodemographics and psychographics, prior experience, interest, and knowledge, are impactful (e.g., Frambach, Roest, & Krishnan, 2007; Melis, Campo, Breugelmans, & Lamey, 2015; Noble, Griffith, & Weinberger, 2005).

Beyond effects influencing singular channel choices, specific effects pertain to the sequence of interactions along the customer journey. Some scholars have addressed this need, finding that positive inertia prevails (e.g., Gensler, Verhoef, & Böhm, 2012; Konuş et al., 2014). Furthermore, specific customer journey patterns exist, such as research-shopping (Verhoef, Neslin, & Vroomen, 2007), later tied to webrooming (i.e., search online, purchase in store) and showrooming (i.e., browse in store, purchase online) behavior, as well as the impersonalization effect, which captures the use of personal interactions in purchase and rather impersonal interactions in post-purchase situations (Barwitz & Maas, 2016; Brynjolfsson, Hu, & Rahman, 2013; Gensler, Neslin, & Verhoef, 2017; Rapp, Baker, Bachrach, Ogilvie, & Beitelspacher, 2015).

2.4 Summary

Interaction choice has received considerable scholarly attention in recent years. While evidence is mixed about whether offering more interaction choice is advantageous for firms, the extant literature unanimously suggests that more interaction choice is beneficial for customers. However, the question remains whether customers have substantial WTP for more interaction choice and, if so, whether this applies to all extensions of channel choice. In addition, existing studies emphasize the absolute relevance of interaction choice; however,

the relative importance (i.e., how important interaction choice is for customers' overall consideration of which product and service to buy and use) has not received much attention.

3 Methodology

To investigate these topics, two individual studies in the Swiss and German private health insurance markets were conducted. Both employed the same methodology, procedures, and content, except for inevitable market-specific adjustments. The two private health insurance (PHI) systems share analogous competitive dynamics (e.g., the 10 largest insurers capture approximately 80% of the market), market mechanics (e.g., the risk compensation scheme), and customer choice processes (e.g., free choice of insurer) (Eling & Parnitzke, 2006; Federal Financial Supervisory Authority BaFin, 2016; Federal Office of Public Health, 2016, 2017; Swiss Financial Market Supervisory Authority FINMA, 2016). However, the German insurance market is characterized by a higher prevalence of channels that became available recently (Barwitz, Maas, Block, & Nützenadel, 2016), thus allowing the observation of application in two contexts while using the same methodologies.

3.1 Choice-based conjoint analysis

Conjoint analyses have received substantial attention in the marketing literature since the 1970s (e.g., Green & Rao, 1971; Johnson, 1974), especially in WTP studies (Breidert et al., 2006). CBC currently accounts for 80% of all conjoint studies and thus is the most popular method (Voleti, Srinivasan, & Ghosh, 2017). CBC designs require participants to select complete product/service profiles from among alternatives and are recommended for price-related research if the number of choice-relevant factors is sufficiently small (Orme, 2013). In these cases, choice tasks are cognitively less challenging than ratings or rankings, particularly in complex markets. Also, they mirror actual buying situations much more closely since customers are also exposed to a set of concrete alternatives in the real marketplace (Huber, 1997).

Through participants' choices of sets that are associated with specific advantages and disadvantages, individuals trade off policy attributes against each other and thereby convey preferences that can be used for part-worth utility estimates. In insurance, however, prices are not the same for all consumers. Instead, premiums depend on the insureds' individual risk factors, which makes traditionally used uniform prices unsuitable. To overcome this

issue, participants' risk factors were incorporated in the same format that is employed by insurers in the respective countries into this experiment so that respondents were assigned quasi-individual price levels.

3.2 Policy attributes and levels

While no generally accepted approach for the determination of attributes and levels for use in CBC designs exists, the study follows the suggestions of Orme (2002) and proactively avoids known biases, specifically, number-of-levels (Verlegh, Schifferstein, & Wittink, 2002), range (Gedenk & Sattler, 2009), number-of-tasks (Sattler, Hartmann, & Kröger, 2003), positioning (Perrey, 1996), and metacognition effects (Guldimann, 1996). To define the concrete attributes and levels, focus group discussions and in-depth interviews with industry experts from leading health insurers were conducted in addition to consulting the extant literature. The resulting set of attributes and levels is illustrated in Table 33. In addition, mouse-over explanations for the levels were offered to participants throughout the experiments that clearly define each level. These explanations are depicted in Appendix A.

Notably, interaction choice was delineated in three attributes. In line with earlier research (e.g., Dholakia et al., 2010), interactions were conceptualized as the concurrent choice of an interaction partner (who) and means of interaction (how). The levels for the interaction partner attribute followed Barwitz and Maas (2016), who distinguish personal (i.e., it is generally important to customers that a specific person attends to them), semi-personal (i.e., a person, who is identified, attends to customers but changes from interaction to interaction, such as a service center employee), and impersonal interaction partners (i.e., an algorithm or unidentified person attends to customers' concerns). For the means of interaction levels, the prevalent options in the markets were used. Next to these interaction options, which are relevant across the customer journey, claims represent the moment of truth in insurance (Barwitz et al., 2016). For this situation, insurers offer customers a variety of ways to submit their claims, which provided the grounds for developing the levels used for this attribute.

Attribute ^a	Levels study 1 (Switzerland)	Levels study 2 (Germany)	Number of levels	Notes
Outpatient coverage	HMO, Telmed, family doctor, free choice	Family doctor 3.5x, family doctor unlimited, free choice 3.5x, free choice unlimited	4	Levels impact premiums
Hospital coverage	General ward home/work canton, general ward all cantons, semiprivate ward, private ward ^b	General ward, semiprivate ward, private ward	4 (3)	Levels impact premiums
Brand ^c	Well-known non-insurers (Migros, Hirslanden), lesser known insurers (Galenos, Aquilana), budget insurers (Groupe Mutuel, Assura), premium insurers (Swica, Sanitas)	Well-known non-insurers (dm, Bayer), lesser known insurers (LVM, Alte Oldenburger), national insurers (HUK-Coburg, Debeka), international insurers (Allianz, AXA)	4	
Interaction partner	Anonymous, pool/service center ^d , personal/dedicated ^e		3	
Means of interaction	Digital, classic, digital & classic, digital & classic & in person		4	
Claims submission	Self-service, mobile app/online portal, letter, mobile app/online portal/letter		4	
Premium ^f	Very low, low, high, very high		4	

Note. HMO = Health Maintenance Organization for first consultation. Telmed = Consultation hotline for first consultation. ^a In the conjoint experiment, detailed explanations of each attribute level are offered to participants (see Appendix A). ^b Only differentiated if eligible. ^c Either of the two brands in parentheses is randomly assigned to a participant and held constant throughout the experiments. There are no notable differences when comparing the results for each of the two brands in the same category, indicating that they are indeed perceived similarly by participants. ^d Including the option to interact with an anonymous interaction partner. ^e Including the option to interact with a pool/service center or anonymous interaction partner. ^f Premium levels depend on the individual participant's risk as well as outpatient and hospital coverage attribute levels shown.

Table 33. Conjoint attributes and levels.

Assigning realistic price levels to participants was particularly challenging for the reasons outlined above. Hence, a novel approach that extends current practice was developed. For each participant, that is, for each risk class in the markets, available premiums were collected to provide each participant with, for that participant, relevant prices. As Miller, Hofstetter, Krohmer, and Zhang (2011) suggested, price ranges in the experiments were bounded by minimum and maximum prices offered in the markets (labeled “very low” and “very high” in Table 33; however, participants were shown actual prices in Swiss francs (CHF) or euros (EUR) in the experiments). To avoid overweighting the price attribute due to number-of-levels effects, two more price levels were used: the 33rd and 67th percentile of all prices available to a participant, representing relatively low and high prices. Thus, these experiments also accounted for the differing price ranges customers are exposed to in health insurance and thus adequately resembled actual choice situations in the real markets. To operationalize this approach in the two countries, however, extensive data were required.

Study 1 (Switzerland) used official basic insurance premium tables that are submitted by all insurers to the regulator. These include premiums by age group (children, young adults, adults), region (42 clusters), deductible (six options, CHF 300-2,500), and insurance model (health maintenance organization (HMO), Telmed, family doctor, free choice). For supplementary hospital insurance, which amends the basic insurance and is only accessible to customers who are sufficiently attractive risks (i.e., the insurer can engage in some risk selection), data from a leading Swiss health insurer with more than 650,000 supplementary insureds were used. These data cover all currently in-force contracts as well as actuarial data on the influencing factors, including sex (male/female), age (11 age groups), region (42 clusters), health (five leading questions that determine whether one is eligible for supplementary insurance), and hospital coverage (general ward home/work canton, general ward all cantons, semiprivate ward, private ward). Thus, 161,280 different risk classes (i.e., combinations of the influencing factors above) were used, leading to 645,120 individual price levels.

For study 2 (Germany), data from the leading aggregator www.check24.de were used to calculate premiums for private health insurance in Germany. Premiums depend on age (11 age groups), health (five leading questions), deductible (individual options), and coverage. Sex and region were not considered for pricing owing to regulation in the European Union. All available premiums were collected for the different coverage options (both outpatient and hospital as depicted in Table 33) for a reference insured (age group 31-35 years,

deductible EUR 0) as are all available premiums for deviations in either of the two categories (i.e., for all other age groups with deductible 0 and all other deductible groups for age group 31-35). The premiums for all risk classes were calculated based on this information and validated by reconsulting www.check24.de. Furthermore, the impact of any employer contributions (e.g., the state pays for up to 80% of the premium of public servants) was taken into account to ensure that participants only saw the amount payable by them, thereby adequately reflecting their current exposure. This led to 14,400 different risk classes with 57,600 individual prices.

3.3 Sample selection and discrete-choice experiments

For each of the two studies, a renowned market research agency hosted the online experiment that is based on version 9 of Sawtooth Software's CBC suite (Sawtooth Software, 2016). To operationalize the quasi-individual pricing, participants answered questions regarding their demographics and health status at the beginning of the experiment. These questions used the same wording as current application forms in the market. An interface then pulled the premiums depending on the participant's particulars from a separate database for use during the experiments because the number of individual prices far exceeded the maximum number of price levels the software could handle directly. Following a technical pretest, participants were recruited through panels, ensuring population representativeness (age 18-65).² During the three-week field phase, data were continuously cleaned (excluding 93 and 119 participants for speed, pattern clicking, or clearly incorrect answers in the two studies, respectively), leaving 1,002 and 1,000 participants in the final data set.

After a short explanation of the hypothetical buying situation and the policy attributes, participants were exposed to 10 choice tasks with three complete policies each. The "none" option was not included since participants are legally bound to have health insurance in both countries and may not choose to opt out. The attribute order, which may particularly influence attribute importance for less familiar products such as insurance (Kumar & Gaeth, 1991), was randomized with no prohibited combinations, as Orme (2002) suggested. A consistent design was chosen that estimates pricing-relevant attributes (i.e., outpatient coverage, hospital coverage, and premiums) through the random method to allow for higher efficiency in accounting for consequential interaction effects (Sawtooth

² For study 2, representativeness for private health insurance customers.

Software, 2013). For the remaining attributes, the balanced overlap method was used to optimize efficiency in estimating main effects (for further detail, refer to Huber & Zwerina, 1996).

4 Results

As recommended, the hierarchical Bayes (HB) method was used to estimate part-worth utilities and attribute importance through the HB routine implemented in Sawtooth Software (Sawtooth Software, 2009). The overall model results indicate highly satisfactory design efficiency and internal validity of the conjoint estimation with percent certainty of .854 and .874 for studies 1 and 2, respectively. Based on the elicited preferences, the study investigated the importance of interaction choice and the marginal WTP for different customer segments. Finally, a competitive market with complete policies was simulated to study the effects of policy configuration and premium variations.

4.1 Part-worth utilities

Figure 13 and Figure 16 in Appendix B summarize the individual-level part-worth utility profiles for the participants of studies 1 and 2, respectively. Following Braun et al. (2016), each grey line resembles one participant, while the black line shows the average utility across the respective sample. Figure 13a illustrates that, on average, the family doctor option is the most preferred, while Telmed is least preferred. While the latter is unsurprising in light of actual choice behavior in the market, it is interesting that the objectively best option (free choice) is not the one linked to highest utility. The underlying reason is that not all four options have the same price. In fact, free choice is approximately 15%-25% more expensive than the other options. The large spread of individuals further indicates that some customers clearly prefer this model, even at higher prices, while others derive negative value from it. Similarly, an interesting relationship is apparent in Figure 13b. The nominally preferential option (private ward) generates the smallest average utility since it is linked to a major premium markup. Indicating consistency in their preferences, customers who prefer the private ward also tend to prefer the semiprivate ward to other options. However, when moving from the semiprivate to the general ward, a very strong reversion of preferences seems to indicate that differentiated segments exist. In study 2, a clear preference for premium options is apparent. Free choice (Figure 16a) and private ward (Figure

16b) are clearly preferred over other options despite the price premium. This is in line with expectations since study 2 focuses on private health insurance, which is a premium option in the German market.

The four attributes that do not affect premiums are displayed in Figure 13c-f and Figure 16c-f and are largely in line with intuition. Three particularly notable findings are, however, that well-known non-insurers tend to be preferred to lesser known insurers and budget insurers in study 1, pointing to the potential for market entry by such brands. Also, for both studies, the addition of physical interactions as an interaction partner choice is, on average, not linked to higher utility. Third, one major difference between studies 1 and 2 is that self-service in the claims-handling process (Figure 13f and Figure 16f) is perceived more positively in Germany than in Switzerland. The reason for this may be that self-service is more established in other industries, such as online banking, in Germany and hence involves better learned behavior. Thus, this finding also supports the notion that the German market may be ahead of the Swiss market in terms of the prevalence of interaction options that only became available more recently. Finally and unsurprisingly, a strong preference for lower prices exists, as indicated in Figure 13g and Figure 16g.

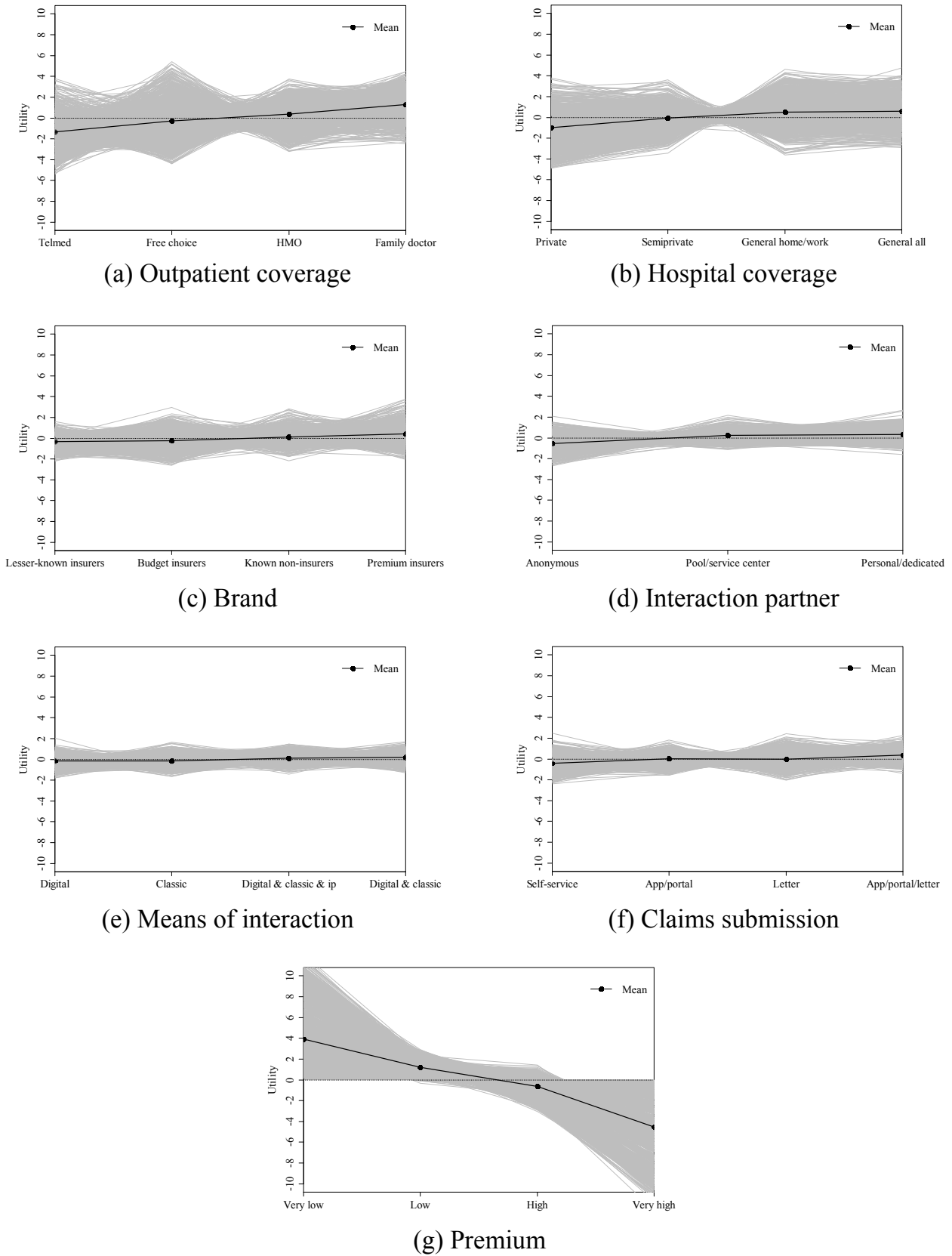


Figure 13. Individual-level part-worth utility profiles for study 1.

4.2 Relative attribute importance

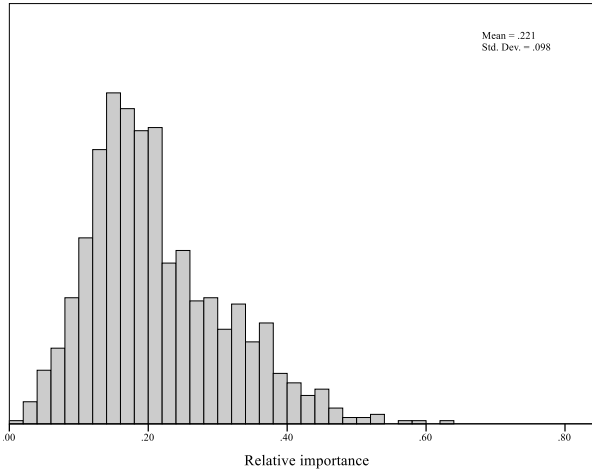
The relative importance of each attribute is calculated based on the individual-level part-worth utility profiles for each of the participants (see Figure 14 and Figure 17 in Appendix B). On average, outpatient coverage exhibits an aggregate level of importance of 21% for study 1 and 14% for study 2, while hospital coverage aggregates to 14% and 28%. Unsurprisingly, Swiss customers, on average, appear to perceive hospital coverage to be relatively less important since some participants were not eligible for such coverage due to their health status and hence they were only shown the basic coverage option (general ward in the home/work canton). When investigating the participants who had a choice, the relative importance of hospital coverage increases to 28%, which is on par with study 2.³ The brand accounts for 10% and 8% of average relative importance. Interaction choice as the aggregate of the interaction partner, means of interaction, and claims submission, which are all perceived to be similarly relevant, account for 20% and 19% of average relative importance. Thus, interaction choice is perceived as much more important than the brand and similarly important as the core policy defining attributes of outpatient and hospital coverage. Finally, the premium is, on average, perceived as most important at 35% and 31%; however, the average importance of the price is smaller and more heterogeneously distributed than one might expect for a highly regulated product.

To further understand for which customers interaction choice is particularly relevant, differences between customer groups were investigated (see Table 34 and Table 39 in Appendix B). Since the data cannot be assumed to be normally distributed,⁴ the Kruskal-Wallis test was employed to elicit the overall relevance of characteristics and subsequently the Dunn-Bonferroni tests to examine pairwise contrasts.

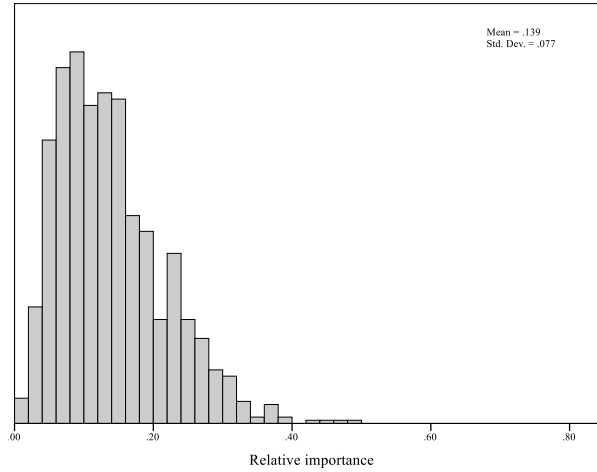
³ The average relative importance of the other attributes retains the same ranking as for the full sample and closely resembles the German market, with outpatient coverage accounting for 14%, brand for 9%, interaction choice for 20%, and price for 31%.

⁴ Shapiro-Wilk test with $p \ll .001$ for all attribute levels and clearly non-normal quantile-quantile plots.

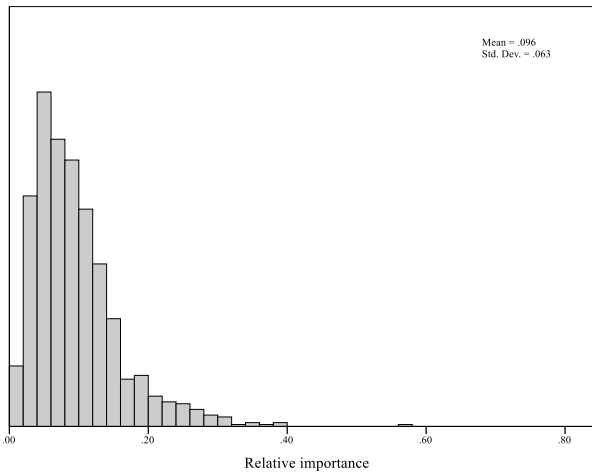
The Relevance of Interaction Choice



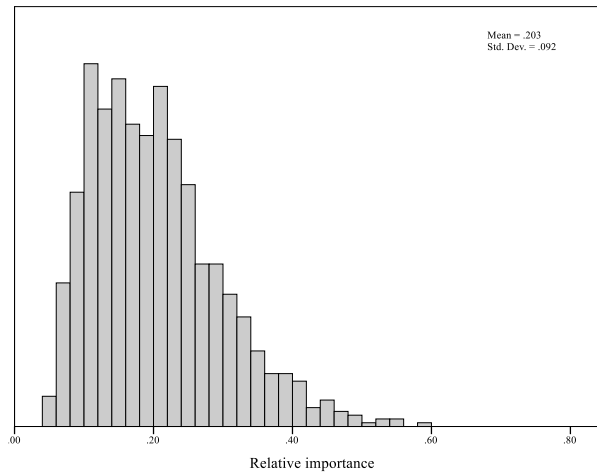
(a) Outpatient coverage



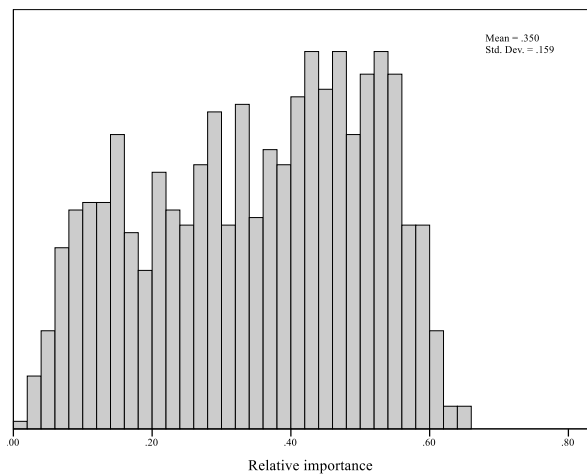
(b) Hospital coverage



(c) Brand



(d) Interaction choice overall^a



(e) Premium

Note. ^a Aggregate of interaction partner (mean = .07), means of interaction (mean = .06), and claims submission (mean = .08).

Figure 14. Relative attribute importance for study 1.

Characteristic	Number of observations	Mean (standard deviation) of the relative importance				Differences between characteristics ^a				Pairwise contrasts ^b
		Interact. choice overall (io)	Interaction partner (ip)	Means of interaction (mi)	Claims handling (ch)	χ^2 io	χ^2 ip	χ^2 mi	χ^2 ch	
Overall	1002	.203 (.092)	.068 (.052)	.056 (0.03)	.079 (.045)	4.458 **	.961 *	.901 *	6.774 ***	–
Sex										
Female (F)	517	.209 (.090)	.069 (.051)	.057 (.028)	.083 (.046)					
Male (M)	485	.197 (.094)	.066 (.053)	.055 (.031)	.076 (.043)					
Age										
18-30 (1)	231	.218 (.097)	.076 (.054)	.061 (.030)	.081 (.046)	5.109 ***	4.386 ***	5.789 ***	1.285	io: 2<1,3
31-45 (2)	338	.188 (.088)	.061 (.049)	.051 (.028)	.076 (.044)					ip: 2<1,3
46-55 (3)	254	.205 (.095)	.066 (.054)	.056 (.031)	.083 (.045)					mi: 2<1,3
56-65 (4)	179	.208 (.086)	.073 (.051)	.058 (.029)	.077 (.043)					ch: NS
Deductible										
CHF 300-500 (X)	485	.214 (.092)	.071 (.053)	.059 (.029)	.083 (.047)	11.404 ***	5.747 ***	7.110 ***	6.333 ***	io: Z<X,Y
CHF 1,000-1,500 (Y)	166	.211 (.086)	.073 (.054)	.056 (.030)	.083 (.041)					ip: Z<X,Y
CHF 2,000-2,500 (Z)	351	.184 (.094)	.060 (.049)	.051 (.030)	.073 (.042)					mi: Z<X
Segment										ch: Z<X,Y
Basic (B)	419	.183 (.093)	.059 (.049)	.051 (.029)	.073 (.044)	17.475 ***	10.337 ***	10.827 ***	8.119 ***	io: B<C,P
Conventional (C)	525	.218 (.090)	.074 (.054)	.060 (.030)	.084 (.045)					ip: B<C
Premium (P)	58	.215 (.078)	.074 (.049)	.053 (.026)	.088 (.040)					mi: B<C
										ch: B<C,P

Note. *** p < .01, ** p < .05, * p < .1. ^a Kruskal-Wallis test. ^b Dunn-Bonferroni test (a = .05).

Table 34. Relative attribute importance by characteristic for study 1.

These tests yield interesting findings. First, women perceive interaction choice to be relatively more important than men do. In study 1, this is mainly driven by the relative importance of the claims-handling process, which in a majority of Swiss families is managed by women according to Swiss health insurers. Second, for younger (under 30) and partially in study 2 older (over 55) insureds, interaction choice is relatively more important. Presumably, younger insureds have less experience dealing with their insurer and are grateful for advice, while this is less important to those who have a few years of experience. Once insureds get older, however, interaction choice may again become more important as illnesses tend to become more frequent and complex, requiring more intense interactions. In study 1, this notion is further supported by the lower relevance of interactions for insureds with high deductibles. These insureds expect fewer or less severe illnesses and have, on average, fewer interactions, which they subsequently perceive to be less important to them vis-à-vis other attributes. Third, participants in this study were asked in which segment (basic, conventional, or premium) they saw themselves. These segments are well established in the market and participants were supported by short sentences to describe the segments in the experiments, which are also used in this form in the market. The outcome clearly shows for study 1 that interaction choice is more important for conventional and premium customers than for basic customers, which is consistent with expectations. In study 2, however, no significant differences are found, which may be due to the fact that the German PHI market is already considered premium and thus may feature less pronounced sub-segmentations.

4.3 Marginal willingness to pay for interaction choice

In the next step, the marginal WTP for attribute levels was calculated. To do so, part-worth utilities were linked with the corresponding, respondent-dependent CHF or EUR values that account for the quasi-individual premiums shown to participants.⁵ Table 35 and Table 40 in Appendix B show the median additional WTPs for interaction choice attribute levels. To investigate whether these differences are statistically significant, the Wilcoxon signed ranks test was employed since the WTP values are not normally distributed.³ To understand whether differences in the WTP exist for different customer groups, the Kruskal-Wallis test

⁵ These can vary considerably on an individual basis, so the median is a more appropriate measure of central tendency (Johnson, 2000). Means and 5%-trimmed means, however, result in the same ranking of attribute levels.

was used to investigate the differences overall and Dunn-Bonferroni tests to elicit differences in pairwise contrasts.

The results indicate that being able to choose a personally identified interaction partner (pool or dedicated) is clearly preferred to only anonymous service personnel. For studies 1 and 2, the median additional WTP to interact also with service center employees amounts to CHF 14 and EUR 21 per month, respectively. On top of this, additional WTP of CHF 2 and EUR 3 exists for having access to a dedicated interaction partner. Particularly women, older insureds, customers with lower deductibles, and those who consider themselves in the conventional or premium segment tend to have higher WTP for more interaction partner choice. This corresponds with observations in the markets since this option has been introduced by some insurers with relatively service-intensive but highly valued customers in mind.

In terms of the means of interaction, both studies elicit a small difference between classic (e.g., letter, telephone) and digital (e.g., email, online chat, app) interaction options. However, once both are offered, so that customers can tailor the means of interaction to the specific purpose of the interaction, a median additional WTP of CHF 6 and EUR 10 exists. However, the option to interact also with insurer representatives in person does not lead to a higher median WTP in either of the two studies. The reason may be that customers do not want to bear the attributable cost for an interaction option they do not need.

Similarly, submitting claims via letter or online portals/apps is linked to comparable median WTP. Again, the combination of options leads to considerable additional WTP of CHF 7 and EUR 5. In Switzerland, this option is particularly valuable to customers with lower deductibles, who tend to submit more claims, as well as insureds who do not consider themselves in the basic segment and therefore might expect more from their insurer in terms of service provision.

Attribute level	Median addi- tional WTP ^a	Difference between sub- sequent attribute levels ^b	Differences between characteristics (pairwise contrasts) ^c			
			χ^2 sex	χ^2 age	χ^2 deductible	χ^2 segment
Interaction partner						
Anonymous	-		2.691	10.469 ** (4<2)	13.561 *** (Z>X)	14.727 *** (B>C)
Pool/service center	13.61	-16.741 ***	.054	6.739 *	5.444 *	2.525
Personal/dedicated	15.83	-3.558 ***	5.094 ** (F>M)	7.151 * (4>2)	11.479 *** (Z<Y)	15.081 *** (B<C)
Means of interaction						
Classic	-		.492	.701	2.147	2.558
Digital	0.88	-1.704 *	.755	5.489	3.753	8.454 ** (B>C)
Digital & classic & in person	4.75	-9.122 ***	.639	2.066	4.723 *	9.397 *** (P>B,C)
Digital & classic	6.35	-1.756 *	2.014	11.902 *** (4>2,3)	4.153	14.100 *** (B<C)
Claims submission						
Self-service	-		2.999 *	.449	8.392 ** (Z>X)	6.001 ** (B>C)
Mobile app/online portal	6.38	-8.204 ***	.381	2.774	3.423	.890
Letter	7.83	-.467	2.489	2.754	1.911	1.756
Mobile app/online portal/letter	13.57	-13.608 ***	1.987	2.342	13.297 *** (Z<X,Y)	20.899 *** (B<C,P)

Note: F = female, M = male, 1 = 18-30, 2 = 31-45, 3 = 46-55, 4 = 56-65, X = CHF 300-500, Y = CHF 1,000-1,500, Z = 2,000-2,500, B = basic, C = conventional, P = premium. *** p < .01, ** p < .05, * p < .1. ^a Compared to least preferred level in CHF per month. ^b Wilcoxon signed ranks test (z-score). ^c Kruskal-Wallis test with subsequent Dunn-Bonferroni tests for pairwise contrasts (a = .05).

Table 35. Marginal willingness to pay for changes in interaction attribute levels for study 1.

4.4 Policy switching and competition

Beyond individual attributes, complete policies were studied to model competitive market settings and to estimate the effects of policy improvements and premium variations (Orme, 2010). For this, health insurance executives participated in focus groups to define the representative offerings that are characterized in Table 36. Three archetypes of policies are offered in the market: a cost-effective, basic offering, the “basic” policy, a traditional mid-market policy configuration labeled “conventional,” and a “premium” policy with high-end features. In addition, a “developmental” policy was included that features properties that have recently been established in the markets or are being considered for introduction. To simulate competition among the four reference policies, the study followed Huber, Orme, and Miller (1999) and used the randomized first choice method, which best resembles real buying situations and outperforms other allocation rules in terms of predictive power.

Attribute	Basic policy	Conventional policy	Premium policy	Developmental policy
Outpatient coverage	Telmed (study 1), family doctor 3.5x (study 2)	Family doctor (study 1), free choice 3.5x (study 2)	Free choice (study 1), free choice unlimited (study 2)	HMO (study 1), free choice 3.5x (study 2)
Hospital coverage	General ward home/work canton (study 1), general ward (study 2)	General ward all cantons (study 1, if applicable), semiprivate ward (study 2)	Private ward (study 1, if applicable, and 2)	General ward home/work canton (study 1), semiprivate ward (study 2)
Brand	Budget insurers (study 1), lesser known insurers (study 2)	Lesser known insurers (study 1), national insurers (study 2)	Premium insurers (study 1), international insurers (study 2)	Well-known non-insurers (study 1 and 2)
Interaction partner	Anonymous	Pool/service center	Personal/dedicated	Anonymous
Means of interaction	Classic	Digital & classic	Digital & classic & in person	Digital
Claims submission	Mobile app/online portal	Letter	Mobile app/online portal/letter	Self-service
Premium	Medium (configuration specific)	Medium (configuration specific)	Medium (configuration specific)	Medium (configuration specific)

Note. HMO = Health Maintenance Organization for first consultation. Telmed = Consultation hotline for first consultation.

Table 36. Reference policies.

4.4.1 Policy design

When the previously defined policies compete in their respective markets at the same price level, customers choose them according to the top sections of Table 37 and Table 41 in Appendix B. Both Swiss and German customers have a relatively small preference for the basic policy due to its comparably unfavorable but cost-effective policy composition. For customers who can afford more expensive policies, however, the discount offered for the

basic policy seems insufficient to accept the trade-offs. A notable difference between the two studies is the relative preference of the premium policy in Germany. The underlying reason for this might again be that the German PHI market is in the top end of the overall market and customers expect more advanced benefits. Due to the higher average prices for the premium policy, the majority of revenue is also generated by this offering, pointing to the particular attractiveness of this segment for insurers.

In the bottom sections of Table 37 and Table 41, configuration improvements were applied, which result in a change in the share of preference for the offering. While many interesting findings exist, three highlights seem particularly noteworthy. First, the premium policy is largely insensitive to configuration changes of other policies. This indicates that separate customer segments exist that prefer the premium policy even if other policies partially mimic its coverage or service attributes. Second, the developmental policy has distinctive characteristics that accommodate a particular customer segment. For example, this segment prefers the relatively new and rarely used health maintenance organization (HMO) model for first consultation to all other outpatient models in Switzerland. Also, buyers of the developmental policy constitute the only segment that prefers digital to classic means of interaction (study 1) and overall (study 2). This supports the notion that room for a distinct fourth segment might exist. Third, and most remarkably, interaction choice also makes a considerable difference in a competitive environment. For example, to improve the basic policy, interaction choice is the most effective lever in both studies 1 and 2, with the exception of the replacement of the highly unpopular Telmed model in study 1, which would transform the offering (including a pricing impact) and would therefore be more difficult for insurers to change than the offering of interaction options.

The Relevance of Interaction Choice

Base case	Basic (B)	Conventional (C)	Premium (P)	Developmental (D)	
Share of preference (%)	6.8	41.3	31.4	20.5	
Number of insureds (market)	356,682	2,184,194	1,656,790	1,085,335	
Annual revenue (CHF million)	1,288	7,857	8,031	3,741	
Changes in shares of preference					
(B)	HMO	11.6	-3.4	-0.1	-8.1
	Family doctor	9.2	-4.7	-0.6	-3.8
	Free choice	2.1	-0.1	-3.0	1.0
	General ward all cantons	0.2	-0.9	-0.0	0.8
	Well-known non-insurers	0.1	0.0	-0.3	0.1
	Premium insurers	1.2	-0.5	-0.4	-0.3
	Pool/service center	0.9	-0.8	-0.4	0.3
	Personal/dedicated	1.3	-0.8	-0.6	0.1
	Letter	0.1	-0.4	-0.2	0.5
	Mobile app/online portal/letter	1.4	-0.9	-0.4	-0.1
(C)	Well-known non-insurers	-0.5	7.1	-3.6	-3.0
	Budget insurers	-1.1	2.3	-1.0	-0.3
	Premium insurers	-0.9	9.4	-5.0	-3.5
	Personal/dedicated	-0.1	2.0	-2.1	0.2
	Mobile app/online portal	-0.2	1.3	0.8	-2.0
	Mobile app/online portal/letter	-0.9	6.2	-2.4	-2.9
(P)	Family doctor	0.3	-9.0	9.6	-0.9
	General ward home/work cantons	-1.2	1.1	1.1	-1.0
	General ward all cantons	-1.0	-4.3	5.8	-0.5
	Semiprivate ward	-0.6	-2.6	3.5	-0.3
	Digital & classic	0.1	-0.6	0.5	0.1
(D)	General ward all cantons	1.0	-1.9	-0.2	1.1
	Premium insurers	-0.6	-1.6	-0.4	2.6
	Pool/service center	0.4	-3.3	-0.8	3.8
	Personal/dedicated	0.3	-2.9	-1.1	3.7
	Digital & classic	-0.2	-0.7	-0.2	1.1
	Digital & classic & in person	-0.1	0.0	-0.4	0.5
	Mobile app/online portal	-1.5	-3.4	-0.2	5.2
	Letter	-0.4	-1.7	-0.4	2.6
	Mobile app/online portal/letter	-1.5	-5.2	-0.8	7.6

Note. HMO = Health Maintenance Organization for first consultation. Telmed = Consultation hotline for first consultation. Share of preference reducing policy alterations not shown.

Table 37. Impact of policy improvements for study 1.

4.4.2 Pricing

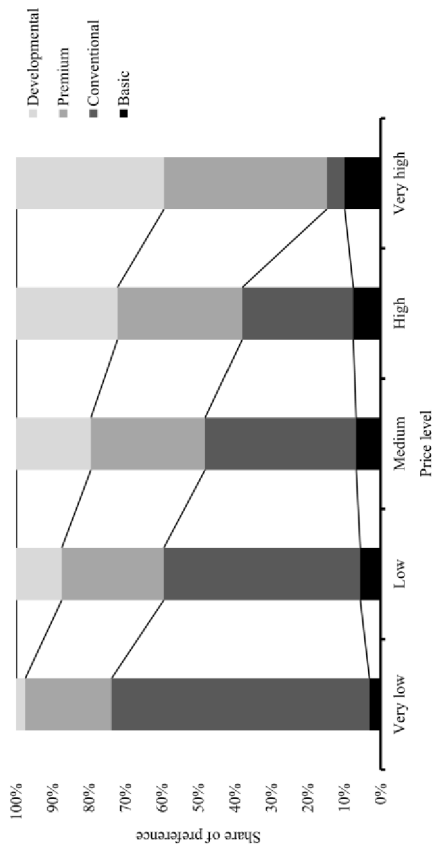
In addition to offering improvements at constant prices, customer reactions to premium changes were studied. Besides the inherent interest for general pricing purposes, this serves

for the evaluation of strategies such as offering more interaction choices while increasing prices. Figure 15 and Figure 18 in Appendix B indicate that not all policies react to premium changes⁶ in the same way. Specifically, the conventional policies, as the mid-market offering, are highly price sensitive in both markets. At the lowest premium, this captures nearly all the share of the basic and developmental policies, while at the highest price, customers move to other policies. In contrast, the premium segment is relatively insensitive to changes in the prices of other policies, indicating that some customers prefer this option regardless of its relative expensiveness. However, a lower price for this policy attracts a large share of otherwise price-sensitive customers, indicating that its value proposition is indeed attractive to otherwise non-premium customers.

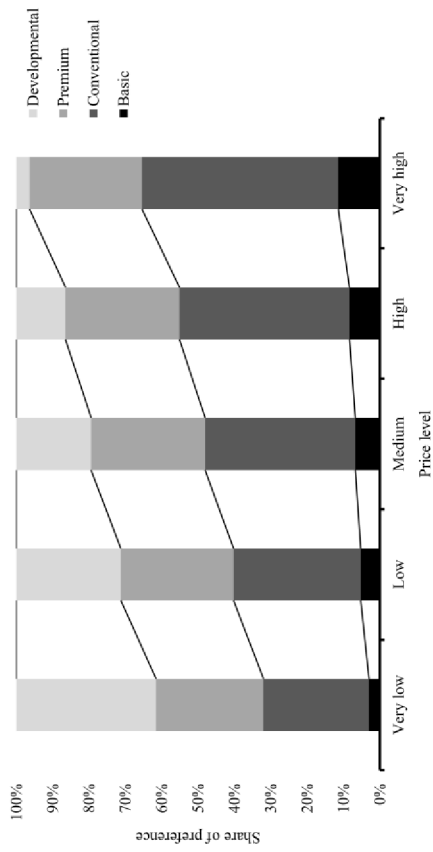
5 Discussion and conclusion

The investigation of customers' preferences and WTP in the two studies provides contributions to the multi- and omnichannel, health insurance, and conjoint literature and practice, which will be detailed following a short conclusion with the most important findings. Customers are willing to pay considerably more for interaction choice; however, and in contrast to prior literature, this does not hold invariably for all interaction options. In the health insurance context, the results show that substantial improvements can be made to better serve customers and access additional growth and profit potential by optimizing policy configurations and pricing. Methodologically, the introduced quasi-individual pricing in CBC designs leads to highly satisfactory validity of the estimation results and may prove helpful in future experiments where prices are heterogeneous.

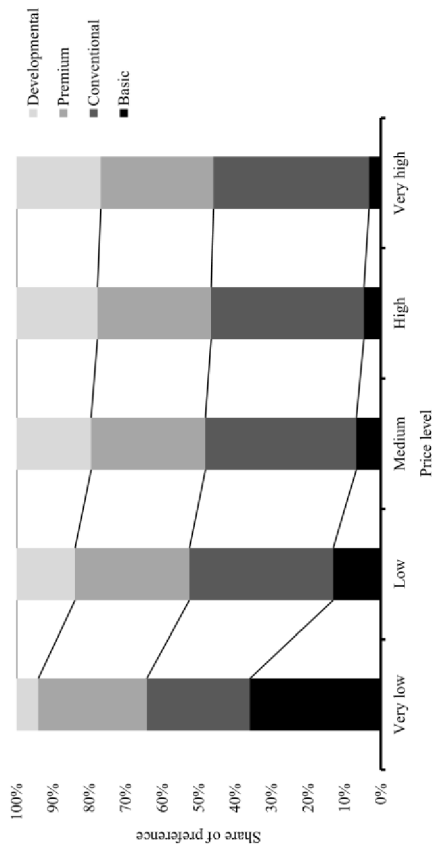
⁶ An auxiliary medium premium level (i.e., the average between low and high premium levels) was used to better illustrate preference changes in reaction to premium changes.



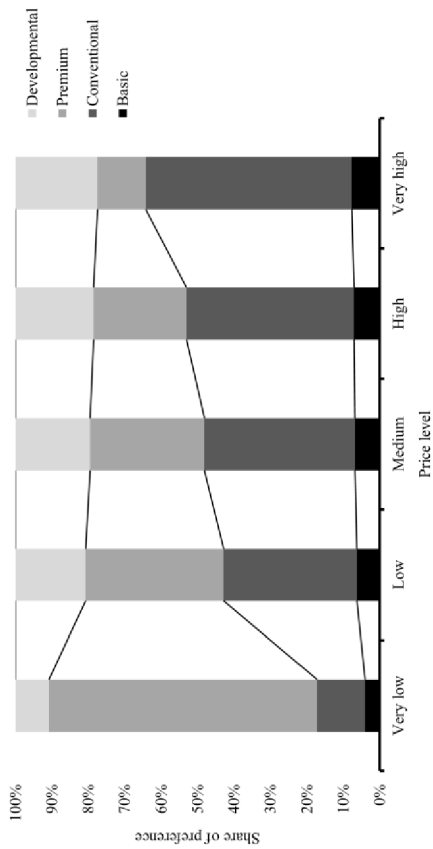
(b) Conventional policy



(d) Developmental policy



(a) Basic policy



(c) Premium policy

Figure 15. Impact of premium variations on shares of preference for study 1.

The results show that interaction choice is important and valuable to customers in both competitive and non-competitive situations, which supports earlier research (e.g., Chheda et al., 2017; Lemon & Verhoef, 2016; Neslin et al., 2006). In contrast to what is generally assumed in prior studies and managerial practice, however, the findings also clearly indicate that customers do not perceive all extensions of interaction options to be value-accretive. Specifically, in-person (i.e., physical) interactions are not linked to higher WTP in either of the two studies. This indicates that investments in multi- and omnichannel offerings seem promising in principle, but are less so for physical outlets. Instead, funds for cost-intensive agencies might be better invested in providing a seamless experience for customers across all interaction options offered (Banerjee, 2014; Van Bruggen et al., 2010).

The investigation of the relative importance of attributes further elicits that interaction choice accrues approximately the same relative importance as the core policy-defining attributes of outpatient and hospital coverage and clearly exceeds other attributes such as the brand. Importantly, this also translates to significant additional WTP for more interaction choice, which generally exceeds the costs of providing such interaction options. In fact, insurers' total operating expenses only amount to an average of CHF 17 in Switzerland and EUR 8 in Germany per month and insured, with profitability in roughly the same dimensions (Federal Financial Supervisory Authority BaFin, 2016; Federal Office of Public Health, 2017; Swiss Financial Market Supervisory Authority FINMA, 2016). In light of customers' median additional WTP of CHF 35 and EUR 40 for interaction choice, which is currently offered for free by insurers, the extensive additional profit potential from adequately pricing interaction choice becomes apparent. This is further supported by the analysis of which customer groups have more or less WTP for interaction choice, which allows insurers to tailor their interaction choice offerings and pricing accordingly.

The findings further indicate that utility-oriented policy optimization can help in offering customers more attractive product and service bundles. The analyses show that customer preferences are relatively heterogeneous, indicating that sizable opportunities for value creation through segmentation exist (Wedel & Kamakura, 2012). On the one hand, the elicited preference structures can be used to improve offerings, which can lead to substantial market share gains that may warrant the associated costs of the policy improvements. On the other hand, the relative preference of the developmental policy indicates that room for a sizable and attractive fourth segment exists. When estimating demand sensitivities in such a market in regard to premium changes, the results indicate that preference-based pricing may be superior to the prevailing cost-based pricing approaches (Berry-

Stölzle & Born, 2012). For example, the relatively small share losses of the premium policy when its price is raised suggest that substantial potential for price optimizations exists if the respective regulator supports such premium increases.

Methodologically, the introduction of quasi-individual pricing to extend current CBC designs proves to produce very valid estimation results. The internal validity with percent certainty of .854 and .874 for studies 1 and 2, respectively, is regarded as excellent (Hauser, 1978; Orme, 2014; Teichert, 2001). This is further supported by the stability of results in split-ups, which feature basically no preference reversals. The external validity is also confirmed in comparison to in-force policies at a leading Swiss health insurer and in focus group discussions with industry experts. For example, the preference structures for outpatient and hospital coverage elicited in this CBC estimation are consistent with the prevalence at the Swiss health insurer. Taken together, accounting for heterogeneity in prices may be beneficial for future conjoint designs, which may be of higher relevance as firms more strongly differentiate prices across industries in hopes of improving yield (e.g., Sonnier, 2014; Wolk & Ebling, 2010).

5.1 Managerial implications

Providing customers with optimal interaction options that generate value for both customers and firms is an inherent practical challenge (Falk et al., 2007; Rawson, Duncan, & Jones, 2013). While this has become even more demanding in recent years through the proliferation of interaction options (Bianchi et al., 2016; Brynjolfsson et al., 2013; Leeflang, Verhoef, Dahlstrom, & Freundt, 2014), this study provides guidance on how to approach this challenge and where to place the investment foci. Specifically, this research indicates that customers appreciate and exhibit considerable WTP for interaction choice, thus suggesting that they want to engage in different interactions across their customer journeys. Firms should therefore invest in multi- and omnichannel strategies; however, not all channels have the same importance and not all investments are value-accretive. While physical outlets can be of considerable strategic and financial value (Cambra-Fierro et al., 2016), they should be evaluated rigorously against the current strategies since they are cost-intensive and can reduce rather than generate WTP.

Firms may also want to consider using interaction options as a differentiating factor between offerings. The WTP estimates indicate that some customers are willing to accept fewer interaction options if they receive a lower price or to pay individual upcharges for

more interaction choice, which is currently offered free of charge. Firms can be proactive in capitalizing on this finding by explicitly charging for interaction choice or offering corresponding discounts if customers waive these choices.

In light of this, the present study triggers health insurers to more fundamentally rethink policy configuration and segmentation. Specifically, insurers might want to look at creating micro segments by offering truly modularized policies that better correspond with individual customers' preferences (Franke, Keinz, & Steger, 2009; Vargo & Lusch, 2004). At the same time, insurers need to ensure that such an approach is in line with their strategies, can be effectively managed, is approved by the regulator, does not confuse customers through overly complex purchase processes (Dellaert & Stremersch, 2005), and complies with the inherent understanding of insurance, which is protection from financial loss associated with uncertain events (Vaughan & Vaughan, 2014). This may be violated if modules become so specific that only those customers who know they will need the coverage insure it (i.e., events may no longer be uncertain and the premium may become a savings plan). For example, if insurers offer a module that only covers prescription glasses, say, a new pair every two years, this module will likely only be bought by visually impaired customers who incur the costs of prescription glasses. Through this adverse selection effect, risk can no longer be insured at reasonable premium levels. Thus, it seems paramount to find the right degree of modularization and to adapt processes throughout the value chain to cope with the increased complexity of a proliferating policy portfolio.

Finally, the elicited WTP structures suggest that insurers should undertake efforts to supplement the prevailing cost-based pricing approaches with preference-based pricing. Instead of stolid cost-plus pricing based on actuarial calculations, insurers can capitalize on customers' price elasticities within regulatory boundaries. Specifically for modularized offerings, preference-based pricing is a decisive prerequisite for successful positioning in the market. However, this pricing strategy also applies to contexts that are more general. On the one hand, insurers can capture substantial economic rents, for example, by increasing the price of premium policies, for which the price effect seems to dominate the share effect. On the other hand, customers and healthcare systems can profit from preference-based pricing. For basic policies, for example, it seems beneficial to lower the price to capture substantial market share, which particularly supports the lower end of the market.

5.2 Limitations and further research

This study is based on two choice-based conjoint analyses in the Swiss and German health insurance industries. While this allows for drawing conclusions that generalize beyond one sample, applicability to other markets globally cannot be observed. Future research can therefore extend this research to other health insurance markets to study the role of market specifics and the cultural environment and, importantly, to other industries to understand the relevance of interaction choice in other instances. It would also be enlightening to formally test the superiority of quasi-individual pricing in CBC studies by directly comparing the validity of results when individual or general pricing is used. Furthermore, the CBC design of this study has allowed for modeling competitive market settings relatively closely to reality, from which a number of insights can be drawn. However, it is not possible to model a complete copy of the real market. It would therefore be particularly interesting to investigate competitive reactions in a setting with multiple insurers within a category (i.e., the effect on the other providers of the conventional policy when one of them changes the configuration and/or price).

Next to research that addresses limitations of this study, promising avenues for future studies exist. Specifically, the segmentation topic warrants further investigation. The elicited individual-level part-worth utility profiles allow for conducting an advantageous benefit segmentation that relies on behavioral rather than sociodemographic aspects (Haley, 1968). This can serve to identify the most relevant segments, for which specific strategies can then be developed. If these are combined and matched appropriately, an optimal portfolio of health insurance policies can be designed that offers tailored product and service bundles to a broader portion of the market. Depending on the number of these segments, another research project might evaluate the applicability of fully modularized insurance offerings and the estimated impact on customer behavior, competitive reactions, and market-wide effects, which may be of interest to individuals, firms, and regulators alike.

Appendix A

Attribute/level	Explanation offered throughout the experiments via mouse-over
Outpatient coverage	
HMO (study 1)	In the event of illness, you agree to always <u>first consult a nominated HMO center</u> (Health Maintenance Organization). You will either be treated there or transferred to a physician, hospital, or therapist. Emergencies as well as the annual gynecological check-up and regular eye examinations are exempt from this obligation.
Telmed (study 1)	In the event of illness, you agree to always <u>first consult a medical hotline</u> . You will receive recommendations from medical personnel and be transferred to a physician, hospital, or therapist if required. Emergencies as well as the annual gynecological check-up and regular eye examinations are exempt from this obligation.
Family doctor (study 1)	In the event of illness, you agree to always <u>first consult a nominated family doctor</u> . You will either be treated there or transferred to a physician, hospital, or therapist. Emergencies as well as the annual gynecological check-up and regular eye examinations are exempt from this obligation.
Free choice (study 1)	In the event of illness, you are <u>free to choose any doctor</u> without limitations.
Family doctor 3.5x (study 2)	In the event of illness, you agree to always <u>first consult a nominated family doctor</u> . You will either be treated there or transferred to a specialist or hospital. Reimbursements are <u>limited to 3.5x of the medical fee schedule</u> even if some specialists charge more than that.
Family doctor unlimited (study 2)	In the event of illness, you agree to always <u>first consult a nominated family doctor</u> . You will either be treated there or transferred to a specialist or hospital. <u>Reimbursements are unlimited</u> and may exceed 3.5x of the medical fee schedule, which some specialists charge.
Free choice 3.5x (study 2)	In the event of illness, you are <u>free to choose any doctor</u> . Reimbursements are <u>limited to 3.5x of the medical fee schedule</u> even if some specialists charge more than that.
Free choice unlimited (study 2)	In the event of illness, you are <u>free to choose any doctor</u> . <u>Reimbursements are unlimited</u> and may exceed 3.5x of the medical fee schedule, which some specialists charge.
Hospital coverage	
General ward home/work canton (study 1)	<ul style="list-style-type: none"> ▪ General ward (4 beds per room) ▪ No free choice of hospitals (only in your home/work canton) ▪ No free choice of surgeon
General ward all cantons (study 1)	<ul style="list-style-type: none"> ▪ General ward (4 beds per room) ▪ Free choice of hospitals in Switzerland ▪ No free choice of surgeon.
Semiprivate ward (study 1)	<ul style="list-style-type: none"> ▪ Semiprivate ward (2 beds per room) ▪ Free choice of hospitals in Switzerland ▪ Free choice of surgeon
Private ward (study 1)	<ul style="list-style-type: none"> ▪ Private ward (1 bed per room) ▪ Free choice of hospitals worldwide ▪ Free choice of surgeon
General ward (study 2)	<ul style="list-style-type: none"> ▪ General ward (shared room) ▪ No free choice of surgeon ▪ Treatment by the ward physician
Semiprivate ward (study 2)	<ul style="list-style-type: none"> ▪ Semiprivate ward (2 beds per room) ▪ Free choice of surgeon ▪ Treatment by chief physician
Private ward (study 2)	<ul style="list-style-type: none"> ▪ Private ward (1 bed per room) ▪ Free choice of surgeon ▪ Treatment by chief physician

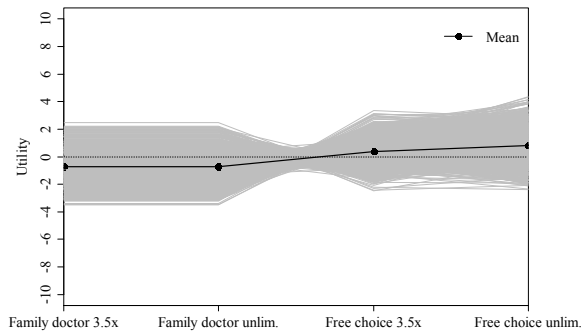
Table 38. Mouse-over explanations for conjoint attributes and levels.

Attribute/level	Explanation offered throughout the experiments via mouse-over
Brand	No explanation required for brand names.
Interaction partner	
Anonymous	You do not know who attends to your concern (the person's name is not known)
Pool/service center	You know who attends to your concern (the person's name is known) but the person may change from interaction to interaction
Personal/dedicated	A dedicated employee is allocated to you; this person always attends to your concerns
Means of interaction	
Digital	You can interact with your health insurer via <ul style="list-style-type: none"> ▪ Mobile app, ▪ Online portal, ▪ Online chat, or ▪ Email
Classic	You can interact with your health insurer via <ul style="list-style-type: none"> ▪ Telephone or ▪ Letter
Digital & classic	You can interact with your health insurer via <ul style="list-style-type: none"> ▪ Mobile app, ▪ Online portal, ▪ Online chat, ▪ Email, ▪ Telephone, or ▪ Letter
Digital & classic & in person	You can interact with your health insurer via <ul style="list-style-type: none"> ▪ Mobile app, ▪ Online portal, ▪ Online chat, ▪ Email, ▪ Telephone, ▪ Letter, or ▪ In persona (physically in an agency)
Claims submission	
Self-service	You need to prepare all claims in an online form for processing yourself
Mobile app/online portal	You use your insurer's mobile app or online portal to submit claims (photo or scan)
Letter	You post claims as a letter to your insurer
Mobile app/online portal/letter	You use either your insurer's mobile app or online portal to submit claims (photo or scan) or post them as a letter
Premium	Regular monthly health insurance premium, i.e., excluding accident insurance, sickness daily allowance insurance, and cantonal (employer in study 2) support you may receive.

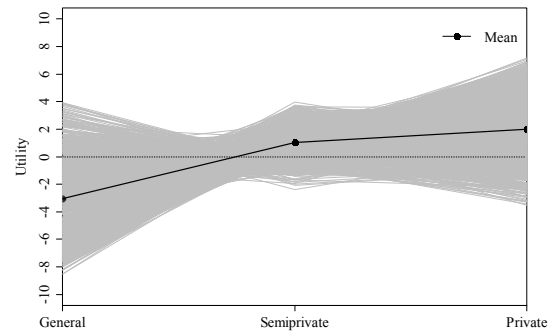
Note. HMO = Health Maintenance Organization for first consultation. Telmed = Medical hotline for first consultation.

Table 38. continued.

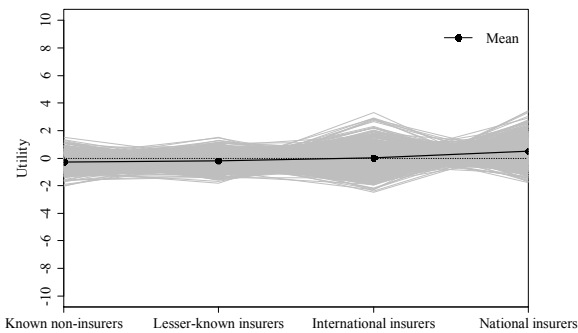
Appendix B



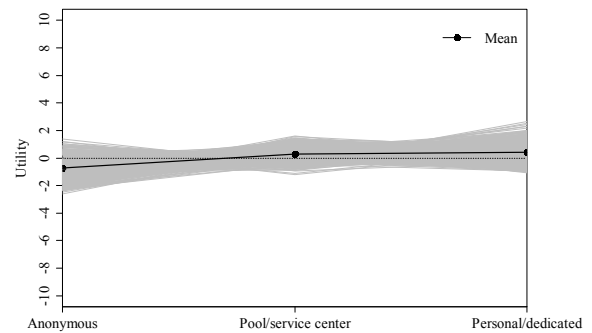
(a) Outpatient coverage



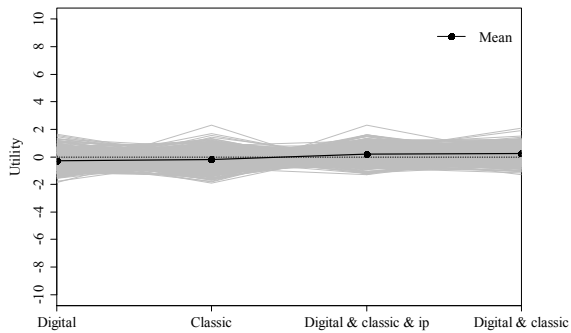
(b) Hospital coverage



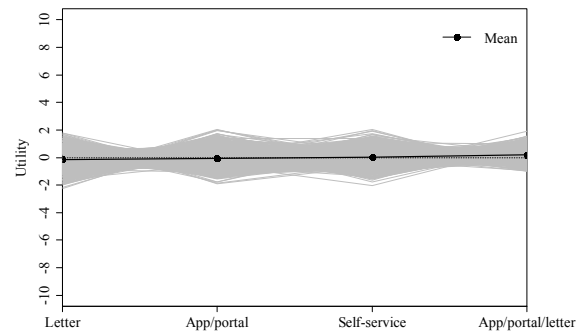
(c) Brand



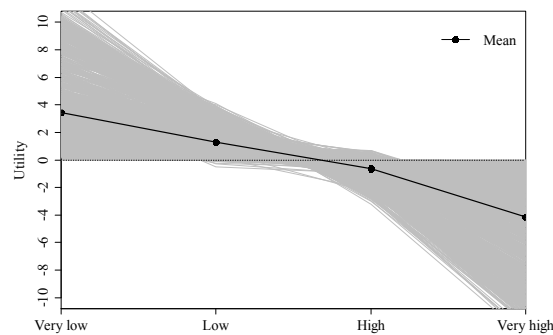
(d) Interaction partner



(e) Means of interaction

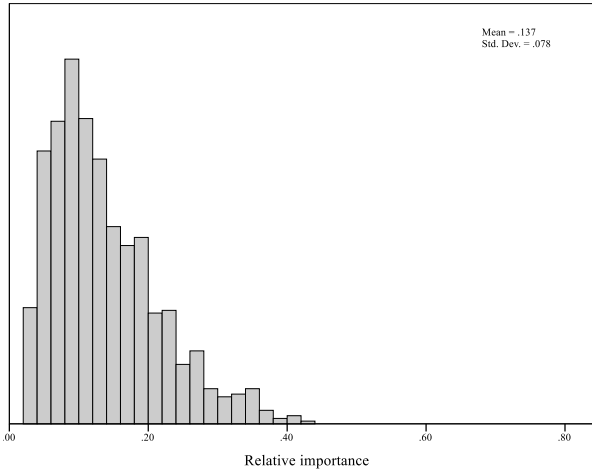


(f) Claims submission

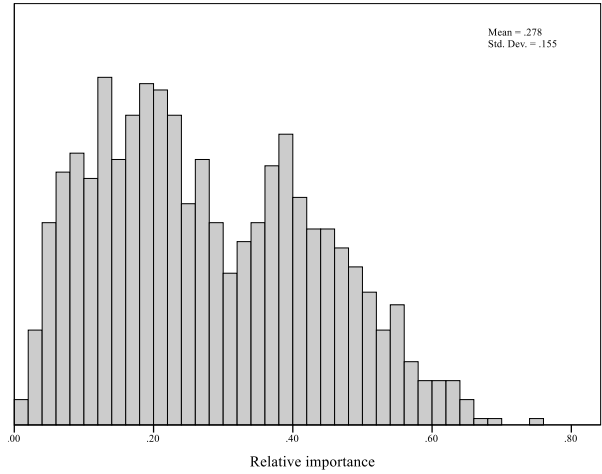


(g) Premium

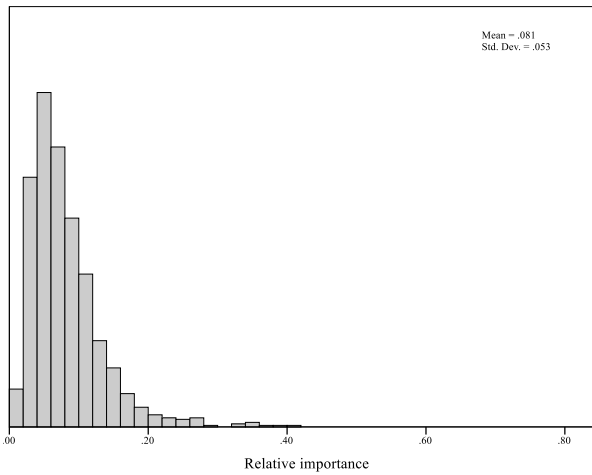
Figure 16. Individual-level part-worth utility profiles for study 2.



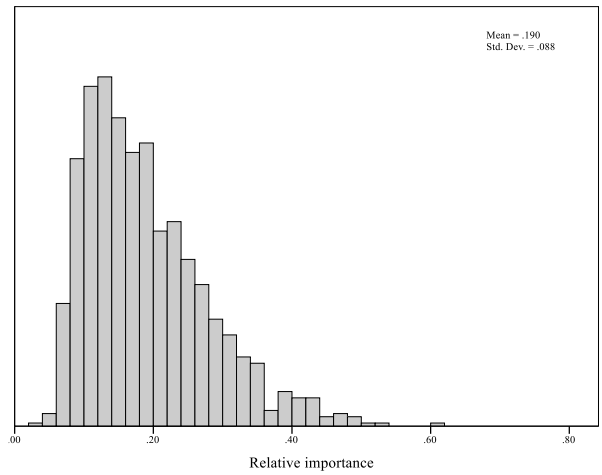
(a) Outpatient coverage



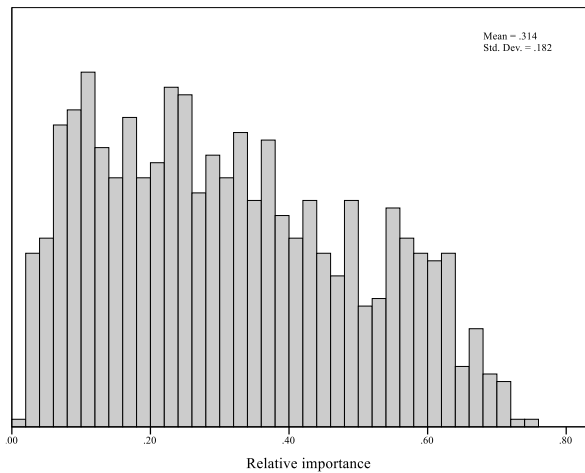
(b) Hospital coverage



(c) Brand



(d) Interaction choice overall^a



(e) Premium

Note. ^a Aggregate of interaction partner (mean = .07), means of interaction (mean = .06), and claims submission (mean = .06).

Figure 17. Relative attribute importance for study 2.

Characteristic	Number of observations	Mean (standard deviation) of the relative importance				Differences between characteristics ^a				
		Interact. choice overall (io)	Interaction partner (ip)	Means of in-teraction (mi)	Claims han-dling (ch)	χ^2 io	χ^2 ip	χ^2 mi	χ^2 ch	Pairwise con-trasts ^b
Overall	1000	.190 (.088)	.072 (.048)	.056 (.033)	.062 (.039)					
Sex						15.533 ***	15.736 ***	4.456 **	3.650 *	–
Female (F)	416	.203 (.093)	.080 (.052)	.059 (.035)	.064 (.040)					
Male (M)	584	.181 (.083)	.067 (.044)	.054 (.032)	.060 (.039)					
Age						52.592 ***	27.756 ***	37.209 ***	23.277	io: 1>2,3,4;2>3,4
18-30 (1)	186	.229 (0.10)	.090 (.057)	.066 (.036)	.073 (.047)					ip: 1>2,3,4
31-45 (2)	295	.193 (.085)	.071 (.045)	.058 (.033)	.064 (.040)					mi: 1,2>3,4
46-55 (3)	275	.173 (.081)	.067 (.044)	.052 (.034)	.054 (.033)					ch: 1>3,4;2>3
56-65 (4)	244	.174 (.080)	.067 (.045)	.049 (.027)	.058 (.036)					
Deductible						14.028 ***	2.416	5.267 *	9.311 ***	io: X<Y,Z
EUR 0 (X)	404	.177 (.083)	.068 (.044)	.053 (.032)	.056 (.034)					ip: NS
EUR 1-350 (Y)	276	.201 (.090)	.076 (.052)	.059 (.035)	.066 (.043)					mi: NS
EUR >350 (Z)	320	.196 (.091)	.074 (.050)	.057 (.032)	.064 (.042)					ch: X<Y
Segment						2.973	.648	4.610 *	2.715	io: NS
Basic (B)	194	.179 (.081)	.069 (.042)	.052 (.032)	.058 (.037)					ip: NS
Conventional (C)	616	.193 (.091)	.074 (.050)	.057 (.033)	.062 (.040)					mi: NS
Premium (P)	190	.191 (.085)	.071 (.048)	.056 (.034)	.064 (.039)					ch: NS

Note. *** p < .01, ** p < .05, * p < .1. ^a Kruskal-Wallis test. ^b Dunn-Bonferroni test (α = .05).

Table 39. Relative attribute importance by characteristic for study 2.

Attribute level	Interaction partner	Median addi- tional WTP ^a	Difference between sub- sequent attribute levels ^b	Differences between characteristics (pairwise contrasts) ^c				
				χ^2 sex	χ^2 age	χ^2 deductible	χ^2 segment	
Anonymous	-	-	4.955 ** (F<M)	3.764	3.817	15.172 *** (P<B,C)		
Pool/service center	21.45	-20.361	4.735 ** (F>M)	2.546	3.681	1.793		
Personal/dedicated	24.81	-5.490	2.410	1.953	1.404	17.079 *** (P>B,C)		
Means of interaction								
Digital	-	-	1.586	5.435	.999	1.545		
Classic	1.22	-.540	.911	1.309	1.964	9.148 ** (B>C,P)		
Digital & classic & in person	8.43	-10.321	4.925 ** (F>M)	7.144 *	.566	.034		
Digital & classic	10.38	-3.781	.107	4.143	2.837	9.260 *** (B<P)		
Claims submission								
Letter	-	-	.592	6.179	1.046	4.609 *		
Mobile app/online portal	.46	-2.513	.222	12.776 *** (1>3,4)	.672	5.834 * (P>C)		
Self-service	2.45	-1.320	.605	9.810 ** (1<2,4)	2.280	2.432		
Mobile app/online portal/letter	5.38	-6.067	.808	3.573	4.059	.966		

Note: F = female, M = male, 1 = 18-30, 2 = 31-45, 3 = 46-55, 4 = 56-65, B = basic, C = conventional, P = premium. *** p < .01, ** p < .05, * p < .1. ^a Compared to least preferred level in EUR per month. ^b Wilcoxon signed ranks test (z-score). ^c Kruskal-Wallis test with subsequent Dunn-Bonferroni tests for pairwise contrasts (a = .05).

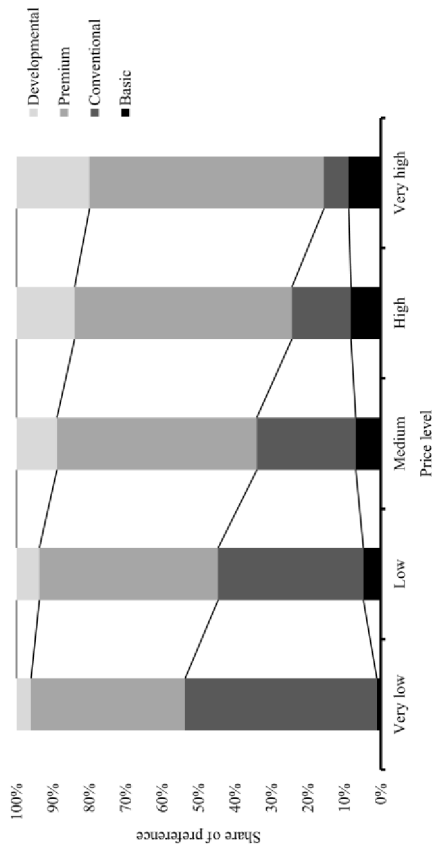
Table 40. Marginal willingness to pay for changes in interaction attribute levels for study 2.

The Relevance of Interaction Choice

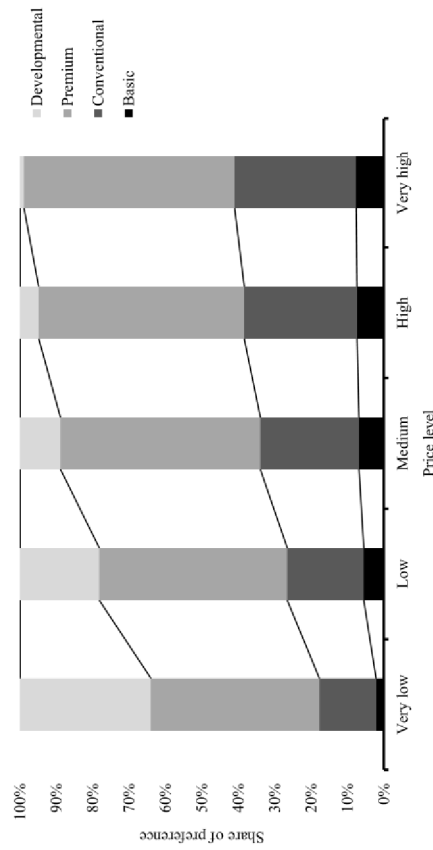
Base case	Basic (B)	Conventional (C)	Premium (P)	Developmental (D)	
Share of preference (%)	6.8	27.2	54.9	11.1	
Number of insureds (market)	409,385	1,624,711	3,280,734	666,399	
Annual revenue (EUR million)	1,523	7,350	15,393	3,071	
Changes in shares of preference					
(B)	Free choice 3.5x	1.1	-0.6	-0.3	-0.3
	Private ward	1.0	2.3	-3.0	-0.3
	National insurers	2.2	-1.6	-0.1	-0.5
	International insurers	1.0	-0.3	-0.6	-0.1
	Pool/service center	2.6	-1.8	-0.7	-0.1
	Personal/dedicated	1.8	-1.3	-0.8	0.3
	Digital & classic	1.4	-0.7	-0.2	-0.4
	Digital & classic & in person	2.0	-0.8	-0.6	-0.7
	Self service	0.6	-0.3	0.1	-0.4
	Letter	0.3	-0.4	0.1	0.0
Mobile app/online portal/letter	0.7	-0.4	-0.2	-0.1	
(C)	Free choice unlimited	0.2	4.9	-3.9	-1.2
	Private ward	1.5	3.9	-7.2	1.8
	Personal/dedicated	0.2	1.5	-2.2	0.5
	Self service	-0.1	1.1	0.5	-1.5
Mobile app/online portal/letter	-0.1	1.0	-1.5	0.5	
(P)	Free choice 3.5x	0.2	0.7	1.2	-2.1
	National insurers	0.1	-6.7	7.6	-1.0
	Digital & classic	0.2	-0.5	1.5	-1.2
(D)	Private ward	0.2	0.5	-9.5	8.8
	National insurers	-0.4	-6.0	-1.8	8.2
	International insurers	-0.1	0.9	-1.1	0.2
	Pool/service center	-0.2	-4.0	-1.4	5.6
	Personal/dedicated	0.1	-4.2	-2.2	6.3

Note. Share of preference reducing policy alterations not shown.

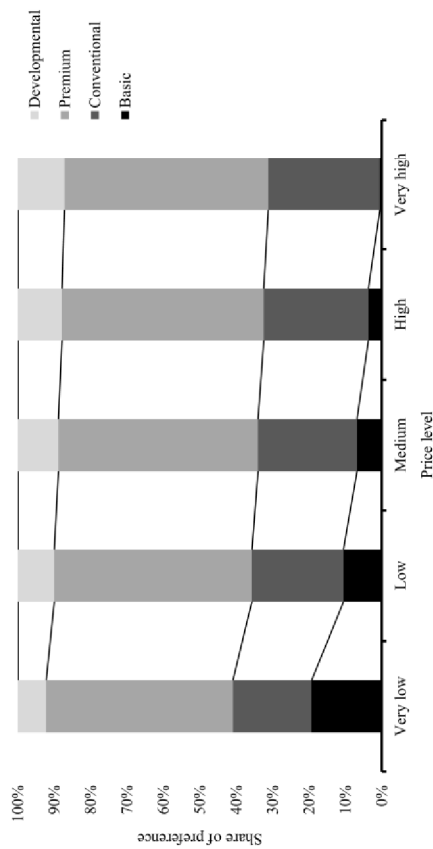
Table 41. Impact of policy improvements for study 2.



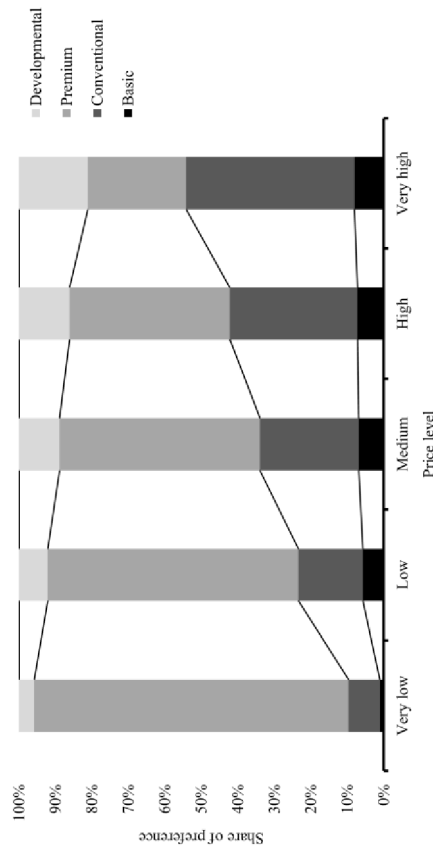
(b) Conventional policy



(d) Developmental policy



(a) Basic policy



(c) Premium policy

Figure 18. Impact of premium variations on shares of preference for study 2.

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Curriculum vitae

Professional experience

McKinsey & Company, Zurich Strategy Consultant	08/2013 – Present
Institute of Insurance Economics, St. Gallen Project Manager	08/2015 – 09/2017
Google, London Financial Analyst Intern	06/2012 – 09/2012
KPMG, Zurich Business Development Assistant	09/2010 – 02/2012
KPMG, Zurich Intern Audit	07/2010 – 09/2010

Education

University of St. Gallen, St. Gallen Ph.D. in Management	08/2015 – 09/2017
University of St. Gallen, St. Gallen M.A. in Strategy and International Management	09/2011 – 07/2013
Nanyang Business School (NTU), Singapore M.B.A. in Finance	09/2012 – 07/2013
Harvard University, Cambridge Exchange Semester	06/2011 – 09/2011
University of St. Gallen, St. Gallen B.A. in Business Administration	09/2008 – 07/2011
Carl-von-Linde Gymnasium, Kempten Abitur	09/1999 – 06/2008