SHORT-TERM AND LONG-TERM EFFECTS OF TOUCHPOINTS ON CUSTOMER PERCEPTIONS

ABSTRACT

Recent literature highlights the importance of touchpoints, yet fails to test empirically their long-term effects on essential customer perceptions. This study assesses the short- and long-term impacts of different provider-controlled touchpoints on firm expertise, service reliability and service excellence. A random panel dataset of more than 2,000 customers over five years is used to test the proposed model. The results confirm that sales force and product are crucial for long-term customer perceptions, while the effect of consulting, tangibles and standardized contacts is weaker over time. The findings of this managerial-oriented study reveal how the effectiveness of touchpoints changes over time.

1. Introduction

In a globalized world, business environment and relationships are increasingly complex (Ndubisi and Nataraajan, 2016; De Oliveira et al., 2020). Companies encounter additional challenges as customers recognize the significance not only of what a service provider delivers but also of how the company maintains a long-lasting relationship with its customers (Gilboa et al., 2019; Haenlein, 2017). Successful commercial interactions are at the core of long-term relationships (Islam et al., 2019). Each and every touchpoint between the customer and the provider is fundamental to upholding this relationship and providing customer value (Payne et al., 2017). In that regard, customer value across all touchpoints is the top Marketing Science Institute research priority for 2020–2022 (MSI, 2020), which demonstrates the relevance of this topic for academia and for practitioners.

Recent marketing literature has studied interactions or touchpoints from a customer journey perspective (Kuehnl et al., 2019). The work of Zomerdijk and Voss (2010) defines customer journey as a series of encounters or touchpoints between a customer and a provider that involve all activities related to the service delivery. This definition highlights touchpoints as the building blocks of customer journeys, as they are generally seen as interactions between a customer and a company (Barann et al., 2020; Folstad and Kvale, 2018). The literature suggests that customer–firm interactions can be classified into various categories depending on factors such as who controls the encounter (Lemon and Verhoef, 2016) or who initiates the interaction (Cambra-Fierro et al., 2018). A recent study by Aichner and Gruber (2017) classified key touchpoints into six categories: human (i.e., sales talk, complaints), product (i.e. delivery slips, packaging), service (i.e. billing, cost estimates), communication (i.e. any aspect of the communication strategy, promotions, sponsoring), spatial (i.e. logos, shop windows) and electronic interaction (i.e. email, company website).

Although interactions have received considerable attention, virtually all prior research on touchpoints has overlooked their long-term effects (Rudkowski et al.,

2020). Nevertheless, identifying the most relevant touchpoints and their effects over time on key customer perceptions is vital for firms that aspire to maintain successful long-term commercial relationships (Stein and Ramaseshan, 2016). As revealed by the literature review presented in Table 1, an empirical research assessing the impact of short- and long-term customer-firm touchpoints is necessary. Most empirical research focusing on the influences of touchpoints on customer perceptions and responses has focused on general effects, overlooking possible differences between short- and long-term effects (Ieva and Ziliani, 2018; Sultan, 2018; Wang et al., 2019). Some studies distinguished between short- and long-term influences, but either focusing on only one touchpoint (Brüggen et al., 2011; Girard et al., 2019) or suggesting possible differences from a theoretical perspective (Payne et al., 2017), thus limiting the understanding of touchpoints impact. In this sense, to date, no empirical study has assessed the effectiveness and influence of touchpoints, differentiating between short- and long-term effects on customer perceptions. There is little knowledge about the concrete long-term effects of these touchpoints or even whether such effects exist.

In light of this knowledge gap, this study seeks to answer the following research question: Are there any differences between the effects of customer-firm touchpoints in the short and long term? To address this research question, this study compares the short-term and long-term effects of different types of touchpoints drawing on the classifications proposed by Lemon and Verhoef (2016) and Aichner and Gruber (2017). We identify different provider-controlled touchpoints that can influence different customer perceptions, analyzing the effects of sales force, product, consulting, communication, tangibles and standardized contacts on three key customer perceptions, namely firm expertise, service reliability and service excellence. We distinguish between the short- and long-term effects of the touchpoints on these customer perceptions, proposing that there are differences between the two types of effects, and that it is crucial to identify the long-term effects of each touchpoint in order better to allocate marketing resources.

Table 1

Literature review of touchpoints effects.

Study	Context	Touchpoints	Short-term effects	Long-term effects	General effects	Dependent variable
Aichner and Gruber (2017)	B2B case study printing house	Consulting, products, project meetings, complaints, phone calls, delivery, e-mail, sales talk, press proof, company website, Facebook page, packaging, fax			✓	Customer satisfaction
Baxendale et al. (2015)	B2C electrical good, technology products, mobile handsets and soft drinks	Brand advertising, retailer advertising, in-store communications, WOM received, peer observation, traditional earned media			✓	Change in brand consideration
Brüggen et al. (2011)	B2C fast-food	Physical store	✓	✓		Affective responses, cognitive responses and behavioral intentions
Girard et al. (2019)	B2C rail travel	Ambient scent	✓	✓	✓	Service quality, service experience, service value
Ieva and Ziliani (2018)	B2C mobile service sector	TV and cinema advertising, radio advertising, newspaper advertising, customer magazine, direct mailing, billboards, online advertising, social networks, blog, website, physical store, third-party store, special events, word of mouth, e-mailing, loyalty program, mobile app, special promotions, mobile messaging, customer service, satisfaction surveys, telemarketing			✓	Loyalty intentions

Study	Context	Touchpoints				Outcome
Payne et al. (2017)	Conceptual	Non-personal touchpoints (traditional advertising media, in-store non-personal, direct mail, e-mail, catalogs, website, social media, paid and organic search, loyalty programs, mail returns) and personal touchpoints (in-store personal, field salesforce, telephone, live digital, trade shows, in-store returns)	✓	✓	✓	Customer profitability
Roggeveen et al. (2020)	Conceptual; Retailing	Design, ambient, social, trialability factors			✓	Shopping behavior
Sultan (2018)	B2C telecom industry	Product info from branch, post-purchase services info, info about subscription procedure, employee professionalism, employee interaction, employee credibility, product conformance, product easiness, overall needs fulfillment, solutions from authorized dealer, solutions from provider, compensation for service failure			✓	Relationship quality; word-of-mouth
Wang et al. (2019)	B2B consulting	In-person events, digital events, digital content			✓	Sales opportunities
Current study	**Insurance provider**	**Sales force, product, consulting, communication, tangibles, standardized contacts**	✓	✓		**Firm expertise, service reliability and service excellence**

The implications of this study are important for both researchers and practitioners. The study adds breadth and depth to the academic knowledge of touchpoints by adopting a longitudinal perspective, taking account of the effects of touchpoints over time. The findings provide practitioners with empirical evidence of the effectiveness of touchpoints which can support the long-term allocation of marketing resources.

This paper is structured as follows. Section 2 examines the theoretical foundations on the basis of which the hypotheses are developed. Section 3 describes the methodology and data analysis, and Section 4 presents the results. Finally, Section 5 discusses the findings and draws conclusions, setting out the theoretical and managerial implications of the study.

2. Theoretical foundations and hypotheses development

Touchpoints and interactions between firms and customers have become an increasingly important topic, as successful interactions lead to future relationships and mutually beneficial outcomes (Barann et al., 2020; Quach et al., 2020). Building a strong long-term relationship with customers that goes beyond the transaction has been acknowledged as a competitive advantage for companies (Chi and Chen, 2019; Ndubisi and Nataraajan, 2016), and the importance of long-term effectiveness in customer interactions has been recognized (Witell et al., 2020). One of the first frameworks to propose that long-term relationships are mutually beneficial is the relationship marketing framework, which emphasizes the significance of developing long-term relationships between firms and customers (Dwyer et al., 1987; Gronroos, 1990; Morgan and Hunt, 1994). From this viewpoint, researchers have focused on services marketing, with numerous studies suggesting that suppliers can turn transactions into continuous rewarding relationships for both parties that will determine customer loyalty (Gummesson, 2017).

A more recent approach to customer–firm interactions is the customer experience and customer journey framework. Lemke et al. (2011) considered that the response of the

customer to both direct and indirect interactions with the firm reflects the overall customer experience. Verhoef et al. (2009) regarded a positive customer experience as the key to a long-term relationship, arguing that the nature of customer experience is dynamic; studies must take into account not only the current experience but also prior experiences, since these have the power to influence future customer–firm encounters. In this context, Lemon and Verhoef defined customer experience as a "customer's journey with a firm over time during the purchase cycle across multiple touch points" (2016, p. 74). The same authors further emphasized the dynamic nature of the customer experience, which moves from prepurchase to purchase and on to postpurchase, including it in the global customer journey with the provider that includes past experiences and, possibly, future purchases. The importance of studying each interaction is shown by the fact that every touchpoint has the power to impact the customer journey and to determine either a positive or a negative overall experience (Aichner and Gruber, 2017; Kuehnl et al., 2019).

In recent years, most research on customer–firm interactions has focused on the impact of new technologies on interactions between consumers and companies. The proliferation of touchpoints caused by the use of new technologies represents both a challenge and an opportunity for firms (Payne et al., 2017). Recent literature has focused on topics such as the use of artificial intelligence (Davenport et al., 2020; Thomaz et al., 2020), the existence of new communication channels (Borah et al., 2020; Tong et al., 2020) and the emergence of new tools that influence the efficiency of interactions (Heller et al., 2019; Hilken et al., 2020). Most studies have suggested that these technological changes lead to an increase in the personalization of services for better adaptation to the needs of each consumer (Agarwal et al., 2020; Davenport et al., 2020). However, they have also noted the importance of sales representatives and frontline employees as actors who must make quick judgments in adapting their sales strategies to each client (Hall et al., 2015; Marinova et al., 2017).

Previous studies have identified different categories of touchpoints. Lemon and Verhoef (2016) proposed four categories according to who controls the interaction: brand-owned (elements of the marketing mix managed by the company), partner-owned (marketing agencies, distribution partners, etc.), customer-owned (any aspect that is solely controlled by the customer, such as the product search or payment choice) and social or external touchpoints (peer influence, word-of-mouth, independent information sources, etc.). Touchpoints in the first category include customer interactions that are managed by the provider itself, for instance, websites, newsletters, loyalty programs and any other aspects that are under the full control of the company (Lemon and Verhoef, 2016). However, not all brand-owned touchpoints are the same. Aichner and Gruber (2017) distinguished between six categories of interaction: human, product, service, communication, spatial and electronic.

The present study draws on these two classifications to examine the effectiveness of different touchpoints that are controlled exclusively by the provider. It focuses on sales force (considered as human interaction), product, consulting (as a service touchpoint), communication, tangibles (as a spatial touchpoint) and standardized contacts (as a touchpoint of electronic interaction). The impact of these touchpoints on key customer perceptions is assessed, and their short- and long-term effects distinguished.

More specifically, we define **sales force interactions** as the touchpoints that the customer has with the sales representatives (Arndt et al., 2020; Arditto et al., 2020). The **product** is the main offering of the provider (Yelkur, 2000). **Consulting** is the provider's product configuration service, which is the main channel of customization (Aichner and Gruber, 2017). **Communication** consists of the provider's advertising and promotion activities (John and De'Villiers, 2020; Schreiner et al., 2019). **Tangibles** are the touchpoints that reveal the physical facets of a service offering, such as equipment, materials, facilities and other palpable aspects (Ding and Keh, 2017; Olorunniwo et al., 2006; Parasuraman et al., 1985). **Standardized contacts** are regular communications between the provider and the

customer initiated by the provider, including generic interactions such as standardized emails, newsletters and promotions (Berger et al., 2002; Cambra-Fierro et al., 2018; Wiesel et al., 2011).

Considerable research attention has been directed to customer perceptions (Sureshchandar et al., 2001). Within this area of investigation, a number of studies have considered customer perceptions as determinants of desirable outcomes in a customer–firm relationship (Russo et al., 2016). At the core of customer perceptions lie service quality and its components. Drawing on previous academic research that has demonstrated the importance of these customer perceptions (Andrews et al., 2010; Barnes et al., 2016; Voorhees et al., 2017), the present study focuses on firm expertise, service reliability and service excellence. Here, **firm expertise** refers to the ability of the supplier to understand and provide specific capabilities and relevant knowledge in delivering the service (Bendapudi and Berry, 1997). **Service reliability** is "the ability to perform the promised service accurately and consistently" (Santos, 2003, p. 241). **Service excellence** is the customer's perception that their expectations were exceeded by the given service, acknowledging the overall evaluation of the supplier's performance (Horwitz and Neville, 1996).

The conceptual framework of this study is based on social exchange theory (Emerson, 1962; Gouldner, 1960). According to this theory, social exchanges occur as parties share a series of interactions that lead to establishing exchange relationships (Venkasaten et al., 2007). These exchanges can determine both short- and long-term commercial relationships (Cropanzano and Mitchell, 2005; Schiele et al., 2012). Social exchange theory is used as a way of studying the relational interdependence that develops between customers and firm in their relationship over time (Ngo et al., 2020). This approach also acknowledges the reciprocity principle that explains how parties respond to the established exchange and the circumstances under which individuals reciprocate behaviors received from others (Gouldner, 1960; Tangpong et al., 2016). As a result, customers who recognize successful

interactions occurring with a service provider are more likely to identify the provider's effort in providing positive touchpoints. Hence, their perceptions about the service and the provider may be affected by this recognition leading to a willingness to reciprocate the company. Given that the relational interdependence develops over time, customer perceptions can be positively affected both in the short term and in the long term.

Taking as reference all the above commented ideas, this study draws on social exchange theory and analyzes the impact of different types of provider-controlled touchpoints (sales force, product, consulting, communication, tangibles and standardized contacts) on customer perceptions (firm expertise, service reliability and service excellence), distinguishing between their short- and long-term effects. The aim is to find those differences and identify relevant touchpoints in each time frame. The findings will help marketers to prioritize the most important interactions. Figure 1 gives the conceptual model for this study.

Fig. Conceptual model.
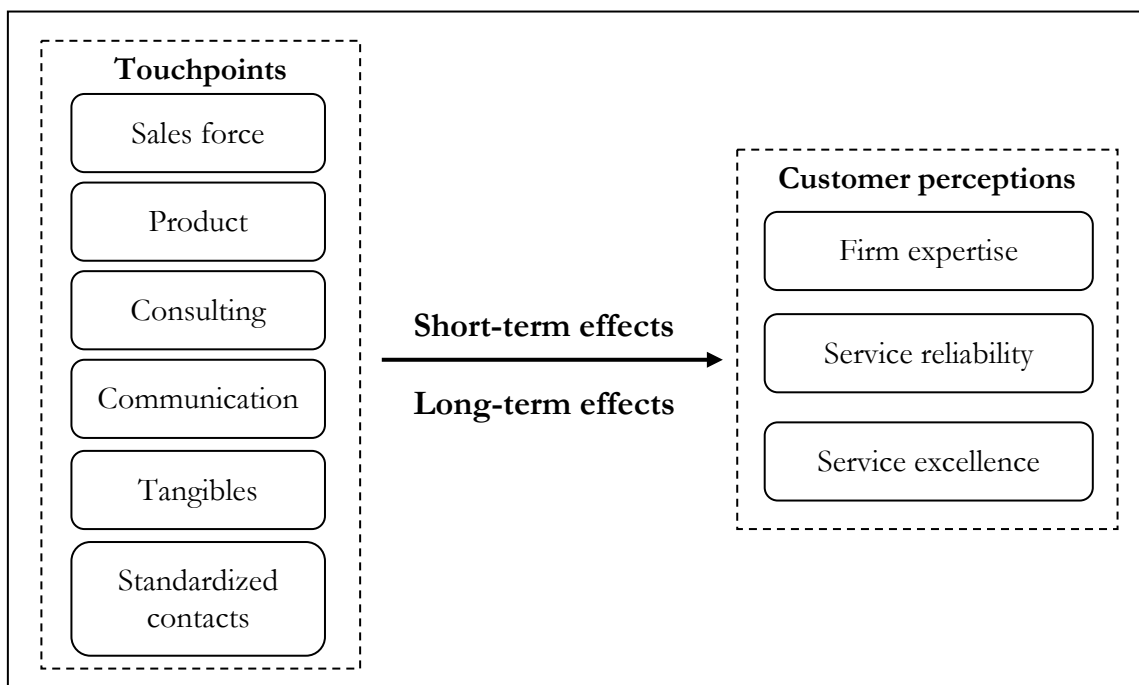
Interactions with sales representatives not only reveal the human facet of a commercial transaction but are also crucial for the overall relationship with the provider

(Arditto et al., 2020). This touchpoint is so critical for the firm that the departure of a sales representative can damage the relationship with the supplier or, in the worst case, even determine the departure of the customer (Shi et al., 2017). The emergence of new technologies and software determine an increase in the customer's expectation of the sales force's skills, availability or communication capabilities in order to create a better overall experience with the supplier (Kurata, 2019). The work of Arditto et al. (2020) argued that the professional competence of the sales force reveals their understanding of the product and the customer's needs that can influence customer perceptions and determine long-term relationships. All this evidence indicates that interaction with the sales force is a priority for both service providers and customers. In this context, we suggest that touchpoints with the sales force have a positive impact on customer perceptions of firm expertise, service reliability and service excellence. Thus, we propose the following hypotheses:

H1a: Sales force touchpoints positively affect firm expertise.

H1b: Sales force touchpoints positively affect service reliability.

H1c: Sales force touchpoints positively affect service excellence.

The interaction that a customer has with a product is one of the critical touchpoints in a commercial exchange (Aichner and Gruber, 2017). Prior research has confirmed its importance (Schnurr et al., 2017), noting the positive influence of a good product on key desirable outcomes such as satisfaction and loyalty (Nuseir and Madanat, 2015; Selnes, 1993). One of the original components of the marketing mix and the main concern of traditional marketing approaches (Kotler, 1965; Robinson, 1988), the product remains a priority interaction for suppliers (Zolkiewski et al., 2017) and a key part of the wider customer experience and journey with the provider. The contact with the product itself it is considered to be one of the moments of truth of the whole customer journey, since it provides the opportunity to form an impression about the firm (Moran et al., 2014; Roggeveen et al.,

2020). Given this, we hypothesize that interaction with the product will result in a positive effect on customer perceptions of firm expertise, service reliability and service excellence. Hence, we propose the following hypotheses:

H2a: Product touchpoints positively affect firm expertise.

H2b: Product touchpoints positively affect service reliability.

H2c: Product touchpoints positively affect service excellence.

Consulting services have been acknowledged as a relevant tool for adjusting the offering to each customer's needs (Aichner and Gruber, 2017; Pallant et al., 2020). They have usually been studied in connection with the effectiveness of the sales force, validating their impact (Pelham, 2010). Through this touchpoint, customers and firms interact to a degree that allows suppliers to acknowledge the specific characteristics of each customer (Aichner and Gruber, 2017). This gives providers the opportunity to recognize in real time the ever-changing needs of customers. As an increasing number of customers expect customization and adaptability from providers (Jiang et al., 2015; Madhavaram and Hunt, 2017), we suggest that the customer's interaction with consulting services will positively influence perceptions of firm expertise, service reliability and service excellence. Thus, we put forward the following hypotheses:

H3a: Consulting touchpoints positively affect firm expertise.

H3b: Consulting touchpoints positively affect service reliability.

H3c: Consulting touchpoints positively affect service excellence

Communication activities such as advertising and promotions have been widely studied in prior research (Liu-Thompkins, 2019; Nguyen et al., 2020). There is ample evidence that this type of touchpoint triggers desirable outcomes, including behavioral intentions (Zhang and Mao, 2016). Studies have also indicated that emotional appeals are

also used in communications (Kang et al., 2020; Septianto and Tjiptono, 2019), revealing that storytelling and narrative in communication encourage trust and foster a sense of connection. Drawing on this evidence, we expect that communication touchpoints will have a positive influence on customer perceptions of firm expertise, service reliability and service excellence. Hence, we propose the following hypotheses:

H4a: Communication touchpoints positively affect firm expertise.

H4b: Communication touchpoints positively affect service reliability.

H4c: Communication touchpoints positively affect service excellence

Tangible aspects of a service transaction have received considerable attention over the years because of research interest in service quality and the SERVQUAL scale (Buttle, 1996; Parasuraman et al., 1985). As part of this scale, tangibles are the specific features related to the physical aspect of every commercial exchange, such as equipment, printed material and facilities. Previous studies have confirmed that interactions with tangible aspects have an impact on customer perceptions and behavioral intentions for different types of services (Dagger et al., 2007; Olorunniwo et al., 2006). We hypothesize that tangibles can have a powerful effect on the customer–provider relationship, as they are a palpable facet of an intangible offering and thus will have an impact on customer perceptions of firm expertise, service reliability and service excellence. Therefore, the following hypotheses are proposed:

H5a: Tangibles touchpoints positively affect firm expertise.

H5b: Tangibles touchpoints positively affect service reliability.

H5c: Tangibles touchpoints positively affect service excellence.

Standardized contacts with a customer that are initiated by the company are an impersonal type of contact that is usually one-way and is considered less rich than face-to-face contact in relationships (Wiesel et al., 2011). Nevertheless, because of its ease of use

given modern technology, it remains one of the most used forms of contact. There is some evidence that the frequency of this type of contact has a positive impact on customer-reported relationship strength (Dagger et al., 2009). The work of Cambra-Fierro et al. (2018) suggests that this type of interaction reveals the concern of the supplier and its determination to maintain a long-term relationship with the customer, and that this positively affects the perceived involvement of the company. The same study proposed a chain of effects originating in standardized firm-initiated contacts and impacting the quality of the relationship and the cross-buy, leading to profitability. Drawing on this evidence, we hypothesize that contacts of this type will have a positive effect on customer perceptions of firm expertise, service reliability and service excellence. As a result, we propose the following hypotheses:

H6a: Standardized contacts positively affect firm expertise.

H6b: Standardized contacts positively affect service reliability.

H6c: Standardized contacts positively affect service excellence.

The hypotheses proposed above present the general relationships between the variables. However, in order truly to grasp the differences in these effects, it is important to analyze them over time. In this context, and given the lack of evidence in the literature, we propose that the short-term effects of these touchpoints will have different intensities than the same effects observed over the long term. To date, several studies have investigated the impact of marketing mix elements and their long-term effectiveness (e.g. Brüggen et al. 2011; Dekimpe and Hanssens, 1995; Sloot et al., 2006). Together, these studies indicate that the influence of marketing actions may dissipate over time, as short-term effects generally lose strength in the long run. However, much less is currently known about touchpoints long-term impact. In light of the somewhat limited knowledge of these effects over time, unanticipated results may also be obtained. As a result, the conceptual framework allows for

two different effects to be taken into consideration when studying the effectiveness of touchpoints.

3. Method

Data were obtained from a leading global insurance provider that operates in more than 100 countries and has 50,000 employees around the world. The data include a panel dataset of more than 2,000 customers randomly chosen over five years. The provider's offerings consist of insurance products and services and Table 2 reveals more information about the customers included in the sample as regards their customer tenure and the number of product categories purchased. The majority of the customers have been with the provider for three years or more and they usually purchase products from two to four product categories per year.

Table 2

Descriptive statistics of the sample.

Variable		% of the sample	Mean	Min.	Max.	Standard deviation
Customer tenure			4.01	1	5	1.05
	1	2.83				
	2	7.29				
	3	16.60				
	4	32.79				
	5	40.49				
Product categories purchased			3.03	1	7	1.34
	1	13.75				
	2	24.05				
	3	25.43				
	4	24.05				
	5	8.25				
	6	3.89				
	7	0.57				

The panel dataset consists of objective measures of standardized contacts as well as other subjective measures of sales force, product, consulting, communication, tangibles, firm expertise, service reliability and service excellence gathered from an internal survey that the

firm administers annually to its customers. The provider contacts its customers on a yearly basis and raises direct questions to assess their perceptions of various aspects of the interaction with the firm and its services using a 0-to-10 rating scale. The measurements of all the variables studied here are extracted from the provider's database (see Appendix A).

To analyze the data and test the model, we developed a six-equation seemingly unrelated regression (SUR) model. First introduced by Zellner (1962), this model represents a system of linear equations with the peculiarity that it allows errors to be correlated. Prior research suggests that using this method leads to a more efficient estimation. It is suitable when the model has more than one dependent variable, as the regressions can be run at the same time (Beasley, 2008; Chib and Greenberg, 1995). SUR models have been used in previous studies with similar purposes, which further supports this methodology choice (Cambra-Fierro et al., 2018; Morgan et al., 2009; Vorhies et al., 2011). The six regressions of the SUR model are listed as follows:

Short-term effects:

$$\mathbf{Exp}_{it0} = \beta_0 + \beta_1 SF_{it0} + \beta_2 Prod_{it0} + \beta_3 Cons_{it0} + \beta_4 Comm_{it0} + \beta_5 Tang_{it0} + \beta_6 Stand_{it0} + \varepsilon_{it0}$$

$$\mathbf{Reliab}_{it0} = \beta_0 + \beta_1 SF_{it0} + \beta_2 Prod_{it0} + \beta_3 Cons_{it0} + \beta_4 Comm_{it0} + \beta_5 Tang_{it0} + \beta_6 Stand_{it0} + \varepsilon_{it0}$$

$$\mathbf{Exc}_{it0} = \beta_0 + \beta_1 SF_{it0} + \beta_2 Prod_{it0} + \beta_3 Cons_{it0} + \beta_4 Comm_{it0} + \beta_5 Tang_{it0} + \beta_6 Stand_{it0} + \varepsilon_{it0}$$

Long-term effects:

$$\mathbf{Exp}_{it1} = \beta_0 + \beta_1 SF_{it0} + \beta_2 Prod_{it0} + \beta_3 Cons_{it0} + \beta_4 Comm_{it0} + \beta_5 Tang_{it0} + \beta_6 Stand_{it0} + \varepsilon_{it0}$$

$$\mathbf{Reliab}_{it1} = \beta_0 + \beta_1 SF_{it0} + \beta_2 Prod_{it0} + \beta_3 Cons_{it0} + \beta_4 Comm_{it0} + \beta_5 Tang_{it0} + \beta_6 Stand_{it0} + \varepsilon_{it0}$$

$$\mathbf{Exc}_{it1} = \beta_0 + \beta_1 SF_{it0} + \beta_2 Prod_{it0} + \beta_3 Cons_{it0} + \beta_4 Comm_{it0} + \beta_5 Tang_{it0} + \beta_6 Stand_{it0} + \varepsilon_{it0}$$

The model includes six linear regressions describing the relationship between touchpoints and customer perceptions. The first three regressions include all the variables in the same time period ($t0$), and the last three regressions distinguish between touchpoints in $t0$ and customer perceptions in $t1$. SF refers to the sales force touchpoint and Prod refers to

the product, which, in this case, as the data come from an insurance company, is claim management. Cons refers to consulting, Comm to communication, Tang to tangibles, and Stand to firm-initiated standardized contacts. Exp represents the customer perception of firm expertise, Reliab the perception of service reliability, and Exc the perception of service excellence. The error term is ε. The time frame of the study is given by two time periods, each of which represents a year. More details on the operationalization of each variable and the descriptive statistics are given in Appendix A.

To estimate the proposed model, we used STATA 16 software. To declare the dataset as panel data, the *xtset* command was used (Belotti et al., 2017). The model was run twice, the first time with all the variables in the same time period to capture the short-term effect, and the second time to analyze the long-term effect of delaying provider-controlled touchpoints by a year. Our time frame selection is based on previous empirical studies that also distinguished between short- and long-term effects. A study by Brüggen et al. (2011) considered that long-term effects are those that set in after six months. Similarly, the work of Sloot et al. (2006) compared short- and long-term influences and employed a 26-week time frame for the long-term effects to settle in. Furthermore, a recent study by Girard et al. (2019) focused on studying the short- and long-term effects using a 4-month time lapse. This indicates that there is no unanimity when selecting a time lapse for long-term effects and researchers decide the time frame depending on each service context. In view of the nature of our service context that includes yearly renewals of the insurance policy, this study considers that short-term influences refer to the effects of touchpoints on customer perceptions occurring in less than a year, while long-term influences refer to the impact of touchpoints beyond a year. In order to capture the effect of a variable in a different time period, and in line with previous studies, the lag command for panel data was employed in the second running of the model (Hayakawa et al., 2019; Jordan and Philips, 2018; Seo et al., 2019).

4. Results

The results of the data analysis confirm the existence of differences between the short-term and long-term effects of the touchpoints and customer perceptions under study. The estimation results are given in Table 3.

Table 3

Estimation results.

Independent variables	Dependent variables		
	Firm expertise	Service reliability	Service excellence
Short-term effects			
Intercept	0.1924**	0.2467**	0.2585**
Sales force	0.1468**	0.2391**	0.1488**
Product	0.2867*	0.2993**	0.1715*
Consulting	0.5521**	0.2138**	0.5420**
Communication	0.0447	0.2894**	0.1569**
Tangibles	0.3005**	0.5729**	0.7245**
Standardized contacts	0.0290	0.0755	0.0673
Long-term effects			
Intercept	0.1833**	0.2134**	0.1271**
Sales force	0.2561**	0.3468**	0.2756**
Product	0.1512*	0.1246*	0.1178*
Consulting	0.1986	0.0347	0.0111
Communication	0.1239	0.3024*	0.3194*
Tangibles	0.0999	0.0257	0.9924
Standardized contacts	-0.1644*	-0.1115	-0.0722

Note: $**p < .01$, $*p < .05$

Regarding the first hypotheses on the relationship between sales force and customer perceptions, the estimation results show that sales force has both short-term and long-term effects on each type of customer perception. There is a positive short-term effect on firm expertise ($\beta = .1468$, $p < .01$) and a long-term effect ($\beta = .2561$, $p < .01$), which supports H1a for both short- and long-term effects. Sales force positively affects service reliability, with both a significant short-term effect ($\beta = .2391$, $p < .01$) and a significant long-term effect ($\beta = .3468$, $p < .01$); therefore, H1b is supported for both types of effects. Likewise, there is

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a positive significant short-term effect between sales force and service excellence ($\beta = .1488$, $p < .01$) and a positive significant long-term effect ($\beta = .2756$, $p < .01$), which supports H1c for both types of effects.

For the effects of product touchpoints on customer perceptions, the results are similar. All relationships are confirmed for both short-term and long-term effects. There is a positive short-term effect from product to firm expertise ($\beta = .2867$, $p < .05$) and a long-term effect ($\beta = .1512$, $p < .05$), which supports H2a. Likewise, there is a positive short-term influence of product on service reliability ($\beta = .2993$, $p < .01$) and a long-term effect ($\beta = .1246$, $p < .05$), hence there is support for H2b. The results also indicate a short-term effect ($\beta = .1715$, $p < .05$) and a long-term effect ($\beta = .1178$, $p < .05$) on service excellence, hence H2c is supported for both types of effects.

For consulting touchpoints, the results reveal a strong positive short-term impact on all the customer perceptions under study. However, there are no significant long-term effects on any of these perceptions. The results show a positive significant short-term effect of consulting touchpoints on firm expertise ($\beta = .5521$, $p < .01$) but no long-term effect, and so H3a is only partially supported. Similarly, there is evidence of a positive significant short-term effect on service reliability ($\beta = .2138$, $p < .01$) but not of a long-term effect. Therefore, H3b is supported only for the short-term effect. Consulting touchpoints, too, have a positive significant short-term effect on service excellence ($\beta = .5420$, $p < .01$), with no corroboration of a long-term effect. There is, then, support for H3c only in respect of the short-term effect.

For the effects of communication touchpoints on customer perceptions, some of the relationships proposed are confirmed by the results of the data analysis. Regarding the relationship with firm expertise, neither a short-term nor a long-term effect is found. Hence, H4a is not supported. However, the short-term ($\beta = .2894$, $p < .01$) and long-term ($\beta = .3024$, $p < .05$) effects of communication on service reliability support H4b. Correspondingly, a

positive significant short-term effect on service excellence ($\beta = .1569$, $p < .01$) and a long-term effect on the same variable ($\beta = .3194$, $p < .05$) provide support for H4c.

For the relationship between tangibles and customer perceptions, our findings indicate strong positive short-term effects on each customer perception but no positive significant long-term effects. Specifically, there is a positive significant short-term effect on firm expertise ($\beta = .3005$, $p < .01$) but no long-term effect; thus H5a is supported only for the short-term effect. There is a positive significant short-term effect on service reliability ($\beta = .5729$, $p < .01$) but no long-term effect, and therefore H5b is only partially supported. The tangibles touchpoint has a positive significant short-term effect on service excellence ($\beta = .7245$, $p < .01$) but, again, no long-term effect. Hence, H5c is supported only for the short-term effect.

Lastly, the results show no statistically significant evidence of a short-term effect in the case of standardized contacts and firm expertise. There is a significant long-term effect between standardized contacts and firm expertise, but this effect is negative. This remarkable and unexpected finding suggests that an increase in standardized contacts is damaging to perceptions of firm expertise in the long term. However, since the effect is negative, H6a is not supported for either short-term or long-term effects. Concerning the relationship between standardized contacts and service reliability, our findings show no evidence of the existence of either type of effect, and H6b is not supported. Similarly, for the relationship between standardized contacts and service excellence, the results do not confirm any short- or long-term effects, and H6c is not supported.

It is interesting to note that, even though we expected a stronger sales force effect on customer perceptions, the short-term results indicate that tangibles and consulting are the touchpoints that systematically have the most important impact on each of the customer perceptions analyzed. However, this effect does not last; in the long term, neither consulting nor tangibles have influence on any of these customer perceptions. Meanwhile, sales force

has a consistent effect, in both the short term and the long term, although its short-term effect is weaker than its long-term effect.

Taking into consideration these findings, and comparing the short- and long-term results, we can observe that, in the case of standardized contacts, there are no long-term effects on perceptions of service reliability or service excellence. Unexpectedly, we found a significant negative effect on firm expertise, which is an important insight for practitioners that will be discussed in Section 6. Table 2 summarizes the hypothesis testing results.

Table 2

Hypothesis testing results.

Hypothesis	Relationship	Result
H1a	Short term: Sales force → Firm expertise	**Supported**
	Long term: Sales force → Firm expertise	**Supported**
H1b	Short term: Sales force → Service reliability	**Supported**
	Long term: Sales force → Service reliability	**Supported**
H1c	Short term: Sales force → Service excellence	**Supported**
	Long term: Sales force → Service excellence	**Supported**
H2a	Short term: Product → Firm expertise	**Supported**
	Long term: Product → Firm expertise	**Supported**
H2b	Short term: Product → Service reliability	**Supported**
	Long term: Product → Service reliability	**Supported**
H2c	Short term: Product → Service excellence	**Supported**
	Long term: Product → Service excellence	**Supported**
H3a	Short term: Consulting → Firm expertise	**Supported**
	Long term: Consulting → Firm expertise	Not supported
H3b	Short term: Consulting → Service reliability	**Supported**
	Long term: Consulting → Service reliability	Not supported
H3c	Short term: Consulting → Service excellence	**Supported**
	Long term: Consulting → Service excellence	Not supported
H4a	Short term: Communication → Firm expertise	Not supported
	Long term: Communication → Firm expertise	Not supported
H4b	Short term: Communication → Service reliability	**Supported**
	Long term: Communication → Service reliability	**Supported**
H4c	Short term: Communication → Service excellence	**Supported**
	Long term: Communication → Service excellence	**Supported**
H5a	Short term: Tangibles → Firm expertise	**Supported**
	Long term: Tangibles → Firm expertise	Not supported

H5b	Short term: Tangibles → Service reliability	**Supported**
	Long term: Tangibles → Service reliability	Not supported
H5c	Short term: Tangibles → Service excellence	**Supported**
	Long term: Tangibles → Service excellence	Not supported
H6a	Short term: Standardized contacts → Firm expertise	Not supported
	Long term: Standardized contacts → Firm expertise	Not supported
H6b	Short term: Standardized contacts → Service reliability	Not supported
	Long term: Standardized contacts → Service reliability	Not supported
H6c	Short term: Standardized contacts → Service excellence	Not supported
	Long term: Standardized contacts → Service excellence	Not supported

5. Discussion and conclusions

This research focused on the impact of different types of interactions on customer perceptions. The study set out to answer the following research question: Are there any differences between the effects of customer-firm touchpoints in the short and long term? As a result, based on social exchange theory, we studied the key touchpoints identified in the work of Aichner and Gruber (2017) and Lemon and Verhoef (2016), assessing the effectiveness of six different provider-controlled touchpoints. We now provide a detailed discussion of the empirical results, as well as their theoretical and managerial implications.

The findings show that there are only two touchpoints with both short-term and long-term effects on all the customer perception variables: sales force and product. Sales force has both short-term and long-term impacts, but it is striking that the long-term effect is more intense. Sales force is one of the few variables that have a long-term effect, and the only one that has a greater long-term than short-term effect. A possible explanation for this is that, as the customer's familiarity with sales representatives increases, their bond becomes stronger and this strengthens the influence on long-term customer perceptions. This suggestion is in line with previous studies and acknowledges the powerful connection that sales force can develop with customers (Arditto et al., 2020; Nicholson et al., 2001).

Interaction with the product is the other touchpoint for which there is evidence of both short- and long-term effects. The most likely explanation is that the product itself is at

the core of the commercial transaction, and without this touchpoint there is no customer–firm relationship. However, if we look at the intensities of the relationships discovered, for the short-term effects, consulting and communication come before the product in importance, while, for the long-term effects, the sales force effect is greater. Nevertheless, these findings are consistent with our initial proposal that the product represents a key interaction that can determine long-term effects (Nuseir and Madanat; 2015; Schnurr et al., 2017).

The third touchpoint, the consulting interaction, also yields some interesting findings. The only impact corroborated was the short-term effect, and the evidence suggests that this effect is not perpetuated across time. This is surprising, given that the consulting impact had among the highest short-term results of all the touchpoints. These short-term results are in line with studies that suggest that the degree of adaptability of the supplier has positive effects on the perceptions and overall relationship with the customer (Kleinaltenkamp et al., 2017). However, the long-term results show that the ability to customize the product is relevant only at the beginning of the relationship. A possible explanation is that familiarity with the product and the sales force determines the level of importance that the customer places on this touchpoint as the relationship evolves.

The communication touchpoint reveals further interesting findings, confirming the existence of short- and long-term effects on perceptions of service reliability and service excellence. Recent literature has focused on novel aspects of communication, including the importance of emotional appeals (Kang et al., 2020; Septianto and Tjiptono, 2019). These findings further corroborate the relevance of communication strategy in developing desirable customer perceptions for customers. Nevertheless, the evidence also indicates that there is no influence of communication on firm expertise in either the short term or the long term. This result may be explained by the fact that communication has a more emotional or

persuasive component, while firm expertise requires rationality and a more technical approach.

It is notable that, for the short-term results, the tangibles touchpoint was the most important for service reliability and service excellence and the second most important for firm expertise. Yet, the long-term effect of tangibles on any customer perception was not corroborated. These findings indicate that, at the beginning of the relationship, when the customer does not have comprehensive knowledge of the provider and its service, the tangibles touchpoint may be the only one that gives them an idea about the supplier's services, providing real and palpable stimuli. However, as the relationship continues, the customer may not need further physical stimuli and may focus on other touchpoints.

The last type of interaction studied, standardized contacts, was the only touchpoint that did not have any positive impact on customer perception in either the short or the long term. However, the results indicate that standardized contacts may have the capacity to damage the customer–firm relationship. Face-to-face interactions are richer than impersonal forms of communication. However, our findings expose the risk of real long-term damage caused by the abuse of this type of interaction. A possible explanation for this is that excessive use of contacts that do not provide valuable information for the customer may be considered invasive (De Haan et al., 2016).

From the discussion above, it is clear that the findings of this study have several important theoretical implications for the academic literature. To begin with, to the best of our knowledge, this study is one of the first empirical analysis of the effectiveness and specific impacts of the touchpoints proposed by Aichner and Gruber (2017). In addition, this study differentiates between short- and long-term effects of touchpoints on customer perceptions. To date, empirical research distinguishing between short- and long-term influences is scarce. Most studies usually focused on general or short-term effects of customer-firm touchpoints, failing to analyze their impact over time (Ieva and Ziliani, 2018; Wang et al., 2019). Although

there are some studies that distinguish between short- and long-term effects, they usually focus on only one touchpoint (e.g. Brüggen et al., 2011; Girard et al., 2019) or suggest possible differences from a theoretical perspective (e.g. Payne et al., 2017), which limits the understanding of long-term influences of customer-firm interactions. Therefore, this study adds breadth and depth to the somewhat narrow academic understanding of the long-term effectiveness of touchpoints.

Drawing on social exchange theory, this study identifies the conditions under which customers recognize the provider's effort in delivering positive touchpoints and interactions. Prior research based on this theory studied the interdependence that develops between parties in their commercial exchanges over time (Cropanzano and Mitchell, 2005; Ngo et al., 2020). Guided by the reciprocity principle proposed within social exchange theory (Gouldner, 1960), the findings of this study contributes to the existing literature by identifying which touchpoints will determine positive customer perceptions in the short term and in the long term.

This research also links the impact of interactions within the customer experience and customer journey approach to the relationship marketing framework. Prior literature within the relationship marketing framework acknowledged and corroborated the importance of developing strong long-term relationships (Gummesson, 2017; Morgan and Hunt, 1994). Within the customer experience and customer journey approach, touchpoints represent the building blocks of experiences and, ultimately, customer journeys (Kuehnl, 2019; Lemon and Verhoef, 2016). As a result, this research contributes to both frameworks by revealing the importance of certain touchpoints in developing a strong, mutually beneficial long-term relationship.

Furthermore, this study shows that tangibles should not be underestimated in the short term. Recent literature has tended to neglect this type of interaction (Kolesar and Galbraith, 2000). However, our findings confirm that, even in the digital era, tangibles remain

important at the beginning of the customer–firm relationship. However, in the long term, the evidence suggests that other touchpoints, such as sales force and product, may overtake tangibles in terms of influence.

This study also indicates that standardized contacts may be completely ineffective and may even have a negative effect. Some previous studies have acknowledged this potential dark side, arguing that an overuse of this type of interaction can be intrusive or annoying (De Haan et al., 2016; Wiesel et al., 2011). Our findings reinforce this view and corroborate the negative impact, thereby contributing to the literature on standardized forms of contact.

In terms of managerial implications, this study presents relevant insights into the effectiveness of each type of touchpoint, distinguishing between a long-term effect and a more direct short-term effect. These findings are key to better resource allocation, as they provide support for the choice to invest in the most relevant touchpoints. For portfolio management, it is especially relevant to acknowledge that some commercial interactions have a different effect in the short or in the long run. Thus, depending on the given time frame, we demonstrate that some touchpoints are more effective than others. From a practical point of view, these findings allow firms to better organize the activity of the company and how to plan interactions with customers.

In this sense, the importance of interactions with the sales force is highlighted for both the short term and the long term; therefore, our recommendation is to continue to invest in sales representatives. We recommend providing, and continuing to provide, a good product, as our results show that this will influence other customer perceptions across time. We also recommend investing in the specific touchpoint of communication, as both its short-term and long-term effects are corroborated.

It is important, however, to take into account the stage of each customer's relationship with the company. Investing in the appropriate touchpoints can cut costs and lead to significant competitive advantage. The evidence suggests that tangibles and consulting

touchpoints are crucial at the beginning of the relationship. However, as the relationship develops and the customer is better acquainted with the provider and its services, these touchpoints become irrelevant. Therefore, the recommendation for practitioners is to invest in these touchpoints for the most recent customers only.

Perhaps the most notable recommendation concerns the use of standardized contacts. Not only does this type of touchpoint fail to provide a desirable outcome, but it may be considered intrusive and has the power to damage the relationship. In this context, given its ineffectiveness, the best approach is to avoid further losses by keeping this type of interaction to a minimum.

Given these findings, companies should monitor the satisfaction of their customers with all types of interactions, as these have the power to affect not only short-term outcomes but also the overall long-term relationship. One way to monitor satisfaction is by conducting regular customer surveys to distinguish the most relevant touchpoints.

These insights provide new knowledge about the effectiveness or otherwise of different types of customer–firm interactions that will assist practitioners in making better decisions as regards the design of these touchpoints. Table 3 summarizes the main implications for academic literature and best practice.

Table 3
Summary of theoretical and managerial implications.

Main theoretical implications
• This is a pioneer study that analyzes the impact over time on different customer perceptions of the touchpoints proposed by Aichner and Gruber (2017).
• This study differentiates between short-term and long-term effects of touchpoints on customer perceptions, adding breadth and depth to the limited academic knowledge about the long-term effectiveness of touchpoints.

- This research links the interactions of the customer experience and customer journey approach to the relationship marketing framework, indicating that good use of effective touchpoints leads to the development of successful long-term relationships.

- The tangible aspects of a service have often been neglected in the literature, but this study shows that they are still important at the beginning of the customer–provider relationship, even in the digital era.

- This study reveals the dark side of standardized contacts and the long-term damage that may be caused by overuse of this type of interaction.

Main managerial implications

- The study provides relevant insights into the effectiveness of different touchpoints that will lead to more efficient allocation of resources.

- The importance of sales force, product and communication is highlighted both in the short-term and in the long-term, indicating that providers ought to keep investing in these specific touchpoints.

- At the beginning of the relationship, tangibles and consulting touchpoints are crucial, but, as the relationship advances, these no longer have an impact on customer perceptions; thus, we recommend that providers invest in these touchpoints for the most recent customers only.

- Standardized contacts showed no short-term impact, and a long-term negative effect was found, indicating that an increase in these contacts may be considered intrusive; our recommendation is to keep these touchpoints to a minimum.

- Providers should continue to monitor their customers' perceptions of the most relevant touchpoints, since their effectiveness is vital for other customer outcomes.

The findings of this study confirm the importance of differentiating between short- and long-term effects in determining the impact of a provider-controlled touchpoint on customer perceptions. As a result, significant implications for both researchers and practitioners have been identified. Nevertheless, we point out some limitations of our research.

First, it should be noted that the database used for this study was obtained from an insurance company. Using data from this type of service may limit the generalizability of our findings. Future research could usefully attempt to replicate the findings using data from other industries. Second, as this study focused on touchpoints controlled by the provider,

based on the categories proposed by Aichner and Gruber (2017), future studies could take into consideration the other types of touchpoints suggested by Lemon and Verhoef (2016). It would be of particular value to examine customer-owned, partner-owned and social/external touchpoints to determine their long-term effectiveness. As these limitations present further opportunities for research, we encourage other researchers to take these findings and continue to study the effects of different touchpoints. We hope that our framework will represent a starting point for their work.

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Appendix A

Operationalization of variables.

Variable	Definition	Measurement	Mean	Min.	Max.	Standard deviation
Sales force	Interactions between sales representatives and the customer	Customer perception of sales force touchpoints on a scale of 0–10, measured at the end of each year of contract	8.27	0	10	1.49
Product	Interactions of the customer with the product	Customer perception of claim management on a scale of 0–10, measured at the end of each year of contract	8.48	3	10	1.28
Consulting	Interactions of the customer with the professional consulting service	Customer perception of the consulting service on a scale of 0–10, measured at the end of each year of contract	8.51	2	10	1.29
Communication	Interactions of the customer with the communication activities of the provider	Customer perception of the communication activities on a scale of 0–10, measured at the end of each year of contract	8.68	4	10	1.13
Tangibles	Interactions with tangible aspects of the physical environment when delivering a service	Customer perception of tangible touchpoints on a scale of 0–10, measured at the end of each year of contract	8.37	0	10	1.46
Standardized contacts	Standardized electronic contacts initiated by the company towards a customer	Aggregated numbers of provider-initiated standardized contacts in the course of a year	25.56	1	458	29.48
Firm expertise	Provider's professional competence, qualifications or knowledge	Customer perception of firm expertise on a scale of 0-10, measured at the end of each year of contract	8.64	4	10	1.12
Service reliability	Ability to deliver the guaranteed service correctly	Customer perception of service reliability on a scale of 0–10, measured at the end of each year of contract	8.41	2	10	1.26
Service excellence	Overall evaluation of the supplier's performance	Customer perception of service excellence on a scale of 0–10, measured at the end of each year of contract	8.53	2	10	1.34