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Isadora Gasparin

EFFECTS OF PERCEIVED CHANNEL INTEGRATION ON CUSTOMER RESPONSE IN OMNICHANNEL RETAILING

Isado	ora Gasparin
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Orientador: Prof. Dr. Luiz Antonio Slongo

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Área de concentração: Marketing

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# Prof. Dr. Fernando Bins Luce – UFRGS Prof. Dr. Hugo Fridolino Müller Neto – UFRGS Prof. Dra. Stefânia Ordovás de Almeida – PUCRS Orientador: Prof. Dr. Luiz Antonio Slongo – UFRGS

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#### **ABSTRACT**

As new channels emerge, consumers have more ways to interact with firms during their shopping journey: stores, catalogs, websites, mobile devices, branded apps, social media, smart objects. In this evolving environment, retailers have adopted an omnichannel ("all channels") strategy to integrate online and offline channels providing a holistic customer experience. While omnichannel retailing research has explored the effects of channel integration on firm performance, customer response to an integrated experience has received less attention. To fulfill this gap, this research investigates how perceived channel integration influences customer experience, trust, and loyalty. In an exploratory phase, interviews with consumers identified elements that contribute to perceiving channels as integrated. Then, in a descriptive phase, I adapted a measure of channel integration to this research, using it to test hypotheses. Structural Equation Modeling (SEM) results show that perceived channel integration has a positive effect on customer experience, which in turn influences trust and loyalty. Thus, customer experience is the multilevel response to channel integration that leads to consumer's confidence in the retailer and willingness to continue the relationship. The findings have both theoretical and managerial implications, contributing to advance the field of multiple channel retailing.

**Keywords**: omnichannel retailing, channel integration, customer experience, trust, loyalty.

#### **RESUMO**

Conforme novos canais surgem, consumidores têm mais meios para interagir com empresas durante a jornada de compras: lojas, catálogos, sites, dispositivos móveis, aplicativos, redes sociais, objetos inteligentes. Neste ambiente em evolução, varejistas adotam uma estratégia omnichannel ("todos os canais") com o objetivo de integrar canais online e offline e proporcionar uma experiência holística aos clientes. Enquanto a pesquisa em varejo omnichannel explorou os efeitos da integração de canais na performance das empresas, as respostas dos clientes a uma experiência integrada receberam menos atenção. Para preencher essa lacuna, esta pesquisa investiga como a integração de canais percebida influencia a experiência do cliente, a confiança e a lealdade. Em uma etapa exploratória, entrevistas com consumidores identificaram os elementos que contribuem para que os canais sejam percebidos como integrados e as consequências dessa avaliação. Depois, em uma etapa descritiva, uma escala de integração de canais foi adaptada para os propósitos da pesquisa e usada para testar as hipóteses. Resultados da Modelagem de Equações Estruturais (MEE) apontam que a integração de canais percebida tem um efeito positivo na experiência do cliente, que por sua vez influencia a confiança e a lealdade. Portanto, a experiência do cliente é a resposta em múltiplos níveis à integração de canais, que leva à confiança do consumidor no varejista e à disposição em continuar o relacionamento. As conclusões têm implicações teóricas e gerenciais, e contribuem para avançar o campo do varejo em múltiplos canais.

**Palavras-chave**: varejo omnichannel, integração de canais, experiência do cliente, confiança, lealdade.

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#### 1 INTRODUCTION

Advances in technology have led to an increase in the number of channels through which consumers and retailers interact during the shopping journey. Besides stores, catalogs, and internet, they now have mobile devices, branded apps, social media, smart objects, and more. As the borders between channels began to disappear, customers<sup>1</sup> started to use channels interchangeably and seamlessly during the search and purchase process, resulting in a major change in the retail environment (RIGBY, 2011). In response to the channel multiplicity phenomenon (VAN BRUGGEN et al., 2010), research has evolved from multichannel to crosschannel and omnichannel retailing — in other words, from a scenario where physical and digital are completely separated to one where customers move freely from one to another in the same transaction process (VERHOEF; KANNAN; INMAN, 2015). Omnichannel is one of the main transformations leading to disruption in the retailing industry (KAHN; INMAN; VERHOEF, 2018).

Multi and omnichannel retailing are endpoints of a continuum. Multichannel retailing means that different channels coexist without the possibility for the customer to trigger interaction. Besides, it is not possible for the retailer to control integration. Omnichannel retailing implies that the customer can trigger full channel interaction and/or the retailer controls full channel integration (BECK; RYGL, 2015; VERHOEF; KANNAN; INMAN, 2015). Thus, channel integration is at the heart of the change towards omnichannel retailing.

Beck and Rygl (2015) point out that channel integration has two dimensions: the firm's perspective and the customer's perspective. While channel integration literature focuses mainly on the perspective of retailers (GALIPOGLU et al., 2018), this research adopts the perspective of consumers: the extent to which they perceive the channels they use as integrated, and the consequences of this perception for their experience. Perception of channel integration means that the level of integration is relative and may vary from consumer to consumer — in the same sense as perceptions of service quality (PARASURAMAN; ZEITHAML; BERRY, 1988).

Omnichannel retailing is a recent but prominent topic in marketing, retailing, distribution, and information systems journals. Research so far has concentrated on broad issues such as channel integration, physical store role, supply chain management, and consumer behavior (GASPARIN; AZEVEDO; SLONGO, 2018). Full integration is one of the main challenges identified by retailers (PIOTROWICZ; CUTHBERTSON, 2014). Hence,

<sup>1</sup> Throughout this master thesis, I use the terms "consumer" and "customer" interchangeably as both refer here to the individual who buys from a retailer.

researchers have investigated, from firm's perspective, topics such as the transition towards omnichannel retailing (CAO, 2014; HANSEN; SIA, 2015; PICOT-COUPEY; HURÉ; PIVETEAU, 2016), the challenges imposed for logistics (SAGHIRI et al., 2018), and the outcomes of adopting "buy online and pick up in store" and other strategies of partial integration (GALLINO; MORENO, 2014; CAO; LI, 2015; GAO; SU, 2017).

However, research with consumers using integrated channels is less developed (LEE et al., 2018a). From the customer viewpoint, research has identified determinants of omnichannel shopping behavior (JUANEDA-AYENSA; MOSQUERA; MURILLO, 2016), the impact of logistics service quality for omnichannel consumers (MURFIELD et al., 2017), and the value of cross-channel strategies for customers (JARA et al., 2018). The evidence so far points to an improvement in consumer evaluation towards the retailer that integrates channels, and also on trust, satisfaction, and loyalty (FRASQUET; MIQUEL, 2017; ZHANG et al., 2018; LI et al., 2019).

The goal of integrating channels is to optimize the customer experience and the firm performance across them (VERHOEF; KANNAN; INMAN, 2015). Lemon and Verhoef define customer experience as "a customer's cognitive, emotional, behavioral, sensorial, and social responses to a firm's offerings during the customer's entire purchase journey" (2016, p.71). Von Briel (2018) states that future competition in the retail industry will focus on the holistic consumer experience, which highlights the need to achieve and sustain a consistently high quality of interactions at all points of contact — the so-called touchpoints. Thus, customer experience management is a central strategy in this new retailing environment, as it includes interactions with the business, product, or service at different moments of the purchase process, at multiple retail channels (GREWAL; LEVY; KUMAR, 2009; GREWAL; ROGGEVEEN, 2020).

Managers and researchers agree that it is not possible to evolve directly from multichannel to omnichannel retailing without solving strategic and development challenges such as resources, information systems, and relationship with customers (PICOT-COUPEY; HURÉ; PIVETEAU, 2016). As companies follow a sequence of steps to adopt omnichannel (CAO, 2014; BERMAN; THELEN, 2018; LARKE; KILGOUR; O'CONNOR, 2018), customers may still face inconsistencies of product, price, information and service across channels. A story better illustrates it:

It is late afternoon. Anna is on the bus, going home after class. While listening to music on Spotify, she sees the latest updates on her Instagram feed. Among her friends' publications, she notes a sponsored photo that pictures a young girl like her

wearing beautiful ballerina flats. She does not know the brand, Pavlova, but clicks on the post and sees the e-commerce page. The price is OK, so she adds a pair of her size to the shopping cart. However, the shipping cost to her address is too high. Then, she clicks on the "our stores" button, but the only information she finds is a list of addresses. There are 10 Pavlova stores in her town, but none of them displays inventory information. She gives up.

Two days later, Anna is watching on YouTube a fashion blogger showing how to match different kinds of shoes and clothes. In the video, there they are, the Pavlova flats again! The blogger says she received it from a Pavlova store in Anna's town. So, Anna decides to give it another try. She calls the store, but the salesperson says the store did not receive the flats yet and that she/he cannot check inventory in other stores. Anna gives up again.

Then, one week later, she is at the mall with friends and sees a Pavlova ad inside a shoe store. She enters the store and asks for the flats. The salesperson shows it on the shelf and Anna is surprised at the price tag, since it is cheaper than in e-commerce. While trying it on, she accesses e-commerce from her smartphone and finds out that the price has not changed. Finally, Anna buys her Pavlova flats. Arriving at home, she posts a message on Pavlova's Facebook page suggesting that they should improve the coordination between online and offline channels. The message is read but never answered.

Although the purchase journey just described is fictitious, it seems that we all know a consumer like Anna and a retailer like Pavlova. More than 75% of globally surveyed shoppers say they combine online and offline channels (CRITEO, 2017), but only 17% of retailer respondents were confident their omnichannel business model delivers a seamless and connected experience across channels and functions (PWC, 2017). So, there is a gap between the journey that consumers want to go through and the one that businesses, in general, are offering them right now. Given that customers experience different levels of channel integration while retailers move towards omnichannel retailing, what is the impact of the perception of integration on the response of these customers?

Considering the challenges that firms still need to face to offer a truly holistic journey for customers, this research focuses on the effects of perceived integration across channels on customer response — more specifically, customer experience, trust, and loyalty.

To address the issue, I conduct a study in two phases: phase one implements an exploratory approach to better understand how consumers perceive integration among channels and what may be the consequences of this perception; phase two implements a descriptive approach to test the relationship between perceived channel integration and consumer response.

Considering the above-mentioned landscape, I present the research question and objectives.

#### 1.1 RESEARCH QUESTION

I state the research question as "Does the perception of integration in retail channels by customers influence their response to the retailer?".

#### 1.2 MAIN OBJECTIVE

My main objective is: "To investigate how perceived channel integration influences customer experience, trust, and loyalty in omnichannel retailing".

#### 1.3 SPECIFIC OBJECTIVES

To achieve the main objective, the following specific objective must be attained:

- a) To identify the elements that contribute to customer perception of channel integration.
- b) To adjust a measure of channel integration to address the customer's perspective of omnichannel retailing.
- c) To test the relationships among perceived channel integration, customer experience, trust, and loyalty.

#### 1.4 JUSTIFICATION

Omnichannel is one of the "macro trends that are accelerating major shifts in consumer behavior and the resulting disruption in the retailing industry" (KAHN; INMAN; VERHOEF, 2018, p.255). As channel integration is a challenge for retailers moving to omnichannel strategies, researchers are investigating the pay-offs of such efforts (FRASQUET; MIQUEL, 2017).

The rise of omnichannel promotion and distribution is one of the research priorities indicated by the Marketing Science Institute for 2018-2020, including answers about the strategies needed to create a seamless purchase journey and support integration across carts, agents, and devices. Marketing academics expect that understanding new cross-functional capabilities such as omnichannel management helps to answer whether marketing's influence will amplify or shrink (MOORMAN; DAY, 2016). Moreover, there is a gap in multiple channels literature on investigations considering the integration of all marketing mix elements (branding, price, assortment, and promotion) (GAO; MELERO; SESE, 2019). Accordingly, this has inspired my research.

Also, "managing the customer experience across complex and diverse offerings, touchpoints and channels" was considered the third major priority for service research in a changing landscape (OSTROM et al., 2015, p.139). Currently, in this research field, empirical approaches are mainly conceptual and exploratory (KUEHNL; JOZIC; HOMBURG, 2019), so a quantitative investigation on the customer experience in multiple channels retailing helps fulfill this gap.

Customer experience is a driver of satisfaction, trust, and loyalty (BRAKUS; SCHMITT; ZARANTONELLO, 2009; KLAUS; MAKLAN, 2013; KAHN, 2017; SANTINI et al., 2018), so knowing how perceived channel integration affects these outcomes is important for firms adopting omnichannel retailing. Furthermore, researchers try to understand how inconsistencies affect satisfaction and loyalty since early multichannel marketing discussions (RANGASWAMY; VAN BRUGGEN, 2005). This concern spills over integrated environments (PAYNE; PELTIER; BARGER, 2017).

Overall, this research aims to contribute to marketing, retailing, and services literature by expanding knowledge about customer experience in a rapidly evolving field — the multiple channels marketing<sup>2</sup>. Besides, I expect the results could assist retailers on the shift from separate to integrated management, shedding light on where to concentrate efforts and investments to maintain consistency across channels and keep customers loyal.

This rest of the thesis is organized as follows. Chapter 2 exhibits the theoretical background of omnichannel retailing, perceived channel integration, and customer experience. Next, in Chapter 3, I present the research framework and hypotheses. After that, in Chapter 4, I describe the methods employed to answer the research question. In Chapter 5, I present the results. The thesis concludes, in Chapters 6 and 7, with a discussion of the findings, its implications, and the research limitations.

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<sup>&</sup>lt;sup>2</sup> For simplicity, I use "multiple channels" and "multichannel" as broader terms encompassing all levels of channel integration, following Beck and Rygl (2015).

#### 2 THEORETICAL BACKGROUND

The purpose of this chapter is to provide a theoretical overview of the three main themes of this thesis: omnichannel retailing, perceived channel integration, and customer experience. First, I review the concept of omnichannel as an evolution of multichannel retailing. Next, I present results from studies that investigated channel integration, which is the main requirement for omnichannel retailing adoption. At last, I review the customer experience research stream and its importance to understand consumer response in this new environment.

#### 2.1 FROM MULTICHANNEL TO OMNICHANNEL RETAILING

Retailing research is evolving from multichannel to omnichannel as firms and customers adapt themselves to new possibilities of channel combination. In this scenario, it is imperative to detail the main differences between these concepts and to discuss new approaches to channels and touchpoints.

#### 2.1.1 Channels and touchpoints

A marketing channel is the set of interdependent organizations involved in the process of making a product or service available to the consumer and designed to reduce transaction costs, exploit contact efficiencies, and leverage specialized functions (COUGHLAN et al., 2002). Therefore, channels are among the most important elements of any value chain (KRAFFT et al., 2015). Channel management is the process by which a firm analyzes, organizes, and controls its marketing channels, which includes formulating channel strategy, designing channels, and coordinating channel strategy with channel members (MEHTA; DUBINSKY; ANDERSON, 2002). As a firm-level strategy, channel management is implemented with the ultimate goal of achieving higher market power, more market share, and growth in intangible assets (KUMAR; ANAND; SONG, 2017).

Early research on marketing channels derived from economics, viewing channels of distribution as flows of goods or services. Modern developments started to investigate interfirm relationships and other non-economic factors (WATSON et al., 2015). The digitalization of products and experiences broadened the notion of a distribution channel, stimulating the design of more flexible and adaptable channels (VAN BRUGGEN et al., 2010). Neslin et al. (2006, p.96) define channel as "a customer contact point, or a medium through which the firm and the customer interact". As the authors highlight, the emphasis on interaction excludes one-way

communications. More recently, however, researchers have argued that channel scope should be broadened to include customer touchpoints such as one-way communications (e.g. advertising), and encounters in which the firm is not directly involved (e.g. word-of-mouth and traditional earned media) (BAXENDALE; MACDONALD; WILSON, 2015), as they are used simultaneously by customers and firms (VERHOEF; KANNAN; INMAN, 2015).

Following the broadening of channel scope, Lemon and Verhoef (2016, p.71) define touchpoints as "individual contacts between the firm and the customer at distinct points in the experience". They identify four categories of customer experience touchpoints, according to ownership:

- brand-owned: designed and managed by the firm and under the firm's control;
- partner-owned: jointly designed, managed, or controlled by the firm and one or more of its partners, such as marketing agencies, distribution partners, loyalty program partners;
- customer-owned: actions that are part of the overall experience but that the firm, its partners, or others do not control, such as customers thoughts in the prepurchase phase;
- social/external/independent: other customers, peer influences, independent information sources, environments.

In another perspective, Li, Lobschat, and Verhoef (2018) categorize channels into four groups. They argue that the three first categories have both informational and transactional functions, while the fourth mainly emphasizes informational function:

- offline channels, such as physical stores and catalogs;
- online channels, such as e-mail and websites;
- mobile channels, such as apps; and
- other touchpoints, such as social media.

As omnichannel retailing focuses on multiple interaction touchpoints, this research considers channels as points through which the firm and the customer interact for information or transactions at any stage of the customer journey. It includes physical stores, apps, online stores, social media, and any other medium where interaction is possible. Moreover, only touchpoints owned or controlled by retailers are relevant to the research problem, as will be discussed in the following section.

With new emerging channels, opportunities for interaction have also multiplied (RIGBY, 2011). Although the idea of selling merchandise and services through more than one

channel is not new — stores and catalogs coexist long before internet —, the multichannel strategy has gained relevance with the emergence of online stores. Despite being considered a disruptive technology that would replace traditional channels in the 1990s, the internet today complements (and is complemented by) other channels, enables new touchpoints (RANGASWAMY; VAN BRUGGEN, 2005; ZHANG et al., 2010). The result is a fragmented multiple channels landscape.

Offering a comprehensive taxonomy, Beck and Rygl (2015) argue that research should distinguish retailing that only sells through more than one channel and a fully integrated one — in other words, it should differentiate multi-, cross-, and omnichannel retailing strategies. Table 1 summarizes the main differences amid the concepts. It is worth pointing out that firms move through these different levels as they advance in their channel integration practices.

**Table 1** – Differences between multi, cross, and omnichannel

Feature	Multichannel	Cross-channel	Omnichannel
Channel scope	Website, mobile, physical stores, and catalogs	Website, mobile, physical stores, catalogs, kiosks, social networks, and other touchpoints	Website, mobile, physical stores, catalogs, kiosks, social networks, and other touchpoints
Objectives	Per channel	Per channel or connected channels	Together
Management	Per channel	Per channel or connected channels	Integrated
Channel integration	No	Partial	Full
Sharing data	No	Only between connected channels	Yes
Perceived interaction	Within the channel	Within the channel	Within the brand

Source: Adapted from Verhoef, Kannan, and Inman (2015); Mirsch, Lehrer, and Jung (2016); Mosquera, Pascual, and Juaneda-Ayensa (2017).

#### 2.1.2 Multichannel retailing

Channel multiplicity describes an emerging phenomenon: "a new breed of information-empowered customers [who] seeks the fulfillment of needs and wants from multiple independent providers of increasingly fragmented product/service offerings" (VAN BRUGGEN et al., 2010, p.331). Thus, firms need multichannel management strategies to enhance customer value (NESLIN et al., 2006).

In multichannel retailing, channels are perceived by consumers and managed by firms as independent entities, generally by different teams, with proper agendas and goals (MIRSCH; LEHRER; JUNG, 2016). Whereas the retailer offers more than one channel option, these

channels coexist independently. Customers cannot trigger interaction, nor retailer can control integration (BECK; RYGL, 2015; MOSQUERA; PASCUAL; JUANEDA-AYENSA, 2017). For instance, in multichannel retailing, a customer who receives an online store coupon cannot use it in an offline store, nor can an online retailer check product availability in offline stores.

The multichannel literature commonly comprises three channels — stores, online stores, and catalogs — and three major streams (VERHOEF; KANNAN; INMAN, 2015): (1) impact of channels on performance, which includes the impact of opening a new channel; (2) shopper behavior across channels, which includes channel adoption, choice and usage; and (3) retail mix across channels, which includes assortment and service issues.

Studies on multichannel customer segmentation suggest that multichannel customers tend to be more innovative, seek pleasurable shopping experiences and try to reduce time, effort, and cost (KONUS; VERHOEF; NESLIN, 2008; WANG et al., 2014; NAKANO; KONDO, 2018). Besides that, they buy more and are more valuable, that is, they have a higher Customer Lifetime Value (CLV) score — the net present value of future profits from a customer — than single-channel customers (KUMAR; SHAH; VENKATESAN, 2006; NESLIN; SHANKAR, 2009). The product category, however, is a moderator in these associations, as the positive relationship between the preference for multiple channels and monetary value is stronger for hedonic product categories than for utilitarian ones (KUSHWAHA; SHANKAR, 2013).

One of the outcomes of multichannel retailing investigated so far is its positive effect on overall customer satisfaction and loyalty, moderated by improvements in service quality in all channels and by appropriate channel integration. However, multichannel retailing might also erode loyalty because online channels make it easier to compare prices thus reducing switching costs — see Li et al. (2018) for a review.

#### 2.1.3 Cross and omnichannel retailing

While channels are silos in the multichannel context, interaction (from customer's viewpoint) and integration (from retailer's viewpoint) are the norm for cross-channel and omnichannel retailing — though at different levels (Figure 1). According to Beck and Rygl's taxonomy (2015), cross-channel retailing means that the customer can trigger partial interaction and/or the retailer can control partial integration (e.g. buying online and picking up in-store). Omnichannel ("all channels") retailing, however, assumes that customers can trigger full interaction and/or the retailer controls full integration of all existing channels — which

generally means that customers can return merchandise regardless of where they bought it from and that retailers share customer, pricing, and inventory data across all channels.

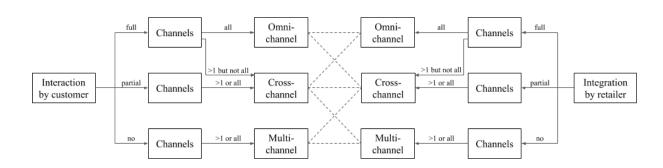


Figure 1 – Categorization tree for retailers and retailing

Source: Adapted from Beck and Rygl (2015).

Omnichannel retailing is a buzzword that reflects the proliferation of contact points and purchase channels in recent years, where customers benefit from the advantages of physical and online stores (RIGBY, 2011). Because the channels are managed together, the perceived interaction is not with the channel, but with the brand (PIOTROWICZ; CUTHBERTSON, 2014). The ultimate goal is to deliver a seamless customer experience regardless of the channel and to optimize firm performance (VERHOEF; KANNAN; INMAN, 2015). In this sense, the retail sector shifts from a model focused only on transactions and deliveries towards a "concierge" model oriented to assist the consumer (BRYNJOLFSSON; HU; RAHMAN, 2013).

However, a full integrated process across channels still faces several difficulties and has been pointed out as one of the main obstacles for a real omnichannel retailing (PIOTROWICZ; CUTHBERTSON, 2014). Analyzing longitudinal data from publicly traded US retail firms, Cao and Li (2018) find that the determinants of channel integration are IT capabilities, resource availability, firm diversity, and industry concentration. Accordingly, data integration, through automation and standardization, is a way to overcome barriers to omnichannel development (MIRZABEIKI; SAGHIRI, 2020).

Since omnichannel retailing is a new research theme that involves strategic and operational transformations, much of the research so far adopts the firm's perspective (GALIPOGLU et al., 2018). One of the prevailing topics addressed to this point is the transition from multichannel to omnichannel retailing, which is investigated mainly by case studies. Cao (2014) identifies the stages towards the cross-channel strategy, going from independent business models for different channels to new business models with a change in profit formula

or co-creation with other stakeholders. Hansen and Sia (2015) highlight lessons from omnichannel strategy implementation, including the necessity of organizational changes to break the silo mindset and the importance of embracing the interests of channel partners. Picot-Coupey et al. (2016) present a two-phase process to omnichannel retailing (identification of challenges followed by implementation of solutions) in which they emphasize the importance of the trial and error learning. Larke et al. (2018) point out the role of the brand management plan in unifying customer experience across channels.

How to overcome the challenges imposed for logistics and supply chain managers is also a concern addressed from the firm's perspective (SAGHIRI et al., 2018). Marchet et al. (2018) present 11 logistics variables that companies have to consider when implementing an omnichannel management strategy: delivery mode, velocity, time slot, slot price differentiation, picking locations, delivery area, transport service, automation, integration, order allocation, and returns mode. Wollenburg et al. (2018) identify six types of logistics networks for omnichannel grocery retailing and noted that brick-and-mortar retailers are using their existing logistics structures to fulfill online orders.

Besides that, outcomes of cross- and omnichannel adoption is a topic of interest in the new research stream. Cao and Li (2015) observe that cross-channel integration stimulates sales growth, but the effect is lower for firms with a stronger focus on one specific channel. Also, offering a "ship-to-store" functionality (allowing customers to ship products to their local store when those products are not available there) increases sales dispersion (GALLINO; MORENO; STAMATOPOULOS, 2017) and brick-and-mortar store sales, but decreases online sales (AKTURK; KETZENBERG; HEIM, 2018). On the other hand, implementing a "buy-online, pickup-in-store" option reduces online sales, but increases in-store sales and traffic (GALLINO; MORENO, 2014). Gao and Su (2017) indicate that offering in-store pickup for bestsellers items may have the unintended consequence of reducing store traffic.

From the customer viewpoint, research has identified determinants of omnichannel shopping behavior, following theories of technology acceptance and readiness that indicate perceived usefulness and perceived ease of use as antecedents of intention to adopt innovations (LIN; SHIH; SHER, 2007; PARASURAMAN; COLBY, 2015). Besides usefulness and ease of use, perceived compatibility with the consumer lifestyle and values positively influence omnichannel usage (SILVA; MARTINS; SOUSA, 2018). Moreover, personal innovativeness, effort expectancy, and performance expectancy influence consumer's intention to buy from an omnichannel retailer (JUANEDA-AYENSA; MOSQUERA; MURILLO, 2016).

Murfield et al. (2017) find that timeliness of delivery is the most important aspect of logistics service driving satisfaction and loyalty for omnichannel consumers. The evidence so far points to an improvement in consumers' trust, satisfaction, and loyalty towards omnichannel retailers (FRASQUET; MIQUEL, 2017; ZHANG et al., 2018; LI et al., 2019) — I discuss these results in the next section.

Researchers are also interested in segmenting omnichannel customers. Analyzing customer journeys, Herhausen et al. (2019) find five segments: store-focused, pragmatic online, extensive online, multiple touchpoint, and online-to-offline shoppers. Multiple touchpoint shoppers use more touchpoints in the search phase and have widely adopted mobile devices to shop. Furthermore, they are more involved, younger and spend more than store-focused customers.

Considering the topics investigated so far, there is a need to better understand the simultaneous use of different channels and touchpoints, and the customer journey "from first touch to purchase and beyond" (MSI, 2018, p.3). Payne et al. (2017) argue that omnichannel research is silent on how information consistency across touchpoints affects customer satisfaction, engagement, and loyalty. Besides, Lemon and Verhoef (2016) call for research about the interactions of touchpoints and the customer experience across multiple stages in the journey.

#### 2.2 PERCEIVED CHANNEL INTEGRATION

Like the fictional consumer Anna depicted in the introduction, consumers are demanding consistent features, offers, and experiences throughout their purchase journey (MELERO; SESE; VERHOEF, 2016). And they happen more impatient, wanting their goods as soon as possible, escalating service expectations and putting more pressure on logistics (DAUGHERTY; BOLUMOLE; GRAWE, 2019). To allow consumers to have a good omnichannel experience, retailers need to unify and integrate services across channels, including pricing, product information, and customer loyalty program (PELTOLA; VAINIO; NIEMINEN, 2015; BERMAN; THELEN, 2018).

In this scenario, touchpoints are the locus of value creation, and where personalized experiences are co-constructed (PRAHALAD; RAMASWAMY, 2004). Practitioners and researchers emphasize the necessity of customers perceiving corporate identity consistently across all touchpoints, which includes layout, color, photos, and description of products (HANSEN; SIA, 2015; HOMBURG; JOZIĆ; KUEHNL, 2017; KUEHNL; JOZIC;

HOMBURG, 2019). The synergy among channels is important because brand attitudes are influenced not only by brand beliefs about the respective channel but also by beliefs about other channels (KWON; LENNON, 2009).

Channel integration is a multidimensional construct reflecting "the degree to which a firm coordinates the objectives, design, and deployment of its channels to create synergies for the firm and offer particular benefits to its consumers" (CAO; LI, 2015, p. 200). However, the focus I give here is the consumer perceptions about channel integration, taking into account his/her overall shopping experience, as in Zhang et al. (2018). Thus, perceived channel integration is the extent to which customers feel that the channels they use to access a retailer are integrated.

#### 2.2.1 Channel integration measurement

Channel integration has been investigated since early multichannel studies under varying nomenclature: assimilation, asymmetry, consistency, cooperation, coordination, integration, and synchronization (GAO; MELERO; SESE, 2019). Back then, its usual definition was "the use of multiple modes of fulfillment for mutual support of, or as semi-interchangeable alternatives for, end-customers transactions" (BENDOLY et al., 2005, p. 314). Thus, an integrated multichannel strategy includes planning promotions across channels, creating product consistency, sharing customer, pricing and inventory data, and allowing store pick-up (BERMAN; THELEN, 2004). Even though the interaction between channels in early multichannel retailing is limited, studies point to a positive relationship between integration and loyalty (BENDOLY et al., 2005).

Table 2 shows relevant studies that measured channel integration and how each author addresses the construct. Several authors adopt the perspective of firms or only measure the integration of physical and online stores, despite defining integration in a much broader sense (FRASQUET; MIQUEL, 2017). This narrow perspective could exclude relevant touchpoints accessed by customers, such as social media (SANDS et al., 2016). Other conceptualizations focus only on certain marketing mix elements, such as branding (KUEHNL; JOZIC; HOMBURG, 2019), leaving out promotion, pricing and assortment, which are determinants of superior customer experience (VERHOEF et al., 2009).

Table 2 - Channel integration approaches

Reference	Measure	Definition	Perspect.	Scope	Marketing mix
(BENDOLY et al., 2005)	Channel- Integration	The use of multiple modes of fulfillment for mutual support of, or as semi-interchangeable alternatives for, end-customers transactions.	Firm	Physical store; Website	Promotion
(SOUSA; VOSS, 2006; LEE et al., 2018b)	Integration quality	The ability to provide customers with a seamless service experience across multiple channels.	Firm	Physical store; Website	Assortment; Branding; Pricing; Promotion
(OH; TEO; SAMBAMUR THY, 2012)	Retail channel integration capability index	A firm's ability to use IT in integrating their crossfunctional channel resources and operations in their service delivery system.	Firm	Physical store; Website	Assortment; Branding; Pricing; Promotion
(CAO; LI, 2015, 2018)	Multi-channel full integration	The degree to which a firm coordinates the objectives, design, and deployment of its channels to create synergies for the firm and offer particular benefits to its consumers.	Firm	Physical store; Website; Catalog, Kiosk, Mobile; Social media, Call center	Assortment; Branding; Pricing; Promotion
(HURÉ; PICOT- COUPEY; ACKERMAN N, 2017)	Omni-channel intensity	The complete alignment of the different channels and touchpoints, resulting in optimal-brand customer experience.	Customer	Physical store; Website; Mobile;	Assortment; Pricing; Promotion
(FRASQUET; MIQUEL, 2017)	Multichannel integration	The management of diverse channels to offer shoppers a seamless experience across all of a firm's channels.	Customer	Physical store; Website;	Assortment; Branding; Pricing; Promotion
(ZHANG et al., 2018)	Consumer perceptions of channel integration	(Consumer perspective on) the degree to which a retailer coordinates its multiple channels to create synergy for the firm and offer a seamless shopping experience to its customers.	Customer	Physical store; Website;	Assortment; Branding; Pricing; Promotion
(KUEHNL; JOZIC; HOMBURG, 2019)	Effective customer journey design	The extent to which consumers perceive multiple brand-owned touchpoints as designed in a thematically cohesive, consistent, and context-sensitive way.	Customer	Brand- owned touchpoints	Branding

Source: The author (2020).

Oh, Teo and Sambamurthy (2012) present six information technology routines that consumers and practitioners identify as enablers of channel integration capability, including integrated promotion, information, order fulfillment, and customer service. They find positive impacts of channel integration on firm competence and performance. Although the authors did not follow procedures for developing scales, the instrument they employed turned out to be one of the most cited tools to measure overall retail channel integration (SAGHIRI et al., 2017; LI et al., 2018; KUEHNL; JOZIC; HOMBURG, 2019).

Other discussions, however, shed light on the importance of assessing more aspects of channel and touchpoint interaction and integration, especially quality. Sousa and Voss (2006, p. 366) propose two dimensions for integration quality: channel-service configuration ("the quality of the available combination of services or service components and the associated service delivery channels") and integrated interactions ("the consistency of interactions across channels, resulting in a uniform service experience"). Investigating these dimensions, Lee et al. (2018) find that their impact on customer engagement varies with the degree of involvement with the product. Integrated interactions exert a stronger influence on customer engagement for high-involvement products, and channel-service configuration is more important for low-involvement products.

Based on the extension of multichannel integration quality theory (SOUSA; VOSS, 2006; BANERJEE, 2014), Hossain et al. (2019) present five major dimensions of channel integration: channel-service configuration, content consistency, process consistency, channel reciprocity, and assurance quality — the latter emphasizing privacy and security concerns regarding customer data. However, as the authors state, the study did not contemplate the broader perspective of communication channels addressed by omnichannel retailing.

Another approach is the effective customer journey design (CJD). The construct defined by Kuehnl, Jozic, and Homburg (2019) focuses on thematic cohesion, consistency, and context-sensitivity of the brand's touchpoints along the entire customer journey. The authors develop a scale to measure CJD effectiveness and, across 10 industries, find that it influences customer loyalty through brand attitude. More specifically, they find that effective CJD strongly impacts loyalty in services context (vs. goods) and high brand involvement situations (vs. low involvement).

Investigating consumers' perceptions of multichannel retailers, Frasquet and Miquel (2017) develop a two-dimensional channel integration scale (reciprocity and coordination).

Reciprocity refers to the possibility of consumers to cross channels during the shopping process. Coordination is the alignment of offline and online offers.

Huré, Picot-Coupey, and Ackermann (2017) investigate consumers' perceptions of consistency and seamlessness between channels, arguing that they are the consumer-oriented counterparts of the management-oriented concept of channel integration. The authors evaluate consistency based on the perceived coherence between product, price, and services, and seamlessness in terms of easiness and fluidity, speediness, and pleasantness between channels.

Although there is no general agreement regarding channel integration definition, all approaches seem to follow the same direction, emphasizing fluidity in the shopping journey as well as alignment in the retailer's management. This dual view is in line with Beck and Rygl's taxonomy as they maintain that omnichannel retailing covers interaction from the customer's perspective and integration from the retailer's perspective (2015). In this thesis, as later addressed, I contemplate different approaches to channel integration to adapt a scale to measure perceived channel integration. This procedure was necessary as none of existing scales was adequate to capture what integration represents for a consumer who can use several different channels and touchpoints on his or her journey because they reflect the retailer's perspective, take a narrow view on the scope of channels, or did not consider the integration of all marketing mix elements (branding, price, assortment, and promotion).

#### 2.2.2 Outcomes of channel integration

One may expect that coordinating online and offline channels would result in cannibalization across channels (e.g. reduction of an offline channel's sales due to the integration with an online channel). However, studies find synergies such as an increase in perceived service quality of online stores while not harming the physical store (HERHAUSEN et al., 2015), higher sales growth (CAO; LI, 2015), and loyalty (FRASQUET; MIQUEL, 2017). The latter is the focus of this thesis.

According to Cao and Li (2015), channel integration may increase loyalty because coordination enables retailers to provide value-added services, improving satisfaction, and because customization encourages customer relationships. It is imperative to understand what drives loyalty in a channel-integrated environment as its antecedents differ across online and offline purchases: perceived overall quality and customer expectations drive customer satisfaction and, then, loyalty in offline purchases, while the perceived value is the main driver

for online purchases (HULT et al., 2019). Several authors investigate channel integration-loyalty relationships and explore its mediators and moderators.

Zhang et al. (2018) find that perceptions of channel integration empower consumers, which in turn influences trust, satisfaction, and patronage intention. They argue that more channel options and enriched information give customers the perception of control during the purchase process and, therefore, they are more likely to enjoy it and trust the retailer. Even a basic level of cross-channel integration (e.g. product and price information available in all channels) positively influences customer trust and loyalty (SCHRAMM-KLEIN et al., 2011).

In addition, Li et al. (2018) find that channel integration positively affects customer retention primarily through identity attractiveness, that is, customers' perceptions of attributes (e.g., brand image, competencies, product offerings, reputation, values) that can satisfy their needs. They also find that channel integration helps to reduce retailer uncertainty, minimizing customers' interest in alternatives. In the same line, Lee et al. (2018) find that channel integration quality influences customer engagement (the level of a customer's interactions and connections with a brand's or firm's offerings or activities), which in turn has a positive effect on repurchase intention. Huang and Lin (2019) find that integration quality impacts trust, which in turn influences stickiness intention (a proxy for customer loyalty).

The moderators of channel integration-loyalty relationships have not yet been explored in the literature. An exception is a study investigating the moderating effect of retailer image and alternative attractiveness across several industries (LI et al., 2019). The authors find that retailer image has a negative influence on loyalty, while alternative attractiveness has a positive one. The findings suggest that the interaction between channel integration and retailer image is contextual upon alternative attractiveness: channel integration can contribute to customer retention to a high image retailer only when alternative attractiveness is also high.

In sum, retailing research presents several outcomes of channel integration. However, customer response to this transformation is underdeveloped. So far, trust and loyalty received more attention, and other mechanisms, such as consumer empowerment and customer engagement, drive the effect. As scholars expect that omnichannel retailing improves customer experience in retailing, I also address this construct in my research.

#### 2.3 CUSTOMER EXPERIENCE

Customer experience involves customer's responses at different levels (e.g. cognitive, affective, emotional, social, behavioral, sensorial) to a firm's offering during the entire purchase

journey (search, purchase, consumption, and after-sales) and set of interactions (GENTILE; SPILLER; NOCI, 2007; VERHOEF et al., 2009; LEMON; VERHOEF, 2016). It has evolved from comprising experiential aspects of consumption under retailer's control (HOLBROOK; HIRSCHMAN, 1982; SCHMITT, 1999) to encompass the total experience "created not only by those elements which the retailer can control (e.g., service interface, retail atmosphere, assortment, price) but also by elements that are outside of the retailer's control (e.g., influence of others, purpose of shopping)" (VERHOEF et al., 2009, p. 32). More recent discussions also highlight the uniqueness of each customer journey, as they may be more dynamic and less linear than the traditional purchase funnel view (LEE et al., 2018a; GREWAL; ROGGEVEEN, 2020).

The experience construct originates from research on the emotional aspects of consumption. The pioneering paper is "The experiential aspects of consumption: Consumer fantasies, feelings, and fun", by Holbrook and Hirschman (1982), which was a counterpoint to the "hegemony" of the information-processing perspective in vogue in consumer research. Accordingly, experiential marketing research (PINE; GILMORE, 1998; SCHMITT, 1999) advocates that value does not only reside in products and services, which provide utilitarian and functional benefits but also in the hedonic and experiential elements of its consumption.

In a review, Schmitt and Zarantonello (2013) identify five experience research streams that overlap in many ways:

- Consumer experience: focused on how consumers perceive and evaluate marketing activities and how firms can create experiences.
- Service experience: centered on firm-consumer interactions during service provision.
- Offline and online experiences: focused on consumer experience in shopping environments (either physical or digital).
- Consumption experience: centered on hedonic aspects of consumption.
- Brand experience: focused on the responses evoked by brand-related stimuli across touchpoints.

Unlike other research streams, the latter does not necessarily include a motivational state and can happen even when consumers do not have a personal connection with the brand. Hence, the brand experience approach seems more suitable to understand the customer experience in an integrative way, as advocated by Schmitt and Zarantonello (2013). This means that it should include ordinary experiences, not only the ones defined as extraordinary (ARNOULD; PRICE, 1993). Carù and Cova (2003) argue that consumption experiences are

not necessarily memorable or unforgettable and question the need to construct a series of strong emotions for customers.

As the literature remains fragmented, De Keyser et al. (2015) present a framework that defines three base tenets of customer experience: (1) It always steams from an interaction between a customer and a market actor (commercial and non-commercial service/product providers); (2) It ranges from ordinary to extraordinary experiences; (3) Experience is multidimensional and its elements are interrelated. Thus, the authors state that experience is "the 'raw' data underlying and driving the specific processes that shape consumer behavior" (p. 14) and, therefore, is the source of customer value and customer engagement.

Besides, a distinction might be made between experience as a noun, which refers to knowledge and expertise gained after an event, and as a verb, which refers to a process of undergoing and living through an event (PALMER, 2010). In this sense, Kranzbühler et al. (2018) suggest that literature addresses two sub-concepts. While static experience forms at the level of single or multiple touchpoints at one spot in time, dynamic experience results from the series of different touchpoints a consumer has with a firm over time.

In an attempt to reconcile contradictions regarding customer experience definitions, Becker and Jaakkola (2020) divide the literature in two research traditions (Figure 2): customer experience as responses and reactions to firm-controlled managerial stimuli, such as brand-related and retail elements, and as responses to stimuli during the entire consumption process, involving different firms, customers, and stakeholders. The former represents the scope of this research.

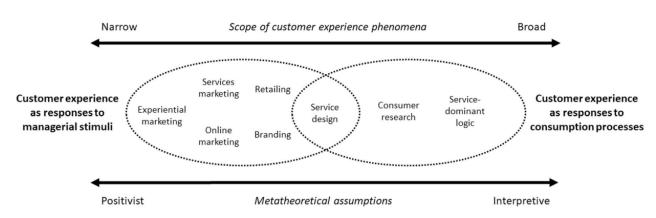


Figure 2 – Theoretical map of customer experience

Source: Becker and Jaakkola (2020, p. 7)

Taking both traditions into account, the authors propose four premises of customer experience: (1) it comprises spontaneous reactions ranging from ordinary to extraordinary; (2) it is dynamic and encompasses stimuli within and outside firm-controlled touchpoints; (3) it is subjective and context-specific; and (4) it is not created by firms, but can be influenced by managerial stimuli.

#### 2.3.1 Customer experience measurement

Customer experience is a multidimensional construct defined slightly differently by several authors, as it has roots in different research areas, such as customer satisfaction, service quality, relationship marketing, and customer engagement (LEMON; VERHOEF, 2016). The dimensions that emerge from literature (Table 3), however, are connected to the five "strategic experiential modules" proposed by Schmitt (1999): sensory experiences (sense), affective experiences (feel), creative cognitive experiences (think), physical experiences, behavior, and lifestyles (act), and social-identity experiences resulting bonds to a reference group or culture (relate).

**Table 3** – Experience dimensions

Reference	Sense	Feel	Think	Act	Relate
(HOLBROOK; HIRSCHMAN, 1982)	Sensory	Emotional	_	Activities	Symbolic
(PINE; GILMORE, 1998)	_	Emotional	Intellectual	Physical	_
(SCHMITT, 1999)	Sense	Feel	Think	Act	Relate
(GENTILE; SPILLER; NOCI, 2007)	Sensorial	Emotional	Cognitive	Pragmatic, Lifestyle	Relational
(VERHOEF et al., 2009)	_	Affective, Emotional	Cognitive	Physical	Social
(BRAKUS; SCHMITT; ZARANTONELLO, 2009)	Sensory	Affective	Intellectual	Behavioral	_
(NYSVEEN; PEDERSEN; SKARD, 2013)	Sensory	Affective	Intellectual	Behavioral	Relational

Source: Adapted from Nysveen et al (2013).

In this sense, Gentile et al. (2007) distinguish six experiential components: sensorial (including physical), emotional (including moods, feelings, and emotions), cognitive (related to conscious mental processes), pragmatic (related to the human-objects interaction), lifestyle (related to value affirmation) and relational (including social context and relationships). Moreover, they argue that customers perceive the experience as unitary, with no clear distinction of each component. However, they did not empirically test the model.

Based on the five dimensions of experience (SCHMITT, 1999), Brakus et al. (2009) propose the concept of brand experience, which is more associated with consumer and marketing research. Brand experience is the "subjective, internal consumer responses (sensations, feelings, and cognitions) as well as behavioral responses that are evoked by brand-related experiential attributes when consumers interact with brands, shop for them, and consume them" (p. 53). They conduct empirical studies to explore the dimensionality of the construct and validate a 12-item scale divided into four experiential dimensions: sensory, affective, intellectual, and behavioral experiences. They find that brand experience affects consumer satisfaction and loyalty directly and indirectly through brand personality. Several studies use the scale: to identify individual differences among consumers and to profile them (ZARANTONELLO; SCHMITT, 2010); to validate its four dimensions and expand to a fifth one (relational) in the context of services (NYSVEEN; PEDERSEN; SKARD, 2013); and to test brand experience as a driver of satisfaction, trust, and loyalty (IGLESIAS; SINGH; BATISTA-FOGUET, 2011; FRANCISCO-MAFFEZZOLLI; SEMPREBON; PRADO, 2014; KHAN; FATMA, 2017).

Alternative experience scales exist, having been proposed based on the quality of the service experience (CHANG; HORNG, 2010; KLAUS; MAKLAN, 2012), the co-creation of experiences (VERLEYE, 2015), the memory of a shopping experience (FLACANDJI; KREY, 2018), the physical store experience (BUSTAMANTE; RUBIO, 2017), among others. In line with Schmitt and Zarantonello (2013), Nysveen et al. (2013) argue that brand experience is the broadest experience construct, as both customers and non-customers can have brand experiences.

From a marketers standpoint, one can define experiential marketing as a strategy to make customers relate to the firm, and brand experience as the consumer's perception of their experience (DING; TSENG, 2015). Considering that consumers view retailers as brands (GREWAL; LEVY; LEHMANN, 2004), customer experience through the lens of brand experience construct is suitable in an investigation about consumer responses in retailing in which the consumer represents the unit of analysis, as is the case in the present research. Besides, the brand experience scale developed by Brakus et al. (2009) stands out as a solid measure for customer experience (BECKER; JAAKKOLA, 2020).

Despite the differences in definition and measurement, researchers argue that experience is a relevant construct, linked with traditional and desired marketing outcomes, such as consumer satisfaction, word-of-mouth, and loyalty (BRAKUS; SCHMITT;

ZARANTONELLO, 2009; KLAUS; MAKLAN, 2013; BUENO et al., 2019). Besides, it is a more holistic construct than service quality (PARASURAMAN; ZEITHAML; BERRY, 1988) because it includes emotions.

#### 2.3.2 Outcomes of customer experience

Several authors have identified the relationship between customer experience and loyalty. They have also identified important mediators and moderators (SANTINI et al., 2018). When testing the brand experience scale as a predictor of consumer behavior, Brakus et al. (2009) find that experience affects satisfaction and loyalty both directly and indirectly through brand personality (how the consumer endows the brand with personality associations such as honest, imaginative, intelligent, charming, and tough). They test the model with goods and services brands. Using the same scale, Khan and Fatma (2017) find direct and indirect effects of brand experience on loyalty in a study with restaurant brands. They confirm brand trust and customer satisfaction as mediators.

On the other hand, Iglesias et al. (2011) do not find a direct effect of brand experience on loyalty, only through affective commitment (i.e., customers' emotional attachment to a particular brand). Their study tests the relationship considering three product categories: cars, laptops, and sneakers. Later, Iglesias, Markovic, and Rialp (2019) focus on the sensory dimension of brand experience (tactile, visual, auditory, olfactory, and gustatory stimulations) and investigate its effects on brand equity in the banking industry. Again, they confirm an indirect effect, through satisfaction and affective commitment.

Likewise, Ding and Tseng (2015) use the experience dimensions of Schmitt (1999) to observe its influence on brand loyalty and confirm the indirect impact through hedonic emotions (pleasure, delight, and excitement). The route to loyalty is significantly greater than through brand personality and customer satisfaction, suggesting that emotions play a more powerful mediation role than cognition even in the case of lower-cost consumption (participants reported their experience with food brands; e.g., McDonald's).

Francisco-Maffezzolli et al. (2014) find that brand relationship quality (the assessment of the relationship with the brand in terms of interdependence and brand intimacy, love/passion for the brand, self-connection, commitment, and partner quality) fully mediates the relationship between brand experience and brand loyalty. The model is tested with consumers of perfume and bath soap, using the scale developed by Brakus et al. (2009).

Based on Schmitt (1999), Srivastava and Kaul (2016) advance the field by showing the effects of customer experience on loyalty and share of wallet (share of purchases devoted to a specific brand or store in comparison to overall spending in the category). They find that loyalty fully mediates the relationship between customer experience and share of wallet in department stores. Furthermore, Brun et al. (2017) find that the choice of channel (physical versus web-based) in banking and tourism industries exerts a moderating effect. Specifically, the social dimension has a greater impact on loyalty on the physical channel.

In a meta-analysis to identify the consequences associated with brand experience, Santini et al. (2018) find positive direct relationships with brand quality, brand commitment, brand trust, brand awareness, brand equity, brand loyalty, brand personality, brand attitude, brand satisfaction, and word-of-mouth (in decreasing order of strength). They also find that the effects are stronger for products than services, and even stronger for mature products — because time is relevant to build the experience.

Klaus and Maklan (2013, p. 228) define customer experience in service settings as "the customer's cognitive and affective assessment of all direct and indirect encounters with the firm relating to their purchasing behavior". They present a scale to access the quality of the experience, which extends the concept of service quality. The EXQ scale has four dimensions: (1) product experience, that is, the importance of customers' perception of having choices and the ability to compare offerings; (2) outcome focus, the importance of goal-oriented experiences; (3) moments-of-truth, the importance of service recovery and flexibility; and (4) peace-of-mind, the customer's assessment of all the interactions with the service provider before, during and after the service (KLAUS; MAKLAN, 2012). In a study across four service settings, Klaus and Maklan (2013) found that customer experience has a positive impact on customer satisfaction, loyalty, and word-of-mouth.

In sum, the literature identifies and tests customer experience measurement and suggests some routes through which customer experience influences trust and loyalty — directly and indirectly. As Brun et al. (2017) note, however, much of the research so far focus on the service sector and contexts such as tourism, and few studies explore web-based environments (and even less multichannel environments). Hence, there is a need to expand experience research to broader settings and to take into account the multiplicity of channels involved nowadays on the customer experience (SCHMITT; BRAKUS; ZARANTONELLO, 2015).

In light of customer experience as responses to firm-related stimuli, I evaluate integration only between channels and touchpoints through which the firm and the customer interact, that is, physical stores, apps, online stores, social media, and any other medium where interaction is possible. It represents a broader approach compared to multichannel studies which adopt interaction between physical and online stores. However, it does not fully match more recent definitions of touchpoints and customer experience as it does not include one-way communications and encounters in which the firm is not directly involved (BAXENDALE; MACDONALD; WILSON, 2015; BECKER; JAAKKOLA, 2020).

#### 3 CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Stimulus—organism—response (S-O-R) theory describes the relationship among stimulus (S), consumers' internal (or organismic) states (O), and approach or avoidance responses (R) (BERRY; WALL; CARBONE, 2006; VIEIRA, 2013). According to the framework proposed by Mehrabian and Russell (1974), a particular environment offers stimuli (e.g., color and temperature) that evoke primary emotional responses (e.g., pleasure, arousal, dominance) that lead to behavioral responses (e.g. physical approach, exploration, affiliation, performance, or other verbal and non-verbal communications of preference). Since then, the model has been extensively used to study the relationship between the retailing environment and consumer shopping behavior, including online and multichannel environments (PANTANO; VIASSONE, 2015; ZHANG et al., 2018).

In line with the S-O-R framework, this research assumes that channel integration is environmental and firm-controlled stimuli to consumers. Then, they react sensorially, affectively, intellectually, behaviorally, and socially to it, forming their experience and leading to external responses to the stimuli, such as trust and loyalty. Figure 3 depicts the conceptual model.

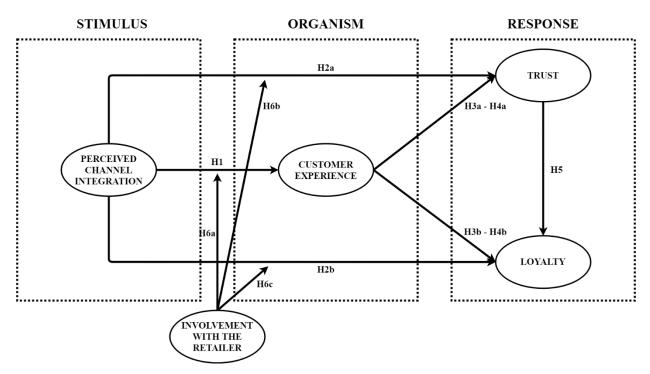


Figure 3 – Conceptual model

Source: The author (2020).

#### 3.1 MAIN EFFECTS

To the best of my knowledge, previous studies do not investigate the relationship between channel integration and customer experience. The literature suggests that, as a firm acts to create benefits to consumers, it affects how consumers think, feel, and behave during the shopping journey (LEE et al., 2018a). Firm actions such as brand clues and marketing communication are antecedents of brand experience (KHAN; FATMA, 2017). Hence, I propose:

**Hypothesis 1**: Perceived channel integration positively influences the customer experience.

The literature also suggests that the customer's perception of channel integration positively affects customer trust and loyalty because, as mentioned previously, researchers find a positive relationship between channel integration and customer retention in several studies. The perception of channel integration empowers consumers (ZHANG et al., 2018) and increases perceived service quality (HERHAUSEN et al., 2015), identity attractiveness (LI et al., 2018), customer engagement (LEE et al., 2018b), and trust (HUANG; LIN, 2019), which ultimately leads to consumers feeling more likely to buy again from the retailer as well as recommending it to other consumers.

In line with previous studies, I propose:

**Hypothesis 2**: Perceived channel integration positively influences (a) trust and (b) loyalty.

#### 3.2 MEDIATING EFFECTS

Along with the direct effect of channel integration on trust and loyalty, I expect to find an indirect effect through the customer experience. The influence of experience on loyalty is direct (BRAKUS; SCHMITT; ZARANTONELLO, 2009) and indirect (SANTINI et al., 2018) through satisfaction and brand personality (BRAKUS; SCHMITT; ZARANTONELLO, 2009), trust (KHAN; FATMA, 2017), affective commitment (IGLESIAS; SINGH; BATISTA-FOGUET, 2011), and relationship quality (FRANCISCO-MAFFEZZOLLI; SEMPREBON; PRADO, 2014). Comparing to brand personality and satisfaction, hedonic emotions are more powerful mediators (DING; TSENG, 2015). Hence, I propose both direct and indirect effects: **Hypothesis 3**: Customer experience positively influences (a) trust and (b) loyalty.

**Hypothesis 4**: Customer experience mediates the relationship between perceived channel integration and (a) trust and loyalty (b).

According to the studies reviewed previously, trust mediates the influence of perceived channel integration on loyalty. The relationship between trust and loyalty is well-established in the marketing literature (SIRDESHMUKH; SINGH; SABOL, 2002). Therefore, I propose:

**Hypothesis 5**: Trust positively influences loyalty.

#### 3.3 MODERATING EFFECTS

Involvement is the level of personal relevance (affective and cognitive) of an object based on someone's inherent needs, values, and interests (ZAICHKOWSKY, 1994). Hence, I expect that the level of involvement with the retailer will influence the relationship between channel integration and customer experience, trust, and loyalty.

Even though the customer experience happens regardless of personal connections with the brand (SCHMITT, 2010), it is more effective when customers have high involvement with the brand because both constructs are related (BRAKUS; SCHMITT; ZARANTONELLO, 2009). As the effect of stimuli on customer experience should consider customer, situational, and socio-cultural contingencies (BECKER; JAAKKOLA, 2020), I propose:

**Hypothesis 6**: The influence of perceived channel integration on (a) customer experience, (b) trust, and (c) loyalty will be stronger under higher involvement with the retailer.

#### **4 METHODS**

Both omnichannel retailing and customer experience are evolving topics in marketing research. So, it is not surprising that much of the studies so far are exploratory and encompass qualitative investigations focused on aspects that cannot be observed and measured directly (AAKER; KUMAR; DAY, 2011). On the other hand, the scales already developed allow to advance the theory and to test hypotheses in descriptive studies such as a structured survey (HAIR et al., 2003). Thus, reflecting the state of the field, this research adopts both exploratory and descriptive approaches to answer how perceived channel integration influences customer response in omnichannel retailing (Figure 4).

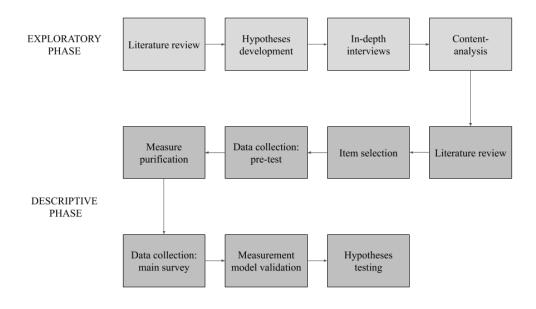


Figure 4 – Research overview

Source: The author (2020).

#### 4.1 EXPLORATORY PHASE

Although I have formulated some hypotheses, I adopted an exploratory approach in the first phase because I needed to better understand the combined use of channels and touchpoints in the same purchase journey, and what consumers perceive as integration between them. Furthermore, this phase provided insights into the outcomes of perceived channel integration.

As a discovery-oriented phase, the exploratory design requires a qualitative approach. Qualitative research encompasses several interpretative practices, such as ethnography, observation, interview, and content-analysis, to understand the research object in depth (DENZIN; LINCOLN, 2006).

# 4.1.1 Research technique

The research technique adopted was individuals in-depth interview, an unstructured technique useful for refining research problems (HAIR et al., 2003). The purpose was to derive meaning through interpretations of the participant's experiences in purchase journeys involving multiple channels. I adopted both direct and indirect approaches — the latter implies that interpreting other people's behaviors is a way of accessing one's beliefs and feelings (MALHOTRA; NUNAN; BIRKS, 2017). In this sense, a stimulus such as a third-person story should project opinions of the individual even though he or she has not personally experienced a similar situation (AAKER; KUMAR; DAY, 2011).

## 4.1.2 Participants and recruitment

The target population for individual interviews was consumers that use more than one retail channel or touchpoint in the same shopping journey, that is, multichannel consumers. Research on customer segmentation suggests that multichannel enthusiasts consider shopping a pleasurable experience (KONUS; VERHOEF; NESLIN, 2008) and place more emphasis on reducing the time and effort cost in the information search (WANG et al., 2014). Konus et al. (2008) find that they are less loyal than other segments, such as store focused and uninvolved shoppers. On the other hand, Nakano and Kondo (2018) find that multichannel customers tend to maintain a higher level of loyalty than single-channel customers, and Ieva and Ziliani (2018) find a positive correlation between exposure to touchpoints and loyalty intentions. It was relevant to focus on this group only, considering that multichannel shoppers differ from other segments of shoppers.

I approached participants by convenience. Potential participants were adult consumers living in Porto Alegre, Brazil who had already made a purchase using more than one retail channel. In this phase, I interviewed ten consumers. Data collection stopped when no more new insights emerged from the interviews, indicating theoretical saturation.

#### 4.1.3 Procedure

The open-ended interviews happened face-to-face, guided by a semi-structured script (Appendix A). First, I explained the activity, requested authorization for audio recording, and presented the concept of a multichannel purchase. Next, I asked the participant to describe a recent purchase in which he or she used more than one channel to search, buy, or communicate with the retailer. Then, I queried the buying habits of the interviewee, possible changes over time, and channel preferences at each purchase journey stage.

Moreover, the participant read the story of consumer Anna facing some inconsistencies between channels (previously presented in the introduction). I asked if he or she thinks this kind of situation might happen, probing if he or she has experienced a similar situation and, if so, what he or she felt. I chose this approach because applying a projective method, using an imaginary situation to frame questions, reveals consumers' emotions, and motivations easier than asking them directly (ROOK, 2006).

Lastly, after showing a list of touchpoints identified in the literature (LEMON; VERHOEF, 2016; IEVA; ZILIANI, 2018), I asked the participant to indicate which of them are more important when he or she is purchasing, and if he or she sees some sort of integration between them.

#### 4.1.4 Analysis

After recording and transcribing the interviews, I explored the data through content-analysis. Content-analysis is an objective, systematic, and quantitative description of communications content, and, therefore, useful when one gathers responses via indirect questioning (KASSARJIAN, 1977). The technique is also helpful because data from in-depth interviews are difficult to analyze and interpret (MALHOTRA; NUNAN; BIRKS, 2017).

The procedure has three stages: pre-analysis (selection of documents, hypothesis formulation, and development of indicators for data treatment), exploration (data coding), and interpretation (BARDIN, 2011). In the first stage, I reviewed the transcriptions inputting them into the NVivo 12 package for the exploration step, and thus generating a word cloud containing the 50 most cited terms (> 4 characters). Then, I carefully read each interview transcription highlighting excerpts about: I) the product categories cited by interviewees, II) the situations where they use more than one channel during the purchase journey, III) their reactions to the story of consumer Anna and their own experiences of inconsistencies between retail channels, IV) their purchase preferences regarding channels, V) their opinion about channel integration

in general, and VI) their opinion about the level of integration between channels they use most often. The third stage comprised the evaluation of the excerpts in each dimension presented above and their comparison with the channel integration literature to identify dependent variables for the following research phase.

#### 4.2 DESCRIPTIVE PHASE

The purpose of the second phase was twofold: (1) to adapt a scale to measure perceived channel integration and then (2) test the hypotheses. To this end, I adopted a descriptive approach through a survey to represent the characteristics of the phenomenon (HAIR et al., 2003) — here, the consequences of perceived channel integration in multiple channels retailing environment.

Descriptive studies still have an important role in academic research — around one-third of empirical papers published in top marketing journals in the last two decades rely on survey techniques (HULLAND; BAUMGARTNER; SMITH, 2018) — and can complement insights obtained in a qualitative phase (STEWART, 2009). Additionally, surveys allow measuring constructs proposed in the literature and testing relationships between variables.

The descriptive phase consisted of two steps: the pre-test and the main survey.

## 4.2.1 Pre-test

First, I conducted a pre-test to adapt a scale to measure perceived channel integration. As presented in the theoretical background, scholars have already tested some channel integration scales, primarily from the firm standpoint (e.g. OH; TEO; SAMBAMURTHY, 2012), not addressing how consumers perceive integration. It appears that no single scale is appropriate to measure integration from the consumer's point of view. Furthermore, several items of the scales are restricted to the integration of physical and online stores (see Appendix C), excluding important touchpoints, such as social media platforms. For this reason, I adapted scales already tested to fit the purpose of this research. In other words, to measure perceived channel integration considering assortment, branding, pricing, and promotion in transactional and informational touchpoints.

### 4.2.1.1 Research technique

I developed a structured questionnaire with fixed-response alternative questions, administering it to a sample of the target population. The choice for the cross-sectional survey

was due to the robustness of the method since it reduces variability and simplifies interpretation (MALHOTRA; NUNAN; BIRKS, 2017).

#### 4.2.1.2 Sample

The target population is the same as the exploratory phase: consumers that use more than one retail channel or touchpoint in the same shopping journey. According to Confederação Nacional de Dirigentes Lojistas and Serviço de Proteção ao Crédito, 46,6% of Brazilian consumers surveyed said they search products online before going to physical stores. Moreover, 25,5% of them said they visit physical stores before buying online. The most searched categories are home appliances, electronics, and apparel (CNDL/SPC, 2018).

The sampling technique was non-probability by convenience. The sample size for the pre-test was estimated at 150 individuals, ensuring a minimum of five observations per variable, as recommended for multivariate analysis (HAIR et al., 2010).

#### 4.2.1.3 Data collection

To keep the sample homogeneous for the factor analysis, I requested the participation of undergraduate students to carry out the pre-test. Considering that multichannel consumers are younger and have more years of formal education than single-channel customer segments (KONUS; VERHOEF; NESLIN, 2008; SOUZA, 2010; HERHAUSEN et al., 2019), undergraduate students are among the target population of this research.

I approached students of a Porto Alegre based private college entering their classroom. After reading about the concept of a multichannel purchase journey in the introductory part of a paper and pencil questionnaire in Portuguese (Appendix D), I first asked them to write the name of one retailer where they have had a multichannel experience. After that, I asked them to answer the questions with the chosen retailer in mind.

They indicated their degree of agreement (on a 7-point Likert-type scale) with 25 items selected from the channel integration literature. Following procedures for scale development (CHURCHILL, 1979), I picked the set of items from tested scales in the literature (Appendix C). Then, I compared the initial pool results with the interview documents to look for evidence of how consumers referred to these items (Appendix C).

For instance, the scales used in Frasquet and Miquel (2017) and Lee et al. (2018b) have one item regarding consistent images across channels, and the excerpt "Website design is similar to store design" (Interview 10) illustrates the item. Consistency in prices across channels is another item used in several scales. Thus, the excerpt "The online price is cheaper" (Interview

4) illustrates it. The scales also address the option to collect at a store goods purchased online. Accordingly, the excerpt "*I really like to pick-up at the store*" (Interview 8) illustrates the item.

#### 4.2.1.4 Measures

The initial pool of 25 items selected from the previously discussed literature covered central marketing elements of customer experience in retailing, such as branding, promotion, pricing and assortment (VERHOEF et al., 2009; GAO; MELERO; SESE, 2019), as well as fluidity in the customer journey (KUEHNL; JOZIC; HOMBURG, 2019) and perceived quality of integration (LEE et al., 2018b). I refined the wording to suit the purpose of this research, that is, to highlight overall channel integration, not specifically between physical and online stores. Appendix C shows the initial items, illustrated by corresponding interview excerpts, as well as each item resulting adaptation.

### 4.2.1.5 Analysis

I employed SPSS 18 package to analyze the data. The multivariate analysis suitable for pre-test data was the interdependence technique of Exploratory Factor Analysis (EFA) because it is useful for extracting information from a large set of variables and showing an underlying structure among them (HAIR et al., 2010). The objective was to condense information of several channel integration scales into a smaller set of factors.

I tabulated and prepared the data from the pre-test for analysis, searching for errors, missing values, and outliers. I verified the following statistical assumptions for factor analysis (FIELD, 2009; HAIR et al., 2010) to ensure the adequacy of the technique:

- Correlations above 0.3 between variables (assessed by visual inspection in the correlation matrix).
- Statistically significant Bartlett's test of sphericity, an indication of significant correlations between variables.
- A measure of sampling adequacy (MSA) above the acceptable level of 0.5 for each variable, signaling the degree of intercorrelations between them.
- Kaiser–Meyer–Olkin measure of sampling adequacy (KMO) above 0.7, indicating that analysis should yield distinct and reliable factors.

The extraction method used is principal component analysis (PCA), which is most appropriate for data reduction (HAIR et al., 2010). The criterion for the number of factors to extract was a combination of latent root and percentage of variance (i.e., factors with

eigenvalues greater than 1, jointly accounting for at least 60% of the total variance). The communalities were all above 0.5.

To help in the interpretation of factors, I rotated the factors using Varimax criterion. Varimax is the most common method for factor rotation and attempts to maximize the dispersion of loadings within factors (FIELD, 2009). Moreover, I adopted the following procedures for scale purification: each item should load on its primary factor at 0.6 or greater, not cross-load on any other factor at 0.4 or greater, and have a corrected item-to-total correlation of 0.4 or greater (REICH; BECK; PRICE, 2018).

Lastly, I used Cronbach's alpha of each factor and the entire scale to verify the consistency of the measure. The reliability coefficient should be above 0.7 (HAIR et al., 2010).

## 4.2.2 Main survey

The objectives of the main survey were (1) to confirm the structure of the channel integration scale and (2) to test the proposed relationships between channel integration (independent variable) and experience, trust, and loyalty (dependent variables).

### 4.2.2.1 Research technique

I employed a cross-sectional survey to verify how consumer perceptions of channel integration are related to marketing outcomes proposed in hypotheses. I administered the enhanced form of the structured questionnaire with fixed-response alternative questions.

#### 4.2.2.2 Sample

The target population is the same as the exploratory phase and pre-test survey, and the sampling technique was also non-probabilistic by convenience. Following the same criteria as the pre-test, I estimated the sample size for the main survey at 400 individuals.

### 4.2.2.3 Data collection

To expand the range of respondent profiles in this second stage, potential respondents were approached online, through e-mail and social media sites (Facebook, Linkedin, and Instagram). First, I contacted friends and acquaintances and asked if they considered themselves multichannel consumers, that is, consumers that search, buy, or contact retailers thought different channels. If the response was positive, I briefly presented the research theme and invited them to access a self-administered structured questionnaire hosted in Qualtrics platform

(Appendix E). Respondents who completed the survey were also requested to share the URL with other potential participants.

After one week, I asked a few university professors to share the questionnaire with their students. A group of 70 students of one specific school agreed to participate in exchange for partial course credit. Therefore, I created a different URL to track these responses and check for possible differences concerning the other respondents.

After agreeing to participate, all respondents read a definition of retail channel and reinforced if they have made a purchase using more than one channel from the same retailer in the last 12 months. Only those who did recognize such conditions continued in the survey. Next, participants saw a list of the largest multichannel retailers in Brazil, selecting which company they have purchased from. If a participant had a company not listed in mind, he or she could add it to the list. The list of retailers (see Appendix B) resulted from revenue and order volume data published by Sociedade Brasileira de Varejo e Consumo (SBVC, 2019), Instituto Brasileiro de Executivos de Varejo & Mercado de Consumo and Fundação Instituto de Administração (IBEVAR; FIA, 2019), and E-commerce Brasil (NETRICA, 2019). The list of retailers intended to expedite responses as some pre-test respondents displayed stresses remembering a specific multichannel purchase. After all these procedures, the respondents answered the questionnaire with the chosen retailer in mind.

Collecting answers from a single source in cross-sectional studies may lead to incorrect conclusions due to common method bias (HULLAND; BAUMGARTNER; SMITH, 2018). To avoid this threat, I adopted the procedural controls suggested by MacKenzie and Podsakoff (2012), such as pretesting to ensure that questions were intelligible and adding page breaks as a spatial separation between the measurement of independent and dependent variables. Besides, I randomized the order of presentation of dependent variables to minimize the effects of decreasing attention to questions.

#### 4.2.2.4 Measures

I measured the constructs in multi-item scales selected from the literature. Two Brazilian English teachers helped with the back-translation procedure: I translated the original items from English to Portuguese and then both teachers translated them back to English. We have not detected any difference in the statements meaning.

I measured perceived channel integration (independent variable) with a 9-item scale adapted from literature in the pre-test phase. To measure the dependent variables, I used scales previously used in multiple channels retailing studies. I followed Semprebom (2010) — who

validated in Brazil the 12-item scale developed by Brakus et al. (2009) — to measure four dimensions of customer experience. For the fifth one, I adopted a 3-item subscale from Nysveen et al. (2013), who expanded the instrument developed by Brakus et al. (2009) to encompass the social dimension. For loyalty, I employed a 5-item scale as Brakus et al. (2009) and Nysveen et al. (2013). At last, for trust, I used a 5-item scale as Zhang et al. (2018).

As the level of involvement with the retailer and the depth of multichannel shopping experience are related to consumer responses in multiple channels research (WALLACE; GIESE; JOHNSON, 2004; HERHAUSEN et al., 2015), I also measured both constructs. For involvement with the retailer, I used a 6-item scale as Brakus et al. (2009), who adapted the scale from Zaichkowsky (1994). And for the multichannel shopping experience, I followed Wallace et al. (2004), measuring it with a single item to avoid making the questionnaire too long — which is justifiable for constructs of secondary importance (FUCHS; DIAMANTOPOULOS, 2009). The questionnaire presented all items on 7-point Likert-type scales — the most used format in the studies reviewed here. Additionally, I conducted a qualitative pre-test with 10 shoppers to ensure the meaning of the instrument and to minimize response errors (BOLTON, 1993). After minor adjustments in the questionnaire, the data collection started.

## 4.2.2.5 Analysis

For data analysis, I used SPSS 18 and SmartPLS3 (RINGLE; WENDE; BECKER, 2015) packages. The main survey analysis started with group comparisons (t-tests and chi-squared tests) to check for differences in responses with and without incentive for partial course credit and across early and late respondents.

Next, I checked the extension of missing data and the assumptions for multivariate analysis. I did not delete incomplete observations to avoid reducing the sample size. Instead, I selected an estimation method to replace missing values.

I used Structural Equation Modeling (SEM) to test the proposed relationships, in line with papers that investigated channel integration and customer experience constructs. SEM has three characteristics: (1) estimation of multiple and interrelated dependence relationships, (2) representation of unobserved concepts in these relationships and measurement error in the estimation process; and (3) explanation of the entire set of relationships in a single model. In this sense, SEM is appropriate for estimating simultaneously a series of multiple regression equations and when a hypothesized dependent variable becomes an independent variable in a subsequent relationship (HAIR et al., 2010).

SEM has two components: the structural model and the measurement model. The first estimates the relationship between latent variables, and the latter assess the reliability of the scales that represent the constructs as it describes the connections between latent variables and their indicators (BLUNCH, 2008; HAIR et al., 2010). Perceived channel integration was the exogenous construct (the equivalent of an independent variable) of the model, and customer experience, trust, and loyalty were the endogenous constructs.

Following Coltman et al. (2008) and the papers that provided the scales for the survey, the latent constructs are reflective. Hence, I assumed that: they exist independently of the measures; causality flows from the construct to the indicators (measured); indicators share a common theme, being interchangeable. In this case, the indicators are manifestations of the construct, not defining characteristics as in formative models (JARVIS; MACKENZIE; PODSAKOFF, 2003), and one can leave any single item out without changing the meaning of the construct (SARSTEDT et al., 2016).

Although covariance-based (CB-SEM) is the most common type of SEM, the partial least squares approach (PLS-SEM) is growing in management research (RINGLE; SARSTEDT; STRAUB, 2012; BENITEZ et al., 2020). According to Hair et al. (2017), PLS emphasizes prediction while relaxing demands on data and specification of relationships. One of the main differences between them is the objective: while CB-SEM's objective is to reproduce the theoretical covariance matrix, PLS-SEM aims to maximize the explained variance of dependent constructs (HAIR; RINGLE; SARSTEDT, 2011). In this sense, one can view CB-SEM as confirmatory since it requires strong theoretical development (CHIN, 2010).

On the other hand, this research has an exploratory objective and aims to predict structural relationships between constructs. Thus, the PLS-SEM approach is satisfying because it estimates a less restricted model, the composite factor model (HENSELER et al., 2014). More than that, PLS-SEM requires soft distributional assumptions, that is, it does not require normal distributions (CHIN, 2010). The research data might not fit normal distributions.

In line with Sarstedt et al. (2016), the composite-based approach represents a linear combination of indicators to form composite variables that serve as proxies for the concepts. Following their guidelines for reflective conceptualization and composite constructs, I used PLS estimation. Thus, after model specification, I ran the PLS algorithm with 300 iterations to produce PLS results. To evaluate the significance of results, I ran PLS bootstrapping to create 5,000 subsamples from the original data and computed t-statistics, verifying the stability of results (RINGLE; WENDE; BECKER, 2015).

I evaluated the results in two steps. In the first one, I assessed the measurement model, computing several indicators. As recommended by Hair, Howard, and Nitzl (2020), I performed a confirmatory composite analysis (CCA), which is the equivalent for PLS-SEM of confirmatory factor analysis (CFA) used in CB-SEM. I estimated and evaluated the loadings and significance of indicators of each latent variable. All standardized loadings should be above 0.7. To check the reliability of each construct, I estimated Cronbach's alpha and the composite reliability (CR) of the variables. Both values should be above 0.7. I also calculated the Average Variance Extracted (AVE) to check for convergent validity, which means looking for values above 0.5 to ensure that the construct and its indicators share at least 50% of the total variance. Moreover, I assessed discriminant validity by comparing the square root of AVE and the correlations between latent variables, as proposed by Fornell-Larcker (1981). At last, I confirmed the discriminant validity by the heterotrait-monotrait ratio of correlations (HTMT), which should be below 0.85 to ensure that each construct is distinct from the others (HAIR; HOWARD; NITZL, 2020).

In the second step, I assessed the structural portion of the model, estimating the path coefficients and their significances to test the research hypotheses. I evaluated the model predictive power by the coefficient of determination (R<sup>2</sup>), which represents the amount of variance explained by the model. R<sup>2</sup> values of 0.75, 0.50, or 0.25 for endogenous latent variables are substantial, moderate, or weak, respectively (HAIR; RINGLE; SARSTEDT, 2011). To gauge the effect size, I computed the f<sup>2</sup> values, being 0.02, 0.15, and 0.35 a small, medium, and large effect, respectively (CHIN, 2010). Lastly, the blindfolding procedure assessed the predictive relevance of the model, with a Stone-Geisser's Q<sup>2</sup> value above 0.5 being indicative of a good predictive model. It is worth noting that factor-based SEM has the objective of minimizing the discrepancy between the empirical and the model covariance matrices, which is the basis for goodness of fit measures (HAIR et al., 2017). On the other hand, PLS-SEM has no adequate global measure of goodness of fit, as the objective is theory building instead of theory testing (CHIN, 2010; HAIR; RINGLE; SARSTEDT, 2011). However, some researchers argue that one can assess the overall fit of models estimated by PLS-SEM through the standardized root mean square residual (BENITEZ et al., 2020). Hence, I also provided the SRMR.

The steps and procedures described above resulted in information relevant to the research topic. The next chapter presents the main results.

### **5 RESULTS**

In this chapter, I present the results of the data interpretation and analysis as previously described. First, I present the qualitative results of the exploratory phase. Next, I exhibit the quantitative results of the pre-test and main survey.

### 5.1 EXPLORATORY DATA

The purpose of the first phase of this research was to understand the experiences of consumers in purchase journeys involving multiple channels. I interviewed 10 individuals (Table 4) in person between July and August 2019.

**Table 4** – Interviewees

ID	Occupation	Age	Sex	Duration
1	Journalist	27	F	52 min
2	PhD student	32	M	70 min
3	Publicist	30	F	79 min
4	Biologist and English teacher	30	F	43 min
5	Journalist	47	F	46 min
6	Teacher	29	M	36 min
7	Physician	32	M	21 min
8	Marketer	34	M	48 min
9	Public relations	34	F	31 min
10	Publicist	25	M	39 min

Source: The author (2020).

Based on the full transcription of interviews, I generated a word cloud (Figure 5) in the NVivo package to depict the 50-most frequently terms mentioned in the conversations. Only verbs expressing actions related to consumption, nouns, and adjectives were allowed.

Figure 5 – Word cloud from interview transcriptions



Note: The font size of each word is associated with its frequency. Source: NVivo 12.

The list shows words related to channel integration routines presented by Oh et al. (2012), suggesting that a channel integration measure should take these indicators into account. Words related to the routine of integrated product and pricing information management like "produto" (product), "preço" (price), and "desconto" (discount) appeared 148, 145, and 37 times respectively. The word "marca" (brand), related to the routine of integrated promotion, emerged 92 times. "Vendedor" (salesperson), related to the routine of integrated customer service, arose 40 times. "Pagar" (pay), related to the routine of integrated order fulfillment, appeared 31 times.

After the first exploration, I conducted the content-analysis following the categories indicated in the previous chapter. For organizational reasons, I mixed some categories.

### 5.1.1 Situations where consumers use more than one channel

One of the purposes of asking participants about their experiences in multiple channels retailing was to identify when this kind of purchase journey happens. One motivator identified is when interviewees feel the need to physically touch the product before buying it.

Although the photos and descriptions are very detailed, it is hard to imagine what a 1.5 kg or 2 kg laptop is. So, I searched the physical stores to check the size, dimensions, screen, weight, and then looked for it online. I read the reviews and ended up buying online. (Interview 2)

To get a sense of size, I first saw the microwave in physical stores, but then bought it online. It met the needs, was cost-effective, but on the internet, I had free shipping and better payment terms. The same store was cheaper on the internet, so there was no reason to buy at the physical store. (Interview 6)

The shopping behavior described above is known as showrooming: when customers seek information in the physical store and then purchase online (RAPP et al., 2015). Consumers might engage in showrooming due to perceptions of better quality and price on the online channel but disengage due to online search costs, time pressure, and availability of in-store sales personnel (GENSLER; NESLIN; VERHOEF, 2017). These motivators appeared in interviewees' reports.

Physical stores are for those who need the product soon. If you can wait, buy it online. You have the option to pay higher prices and buy it now, or you pay less and wait. (Interview 4)

If it is something that I need in urgency, for that day, I end up going to a physical store. I leave with what I need immediately in my hands. (Interview 7)

I was at the Livraria Cultura store and found a nice but expensive book. I searched it in Livraria Cultura's website to see how much it would cost. It was much cheaper, like 50 reais cheaper. I bought it immediately on my phone. (Interview 5)

I think that salespeople can tell when the customer is at the store just to try the product and that he or she will buy it later online or even at another store. Salespeople should be used to it. But I think it is rude. (Interview 2)

On the other hand, customers may use more than one channel when they want to be better informed before going to the store. In this sense, they engage in webrooming behavior: they first search in online channels and then go to physical stores to buy (ARORA; SAHNEY, 2017).

I was looking for thermal clothing for a trip. I searched on many sites. Then, I called a Decathlon store and the attendant talked about some models. I asked about the ones that I had seen online and, after that, I went there and bought it. (Interview 1)

To prevent losing opportunities to sell because of webrooming behavior, multichannel retailers started offering the option to buy online and pick up in-store (GAO; SU, 2017). Interviewees see this shopping option as a way to avoid shipping costs and high waiting time. Thus, they may use this combination of online and offline channels when they want to combine the benefits of buying at the physical stores with the online price.

The product would arrive at the store in two days. It was the same time to receive it at home, but then I would pay a shipping fee. Therefore, I chose to collect it at a Magazine Luiza physical store. (Interview 4)

The delivery time was 5 days, and the in-store collecting could happen on the following day. I could walk to the store and leaving with my new phone in my hands. (Interview 9)

Another motivator to a multichannel purchase journey identified is *when customers* are looking for a specific product but do not find it in the first try.

I saw a shirt that I really wanted at a Renner store. The following day, I went there to buy it, but it was not available anymore. I went to other Renner stores but none of them had it. So, I decided to buy it on Renner's website. (Interview 8)

Participants also said they sometimes use a second channel to register an after-sales complaint. Among the alternative channels cited by them are the retailer's profile in social media, a call center, and even a third-party channel, such as the Reclame Aqui website. Social media is an important after-sales channel in the segment of multichannel consumers that research online and purchase offline (SANDS et al., 2016).

I accessed the Facebook page of O Boticário and commented on what happened at the physical store. They apologized to me. (Interview 2)

I bought it online and, when it arrived, the voltage was wrong. I tried the website chat. But each time they would give me a new protocol number or the connection would drop. So I had to call. But after a while, I stopped because I did not have a register of the conversation. I started using the chat again so I could capture the screen. When I said I was going to report it at Reclame Aqui, they finally solved the problem. (Interview 3)

#### 5.1.2 Product categories and channel preferences

Although the group of participants is not a representative sample of the population, it was possible to identify product categories and channel preferences for their purchases.

Product categories (Table 5) follow Google's product taxonomy (GOOGLE, 2019). For simplification, household appliances and kitchen appliances appear as "home appliances". The frequency column expresses the proportion of the participants that mentioned the product category during the interview. As expected, product categories cited by interviewees are in line with the categories of the largest multichannel retailers operating in Brazil (Appendix B), implying that multiple channels purchases are a broad phenomenon and take place in a variety of contexts.

**Table 5** – Product category indicated by interviewees

Product category	Examples that emerged from interviews	Frequency
Apparel & Accessories	Clothing, Jewelry, Shoes	8/10
Home Appliances	Washing Machine, Space Heater, Refrigerator, Microwave Oven, Electric Kettle, Range Hood	7/10
Electronics	Laptop, Mobile Phone, Cartridge, Flash Memory Card, Computer Monitor, Headphone Accessories, Mice & Trackballs	6/10
Furniture	Sofas, Mattresses, Tables	4/10
Health & Beauty	Eyeglasses, Perfume & Cologne, Medicine & Drugs	3/10
Media	Books	2/10
Hardware	Building Consumables	2/10
Food	Cooking & Baking Ingredients	1/10
Luggage & Bags	Backpacks	1/10

Source: The author (2020).

Each participant indicated in a list of channels or touchpoints the ones they use to access during their purchase journeys with retailers in general. The list (Table 6) included the touchpoints designed and managed by retailers and under their control (LEMON; VERHOEF, 2016), adapted from Ieva and Ziliani (2018).

**Table 6** – Channels and touchpoints indicated by interviewees

Channel	Frequency
Physical store	10/10
Site	10/10
Social media	7/10
Coupon	6/10
Advertising	6/10
Salespeople	5/10
Loyalty program	5/10
Newsletter	5/10
Official mobile app	4/10
WhatsApp	4/10
Event	3/10
Billboard	3/10
Customer magazine	3/10
Store flyers	2/10
SMS	2/10

Source: The author (2020).

Although physical store and site were the favorite channels of interviewees, social media sites were also highly indicated. This finding highlights the need to broaden the scope of channels considered in channel integration measures, as existing scales focus primarily on site-store integration (OH; TEO; SAMBAMURTHY, 2012; FRASQUET; MIQUEL, 2017; LEE et al., 2018b; ZHANG et al., 2018). Moreover, a channel integration measure that is not limited to site-store is more in line with the omnichannel retailing definition, as it includes channels and touchpoints with informational — not just transactional — functions (LI; LOBSCHAT; VERHOEF, 2018).

### 5.1.3 Opinions about channel integration

Interviewees expressed their opinions regarding the combination of channels when they are purchasing something. They were mostly favorable, highlighting *benefits for consumers and retailers*.

I searched online jewelry stores that I knew had physical stores. As it was a jewel purchase, it caused feelings of insecurity. I ended up buying one ring that I had already seen online. The price in the physical store was the same as online. Everything was already predefined, so it gave me a sense of security. (Interview 1)

The existence of the physical store makes me buy from the online store because the former provides me a product experience that the latter will never provide me. (Interview 5)

Saving time is one of the main benefits that interviewees see in using integrated channels, a goal already identified as one motivator to multichannel shopping journeys (HARRIS; DALL'OLMO RILEY; HAND, 2018).

Collecting in-store after buying online was fast, in 10 minutes it was done. It was also easy to exchange the product. I just arrived there with the invoice and the shirt. They didn't even ask why. I just said I needed to exchange the product, and they gave me a voucher. It represents practicality. (Interview 4)

Nowadays with GPS service, the online store should inform the nearest store where the product is available or when the stock will be replenished. Then you would have the option to buy online and collect in-store. It would be really cool to check store inventory, check product availability, request product exchange, or contact the store directly from the site. That would speed up the process. (Interview 2)

However, saving time and collecting the product in-store may not be a benefit, depending on where the consumer lives. An interviewee that lives in a small town complained about having to pay high shipping rates to receive products at home.

In Porto Alegre, it is easier. There is an Americanas store around every corner. I step over and get it, there is no need to wait. Shipping is much faster. There may be daily

movements from the fulfillment center to the store. In smaller towns, it is different. (Interview 8)

Also, *consumer empowerment* appeared among the benefits of channel integration in the opinion of the interviewees. Empowerment as the extension to which consumers have control over their shopping processes mediates the influence of channel integration in trust and satisfaction (ZHANG et al., 2018).

It makes the consumer much more aware of the possibilities. I know I have access to different platforms, different stores. Now I feel able to judge if something is good. Before, I was in the dark. (Interview 6)

While interviewees have a favorable opinion of channel integration, their experiences in this regard are mixed. Regarding *communication* they get from each channel, interviewees said that they do not see much integration.

There is a difference in communication across channels, especially from small retailers. Online and offline channels do not seem to speak the same language. They should interact with each other, like physical and virtual stores. It should be the same thing. And social media would have a lot to do with virtual stores, it is the same medium. (Interview 8)

If the store were well integrated, everyone who works there would know about promotions sent by the newsletter, about the promotional code sent by SMS, about the ad with a super boost on Instagram. If everyone were aware, there would be no confusion when a customer arrived or called. (Interview 1)

Social media might be a troubling touchpoint for multichannel customers. Interviewees recalled situations in which they *struggled to continue the purchase journey from Instagram*, *Facebook*, *and other platforms*.

This is something that kills me: seeing big social media launch campaigns, then coming to the store, and not finding the product. (Interview 2)

It was kind of confusing on Instagram, so I searched the website, but the item was not there. Then I called and the girl said, "If it is not on the website, we don't have it". I emailed her the screen to show that it was on Instagram. It turns out that the firm that managed the Instagram account and the ads was from Sao Paulo and they did not have a close connection. There is a gap, an empty space, that should not be there. (Interview 8)

How come the person who answers in social media do not know something? It seems that the firm has social media just to check a list. They do not treat social media with respect. They take a nice photo but do not feel they need to invest in who is doing it. (Interview 3)

When dealing with employees across channels, interviewees reported feeling that *the* customer service is not standardized.

Everything that has a human factor involved varies more. Whether on the phone or in the physical store or by-email, it depends on someone's availability and mood. (Interview 1)

I want this feeling that I am the center of the universe regardless of what I need to do there, be it a complaint or product return. (Interview 2)

Interviewees also reported feeling that *online and offline channels of the same retailer* compete with each other.

It seems to me that the website is a different store, especially for furniture, phone and things like that. The store itself admits it. If I say it is cheaper online, they say the online store is different. (Interview 9)

I feel like the internet, the website is their competitor. An unfair competition because they are imposing a reduction on the salesperson's commission. (Interview 5)

Despite recognizing the existence of some barriers between channels of the same retailer, interviewees said *they usually can move* from one to another during their purchase journeys and even *use two or more channels in a complementary way*.

I don't think I have difficulty moving from one to another. The online channel gives me more information, even when I go shopping at the physical store. (Interview 5)

I think that there is a sync in big retailers. It is uncommon to see a big discrepancy in service quality. (Interview 6)

As will be highlighted in the next section, interviewees notice when there are price differences between channels. The price dimension might be the most salient inconsistency between channels and, for this reason, should be contemplated in channel integration measures.

The physical and the online store, I think they are connected. But we always have the price thing. Price is the most different aspect of both platforms. (Interview 9)

Apart from this detail, the difference in price, the service as a whole is the same. (Interview 4)

## 5.1.4 Reactions to inconsistency between channels

Understanding the interviewees' reactions to inconsistencies between channels — whether reading a fictitious scenario or recalling their own experiences — was fundamental to make sense of the consequences of perceived channel integration from the perspective of consumers and, therefore, to define the dependent variables of the proposed model.

From the interviewees' reactions emerged three consequences: loyalty, satisfaction, and trust (Table 7). Several of them said they would not buy again from a specific retailer after experiencing inconsistencies between channels. Besides, interviewees expressed their

dissatisfaction with retailers that, in their opinion, do not provide a seamless experience across channels and said they would eventually lose confidence in the firm. Table 7 also shows the authors that investigated the relationship between the variables and channel integration.

**Table 7** – Variables identified

Variable	Definition	Interview example	Relationship with CI addressed by
		"I would not buy it again. I would	addressed by
Loyalty	Consumer's willingness to continue a pre-existing relationship with a firm: revisit, repurchase and recommend to others (ZEITHAML; BERRY; PARASURAMAN, 1996; BENDAPUDI; BERRY, 1997)	rethink my purchase in a second moment." (Interview 4)  "If there were two similar items that I wanted, from this store and from a store that would treat me better without the communication problem, I would choose the latter." (Interview 8)  "I definitely tend to go less to physical stores of retailers where I saw higher prices on this channel." (Interview 10)	(BENDOLY et al., 2005; HERHAUSEN et al., 2015; FRASQUET; MIQUEL, 2017; LEE et al., 2018b; LI et al., 2018; ZHANG et al., 2018; HUANG; LIN, 2019; KUEHNL; JOZIC; HOMBURG, 2019)
Satisfaction	The evaluation of the firm offerings, dependent on the perceived value, quality, and expectations (OLIVER, 1980)	"I could not buy it. They announced on Instagram and Facebook, but they were not really connected to the store. It frustrated me." (Interview 3)  "You get a maddening urge to buy it, but you cannot." (Interview 4)  "It removes the enchantment with the store." (Interview 2)	(SECK; PHILIPPE, 2013; FRASQUET; MIQUEL, 2017; ZHANG et al., 2018)
Trust	Confidence in an exchange partner's reliability and integrity (MORGAN; HUNT, 1994)	"It is important for channels to be in sync because it shows some credibility. When not, it catches the attention and causes anguish: 'should I buy from them?" (Interview 6) "I would give them another chance, but I would research first, I would not trust them so easily." (Interview 3)	(ZHANG et al., 2018; HUANG; LIN, 2019)

Source: The author (2020).

It seems, however, that interviewees' reactions to inconsistencies depend on the type of differences among channels. For example, despite the price being a salient difference, some interviewees said they understand why retailers often charge higher prices at physical stores.

I see the logic behind it, I do not think it is unfair. The online store does not have physical store costs. It has a lower cost and can also sell for more hours and to more customers. Therefore, it is possible to reduce prices. (Interview 1)

The physical store has attendants, so of course, it has a higher cost. Not to mention the space issue. It is normal to have higher prices at physical stores. Even for convenience reasons. You go there, you buy and leave with the product in your hands, unless it is large. If you buy it online, you have to wait. So, depending on the need, the urgency, it makes sense to pay more to receive it earlier. (Interview 6)

Charging higher prices in the offline channel is an industry norm, with a price gap of 12%-16% (WOLK; EBLING, 2010). However, offline premium consumers might accept a much lower gap: approximately 2% (HOMBURG; LAUER; VOMBERG, 2019), despite the evidence that customers perceive uniform pricing strategy as fairer than differential pricing (CHOI; MATTILA, 2009).

On the other hand, differences in promotion and payment conditions across channels seem to be less tolerable.

I understand that the fixed cost may be higher for the offline channel, but if they are selling online at 20% off, I think they should apply a similar discount at the physical store. The payment terms must also be the same. You can buy online and split the payment in 10 months, but it is not possible in the physical store. If you want to split the payment you must pay a different price. I find that absurd. (Interview 2)

Again, inconsistencies in communication and information across channels seem to irritate consumers.

Not finding the store addresses is something that irritates me deeply because it is so easy to create a tab on the website with the addresses. Why did not anyone notice that? It seems sloppiness. (Interview 9)

Several clothes worn by brand influencers are not available at the online store. I don't know if it's sold out or only available at the physical store. It sounds like amateurism. (Interview 10)

In sum, the exploratory phase was fundamental to highlight the need to go further than previous studies and investigate channel integration beyond physical store-website interaction, since consumers rely on information provided by retailers through other touchpoints, such as social media. Moreover, this phase provided insights into the consequences of perceived integration across retail channels, as interviewees referred to constructs such as loyalty, satisfaction, and trust. Accordingly, these variables were included in the proposed model together with the customer experience. To avoid an even more complex model, satisfaction was not directly measured as it is a well-known antecedent of loyalty (FORNELL et al., 1996).

#### 5.2 DESCRIPTIVE DATA

The purpose of the second phase of this research was twofold: (1) adapt a scale to measure perceived channel integration, and then (2) test the hypotheses proposed in the model. To this end, the descriptive phase comprised of two steps: the first one, a pre-test, was dedicated to the scale refinement while the second one, the main survey, confirmed the adapted measure and tested the relationship with customer experience, loyalty, and trust. Next, I present the results of each step.

#### 5.2.1 Pre-test

The data collection happened in October 2019. The initial sample was composed of 166 undergraduate students. I excluded three respondents because all their responses to channel integration items were the same, suggesting that they did not perceive a reverse coded item. Another 39 respondents are not customers who combine physical stores and other online channels during their purchase journey. As there were specific questions about the combination of physical and online stores, such as buying online and then choosing a store to collect the order (see Appendix C), I also excluded these respondents from the analysis. Thus, the final sample is composed of 124 students that fit the description of multichannel consumers who buy online and offline ( $M_{age} = 27.18$ ,  $SD_{age} = 7.31$ , range 19–52 years; 50.8% female; 77.4% living in Porto Alegre).

When asked about a multiple channels retailer they are used to shop, respondents mentioned a total of 27 different retailers. The most frequent were: Lojas Renner (31 times), Magazine Luiza (27), Lojas Americanas (22), Panvel (6), Ponto Frio (6), Carrefour (5), and O Boticário (4). These retailers operate several channels and touchpoints (e.g., physical store, website, mobile app, social media), and have integrated channel options, such as buy online and pick up in-store. Furthermore, respondents reported a high level of experience in buying from multiple channels retailers ( $M_{shopexp} = 5.14$ ,  $SD_{shopexp} = 1.55$ ), but this variable did not correlate with perceived channel integration (r = 0.074, p = 0.414).

Data preparation included checking for errors, missing values, and reverse coded items. As missing values were not a concern — less than 5% in each variable —, I opted for excluding cases pairwise in the subsequent analysis.

I performed an Exploratory Factor Analysis (EFA) to purify the pool of 25 items and explore the construct's factor structure. Table 8 shows the tested solutions (all with Varimax rotation) that met the assumptions for factor analysis: MSA higher than 0.5, KMO higher than

0.6, and the significance of Bartlett's test. EFA6 was the best alternative because it met all criteria, had the highest KMO value, and also the highest Cronbach's alpha value, and presented a high explained variance. Additionally, EFA6 had a more manageable number of items.

**Table 8** – EFA solutions

ID	N Factors	N Items	Items	KMO	Explained Variance	Commu- nalities	Alpha (total)
EFA1	6	16	1, 2, 3, 4, 6, 8, 10, 11, 12, 13, 14, 18, 19, 21, 24, 25	0.748	71.63%	> 0.5	0.812
EFA2	5	12	1,2, 3, 4, 6, 8, 12, 14, 18, 19, 21, 25	0.693	75.69%	> 0.5	0.754
EFA3	4	11	1,2, 3, 4, 6, 8, 12, 14, 18, 19, 21	0.670	70.00%	> 0.5	0.726
EFA4	4	10	1,2, 3, 4, 8, 12, 13, 14, 18, 21	0.692	73.20%	> 0.5	0.729
EFA5	4	10	1,2, 3, 4, 6, 8, 12, 14, 18, 19	0.664	73.84%	> 0.5	0.710
EFA6	3	9	1, 2, 3, 4, 10, 11, 12, 14, 17	0.748	72.55%	> 0.5	0.815
EFA7	3	8	1, 2, 3, 4, 12, 13, 14, 18	0.690	75.67%	> 0.5	0.748
EFA8	3	8	1, 2, 3, 4, 12, 14, 18, 19	0.654	76.58%	> 0.5	0.716
EFA9	3	9	1, 2, 3, 4, 8, 12, 13, 14, 21	0.707	67.98%	< 0.5	0.753

Source: The author (2020).

Table 9 shows the rotated factor loading, communality, and corrected item-to-total correlation for each variable, and Cronbach's alpha for each factor. All variables have factor loadings above 0.6 and do not cross-load with any other, resulting in a simple structural solution. The communalities above 0.5 indicate acceptable levels of explanation and the corrected item-total correlations above 0.4 suggest a reliable scale. Each factor has at least 3 items and alpha values are above the acceptance level of 0.7.

The PCA results justify the retention of three factors, each containing three items, for a total of 9 items. The first factor includes items representing consumers' perception of an aligned retailer image (ARI) across channels: the degree to which consumers see consistency in the way that retailers present themselves in multiple channels. The second factor consists of items representing the perceived alignment of price and promotion (APP) across channels: the degree to which consumers find the same prices and promotions in different channels. The third factor features items representing the perceived alignment of product and service (APS) across channels: the degree to which consumers feel they access the same product mix and services across channels.

Compared with the initial pool of items, the resulting measure is less specific about the integration of which channels. In this sense, the scale did not retain items related to buying online and picking up at the store or finding at the store the products advertised on social media. Instead, retailers conveying a uniform image across channels or providing the same product

information across channels seemed more relevant to the consumer's overall perception of channel integration. The result is an instrument adequate to measure the consumer perception of how integrated the channels he or she uses to access a retailer are. Furthermore, the scale is suitable for retailers of different categories and adapts well to different combinations of touchpoints in each customer journey.

**Table 9** – Final EFA results

	Factor 1: Aligned retailer image (ARI)						
Item		Factor loading	Commun.	Item- total correl.	Alpha		
PCI1	I perceive uniformity in the retailer's appearance across its different channels.	0.818	0.708	0.448			
PCI2	I perceive uniformity in the retailer's speech across its different channels.	0.921	0.880	0.514	0.846		
PCI3	The retailer conveys a uniform impression across its different channels.	0.823	0.712	0.507			
	Factor 2: Aligned price and promotion	(APP)					
Item		Factor loading	Commun.	Item- total correl.	Alpha		
PCI4	I find the same promotions across different channels of the retailer.	0.762	0.651	0.490			
PCI12	I find the same prices across different channels of the retailer.	0.914	0.841	0.522	0.833		
PCI14	I find the same discounts across different channels of the retailer.	0.837	0.794	0.639			
	Factor 3: Aligned product and service	(APS)					
Item		Factor loading	Commun.	Item- total correl.	Alpha		
PCI10	I find the same product mix across different channels of the retailer.	0.804	0.690	0.483			
PCI11	I find the same product information across different channels of the retailer.	0.780	0.693	0.526	0.716		
PCI17	I find the same loyalty program across different channels of the retailer.	0.698	0.559	0.485			

Source: The author (2020).

After the adaptation of the measure of channel integration, the second phase of data collection started. Next, I present the results of the main survey.

#### 5.2.2 Main survey

The data collection happened between December 2019 and January 2020. The initial sample was composed of 573 respondents that agreed to participate. Of these, 440 answered "yes" to the filter question ("Have you made a purchase using more than one channel of the same retailer in the last 12 months?") and accessed the questionnaire. Of these, 332 completed the survey. However, to avoid losing information, all respondents who answered at least 30% of the questionnaire were retained in the initial analysis. Hence, the sample for pre-analysis was composed of 362 respondents.

Of the 362 respondents, 59 (16.3%) participated in exchange for partial course credit. As expected, since they were all students, they differ from the group that did not receive incentive in age,  $M_{incentive} = 24.49$  years old,  $M_{no\ incentive} = 33.69$  years old, t(330) = 6.873, p < 0.001; education level,  $\chi^2(3) = 87.474$ , p < 0.001; and income,  $\chi^2(5) = 17.246$ , p < 0.01. However, both groups do not differ regarding their responses to perceived channel integration, t(360) = -1.039, p = 0.3; customer experience, t(334) = -1.487, p = 0.138; trust, t(343) = 1.335, p = 0.183; loyalty, t(345) = -0.717, p = 0.474; involvement with the retailer, t(331) = -1.405, t(331) = 0.161; and multichannel shopping experience, t(331) = 0.603, t(331) = 0.547. Thus, both data sets were merged.

In addition, I compared responses between early respondents, that is, the first 25% of participants (N = 90), and late respondents, that is, the last 25% (N = 90). There were no significant differences regarding perceived channel integration, t(178) = -0.859, p = 0.392; customer experience, t(167) = -0.878, p = 0.381; trust, t(171) = 1.203, p = 0.231; loyalty, t(172) = 0.715, p = 0.475; involvement with the retailer, t(165) = -0.930, p = 0.354; and multichannel shopping experience, t(165) = 0.398, p = 0.691. Assuming that late respondents are similar to non-respondents, the result suggests that non-response bias is unlikely to be a threat.

Next, I present the results of pre-analysis regarding missing data, outliers, and normality tests. Moreover, I display the characteristics of the final sample and the main analysis results.

### 5.2.2.1 Pre-analysis

As 30 questionnaires were incomplete, I started the data examination by analyzing the extension of missing data. Frequency analysis indicated that no more than 10% of the values in

each variable measured on a Likert-type scale were missing. To decide how to deal with missing data, I checked its randomness by running Little's test of MCAR,  $\chi^2$  (114) = 97.791, p = 0.861. As the result was not significant, one can assume that cases with missing data are equivalent to cases with complete data, and, in this way, any type of missing data remedy is suitable (HAIR et al., 2010).

For imputation, I chose to replace the missing values with maximum likelihood estimation as this method is preferable for structural equation models (ENDERS, 2010). Thus, I performed the expectation-maximization (EM) algorithm available at SPSS package and replaced missing values at each measured variable with the estimated values.

After that, I checked the data to detect multivariate outliers. The procedure resulted in 22 multivariate outliers identified by the Mahalanobis distance. I removed the cases from the analysis. Consequently, the final sample comprised of 340 respondents.

Following the recommendations of Hair et al. (2010), I tested the assumptions of multivariate analysis: normality, homoscedasticity, linearity, and the absence of correlated errors. The z-value of 39 of 40 variables exceeded the critical value of  $\pm 1.96$  for skewness or kurtosis, suggesting deviations from normality. As expected, the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality were significant (p < 0.001) for all variables, confirming that the assumption of normality is not valid.

Next, I checked the data homoscedasticity, that is, the homogeneity of variance of one variable at all levels of the other variable. The regression plots between independent and dependent variables did not suggest heteroscedasticity as points seemed randomly dispersed throughout the plot, a pattern that indicates linearity and homoscedasticity (FIELD, 2009).

The Durbin–Watson test did not suggest serial correlations between errors, as all values were above 1 and below 3 (FIELD, 2009). Hence, I assumed that the errors were independent. Also, collinearity diagnostics did not indicate multicollinearity in the data as Variance Inflation Factor (VIF) of each variable was less than 10 and the tolerance value was less than 0.10.

### 5.2.2.2 Sample characteristics

The final sample (N=340) contains 199 respondents identified as females (58.53%), 111 as males (32.65%), and 30 missing values (8.82%). The average age is 31.92 years old ( $SD_{age} = 9.63$ , range 18–80 years). Although not equally, respondents from all regions of Brazil accessed the survey (Table 10), and 69.71% of them reported living in the state capital or metropolitan areas.

Table 10 – Distribution of respondents through regions of Brazil

Region	State	N	%	
	Acre	1		
North	Pará	3	2.250/	
North	Rondônia		2.35%	
	Tocantins	3		
	Alagoas	1		
	Bahia	6		
	Ceará	1		
	Maranhão	1		
Northeast	Paraíba	3	5.59%	
	Pernambuco	3		
	Piauí	1		
	Rio Grande do Norte	2		
	Sergipe	1		
	Goiás	64		
Mid West	Distrito Federal	1	20.88%	
Wild West	Mato Grosso	1	20.86%	
	Mato Grosso do Sul	5		
	Espírito Santo	2		
Southeast	Minas Gerais	6	12.35%	
Southeast	Rio de Janeiro	9	12.33%	
	São Paulo	25		
	Paraná	10		
South	Santa Catarina	6	50.00%	
	Rio Grande do Sul	154		
Missing		30	8.82%	

Source: The author (2020).

The sample is highly educated: Table 11 indicates that almost two-thirds of respondents have at least a college degree.

 $\textbf{Table 11}-Respondent's \ educational \ level$ 

Level	N	%
Elementary school	1	0.29%
High school	76	22.35%
College degree/University undergraduate	76	22.35%
Postgraduate	157	46.18%
Missing	30	8.82%

Source: The author (2020).

Not surprisingly, their reported income is high (Table 12), considering that the Brazilian minimum wage was R\$ 998 in 2019.

Table 12 – Respondent's household monthly income

Amount	N	%
R\$ 999 or lesser	1	1.18%
R\$ 1,000 – 2,999	63	18.53%
R\$ 3,000 – 4,999	74	21.76%
R\$ 5,000 – 7,999	74	21.76%
Above R\$ 8,000	79	23.23%
Prefer not to answer	16	4.71%
Missing	30	8.82%

Source: The author (2020).

Respondents indicated 56 different retailers while answering the survey, and the most frequent ones are from various categories (Table 13). As the effects of the retailer category in the model are beyond the scope of this research, the dispersion in the retailer category is not a concern.

**Table 13** – Most frequent retailers

			ı
Retailer	Category	N	%
Magazine Luiza	Home appliances	49	14.41%
Lojas Americanas	Department store	47	13.82%
Panvel	Drugstore/Perfumery	28	8.24%
Lojas Renner	Apparel	27	7.94%
Casas Bahia	Home appliances	15	4.41%
Livraria Saraiva	Bookstore	16	4.71%
O Boticário	Drugstore/Perfumery	16	4.71%
Centauro	Apparel	15	4.41%
Carrefour	Supermarket	9	2.65%
Extra	Supermarket	9	2.65%

Source: The author (2020).

The retailer's website is the channel or touchpoint that respondents use most: 86.18% of them marked this option. Moreover, 70.88% visit physical stores from the selected retailer, 35.59% access the mobile app, 26.47% recall seeing an ad from the selected retailer, and 18.82% check the retailer profile on social media.

## 5.2.2.3 Main analysis

After exhibiting the sample profile, I present the results of the measurement and structural models, as well as the hypotheses tested.

### a) Measurement model

First, I performed an Exploratory Factor Analysis (EFA) with Varimax rotation in SPSS package to assess the dimensionality of each construct: perceived channel integration, customer experience, trust, loyalty, and involvement (Table 14). To verify the internal consistency of each construct I used Cronbach's alpha.

Table 14 - Main survey EFA

Construct	Factor	Dimensions	Factor load.	KMO	Bartlett's test	Expl. variance	Alpha
Perceived	3	Aligned retailer	> 0.6	0.836	p < 0.001	76.48%	0.864
channel		image; Aligned					
integration		price and					
		promotion; Aligned					
		product and service					
Customer	3	Sensorial;	> 0.6	0.840	p < 0.001	72.46%	0.878
Experience		Intellectual; Social					
Trust	1	-	> 0.6	0.787	p < 0.001	78.91%	0.909
Loyalty	1	-	> 0.6	0.783	p < 0.001	59.96%	0.824
Involvement	1	-	> 0.6	0.875	p < 0.001	73,25%	0.927

Source: The author (2020).

Perceived channel integration has three factors — as previously identified in the pretest phase. Even though the third component showed an initial eigenvalue of 0.91, I chose to retain it to increase the total explained variance. A KMO measure of sampling adequacy above 0.7 and a statistically significant Bartlett's test of sphericity suggest that factors are distinct and reliable, and with significant correlations among variables.

Although the original measure for customer experience had four dimensions, later extended to a fifth one (BRAKUS; SCHMITT; ZARANTONELLO, 2009; NYSVEEN; PEDERSEN; SKARD, 2013), the same structure did not emerge in this study. Instead, customer experience comprises three factors — the third component had an initial eigenvalue of 0.99. The analysis suggested dropping all items of the affective dimension (CE4, CE5, CE6) as they showed low loadings. A possible explanation for this difference is that the measure initially proposed focuses on iconic brands, such as Adidas, Lego, and Ferrari, which may trigger stronger emotions than retailers in this study. As for the behavioral dimension, the analysis recommended retaining just one item (CE9), merging it with the intellectual dimension (CE10,

CE11, CE12), a pattern also observed in the investigation of Semprebom (2010) with Brazilian consumers. At last, for the sensorial and social dimensions, the analysis recommended the retention of all items (CE1, CE2, CE3 – sensorial) and (CE13, CE14, CE15 – social). The results suggest that PCI and CE are multidimensional constructs and one can examine them at different levels of abstraction (JARVIS; MACKENZIE; PODSAKOFF, 2003).

Moreover, trust, loyalty, and involvement are unidimensional constructs. One item of the trust measure (TRU5) had an extremely low communality (0.185) and thus I chose to drop it. On the other hand, the analysis suggested the retention of all items of loyalty and involvement measures. Alpha values above 0.8 indicate that all constructs have high internal consistency. Table 15 shows descriptive statistics for each construct of the model, plus the control variable multichannel shopping experience.

**Table 15** – Descriptive statistics

Construct	Number of items	Mean	SD
Perceived channel integration	9	4.496	1.211
Customer experience	10	3.710	1.219
Trust	4	6.129	0.875
Loyalty	5	4.631	1.223
Involvement	6	4.981	1.360
Multichannel shopping experience	1	5.460	1.182

Source: The author (2020).

To assess the psychometric properties of the measures, I followed the steps of confirmatory composite analysis (CCA) for reflective models — the suggested procedure to confirm measurement theory when using PLS-SEM (HAIR; HOWARD; NITZL, 2020). First, the measurement model was assessed in SmartPLS3 in the lower-order construct level, that is, considering the three dimensions of perceived channel integration (ARI, APP and APS) and the three dimensions of customer experience (SENSE, INTEL, and SOCIAL) separated first-order latent variables, as well as the unidimensional constructs trust (DV), loyalty (DV) and involvement (moderator) (Figure 6).

An indicator loading should be 0.708 or above for the latent variable to explain at least 50% of the indicator's variance (WONG, 2016; HAIR; HOWARD; NITZL, 2020). However, as Table 16 shows, three (out of 34) indicators have loadings below this threshold. I chose to keep them to avoid problems of content validity (BIDO; DA SILVA, 2019). All indicators

loaded above 0.60 in their respective latent variable, which is acceptable because the additional indicators in the block were above the threshold (CHIN, 2010).

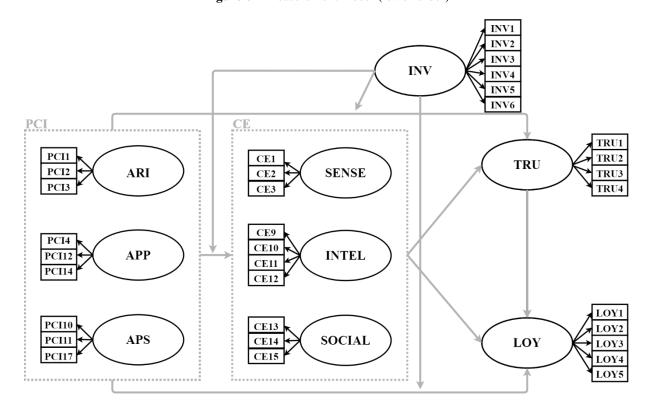


Figure 6 – Measurement model (lower-order)

Source: The author (2020).

Table 16 – Matrix of factor loadings (cross-loadings)

	ARI	APP	APS	SENSE	INTEL	SOCIAL	TRU	LOY	INV
PCI1	0.861	0.268	0.284	0.236	0.176	0.128	0.438	0.429	0.296
PCI2	0.916	0.401	0.413	0.329	0.262	0.218	0.455	0.500	0.314
PCI3	0.897	0.430	0.380	0.284	0.240	0.225	0.382	0.450	0.265
PCI4	0.370	0.917	0.479	0.257	0.217	0.276	0.172	0.292	0.225
PCI12	0.410	0.942	0.559	0.267	0.274	0.281	0.197	0.338	0.214
PCI14	0.373	0.913	0.555	0.217	0.190	0.226	0.130	0.249	0.158
PCI10	0.269	0.522	0.856	0.285	0.240	0.315	0.200	0.271	0.256
PCI11	0.345	0.486	0.847	0.308	0.229	0.265	0.266	0.291	0.168
PCI17	0.362	0.321	0.627	0.122	0.094	0.136	0.268	0.298	0.159
CE1	0.329	0.295	0.344	0.939	0.513	0.463	0.342	0.511	0.269
CE2	0.333	0.263	0.309	0.957	0.596	0.480	0.368	0.523	0.327
CE3	0.051	0.035	0.047	0.621	0.363	0.152	0.109	0.124	0.184

(Continued on next page)

**Table 16** – Matrix of factor loadings (cross-loadings) (*continued*)

	ARI	APP	APS	SENSE	INTEL	SOCIAL	TRU	LOY	INV
CE9	0.116	0.160	0.163	0.457	0.708	0.398	0.186	0.318	0.210
CE10	0.215	0.175	0.233	0.513	0.874	0.535	0.271	0.407	0.353
CE11	0.156	0.153	0.170	0.418	0.815	0.364	0.206	0.267	0.249
CE12	0.307	0.291	0.222	0.496	0.830	0.480	0.331	0.456	0.346
CE13	0.228	0.262	0.314	0.505	0.559	0.900	0.257	0.492	0.315
CE14	0.145	0.284	0.250	0.367	0.439	0.869	0.188	0.369	0.270
CE15	0.179	0.189	0.242	0.328	0.436	0.822	0.315	0.467	0.341
TRU1	0.442	0.183	0.263	0.334	0.311	0.276	0.934	0.606	0.297
TRU2	0.449	0.192	0.280	0.322	0.312	0.296	0.946	0.631	0.295
TRU3	0.441	0.199	0.336	0.322	0.279	0.270	0.888	0.523	0.247
TRU4	0.351	0.045	0.205	0.275	0.206	0.192	0.774	0.409	0.255
LOY1	0.306	0.311	0.294	0.426	0.370	0.522	0.399	0.771	0.353
LOY2	0.457	0.166	0.188	0.365	0.302	0.258	0.595	0.753	0.361
LOY3	0.447	0.276	0.353	0.357	0.356	0.419	0.447	0.816	0.325
LOY4	0.253	0.209	0.212	0.317	0.370	0.407	0.331	0.689	0.197
LOY5	0.504	0.265	0.331	0.480	0.385	0.397	0.591	0.832	0.418
INV1	0.352	0.169	0.247	0.267	0.335	0.321	0.301	0.438	0.826
INV2	0.296	0.201	0.224	0.378	0.400	0.338	0.283	0.404	0.853
INV3	0.259	0.143	0.208	0.269	0.289	0.284	0.267	0.382	0.893
INV4	0.234	0.242	0.213	0.250	0.333	0.369	0.253	0.368	0.843
INV5	0.237	0.155	0.183	0.165	0.225	0.213	0.218	0.279	0.826
INV6	0.276	0.188	0.190	0.230	0.255	0.276	0.235	0.322	0.884

Note: All factor loadings are significant at p<0.001. Source: The author (2020).

Cronbach's alpha and composite reliability (CR) check the reliability of each construct. Table 17 displays the values, all above the rule of thumb (0.7), except for the alpha value of latent variable APS, slightly below the threshold ( $\alpha = 0.677$ ). This is acceptable in exploratory research (HAIR et al., 2010), as the alpha coefficient tends to be a lower bound estimate of reliability (CHIN, 2010). In this case, the composite reliability is a superior measure. Besides, all constructs achieved the threshold for average variance extracted (AVE), which is 0.5. Hence, the analysis supports convergent validity.

Further, Table 17 shows that one can assume discriminant validity, as the square root of AVE is higher than the correlations between latent variables, following the Fornell-Larcker (1981) criterion. As recommended by Hair, Howard, and Nitzl (2020), the heterotrait-monotrait ratio of correlations (HTMT) also confirm the discriminant validity of the constructs. The highest value was 0.722, between APP and APS, well below the cutoff score of 0.85.

**Table 17** – Matrix of correlations between latent variables (lower-order model)

	α	CR	AVE	1	2	3	4	5	6	7	8	9
1. ARI	0.871	0.921	0.795	0.891								
2. APP	0.915	0.946	0.854	0.416	0.924							
3. APS	0.677	0.824	0.614	0.408	0.575	0.784						
4. SENSE	0.816	0.886	0.728	0.321	0.268	0.315	0.853					
5. INTEL	0.823	0.883	0.654	0.257	0.248	0.248	0.586	0.809				
6. SOCIAL	0.831	0.898	0.747	0.217	0.283	0.314	0.470	0.559	0.864			
<b>7.</b> TRU	0.909	0.937	0.789	0.476	0.182	0.308	0.354	0.316	0.295	0.888		
8. LOY	0.832	0.881	0.599	0.517	0.319	0.362	0.508	0.459	0.516	0.619	0.774	
9. INV	0.927	0.942	0.730	0.327	0.216	0.250	0.313	0.367	0.358	0.308	0.436	0.855

Note 1: The values in the diagonal are the square root of the AVE. Note 2: All correlations are significant at p<0.001.

Source: The author (2020).

After assuring the reliability of the first-order constructs, I followed the guidelines of Sarstedt et al. (2019) to specify the higher-order reflective constructs perceived channel integration and customer experience, represented in more abstract levels. As the number of indicators in the first-order components differs, I used the two-stage approach instead of the repeated indicator approach (HAIR; RINGLE; SARSTEDT, 2013). More specifically, the procedure followed the embedded two-stage approach (SARSTEDT et al., 2019): I first assigned the lower-order constructs to a higher-order component — which corresponds to the standard repeated indicator approach. Instead of interpreting the model estimates, I added the scores of all constructs to the dataset. In stage two, the scores served as indicators of higher-order constructs (PCI and CE). I performed the higher-order model assessment in the first stage, before using the latent variable scores as single items.

Table 18 shows that the higher-order model achieved convergent and discriminant validity. One takes the constructs ARI, APP, and APS as indicators of the PCI construct, interpreting the relationship between the higher and the lower-order components as loadings (BIDO; DA SILVA, 2019; SARSTEDT et al., 2019). I used the same rationale for the higher-order construct CE and its lower-order components SENSE, INTEL, and SOCIAL (Figure 7).

**Table 18** – Matrix of correlations between latent variables (higher-order model)

	α	CR	AVE	1	2	3	4	5
1. PCI	0.864	0.843	0.642	0.801				
2. CE	0.878	0.868	0.686	0.398	0.829			
3. TRU	0.909	0.937	0.789	0.401	0.381	0.888		
4. LOY	0.832	0.881	0.598	0.500	0.581	0.624	0.774	
5. INV	0.927	0.942	0.730	0.330	0.415	0.308	0.437	0.855

Note 1: The values in the diagonal are the square root of the AVE. Note 2: All correlations are significant at p<0.001.

Source: The author (2020).

After completing the measurement model assessment in both levels, I examined the structural model and tested the hypotheses.

### b) Structural model

To perform the structural model analysis, I used the SmartPLS3 package, employing the PLS algorithm. I examined the significance of path coefficients with the bootstrapping procedure (5,000 subsamples). First, I assessed the main and mediating effects — the higher-order model without the moderator involvement with the retailer.

Following Hair, Howard, and Nitzl (2020), the first step to evaluate the structural model results is to determine if there is high multicollinearity between constructs. As VIF values ranged from 1.000 to 1.337, below the threshold of 3.0, multicollinearity was not a concern. Besides, VIF values indicate contamination by common method bias. If indicators share a certain amount of common variation due to bias in the measurement method, latent variables incorporate the common variation, which increases the level of collinearity (KOCK, 2015). In this sense, the VIF values below the threshold also suggest that common method bias was not a threat.

To test the hypothesized relationships, I checked the size and path coefficients. The coefficient of determination ( $R^2$ ), as well as the effect size ( $f^2$ ), assesses model prediction. A third metric to evaluate the model is the Stone-Geisser's predictive relevance ( $Q^2$ ). Table 19 and Figure 7 present the results of the structural model with higher-order constructs.

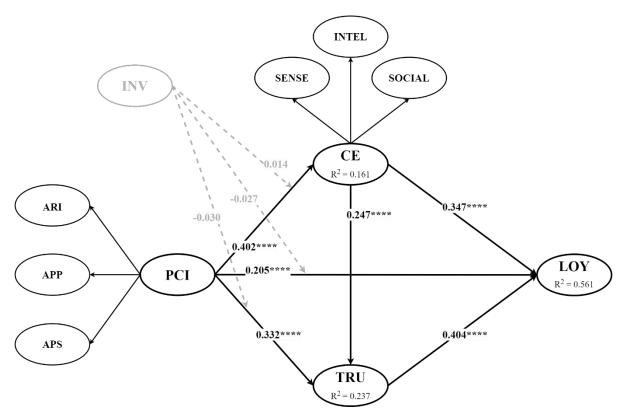
**Table 19** – Structural model results (higher-order model)

Structural relation	Path coefficient	Standard error	t-value	p-value	f²	R <sup>2</sup>	Q <sup>2</sup>
PCI → CE	0.402	0.044	9.145	0.000	0.192	0.161	0.108
PCI <b>→</b> TRU	0.332	0.048	6.942	0.000	0.121	0.227	0.220
CE → TRU	0.247	0.051	4.858	0.000	0.067	0.237	0.230

**Table 19** – Structural model results (higher-order model) (*continued*)

Structural relation	Path coefficient	Standard error	t-value	p-value	f²	R <sup>2</sup>	Q <sup>2</sup>
PCI → LOY	0.205	0.041	5.020	0.000	0.072		
CE → LOY	0.347	0.041	8.561	0.000	0.216	0.561	0.552
TRU → LOY	0.404	0.042	9.685	0.000	0.283		

**Figure 7** – Structural model results (higher-order model)



Note: Values within arrows represent path coefficients. \*\*\*\* p<0.001. Source: The author (2020).

Structural model results show that perceived channel integration positively influences customer experience, confirming **H1**, as well as trust and loyalty, confirming **H2a** and **H2b** respectively. The total effects (the sum of direct and indirect effects) are 0.402 (p < 0.001) for customer experience, 0.431 (p < 0.001) for trust, and 0.519 (p < 0.001) for loyalty. Also, customer experience positively influences trust and loyalty, confirming **H3a** and **H3b** respectively. Likewise, trust positively influences loyalty, confirming **H5**.

Overall, the model has good prediction power. The coefficient of determination ( $R^2$ ) of the main construct of interest is moderate, indicating that perceived channel integration, customer experience, and trust explain 56.1% of the variance in loyalty. The  $Q^2$  value assessed through the blindfolding procedure indicates that the model has good predictive relevance

because it is well above zero. More specifically, the value above 0.50 represents a large model predictive relevance (HAIR; HOWARD; NITZL, 2020). Furthermore, the effect size (f<sup>2</sup>) indicates that perceived channel integration has a medium effect on customer experience (CHIN, 2010). Finally, it is worth noting that the SRMR value for the estimated model is 0.085, slightly above the suggested threshold of 0.080 (BENITEZ et al., 2020). However, measures of overall model fit need to be taken with caution in the context of PLS and are not useful for results assessment (HAIR et al., 2017).

To assess the multiple mediating effects of customer experience and trust, I analyzed direct, indirect, and total effects of perceived channel integration on loyalty (PREACHER; HAYES, 2008; ZHAO; LYNCH; CHEN, 2010). The step approach for mediation analysis — that is, including the mediator variable in the model after analyzing direct effects — is not necessary because PLS can test mediating effects in a single model (NITZL; ROLDAN; CEPEDA, 2016). In this sense, Sarstedt et al. (2020) argue that there is no need to employ separate regression analysis using PROCESS macro for SPSS or SAS, as it ignores the effect of measurement error.

Table 20 shows that perceived channel integration has a positive and direct effect on loyalty, but also a positive and indirect effect through both mediators, customer experience and trust. Also, the relationship between PCI and LOY is positive and significant when the mediator CE is connected with the mediator TRU, indicating a sequential mediating path (KLARNER et al., 2013). The results show that customer experience and trust are partial mediators of the positive effect of perceived channel integration on loyalty, confirming **H4a** and **H4b**. More specifically, results indicate a complement in the mediation because the mediated effect and the direct effect are significant and point in the same direction (ZHAO; LYNCH; CHEN, 2010).

**Table 20** – Mediation analysis (higher-order model)

	Path coefficient	Standard error	t-value	p-value
Direct effect				
PCI → LOY	0.205	0.041	5.020	0.000
Specific indirect effects				
PCI → CE → LOY	0.139	0.023	6.120	0.000
PCI → CE → TRU -> LOY	0.040	0.011	3.734	0.000
PCI → TRU → LOY	0.134	0.024	5.521	0.000
Total effect				
PCI → LOY	0.519	0.036	14.396	0.000

Next, I added the moderator variable to the model. According to Hypothesis 6, involvement with the retailer might be a moderator that strengths the positive influence of perceived channel integration on customer experience, trust, and loyalty. However, the moderation effect was not significant in the tested relationships: PCI and CE ( $\beta$  = -0.027, p = 0.585), PCI and trust ( $\beta$  = -0.030, p = 0.630), and PCI and loyalty ( $\beta$  = 0.014, p = 0.745). Accordingly, the analysis rejects **H6a**, **H6b**, and **H6c**. One possible explanation could be that the affective dimension of the customer experience is not relevant in the context of this research, which deals with customers of retailers whose brands are not as iconic as those used in previous studies investigating customer and brand experience (e.g., Apple, Nike, Whole Foods) (BRAKUS; SCHMITT; ZARANTONELLO, 2009). Involvement, as the level of perceived importance and personal relevance (ZAICHKOWSKY, 1985), can be characterized to be mildly affective (BRAKUS; SCHMITT; ZARANTONELLO, 2009). In this sense, the construct may lose importance when the affective dimension is not salient, although some level of involvement appears to have played a role in consumers choosing the retailer to answer the survey.

I also ran the higher-order model controlling for the possible effects of multichannel shopping experience. A consumer's level of experience in multichannel shopping had a positive direct effect on trust ( $\beta$  = 0.226, p < 0.001), but not on the other two DVs, customer experience ( $\beta$  = 0.032, p = 0.521) and loyalty ( $\beta$  = 0.048, p = 0.249). Adding this control variable to the model did not substantially change the path coefficients. Moreover, the R<sup>2</sup> values for customer experience and loyalty are almost the same as the ones found in the model without the control variable: 0.162 and 0.563, respectively. The R<sup>2</sup> for trust increased from 0.237 to 0.287 with the control variable, which is still a weakly explained variance. Plus, the effect size of the multichannel shopping experience on trust is small (f<sup>2</sup> = 0.071). Results suggest that the multichannel shopping experience is not a relevant variable in this research setting.

### c) Further analysis

Although not hypothesized, one can analyze the relationships between constructs at the first-order level (Figure 8). Thus, I performed additional analyses to look for possible insights for future studies.

SENSE INTEL SOCIAL ARI LOY

**Figure 8** – Structural model (lower-order model)

Again, multicollinearity was not a concern because VIF values ranged from 1.271 to 1.823. Table 21 and Figure 9 display the results of the structural model with lower-order constructs.

Structural model results show that not all dimensions of perceived channel integration influence all dimensions of customer experience. More specifically, ARI positively influences sensorial ( $\beta=0.219,\ p<0.001$ ) and intellectual ( $\beta=0.166,\ p<0.01$ ) dimensions; APP positively influences intellectual ( $\beta=0.119,\ p<0.1$ ) and social ( $\beta=0.131,\ p<0.05$ ) dimensions; and APS positively influences sensorial ( $\beta=0.194,\ p<0.01$ ), intellectual ( $\beta=0.115,\ p<0.1$ ) and social ( $\beta=0.207,\ p<0.01$ ) dimensions.

Furthermore, the three dimensions of perceived channel integration influence trust: the direct effect is positive for ARI ( $\beta$  = 0.396, p < 0.001) and APS ( $\beta$  = 0.133, p < 0.05) dimensions, but, surprisingly, negative for APP ( $\beta$  = -0.195, p < 0.01). In addition, ARI dimension also has a positive direct effect on loyalty ( $\beta$  = 0.209, p < 0.001).

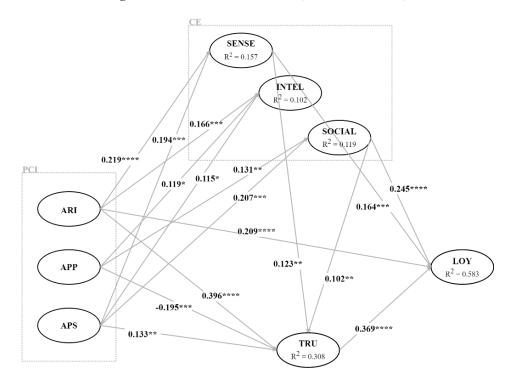
Besides the medium effect of the ARI dimension on trust ( $f^2 > 0.150$ ),  $f^2$  values indicate that the effect size of these relationships is small, or even that there is no effect on some of them ( $f^2 < 0.02$ ). Hence, one should interpret the results of the lower-order structural model regarding the influence of specific dimensions of PCI carefully.

The relationship between customer experience and the other variables (trust and loyalty) was also different when considering sensorial, intellectual, and social dimensions as separate latent variables. Only sensorial and social dimensions had a direct effect on trust ( $\beta$  = 0.126, p < 0.05;  $\beta$  = 0.102, p < 0.05) and on loyalty ( $\beta$  = 0.164, p < 0.01;  $\beta$  = 0.245, p < 0.001). Again, the  $f^2$  values indicate a small effect or even that there is no effect. Lastly, the positive direct effect of trust on loyalty is medium. As observed in the higher-order model, the  $R^2$  value for loyalty is moderate.

**Table 21** – Structural model results (lower-order model)

Structural relation	Path coefficient	Standard error	t-value	p-value	f²	R <sup>2</sup>	Q <sup>2</sup>
ARI → SENSE	0.219	0.055	4.005	0.000	0.045		
APP → SENSE	0.076	0.067	1.138	0.255	0.004	0.157	0.096
APS → SENSE	0.194	0.066	2.945	0.003	0.029		
ARI → INTEL	0.166	0.061	2.723	0.006	0.024		
APP → INTEL	0.119	0.061	1.947	0.052	0.010	0.102	0.058
APS → INTEL	0.115	0.068	1.686	0.092	0.009		
ARI → SOCIAL	0.077	0.057	1.364	0.173	0.005		
APP → SOCIAL	0.131	0.059	2.211	0.027	0.012	0.119	0.087
APS → SOCIAL	0.207	0.067	3.084	0.002	0.031		
ARI → TRU	0.396	0.057	6.965	0.000	0.170		
APP → TRU	-0.195	0.055	2.610	0.009	0.019		
APS → TRU	0.133	0.061	2.173	0.030	0.016	0.308	0.234
SENSE → TRU	0.126	0.059	2.128	0.033	0.013	0.308	0.234
INTEL → TRU	0.089	0.056	1.588	0.112	0.006		
SOCIAL → TRU	0.102	0.050	2.029	0.042	0.009		
ARI → LOY	0.209	0.050	4.220	0.000	0.067		
APP → LOY	0.041	0.047	0.883	0.377	0.003		
APS → LOY	-0.095	0.045	0.119	0.905	0.000		
SENSE → LOY	0.164	0.051	3.219	0.001	0.037	0.583	0.338
INTEL → LOY	0.049	0.057	0.849	0.396	0.003		
SOCIAL → LOY	0.245	0.051	4.844	0.000	0.090		
TRU → LOY	0.369	0.044	8.423	0.000	0.226		

Note: Only effects significant at p<0.1 are highlighted. Source: The author (2020).



**Figure 9** – Structural model results (lower-order model)

Note: Only significant effects are displayed.\* p<0.1, \*\*\* p<0.05, \*\*\* p<0.01, \*\*\*\* p<0.001. Source: The author (2020).

Also, I analyzed the mediating effect of customer experience dimensions and trust on the relationship between perceived channel integration dimensions and loyalty. Table 22 shows that the sensorial dimension of customer experience and trust are complementary mediators in the positive relationship between ARI and loyalty. Moreover, APP has no direct effect on loyalty, but has a positive indirect effect through social dimension and a negative indirect effect through trust, suggesting an indirect-only mediation (i.e., full mediation). Lastly, sensorial and social dimensions of customer experience, as well as trust, fully mediate the positive relationship between APS dimension of perceived channel integration and loyalty. However, as the total effect of APP and APS dimensions are very small, this interpretation should be taken with caution. As stated before, one should interpret the results of the lower-order model prudently.

**Table 22** – Mediation analysis (lower-order model)

PCI dimension		Path coefficient	Standard error	t-value	p-value
	Direct effect	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		1	r
	ARI → LOY	0.209	0.050	4.220	0.000
	Specific indirect effects				
	ARI → INTEL → LOY	0.008	0.011	0.763	0.445
	ARI → SENSE → LOY	0.036	0.014	2.530	0.011
ADI	ARI → SOCIAL → LOY	0.019	0.014	1.316	0.188
ARI	ARI → TRU → LOY	0.146	0.028	5.194	0.000
	ARI → INTEL → TRU → LOY	0.005	0.004	1.299	0.194
	ARI → SENSE → TRU → LOY	0.010	0.006	1.828	0.068
	$ARI \rightarrow SOCIAL \rightarrow TRU \rightarrow LOY$	0.003	0.003	1.053	0.292
	Total effect				
	ARI → LOY	0.437	0.052	8.340	0.000
		Path coefficient	Standard error	t-value	p-value
	Direct effect				
	APP → LOY	0.041	0.047	0.883	0.377
	Specific indirect effects				
	$APP \to INTEL \to LOY$	0.006	0.008	0.728	0.467
	$APP \to SENSE \to LOY$	0.012	0.013	0.980	0.327
APP	APP → SOCIAL → LOY	0.032	0.016	1.988	0.047
	APP → TRU → LOY	-0.053	0.021	2.486	0.013
	$APP \to INTEL \to TRU \to LOY$	0.004	0.003	1.152	0.249
	$APP \to SENSE \to TRU \to LOY$	0.004	0.004	0.887	0.375
	$APP \to SOCIAL \to TRU \to LOY$	0.005	0.003	1.418	0.156
	Total effect				
	APP → LOY	0.051	0.056	0.900	0.368
		Path coefficient	Standard error	t-value	p-value
	Direct effect				
	APS → LOY	-0.005	0.045	0.119	0.905
	Specific indirect effects				
	APS → INTEL → LOY	0.006	0.009	0.635	0.525
	APS → SENSE → LOY	0.032	0.014	2.203	0.028
APS	APS → SOCIAL → LOY	0.051	0.020	2.564	0.010
	APS → TRU → LOY	0.049	0.023	2.138	0.033
	$APS \to INTEL \to TRU \to LOY$	0.004	0.004	0.994	0.320
	$APS \to SENSE \to TRU \to LOY$	0.009	0.005	1.674	0.094
	$APS \to SOCIAL \to TRU \to LOY$	0.008	0.005	1.602	0.109
	Total effect				
	APS → LOY	0.156	0.090	1.736	0.083

Note Only effects significant at p<0.1 are highlighted. Source: The author (2020).

In sum, structural relationships indicate that the overall perception of integration between channels positively influences overall customer experience, trust, and loyalty in multiple channels retailing. Moreover, customer experience and trust partially mediate the positive effect of perceived channel integration on loyalty. Involvement with the retailer does not moderate these relationships.

As perceived channel integration and customer experience are multidimensional constructs, I also analyzed a lower-level model for exploratory reasons. Results indicate that consistency in retailer image (ARI dimension), price and promotion (APP dimension), and product and service (APS dimension) positively influence the three dimensions of customer experience. In its turn, sensorial and social dimensions of customer experience positively influence trust and loyalty.

Table 23 summarizes the test of hypotheses.

Table 23 – Test of hypotheses

Нур	othesis	Result
H1	Perceived channel integration positively influences customer experience.	Confirmed
H2	Perceived channel integration positively influences (a) trust and (b) loyalty.	Confirmed
Н3	Customer experience positively influences (a) trust and (b) loyalty.	Confirmed
H4	Customer experience mediates the relationship between perceived channel integration and (a) trust and loyalty (b).	Confirmed
Н5	Trust positively influences loyalty.	Confirmed
Н6	The influence of perceived channel integration on (a) customer experience, (b) trust, and (c) loyalty will be stronger under higher involvement with the retailer.	Not confirmed

### **6 DISCUSSION**

As multiple channels retailing research moves towards omnichannel ("all channels"), scholars and practitioners dedicate increasing attention to understanding how channel integration strategies impact customer response and retention. While retailers widely adopt cross-channel services such as buy online and pick up in-store (BOPS) (GASPARIN; AZEVEDO; SLONGO, 2019), omnichannel retailing imposes a new level of complexity on management because it represents not only a broadening of the scope of channels to include new touchpoints but also highlights the interplay between them (VERHOEF; KANNAN; INMAN, 2015). In this sense, the synergic management of channels aims to deliver a seamless customer experience (BRYNJOLFSSON; HU; RAHMAN, 2013).

How to integrate and manage numerous consumer touchpoints is a major concern in omnichannel retailing (PIOTROWICZ; CUTHBERTSON, 2014). Not surprisingly, research so far mainly addresses the perspective of the firms (GALIPOGLU et al., 2018). On the other hand, this research investigates the customer's side. More specifically, it focuses on how they perceive the integration of retail channels, examining if it influences their experience. Integration here reflects the feeling that there is an alignment between the channels that a consumer uses to access a retailer. This alignment concerns retailer image, price, promotion, product, and services across channels.

Following stimulus-organism-response (S-O-R) framework, I tested perceived channel integration as a stimulus (S) that affects one's internal states (O), in this case, the sensorial, intellectual, and social dimensions that encompass the customer experience. In its turn, customer experience drives behavioral responses (R), such as trust and loyalty towards a retailer.

Structural Equation Modeling (SEM) results show that perceived channel integration has a positive, direct effect on customer experience, trust, and loyalty. Moreover, customer experience and trust are sequential and partial mediators of the positive effect of perceived channel integration on loyalty. Thus, customer experience is the multilevel response evoked by perceived channel integration that leads to consumer's confidence in the retailer and willingness to continue the relationship.

Contrary to expectations, the level of involvement with the retailer does not moderate the tested relationships. One possible explanation is that involvement, as some level of affection (BRAKUS; SCHMITT; ZARANTONELLO, 2009), is not relevant when the affective dimension of customer experience is not salient. It is the case of my research: customers of the

largest Brazilian retailers do not seem to have moods and emotions evoked by these firms, perhaps because the relationship with retailers is not as strong as with iconic brands that induce brand love, an affective psychological state related to brand experience (SANTINI et al., 2018).

The results of this exploratory effort advance the field by demonstrating positive outcomes of channel integration, which is an important matter among researchers and practitioners in the transition from a multi to an omnichannel model, that is, from separated to integrated channels. This is the case of the Brazilian retailers investigated. As consumers see consistencies across channels, their experience is enhanced and leads to more trust and loyalty towards the retailer. These results reinforce previous findings indicating that channel integration influences consumer empowerment (ZHANG et al., 2018), perceived service quality (HERHAUSEN et al., 2015), identity attractiveness (LI et al., 2018), customer engagement (LEE et al., 2018b), and trust (HUANG; LIN, 2019), leading to customer retention. More importantly, this research shows the mediating effect of customer experience in the relationship between channel integration and loyalty, providing empirical evidence of the role of customer experience as the raw data that shapes customer response (DE KEYSER et al., 2015). To the best of my knowledge, this is the first study to explore empirically customer experience as an outcome of channel integration.

Moreover, it is possible to discuss the results in the first-order level with an even more exploratory approach — although these findings should be interpreted carefully as the effect sizes for most of these relationships are small. The three dimensions of perceived channel integration seem to complement each other when influencing customer experience, trust, and loyalty. The alignment in retailer image indicated a positive effect on sensorial and intellectual dimensions of experience, and also on trust and loyalty. The result is in line with other studies showing the positive effect of verbal and visual design elements on affective, cognitive, social and sensory dimensions of customer experience in the context of online retailing (BLEIER; HARMELING; PALMATIER, 2019) and the positive influence of effective customer journey design on customer loyalty (KUEHNL; JOZIC; HOMBURG, 2019). Thus, to offer positive sensorial and cognitive experiences, and retain customers, multiple channels retailers need to standardize their speeches and their appearance, providing a consistent image across touchpoints.

Results regarding the price and promotion dimension are perhaps the most debatable. Although one can expect negative outcomes of price differences, such as lower perceived price fairness, customers might accept the discrepancy if they see those practices as an industry norm

(CHOI; MATTILA, 2009). However, customers seem to accept only small differences, such as prices 2% higher in the offline channel (HOMBURG; LAUER; VOMBERG, 2019). In my research, the alignment in price and promotion across channels positively influences intellectual and social dimensions of experience, the latter being the driver of loyalty. However, the direct effect on trust is surprisingly negative. Although I expected a positive effect on the intellectual dimension since price judgments happen through cognitive processes (MONROE; LEE, 1999; RAGHUBIR, 2006), the role of the social dimension deserves further investigation. As social media platforms are growing in importance during the buying process (SANDS et al., 2016), perhaps the social dimension is more salient for customers who use these touchpoints to search for price and promotion information. On the other hand, the negative influence of alignment in price on trust might relate to some confusion among consumers that see price inconsistency between online and offline channels as an industry norm. Hence, more research is needed to understand price and promotion congruency in omnichannel retailing and gain insights into boundary conditions of its effect on customer response.

Lastly, the dimension of product and service present a positive effect on the three dimensions of experience, with the sensorial and social dimensions being the drivers of loyalty. The result is in line with other studies showing that coordinating assortments between channels positively influences patronage intentions (EMRICH; PAUL; RUDOLPH, 2015). Moreover, research in multiple channels and hybrid services shows that consumers consider online and offline encounters to evaluate the overall quality (WANG et al., 2016).

### **7 CONCLUSION**

The main objective of this research was to investigate how perceived channel integration influences customer experience, trust, and loyalty in omnichannel retailing. To achieve this goal, I divided the endeavor into two phases: an exploratory one and a descriptive one.

I first considered how customers deal with multiple channels during their shopping journeys by conducting in-depth interviews with consumers that use more than one channel to search and buy. The subsequent content-analysis allowed me to explore the elements that contribute to customer perception of channel integration and to identify consequences such as trust and loyalty.

As none of the available scales was alone adequate to measure channel integration of all marketing mix elements from a consumer's perspective, the descriptive phase started with a pre-test to adapt a measure for this research. The resulting scale measures the construct perceived channel integration, which is the extent of how integrated consumers feel that the channels they use to access a retailer are. The measure reflects on the level that consumers perceive that there is an alignment in retailer image (ARI dimension), price and promotion (APP dimension), product and service (APS dimension) across channels.

Then, I proceeded to test the hypotheses regarding the positive relationship between perceived channel integration and the two dependent variables identified in the exploratory phase plus the construct customer experience. In this research, customer experience is the customer response in different levels (i.e., sensorial, intellectual, and social) to a retailer's offering, expected to be a mediator between perceived channel integration and loyalty. The results of the main survey confirm the positive effect of perceived channel integration on customer experience, trust, and loyalty. Moreover, customer experience is a partial mediator of the positive relationship between perceived channel integration and loyalty. The level of involvement with a retailer does not moderate the relationship.

### 7.1 THEORETICAL AND MANAGERIAL IMPLICATIONS

This research offers new insights on outcomes of channel integration in multiple channels retailing by demonstrating that customer perception of alignment in retailer image, price, promotion, product, and service across channels improves trust and loyalty. Besides, results highlight the role of customer experience as a mediator between perceived channel integration and loyalty.

The integration of retail channels is gaining attention as the field moves from multichannel to omnichannel retailing (VERHOEF; KANNAN; INMAN, 2015). Previous studies mainly investigated the effects of channel integration on firm performance (CAO; LI, 2015) and, thus, addressed integration from the retailer's perspective. In this sense, available measures of channel integration routines (OH; TEO; SAMBAMURTHY, 2012) ignore if consumers who access the retailer through various touchpoints perceive the coordination. Moreover, existing measures that address the customer side restrict channel integration to the interaction between the website and physical store (FRASQUET; MIQUEL, 2017) and do not account for the growing use of social media in the shopping journey (SANDS et al., 2016; MIQUEL-ROMERO; FRASQUET; MOLLA-DESCALS, 2020) or the multiplicity of e-channels available nowadays (WAGNER; SCHRAMM-KLEIN; STEINMANN, 2020). Another limitation of more comprehensive scales (KUEHNL; JOZIC; HOMBURG, 2019) is that they address the integration of only part of the marketing mix, such as branding.

On the other hand, this research adopts perceived channel integration as the extent to which customers perceive the channels they use as integrated and adapts a measure to reflect the multiplicity of channels they can use to access the retailer in the shopping journey. Results of scale purification suggest that retailers presenting a uniform impression across channels are more relevant to consumers than, for instance, offering specific cross-channel services, such as buy online and pick up in-store (BOPS). The adapted scale of channel integration measures overall perceived coordination in different channels and encompasses marketing mix elements such as branding, promotion, pricing, and assortment, which are determinants for the creation of superior customer experience (VERHOEF et al., 2009; GAO; MELERO; SESE, 2019).

Customer experience as customer responses at different levels to a firm's offering is also a recent research topic. As its measurement is still evolving, the scale of brand experience (BRAKUS; SCHMITT; ZARANTONELLO, 2009) is considered a starting point to identify general principles of experience (SCHMITT; ZARANTONELLO, 2013; LEMON; VERHOEF, 2016; BECKER; JAAKKOLA, 2020). This research contributes to advance the field as it suggests that customer experience in multichannel retailing drives outcomes such as trust and loyalty primarily through sensorial and social dimensions.

The role of the social dimension is interesting since socially worded items merged with affective items in an exploratory factor analysis conducted by Brakus et al. (2009). This dimension, later added to the brand experience scale in the context of services, was identified as an important predictor of customer satisfaction and loyalty (NYSVEEN; PEDERSEN;

SKARD, 2013; BRUN et al., 2017). Thus, researchers aiming to investigate customer experience in retailing might lose part of the phenomenon if they do not consider the relational dimension of experience.

This research also contributes to the application of the S-O-R framework from the field of environmental psychology to retailing research (PANTANO; VIASSONE, 2015; ZHANG et al., 2018; CORTINAS et al., 2019; MIQUEL-ROMERO; FRASQUET; MOLLA-DESCALS, 2020) by testing a more comprehensive model of customer response in omnichannel retailing. In this sense, perceived channel integration acts as a clue (the stimulus) that influence customers' thoughts, feelings, and behaviors (the organism), leading to responses such as trust and loyalty.

Overall, these results have relevant managerial implications as they shed light on the payoffs of channel integration. More importantly, they emphasize the importance of not only integrate channels but also appropriately communicate this alignment to customers to influence their perception about the level of channel integration. The three identified dimensions of perceived channel integration can serve as guidelines on where to concentrate efforts and investments to achieve consistency across touchpoints.

Although integration is a challenging task, the findings indicate the need to bring touchpoints closer together to evoke sensorial and social experiences that ultimately lead to more trust and loyalty. A starting point is to pay more attention to social media channels and verify if these new touchpoints are consistent with more traditional channels (i.e. website and physical stores) in terms of retailer image, promotion, and services.

### 7.2 LIMITATIONS AND FUTURE STUDIES

This research has several limitations. First, I did not develop a new scale to measure perceived channel integration. Instead, I adapted existing measures to the purpose of this research, which may compromise the use of the scale in future studies. I did not follow specific procedures to define the construct, explore its nomological network, or establish content validity by expert judgment (ROSSITER, 2002; GILLIAM; VOSS, 2013). I followed some steps of Churchill's paradigm (1979) to generate items, purify the measure, and assess its reliability and validity, but I did not test the resulting scale against other measures to confirm discriminant and predictive validity. Future studies should compare the performance of this measure with other scales in multichannel literature (OH; TEO; SAMBAMURTHY, 2012; FRASQUET; MIQUEL, 2017).

Moreover, findings rely on cross-sectional survey research that employed a non-probabilistic sampling technique, which does not allow generalizations. The results should be interpreted in the light of its exploratory purpose, not accounting for particularities on customers' characteristics and channel preferences. Future research should delimitate omnichannel customer segments to explore since researchers have already identified several differences among them and variables that define membership (NAKANO; KONDO, 2018; HERHAUSEN et al., 2019; VALENTINI; NESLIN; MONTAGUTI, 2020).

Another limitation of the survey design is that respondents had to choose a retailer and recall several aspects of their experience, which may have spoiled their assessment. As I based customer experience on spontaneous responses, researchers recommend attention to the timing of its measurement (BECKER; JAAKKOLA, 2020). Future investigations should explore the effects of channel integration on customer response controlling for extraneous variables that also influence these relationships — and that one cannot control in a survey. The experimental design based on a fictitious scenario might avoid problems of individuals recalling mixed emotions and specific details of past situations (AAKER; DROLET; GRIFFIN, 2008), which are important factors to evaluate the experience. Also, longitudinal field studies should better capture the dynamic effect of multiple stimuli on customer experience, not only over time but also across touchpoints and devices. To this end, future studies might rely on real-time tracking methods, such as the ones used by Baxendale, Macdonald, and Wilson (2015).

Additionally, I did not account for the uniqueness of each channel when discussing consistency between them, such as the physical limitations that determine the assortment offered in stores. In this sense, future research should expand understanding of the interplay between offline and online channels and broad conceptualizations to encompass new touchpoints (e.g., ROGGEVEEN; GREWAL; SCHWEIGER, 2020). Moreover, future investigations should explore the effects of specific channel combinations on customer experience, such as in-store mobile use and webrooming. Although many retailers fear that these behaviors will harm sales, evidence points in another direction: to increased purchases when consumers use their phones in stores (GREWAL et al., 2018) and to more feelings of confidence in the purchase and enhanced satisfaction when consumers research products online and then make their purchase offline (FLAVIÁN; GURREA; ORÚS, 2019).

Lastly, I conducted this research shortly before the Covid-19 pandemic. As future research in various fields will investigate the world after the crisis, retailing is likely to be one of the areas where the "new normal" will have a significant impact. Regarding multiple

channels retailing, the pandemic might accelerate the need for integration due to restrictions on the access to physical channels and even redesign the journey to be digital-first (MOORMAN; MCCARTHY, 2020).

Besides, the pandemic might significantly change the role of physical stores, which had been transforming, in recent years, into hubs that aggregate other touchpoints and places focused on customer experience (PIOTROWICZ; CUTHBERTSON, 2014). Instead of fun and entertainment, from now on customers may evaluate these places on their ability to promote a safe and socially distanced shopping experience (ROGGEVEEN; SETHURAMAN, 2020).

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**APPENDIX A – Interview script (PT-BR)** 

Apresentação

Esta entrevista tem como objetivo ouvir sobre suas experiências e opiniões enquanto

consumidor. Portanto, não há respostas certas ou erradas, e você pode ficar à vontade para fazer

os comentários que desejar. As informações serão usadas apenas para fins acadêmicos e você

só será identificado pela idade e profissão. Você pode interromper a entrevista a qualquer

momento.

Você aceita participar?

• Você autoriza que eu grave a entrevista?

• Qual a sua idade?

• Qual a sua profissão?

Introdução

Uma jornada de compra envolve várias fases: a identificação da necessidade ou desejo;

a pesquisa de informações do produto, do preço, das lojas; a compra propriamente dita; o

consumo ou uso do produto ou serviço comprado; o atendimento pós-venda, como no momento

de uma troca por exemplo.

Enquanto consumidores, nós podemos passar por diversos canais ou pontos de contato

com marcas e lojas durante essa jornada, em diferentes plataformas. Por exemplo, pesquisar

sobre um produto na loja online e ir comprar em uma loja física; comprar pela loja física e

buscar atendimento pós-venda na página da marca no Facebook; experimentar o produto na loja

física e deixar para comprar depois pela internet, entre outras possibilidades.

**Perguntas** 

1) Quando você está comprando um item de qualquer tipo, seja para você ou para outra

pessoa, você tem esse comportamento de usar mais de um canal ou plataforma?

Se SIM: pergunta 2

Se NÃO: pergunta 3

2) Você poderia contar uma situação em que isso aconteceu?

O que você estava comprando?

Quanto tempo você passou pesquisando antes de comprar?

Quais canais usou e em que momento?

Por que você usou esses canais?

3) Eu gostaria que você lesse sobre uma situação hipotética (História da consumidora

Anna).

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O que você acha dessa história?

Você acha que isso acontece na vida real?

Se SIM: Já aconteceu algo parecido com você?

Se NÃO: por que você acha que isso não acontece?

- 4) Se você fosse a Anna, como você reagiria a essa situação? O que você faria a respeito?
  - 5) Você acha que essa situação é um problema? Por quê?
  - 6) Com base nessa história, o que você diria sobre a marca Pavlova?
  - 7) Agora, sobre usar diferentes plataformas para fazer suas compras...

Quais canais você mais usa?

Tem algum canal que você não usaria?

Você acha que mudou seu comportamento padrão de compra nos últimos anos?

- 8) Qual sua opinião sobre essas novas possibilidades de compra, combinando canais online e offline?
- 9) Considerando uma lista de canais e pontos de contato entre consumidores e empresa, quais são relevantes para você quando você está fazendo uma compra, de qualquer natureza?
  - ( ) Loja física ( ) Site/E-commerce ( ) Aplicativo de celular ( ) Perfis em redes sociais
  - ( ) Whatsapp ( ) Mensagem SMS ( ) Flyer de loja ( ) Vendedores ( ) Programa de fidelidade ( ) Cupom de desconto ( ) Revista da loja ( ) Outdoor/Letreiro ( ) Anúncios
  - () Newsletter () Propaganda () Eventos
- 10) Considerando os canais que você selecionou, você acha que existe uma integração ou interação entre eles?

As empresas que oferecem esses canais permitem que você vá de um para outro com facilidade?

Você acha que há consistência entre um canal e outro da mesma empresa?

O que você acha que mais muda de um canal para o outro da mesma empresa?

### **Encerramento**

Você gostaria de acrescentar alguma coisa?

Obrigada por sua participação!

# **APPENDIX B – Retailers in Brazil**

Table B.1 – Largest firms that operate online and offline channels

Retailer	Category	<b>Stores (2018)</b>	Revenue (2018)	Position by online orders (July 2019)
Grupo Carrefour	Supermarket	660	R\$56,343,000,000	#20
GPA (Pão de Açúcar, Extra)	Supermarket	1057	R\$53,620,000,000	#63 and #32
Via Varejo (Casas Bahia, Ponto Frio)	Home appliances	1035	R\$30,500,000,000	#17 and #36
Magazine Luiza	Home appliances	954	R\$18,896,513,000	#5
Raia Drogasil	Drugstore/Perfumery	1825	R\$15,519,133,000	#28
Grupo Boticário (O Boticário, Quem Disse Berenice?)	Drugstore/Perfumery	4176	R\$13,700,000,000	#15 and #81
Lojas Americanas	Department Store	1490	R\$12,959,410,000	#2
DPSP (Drogaria São Paulo, Pacheco)	Drugstore/Perfumery	1319	R\$9,998,645,735	#68 and #60
Lojas Renner	Apparel	556	R\$9,786,838,000	#31
Riachuelo	Apparel	312	R\$8,822,953,000	#55
Farmácias Pague Menos	Drugstore/Perfumery	1165	R\$6,600,000,000	#42
C&A	Apparel	270	R\$6,190,000,000	#19
Leroy Merlin	Home appliances	45	R\$5,612,000,000	-
Pernambucanas	Department Store	346	R\$3,941,186,000	-
Máquina de Vendas (Ricardo Eletro)	Home appliances	647	R\$3,000,000,000	-
Marisa	Apparel	371	R\$2,908,373,000	#25
Grupo SBF (Centauro)	Apparel	192	R\$2,837,500,000	#29
Polishop	Home appliances	309	R\$2,726,100,000	-
Fast Shop	Home appliances	107	R\$2,636,000,000	-
Kalunga	Stationery	202	R\$2,500,000,000	#61
Panvel Farmácias	Drugstore/Perfumery	418	R\$2,282,201,000	#50
Livraria Saraiva	Bookstore	78	R\$1,553,904,000	#22
Colombo	Home appliances	251	R\$1,437,226,000	#82
Livraria Cultura	Bookstore	15	R\$560,000,000	#26

Note: with information of IBEVAR and FIA (2019), NETRICA (2019), and SBVC (2019). Source: The author (2020).

# **APPENDIX C – Measures**

 $\textbf{Table C.1}-Channel\ integration\ scales$ 

Reference	Items
(OH; TEO; SAMBAMURTHY, 2012)	Integrated promotion (IP) —  IP1: The firm's brand name, slogan and logo are consistent both online and offline; IP2: The Website highlights in-store promotions that are taking place in the physical store; IP3: The Website advertises the physical store by providing address and contact information of the physical store; IP4: The physical store advertises the Website through pamphlets, receipts, and carrying bags; IP5: The Website publishes advertisements appearing in newspapers or pamphlets.  Integrated transaction information management (IT) —  IT1: The firm keeps an integrated purchase history of customers' online and offline purchases; IT2: The firm allows customers to access their prior integrated purchase history; IT3: The firm makes future purchase recommendations to customers based on past consolidated online and offline purchases. Integrated product and pricing information management (IPP) —  IPP1: Product/service descriptions are consistent in both the physical store and Website; IPP2: Product/service category classifications are consistent in both the physical store and Website; IPP3: Information on stock availability is consistent in both the physical store and Website; IPP4: Product/service prices are consistent in both the physical store and Website; IPP5: Discounts are consistent in both the physical store and Website; IPP5: Discounts are consistent in both the physical store and Website; IPP3: Information on stock availability is consistent in both the physical store; IIA1: The Website allows customers to search for products available in the physical store; IIA2: The firm allows checking of inventory status at the physical store through the Website; IIA3: The physical store provides Internet kiosks for customers to access the information and functionalities available on the Website; IIA4: The physical store provides Internet kiosks for customers to find answers to frequently asked questions without making enquiries from in-store customer service assistants.  Integrated order fulfillment (IOF) —  I

 $\textbf{Table C.1}-Channel\ integration\ scales\ (\textit{continued})$ 

Reference	Items
(CAO; LI, 2015)	Alignment of fundamentals — Aligned services across channels; Aligned promotion across channels; Aligned price across channels; Aligned loyalty program across channels; Aligned assortment across channels.  Centralization of back-end system — Integration of merchandize planning systems across channels; Integration of logistics across channels; Integration of information systems across channels; Centralized call center service across channels; Integration of database of clients across channels.  Organization transformation — Sharing knowledge across channels; Recruiting talents with double competences in retail and digital commerce; Changing organizational structure to adapt to the integration of different channels; Incentive system linked to both online and offline sales.
(HURÉ; PICOT- COUPEY; ACKERMANN, 2017)	Perceived consistency — There is no difference of price whatever the channel; The offers were coherent, adapted to each channel; The information delivered about the brand was the same whatever the channel; The range of products was coherent, adapted to each channel.  Seamlessness — According to you, moving from the physical store, the mobile app and the e-shop has been easy; Moving from the physical store to the mobile app and the e-channel to another shop is fluid; You have perceived boundaries or barriers when moving from one channel to another.
(FRASQUET; MIQUEL, 2017)	Reciprocity — It is easy to collect at a (Retailer) store goods purchased over the Internet; It is convenient to return goods I have bought online to any of (Retailer's) physical stores; (Retailer) enables me to place a courtesy hold on products in a local store; (Retailer's) physical store allows me to do an order online; At (Retailer's) website it is easy to get information on order and delivery status (also for products ordered offline); At (Retailer's) website it is easy to get real-time information on product availability in a local store; It is easy to search for store locations and opening hours at (Retailer's) website; (Retailer) offers online accessories, product support, or additional product types; (Retailer's) online customer service is almost the same as I can get from the store; I observe a clear and visible association of brand names (including logos and slogans) across channels.  Coordination — (Retailer) sells online the same products as in the physical stores; (Retailer) offers the same prices online as in the physical stores; (Retailer) offers the same promotions online as in the physical stores; On (Retailer's) website I can get information about prices in a local store; On (Retailer's) website I can get information about promotions in a local store; On (Retailer's) website I can get information about promotions offline; On (Retailer's) website I can obtain online coupons to be used offline; (Retailer) provides consistent store images between the online store and the physical store.

 $\textbf{Table C.1}-Channel\ integration\ scales\ (\textit{continued})$ 

Reference	Items
	Channel-service configuration (breadth of channel-service choice; transparency of
	channel-service configuration) –
	BCC01: I can purchase Apple products via the online or physical Apple Stores; BCC02:
	I can get technical support through the online or physical Apple Stores; BCC03: I can
	give feedback about the products through the online or physical Apple Stores; BCC04: I
	can get detailed product description from the online or physical Apple Stores; TCSC01: I
	am aware of available services of the online and physical Apple Stores; TCSC02: I am
	familiar with available services of both the online and physical Apple Stores; TCSC03: I
	know how to utilize available services of the online and physical Apple Stores; TCSC04:
(T. E. T. 20101)	I know the differences of available services between the online and physical Apple
(LEE et al., 2018b)	Stores.
	Integrated interactions (content consistency; process consistency) –
	CC01: Apple provides consistent product information across the online and physical
	Apple Stores; CC02: The product prices are consistent across the online and physical
	Apple Stores; CC03: Apple provides consistent promotion information across the online and physical Apple Stores; CC04: Apple provides consistent stock availability across the
	online and physical Apple Stores; PC01: The service images are consistent across the
	online and physical Apple Stores; PC02: The levels of customer service are consistent
	across the online and physical Apple Stores; PC03: The feelings of service are consistent
	across the online and physical Apple Stores; PC04: The online and physical Apple Stores
	have consistent performance in the speed of service delivery.
	Integrated promotion (IP) –
	IP1: I can find consistent brand name, slogan and logo in the retailer's physical store and
	Website; IP2: I can find the promotions that are taking place in the physical store on the
	retailer's Website; IP3: I can find the address and contact information of the physical
	store on the retailer's Website; IP4: I can find advertisements of the retailer's Website on
	the pamphlets, receipts, and carrying bags in its physical store.
	Integrated product and price (IPP) –
	IPP1: I can find consistent product descriptions in the retailer's physical store and
	Website; IPP2: I can find consistent product category classifications in the retailer's physical store and Website; IPP3: I can find consistent product price in the retailer's
	physical store and Website; IPP4: I can find consistent discounts in the retailer's physical
	store and Website.
	Integrated transaction information (ITI) –
	ITI1: I can access both my online and offline purchase history with the retailer; ITI2: I
	can access my prior purchase history with the retailer; ITI3: I can receive future purchase
	recommendations from the retailer; ITI4: I can receive a customized Web page.
(ZHANG et al.,	Integrated information access (IIA) –
2018)	IIA1: I can search for products in the retailer's physical store through its Website; IIA2: I
	can check of the retailer's inventory status at the physical store through its Website;
	IIA3: I can access the information and functionalities on the retailer's Website through
	the Internet kiosks in its physical store; IIA4: I can find answers through the Internet
	kiosks in the retailer's physical store without making enquiries from in-store service
	assistants; Integrated order fulfillment (IOF) –
	IOF1: I can redeem the retailer's gift coupons or vouchers in its physical store or
	Website; IOF2: I can self-collect my online purchases in the retailer's physical store;
	IOF3: I can pick up my online purchases in any physical store of the retailer; IOF4: I can
	make payment for my online purchases in the retailer's physical store; IOF5: I can place
	orders for out-of-stock items in the retailer's physical store through its Internet kiosks.
	Integrated customer service (ICS) –
	ICS1: I can return, repair or exchange of products purchased online in the retailer's
	physical store; ICS2: I can get post-purchase services support for the products purchased
	at the retailer's physical stores from its Website; ICS3: I can access to the service
	assistant through a real-time chat program through the retailer's Website.

 $\textbf{Table C.1}-Channel\ integration\ scales\ (\textit{continued})$ 

Reference	Items
(KUEHNL; JOZIC; HOMBURG, 2019)	Thematic cohesion of touchpoints — The touchpoints of this brand are thematically rooted; The touchpoints of this brand have a clear thematic philosophy; This brand pursues a thematic concept; This brand stands for a specific theme and campaigns for it.  Consistency of touchpoints — This brand conveys a uniform impression across different touchpoints; This brand is consistent across different touchpoints; The presentation of the brand's various touchpoints emits a homogeneous image; Different touchpoints of this brand are designed in a concerted way.  Context sensitivity of touchpoints — When I encounter this brand, it takes my specific activities, interests or needs into account; Different touchpoints of this brand are well aligned to my personal circumstances; I have the impression that different touchpoints of this brand fit well into my daily routines; The connection between different touchpoints of this brand allows me simple and fast activities.

**Table C.2** – Channel integration measure (pre-test)

Item	Reference	Interview example	Adapted item (PT-BR)	
(Retailer) provides consistent images between the online store and the physical store.	(FRASQUET; MIQUEL, 2017; LEE et al., 2018b)	"Website design is similar to store design." (Interview 10)	PCI1	Eu percebo uniformidade no visual do varejista em seus diferentes canais.
I can find consistent brand name, slogan and logo in the retailer's physical store and Website.	(FRASQUET; MIQUEL, 2017; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	"The speech is close to the website graphic style. It makes me feel like a close experience." (Interview 10)	PCI2	Eu percebo uniformidade na linguagem que o varejista usa em seus diferentes canais.
This brand conveys a uniform impression across different touchpoints.	(KUEHNL; JOZIC; HOMBURG, 2019)	"When the firm is really cool, I think that platforms follow it." (Interview 9)	PCI3	O varejista passa uma impressão uniforme em seus diferentes canais.
(Retailer) offers the same promotions online as in the physical stores.	(CAO; LI, 2015; FRASQUET; MIQUEL, 2017)	"I think promotions should be standardized." (Interview 2)	PCI4	Eu encontro as mesmas promoções nos diferentes canais do varejista.
I can find the promotions that are taking place in the physical store on the retailer's Website.	(FRASQUET; MIQUEL, 2017; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	"The information needed to complete the purchase does not always appear after the ad." (Interview 1)	PCI5	Eu encontro nas lojas físicas do varejista os produtos que são anunciados em redes sociais, jornais e/ou televisão.
I can find the address, opening hours and contact information of the physical store on the retailer's Website.	(FRASQUET; MIQUEL, 2017; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	"If I am searching through the website, it should have information about the nearest stores." (Interview 2)	PCI6	Eu encontro informações sobre endereços, horários e contatos de lojas físicas nos canais digitais do varejista.

**Table C.2** – Channel integration measure (pre-test) (continued)

Item	Reference	Interview example	Adapte	ed item (PT-BR)
I can redeem the retailer's gift coupons or vouchers in its physical store or Website.	(FRASQUET; MIQUEL, 2017; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	-	PCI7	Eu posso escolher em qual canal do varejista usar meus cupons de desconto.
I can access both my online and offline purchase history with the retailer.	(OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	-	PCI8	Eu posso acessar meu histórico de compras realizadas em qualquer canal do varejista.
I can receive future purchase recommendations from the retailer.	(OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	"I searched while logged in, and then they started to offer me special drawing papers, ink" (Interview 5)	PCI9	Eu recebo do varejista recomendações personalizadas para futuras compras.
Aligned assortment across channels.	(CAO; LI, 2015; FRASQUET; MIQUEL, 2017)	"Physical stores may not have everything available due to space constraints, so the website is sometimes an add- on." (Interview 6)	PCI10	Eu encontro a mesma variedade de produtos nos diferentes canais do varejista.
(Retailer) provides consistent product information across the online and physical stores.	(LEE et al., 2018b; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)o	"I bought a ring that I had seen on the website. It stayed in my mind and then materialized." (Interview 1)	PCI11	Eu encontro a mesma informação sobre produtos nos diferentes canais do varejista.
I can find consistent product price in the retailer's physical	(CAO; LI, 2015; FRASQUET; MIQUEL, 2017; HURÉ; PICOT- COUPEY; ACKERMANN,	"You see that the online price is cheaper. You try to buy by paying the online price, and they say no." (Interview 4)	PCI12	Eu encontro os mesmos preços nos diferentes canais do varejista.
store and Website.	2017; LEE et al., 2018b; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	"The payment terms must also be the same." (Interview 2)	PCI13	desconto.  Eu posso acessar meu histórico de compras realizadas em qualquer canal do varejista.  Eu recebo do varejista recomendações personalizadas para futuras compras.  Eu encontro a mesma variedade de produtos nos diferentes canais do varejista.  Eu encontro a mesma informação sobre produtos nos diferentes canais do varejista.
I can find consistent discounts in the retailer's physical store and Website.	(OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	"The e-mail hinted that the discount was for online purchase only, but, at the store, the discount was the same." (Interview 9)	PCI14	Eu encontro os mesmos descontos nos diferentes canais do varejista.
According to you, moving from the physical store, the mobile app and the e- shop has been easy.	(HURÉ; PICOT-COUPEY; ACKERMANN, 2017)	"I don't think I have difficulty moving from one channel to another." (Interview 5)	PCI15	facilmente de um canal para outro do varejista. Eu encontro barreiras ao ir de um canal para

**Table C.2** – Channel integration measure (pre-test) (continued)

Item	Reference	Interview example	ed item (PT-BR)	
Aligned loyalty programs across channels.	(CAO; LI, 2015; FRASQUET; MIQUEL, 2017)	-	PCI17	Eu encontro o mesmo programa de fidelidade nos diferentes canais do varejista.
I can check of the retailer's inventory status at the physical store through its Website.	(FRASQUET; MIQUEL, 2017; LEE et al., 2018b; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	"This happens a lot: you can search where the stores are located but you cannot	PCI18	Eu posso procurar no site e/ou aplicativo os produtos que estão à venda na loja física.
I can search for products in the retailer's physical store through its Website.	(OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	check if the product is available." (Interview 1)	PCI19	Eu encontro no site e/ou aplicativo a disponibilidade de produtos na loja física em tempo real.
It is easy to collect at a (Retailer) store goods purchased over the Internet.	(FRASQUET; MIQUEL, 2017; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	"I really like to pick-up at the store, especially if it is something big. Instead of waiting five days, I can have it the next day." (Interview 8)	PCI20	Eu posso comprar pelo site ou aplicativo e depois retirar o produto em uma loja física do varejista.
I can pick up my online purchases in any physical store of the retailer.	(OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	"I bought online and then after one hour or something I could collect it at the store of my choice." (Interview 2)	PCI21	Eu posso escolher qualquer loja física do varejista para retirar um produto comprado pelo site ou aplicativo.
The feelings of service are consistent across the online and physical stores.	(LEE et al., 2018b)	"It must have some standardization in customer service. Sometimes you are really well received at the store, then you get in touch through site or call center and they treat you badly."  (Interview 2)	PCI22	Eu encontro o mesmo padrão de atendimento nos diferentes canais do varejista.
I can return, repair or exchange of products purchased online in the retailer's physical store.	(FRASQUET; MIQUEL, 2017; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	-	PCI23	Eu posso devolver ou trocar na loja física produtos comprados em outros canais do varejista.
I can get post- purchase services support for the products purchased at the retailer's physical stores from its Website	(FRASQUET; MIQUEL, 2017; OH; TEO; SAMBAMURTHY, 2012; ZHANG et al., 2018)	-	PCI24	Eu posso receber suporte nos canais digitais para produtos comprados na loja física.
(new)		"If everyone were aware, there would be no confusion when a customer arrived or called." (Interview 1)	PCI25	Os funcionários nas lojas físicas estão informados sobre os demais canais que o varejista oferece.

Table C.3 – Customer experience measure (main survey)

Dimension	Item		Reference	
SENSORIAL	CE1	This brand makes a strong impression on my visual sense or other senses.		
	CE2	I find this brand interesting in a sensory way.		
	CE3	This brand does not appeal to my senses. (R)		
	CE4	This brand induces feelings and sentiments.		
AFFECTIVE	CE5	I do not have strong emotions for this brand. (R)		
	CE6	This brand is an emotional brand.	(BRAKUS; SCHMITT;	
	CE7	I engage in physical actions and behaviors when I use this brand.	ZARANTONELLO, 2009)	
BEHAVIORAL	CE8	This brand results in bodily experiences.		
	CE9	This brand is not action oriented. (R)		
INTELLECTUAL	CE10	I engage in a lot of thinking when I encounter this brand.		
	CE11	This brand does not make me think. (R)		
	CE12	This brand stimulates my curiosity and problem solving.		
SOCIAL	CE13	As customer of 'Brand' I feel like I am part of a community.	(NYSVEEN; PEDERSEN;	
	CE14	I feel like I am part of the 'Brand' family.	SKARD, 2013)	
	CE15	When I use 'Brand' I do not feel left alone.		

**Table C.4** – Loyalty measure (main survey)

Item		Reference
LOY1	In the future, I will be loyal to this brand.	
LOY2	I will buy this brand again.	(BRAKUS; SCHMITT;
LOY3	This brand will be my first choice in the future.	ZARANTONELLO, 2009; NYSVEEN; PEDERSEN;
LOY4	I will not buy other brands if this brand is available at the store.	SKARD, 2013)
LOY5	I will recommend this brand to others.	

Source: The author (2020).

**Table C.5** – Trust measure (main survey)

Item		Reference
TRU1	This retailer is reliable.	
TRU2	This retailer is trustworthy.	
TRU3	This retailer's products and service are dependable.	(ZHANG et al., 2018)
TRU4	This retailer offers secure Web transactions.	
TRU5	It is unnecessary to be cautious with this retailer.	

**Table C.6** – Involvement measure (main survey)

Item		Reference
INV1	unimportant to me/important to me	
INV2	of no concern to me/of concern to me	
INV3	irrelevant to me/relevant to me	(BRAKUS; SCHMITT;
INV4	means nothing to me/means a lot to me	ZARANTONELLO, 2009)
INV5	useless to me/ useful to me	
INV6	insignificant to me/significant to me	

# **APPENDIX D – Pre-test questionnaire (PT-BR)**

# Apresentação

Olá! Esta pesquisa é voltada para consumidores que fazem compras de varejistas multicanal. Você pode colaborar com este trabalho respondendo ao questionário com base na sua experiência. As respostas são anônimas e os dados serão usados apenas para fins acadêmicos. O questionário leva cerca de 5 minutos para ser respondido. Você pode interromper a sua participação a qualquer momento. Obrigada!

Isadora Gasparin (PPGA/UFRGS)

isadora.gasparin@ufrgs.br

## Introdução

O que é varejo multicanal

Um varejista multicanal é uma empresa que vende produtos em mais de um canal, como loja física, site, aplicativo de celular. Enquanto consumidores, podemos passar por diversos canais do mesmo varejista durante a pesquisa, compra, entrega e pós-compra. No Brasil, são exemplos de varejistas multicanal: Carrefour, Casas Bahia, Ponto Frio, Magazine Luiza, Droga Raia, O Boticário, Lojas Renner, entre outros.

### **Perguntas**

- Como você avalia o seu nível de experiência em compras de varejistas multicanal?
   1 = Inexperiente; 7 = Experiente
- 2. Pense em um varejista multicanal do qual você já tenha feito compras. Escreva o nome da empresa abaixo.
- 3. Selecione os canais desse varejista que você já usou para buscar informações e/ou fazer compras. Marque todas que se aplicam.
  - () Loja física () Site/E-commerce () Aplicativo de celular () Perfis em redes sociais
  - () Whatsapp () Vendedores () Programa de fidelidade () Cupom de desconto
  - () Anúncios () Newsletter () Propaganda

Tenha em mente o varejista que você indicou no momento de responder às questões a seguir. Leia cada afirmação e marque o número que corresponde ao seu grau de concordância com ela, sendo 1= discordo totalmente e 7 = concordo totalmente.

- 4. Eu percebo uniformidade no visual do varejista em seus diferentes canais.
- 5. Eu percebo uniformidade na linguagem que o varejista usa em seus diferentes canais.
- 6. O varejista passa uma impressão uniforme em seus diferentes canais.

- 7. Eu encontro as mesmas promoções nos diferentes canais do varejista.
- 8. Eu encontro nas lojas físicas do varejista os produtos que são anunciados em redes sociais, jornais e/ou televisão.
- 9. .Eu encontro informações sobre endereços, horários e contatos de lojas físicas nos canais digitais do varejista.
- 10. Eu posso escolher em qual canal do varejista usar meus cupons de desconto.
- 11. Eu posso acessar meu histórico de compras realizadas em qualquer canal do varejista.
- 12. Eu recebo do varejista recomendações personalizadas para futuras compras.
- 13. Eu encontro a mesma variedade de produtos nos diferentes canais do varejista.
- 14. Eu encontro a mesma informação sobre produtos nos diferentes canais do varejista.
- 15. Eu encontro os mesmos preços nos diferentes canais do varejista.
- 16. Eu encontro as mesmas condições de pagamento nos diferentes canais do varejista.
- 17. Eu encontro os mesmos descontos nos diferentes canais do varejista.
- 18. Eu consigo mudar facilmente de um canal para outro do varejista.
- 19. Eu encontro barreiras ao ir de um canal para outro do varejista.
- 20. Eu encontro o mesmo programa de fidelidade nos diferentes canais do varejista.
- 21. Eu posso procurar no site e/ou aplicativo os produtos que estão à venda na loja física.
- 22. Eu encontro no site e/ou aplicativo a disponibilidade de produtos na loja física em tempo real.
- 23. Eu posso comprar pelo site ou aplicativo e depois retirar o produto em uma loja física do varejista.
- 24. Eu posso escolher qualquer loja física do varejista para retirar um produto comprado pelo site ou aplicativo.
- 25. Eu encontro o mesmo padrão de atendimento nos diferentes canais do varejista.
- 26. Eu posso devolver ou trocar na loja física produtos comprados em outros canais do varejista.
- 27. Eu posso receber suporte nos canais digitais para produtos comprados na loja física.
- 28. Os funcionários nas lojas físicas estão informados sobre os demais canais que o varejista oferece.

Para finalizar, responda sobre você.

Qual a sua idade?

Qual o seu sexo? ( ) F ( ) M ( ) Prefiro não responder

Em que cidade você mora?

Você teve alguma dúvida ao responder esta pesquisa? Se sim, escreva abaixo.

# **Encerramento**

Obrigada por sua colaboração!

# **APPENDIX E – Main survey questionnaire (PT-BR)**

# Apresentação

Olá! Convido você a participar de uma pesquisa do Programa de Pós-Graduação em Administração da UFRGS. O estudo é voltado para consumidores que fazem compras de varejistas multicanal, que são empresas que interagem com clientes e vendem produtos em mais de um canal (como loja física, site, app, redes sociais). Você pode colaborar com este trabalho respondendo ao questionário com base na sua própria experiência. O tempo de resposta é estimado em 10 minutos. As respostas são anônimas e os dados coletados serão usados somente para fins acadêmicos. Você pode interromper a sua participação nesta pesquisa a qualquer momento.

Em caso de dúvidas, entre em contato com a pesquisadora: Isadora Gasparin (PPGA/UFRGS) - <u>isadora.gasparin@ufrgs.br</u>.

Para prosseguir, aceite participar da pesquisa.

- () Aceito participar
- () Não aceito participar. [encerra pesquisa]

### Introdução

I)

Um canal é um meio pelo qual um consumidor acessa um varejista, como loja física, site, app, perfis em redes sociais etc. Uma compra multicanal passa por diversos canais do mesmo varejista durante as fases de pesquisa, compra, entrega e pós-compra de um produto.

São exemplos de compra multicanal: pesquisar no site e ir comprar na loja física; comprar pelo aplicativo e retirar na loja física; visitar o perfil do varejista nas redes sociais antes ou depois de comprar na loja física ou online; entre outras possibilidades.

Você teve uma experiência de compra envolvendo mais de um canal do mesmo varejista nos últimos 12 meses?

- () Sim
- () Não [encerra pesquisa]

II)

Pense em uma experiência de compra multicanal que você teve com <u>um varejista</u>. É sobre ela que você vai responder as próximas perguntas. Agora, marque na lista abaixo em qual varejista você fez a compra. Se o seu varejista não estiver na lista, selecione a opção Outro e escreva o nome da empresa.

III)

Quais canais do varejista selecionado anteriormente você já usou para buscar informações e/ou fazer compras? Marque todos os que se aplicam.

- () Site () Loja física () Aplicativo () Anúncio ou propaganda
- () Perfil em redes sociais

### **Perguntas**

Agora, tenha em mente o varejista em que você fez a compra e os canais dele que você conhece. Leia cada afirmação e marque o número que corresponde ao seu grau de concordância. Quanto mais perto do 1, mais você discorda. Quanto mais perto do 7, mais você concorda. Lembre-se de que não há respostas certas ou erradas. Escolha a opção que melhor se aplica à sua experiência pessoal com a empresa.

- 1. Eu percebo uniformidade no visual do varejista em seus diferentes canais.
- 2. Eu percebo uniformidade na linguagem que o varejista usa em seus diferentes canais.
- 3. O varejista passa uma impressão uniforme em seus diferentes canais.
- 4. Eu encontro as mesmas promoções nos diferentes canais do varejista.
- 5. Eu encontro os mesmos preços nos diferentes canais do varejista.
- 6. Eu encontro os mesmos descontos nos diferentes canais do varejista.
- 7. Eu encontro a mesma variedade de produtos nos diferentes canais do varejista.
- 8. Eu encontro a mesma informação sobre produtos nos diferentes canais do varejista.
- 9. Eu encontro o mesmo programa de fidelidade nos diferentes canais do varejista.
- 10. Este varejista causa uma forte impressão nos meus sentidos (como visão, tato, paladar, olfato ou audição).
- 11. Este varejista é atraente aos meus sentidos.
- 12. Este varejista não apela aos meus sentidos.
- 13. Este varejista provoca emoções e sentimentos.
- 14. Eu não tenho fortes emoções por este varejista.
- 15. Este é um varejista que mexe com minhas emoções.
- 16. Eu me comprometo com ações e comportamentos quando uso este varejista.
- 17. Este varejista desperta em mim comportamentos e experiências sociais.
- 18. Este varejista não desperta em mim comportamentos ou ações.
- 19. Quando eu encontro este varejista, ele me faz pensar em muitas coisas.
- 20. Este varejista não me faz pensar em nada.
- 21. Este varejista estimula minha curiosidade.

- 22. Como cliente deste varejista, eu sinto que sou parte de uma comunidade.
- 23. Eu sinto que sou parte da família deste varejista.
- 24. Quando eu uso este varejista, eu não me sinto deixado sozinho.
- 25. No futuro, eu serei leal a este varejista.
- 26. Eu comprarei deste varejista novamente.
- 27. Este varejista será minha primeira opção no futuro.
- 28. Eu não comprarei em outros varejistas se tiver a opção de comprar neste varejista.
- 29. Eu recomendarei este varejista para outras pessoas.
- 30. Este varejista é confiável.
- 31. Este varejista é digno de confiança.
- 32. Os produtos e serviços deste varejista são seguros.
- 33. Este varejista oferece transações seguras pela internet.
- 34. É desnecessário ser cauteloso com este varejista.
- 35. Para cada linha, marque a opção que melhor se aplica. Quanto mais próximo dos termos das extremidades, mais você concorda com eles. Para mim, o varejista escolhido é...

```
sem importância-----importante desinteressante-----interessante irrelevante-----relevante não significa nada-----significa muito inútil-----útil insignificante-----significante
```

- 36. Em comparação com a população em geral, como você avalia o seu nível de experiência em pesquisa e compra de varejistas multicanal?
- 37. Qual a sua idade?
- 38. Qual o seu sexo? ( ) F ( ) M ( ) Prefiro não responder
- 39. Em que estado você mora?
- 40. Em que região do estado você mora? () Capital ou Região Metropolitana () Outra
  - 41. Qual o nível mais alto de escolaridade que você já concluiu?
  - ( ) Ensino Fundamental ( ) Ensino Médio ( ) Ensino Superior
  - () Pós-Graduação () Nenhuma das anteriores
  - 42. Qual a sua renda familiar média mensal?
  - ( ) Até R\$ 999 ( ) De R\$ 1.000 a R\$ 2.999 ( ) De R\$ 3.000 a R\$ 4.999

( ) De R\$ 5.000 a R\$ 7.999 ( ) Mais de R\$ 8.000 ( ) Prefiro não responder

# Encerramento

Obrigada por sua contribuição!

Você conhece consumidores que costumam comprar de varejistas multicanal? Compartilhe este questionário usando o link bit.ly/compramulti e contribua com a pesquisa acadêmica brasileira!