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## Revisión del comportamiento del consumidor en el uso de múltiples canales

### RESUMEN

El comportamiento del consumidor ha evolucionado debido al desarrollo tecnológico. Actualmente, los consumidores realizan las distintas fases del proceso de decisión de compra combinando varios dispositivos. Como resultado, este tema ha atraído la atención de los académicos. El objetivo de este trabajo es realizar una revisión de la literatura académica que analiza el comportamiento multi, cross y omnicanal desde el punto de vista del consumidor. Los resultados de la revisión de 80 trabajos científicos ofrecen una síntesis acerca de los principales temas, canales y teorías considerados en la literatura. Asimismo, se concluye presentando distintas oportunidades de investigación en este contexto.

**Palabras clave:** Canal; Multicanal; Cross-canal; Omnicanal; Comportamiento del consumidor.

## Consumer behavior using multiple channels: a review

### ABSTRACT

Consumer behavior has evolved because of technological development. Currently, consumers carry out the different stages of the decision-making process by combining multiple devices. As a result, this topic has attracted the attention of academics. This work aims to review the main academic literature that analyzes multi, cross and omnichannel behavior from the consumer point of view. The results of a review of 80 scientific papers offer a synthesis of the main themes, channels, and theories considered in the literature. Likewise, future research opportunities in this context are presented.

**Keywords:** Channel; Multichannel; Cross-channel; Omnichannel; Consumer behavior.

**JEL classification:** M30; M31

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## Consumer behavior using multiple channels: a review

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## 1. INTRODUCTION

Since the development of the Internet and the world wide web in the 1990s, the retail context has undergone an extraordinary evolution. Thus, technology's expansion has intensely affected business models and it has also caused changes in consumer behavior. Focusing on consumer behavior, technological growth has radically changed how consumers interact with companies and also how they purchase. Specifically, the Internet allowed firms new ways of transferring their products and services to the ultimate consumer. In sum, it entailed a new possible distribution channel through which consumers could buy products, and, as a result, new ways of purchase emerged. E-commerce, or computer-mediated commerce, initially appeared as a revolutionary way of buying, changing all of the schemas of retailers. Subsequently, these technological advances led to the development of new devices, especially the Internet-enabled mobile devices. These devices improved retail possibilities from the beginning, with the Personal Digital Assistant (PDA) and, later, with the introduction of smartphones and tablets, which brought about the emergence of mobile commerce (m-commerce).

Not surprisingly, these channels have become common purchase channels. According to Statista (2019b) people worldwide who buy products and services through digital<sup>1</sup> devices has increased from 1.32 billion in 2014 to 1.79 billion in 2018. This figure is expected to reach 2.14 billion people by 2021, which will mean a growth of more than 60% in seven years. Also, this implies that in 2021 the digital sales will represent more than 17% of all retail sales worldwide (Statista, 2019a).

However, although digital devices –online and mobile– have transformed the way people buy, consumer behavior has continued to evolve. Once consumers assimilated the use of digital devices to buy, they started combining regularly these digital devices with brick and mortar<sup>2</sup> during all the stages of the decision-making process. As a result, consumer behavior evolved from a single to a multiple use of channels<sup>3</sup> for interacting with firms.

Specifically, in 2017 a study of 46,000 shoppers revealed that 7% of consumers shopped on the Internet exclusively, 20% were physical store-only shoppers and 73% used multiple channels during their shopping journey (Sopadjieva, Dholakia, & Benjamin, 2017). Nevertheless, this multiple channel usage does not mean independent use, on the contrary, consumers treat all the channels as complementary. For example, an Insight from Google

(2019) showed that some terms referred to the physical store, such as "open" and "close" and combined with "now" have increased more than 200% in the mobile searchers from 2015-2017. This data offers an interesting picture of how the particularities of each channel are exploited by consumers' convenience. But, what is more, this can represent a great opportunity for firms to coordinate consumers between channels.

Under these circumstances, several firms have increasingly acknowledged the importance of these behaviors, and they have adapted their strategies to this multiple channel context. In the beginning, companies started adding channels (online and mobile) to their retail strategy and then conceiving of channels as a whole, despite such strategy is extremely challenging and hard for retailers (PwC, 2017). For instance, Macy's and Nordstrom<sup>4</sup> have adapted their decisions to the "multiple channel world" with a maxim: offering an excellent customer experience across all the channels (Loeb, 2019). In the same line, after its launch to the digital retail, Inditex Group<sup>5</sup> has been adapting its strategical decisions to this evolving consumer until becoming one of the examples of success (Kantar Consulting, 2018). Moreover, some practitioners, such as the Marketing Science Institute, have also highlighted this topic as a research priority since 2010 (MSI, 2010, 2018).

Consequently, the particularities of consumer behavior in this multiple channel context have also attracted the interest of scholars. As the topic receives more attention, the literature that focuses on it increases. Specifically, in the last decade, this topic has been the objective of multiple papers and several special issues in high impact journals (Brown & Mantrala, 2015; Piotrowicz & Cuthbertson, 2014; Shankar & Yadav, 2010). However, despite the growing interest of academics, research on consumer behavior using multiple channels remains fragmented and disseminate. Moreover, several concepts have been emerging to describe these behaviors in parallel to consumer evolution, but there are difficulties in using and interpreting the terms (Beck & Rygl, 2015). Consequently, this work aims to review the main literature on consumer behavior in this context to clarify and synthesize the information.

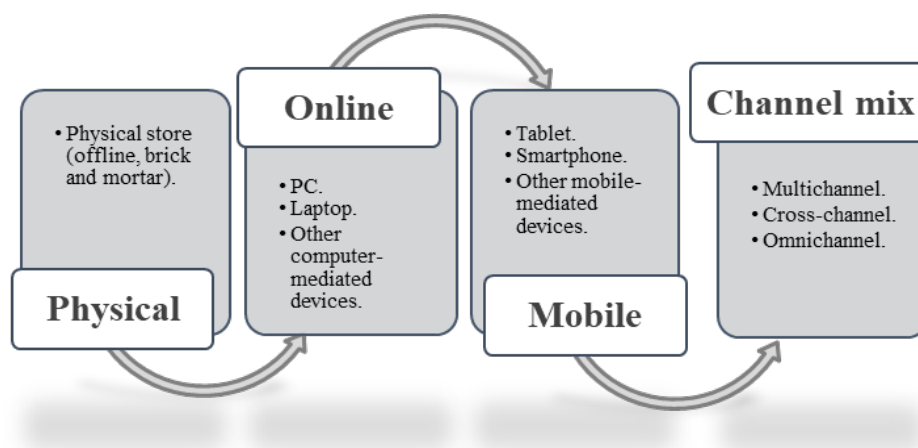
The rest of the work is structured as follows. First, the explanation of the main concepts and their characteristics is presented. After that, the methodology used for addressing the literature review is outlined. Finally, the results and the main conclusions drawn from the review are described.

## 2. CHANNEL MIX: CONCEPTS AND CHARACTERISTICS

As has been presented previously, consumer behavior has evolved in the last three decades because of Internet evolution. Once consumers assimilated the use of digital channels to buy, they start evolving from the single to the multiple use of them, not only to purchase but also to carry out the entire decision-making process.

Specifically, consumer behavior advanced through the use of several channels to interact with companies in the different stages of the decision-making process. The customer journey became more complex as consumers combined digital channels with the physical store. As a result, this new behavior attracted the interest of academics and practitioners, who conceptualized it as multichannel<sup>6</sup> and cross-channel behavior. Afterward, the landscape changes and omnichannel behavior emerges. This idea of omnichannel was introduced as a consequence of consumer evolution who became more demanding and forced academics and managers to evolve with this new phase in channel mix retailing (Lazaris & Vrechopoulos, 2014; Verhoef, Kannan, & Inman, 2015) (Figure 1). For easy explanation, the term channel mix will be used generally throughout this paper to refer to multi, cross and omnichannel concepts globally, acknowledging the following detailed differences in the terms.

**Figure 1. Consumer behavior evolution regarding channels since the Internet development.**



Source: Own elaboration.

Subsequently, a wide range of studies is developed in this field. Nevertheless, despite this growth of research, the concepts –multi, cross and omnichannel– have been in some cases unclearly delineated (Beck & Rygl, 2015) and there is literature that shows mixed uses and interpretations of these terms (Saghiri, Wilding, Mena, & Bourlakis, 2017). Besides, some

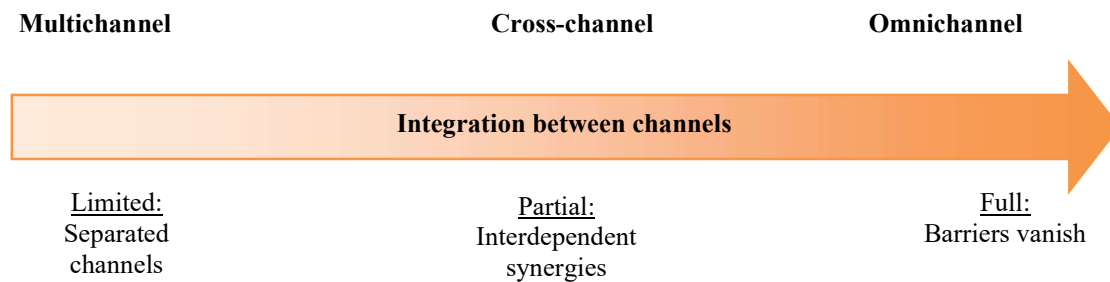
research uses multichannel as an umbrella term (Beck & Rygl, 2015). Henceforth, some authors have made an effort to differentiate the concepts (e.g. Beck & Rygl, 2015; Huré, Picot-Coupey, & Ackermann, 2017; Mirsch, Lehrer, & Jung, 2016; Picot-Coupey, Huré, & Piveteau, 2016; Verhoef et al., 2015). Following this trend and in order to clarify and delineate the terms, in Table 1 we briefly show the specific features of each concept pointed out in the literature.

**Table 1. Identified differences of multi, cross- and omnichannel concepts.**

	Multichannel	Cross-channel	Omnichannel
<b>Definition</b>	A strategy that operates multiple channels as independent entities (Chatterjee, 2010b).	The integration of multiple channels to allow consumers to move and collaborate through channels and touchpoints <sup>7</sup> (Chatterjee, 2010b; Huré et al., 2017).	The complete alignment of the different channels and touchpoints, resulting in an optimal-brand customer experience (Huré et al., 2017).
<b>Channel scope</b>	Physical store, web store, and catalog.	Physical store, web store, catalog, mobile, social media, kiosks, mails, call centers, other touchpoints...	Physical store, web store, catalog, mobile, social media, kiosks, mails, call centers, other touchpoints...
<b>Channel view</b>	Isolated: separation between channels.	Interdependent: synergies among channels.	Unified: unique channel.
<b>Channel integration</b>	Separated channels with no overlap.	Partial integration.	Full integration.
<b>Goal</b>	Offer more than one channel.	Allow movements through channels and touchpoints.	Provide a seamless experience.
<b>Management</b>	By channel.	By connected channels.	By all optimized channels.

Source: Own elaboration following Beck and Rygl (2015); Huré et al. (2017); Mirsch et al. (2016); Picot-Coupey et al. (2016); Verhoef et al. (2015).

In essence, in multichannel retailing, physical stores, online websites, and catalogs are the channels considered and these channels are managed separately within firms, with limited integration between them (Verhoef et al., 2015). Meanwhile, in the cross-channel retailing, more channels are included, and some integration is expected between them. In the omnichannel era, the channel scope is greater and channels are required to be managed in an integrated way to provide an improved retail experience (Picot-Coupey et al., 2016). Besides, omnichannel is not only broadening the number of channels and touchpoints but also their full integration and interconnection, blurring the barriers between them to provide a seamless experience for the customer (Shen, Li, Sun, & Wang, 2018; Verhoef et al., 2015). Omnichannel represents the evolution of multi and cross-channel concepts (Mirsch et al., 2016). Accordingly, multi, cross- and omnichannel are displayed along a continuum based on the level of channel integration (Cao & Li, 2015; Huré et al., 2017; Picot-Coupey et al., 2016) (see Figure 2).

**Figure 2. The continuum of channel mix.**

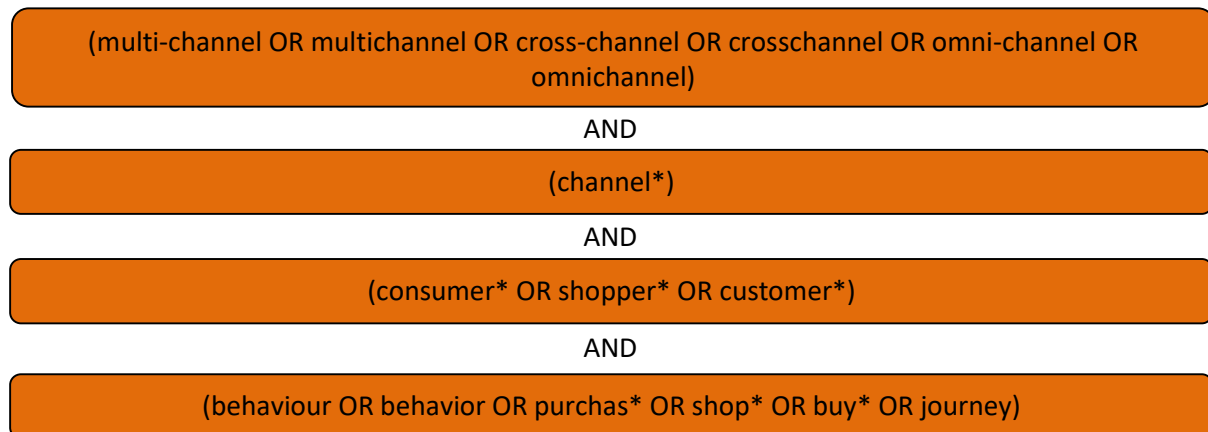
Source: Adapted from Huré et al. (2017).

### 3. METHOD

To address the main goal of this research, a systematic literature review was conducted following the method adopted in previous review articles (Beck & Rygl, 2015; Canabal & White, 2008; Rana & Paul, 2017). The systematic literature review is a replicable, scientific, transparent and exhaustive search process that identifies key scientific contributions to a field or question (Tranfield, Denyer, & Smart, 2003).

First, to conduct the systematic literature review different keywords were used as search equation based on the scope of the research. Several combinations including plural forms of “channel”, “multi”, “cross”, “omni”, “consumer”, “shopper”, “customer”, “journey”, “purchase”, “shop”, buy”, “behavior” were considered using the most appropriate Boolean operators (see Figure 3). The search was restricted to the title, keywords and abstract, and the articles published between 2000 and 2020. This period was selected because the literature has exposed that the roots of channel mix research arose in 2000 with the paper of Otto and Chung (2000) that proposed a framework that compared and contrasted e-commerce and physical retailing (Lazaris & Vrechopoulos, 2014).



**Figure 3. Search equation**

Then, the main online databases such as EBSCO, Science Direct, Web of Science and Google Scholar, and the article reference lists were considered to search for relevant literature. Only journal articles were included, while reports, books, dissertations, conference proceedings, and other materials were excluded (Vom Brocke et al., 2009). Additionally, only articles in English were considered and duplicates and articles not published in English were omitted.

Subsequently, an initial reading of the articles yielded was conducted to exclude articles not topic-related. In this sense, those articles whose major topic of study were not channel mix behavior from the consumer point of view were automatically omitted. Consequently, the study included: (1) articles that effectively aimed to explore channel mix behaviors (i.e. multi, cross or omnichannel), (2) both conceptual and empirical articles, and (3) articles that focused on the consumer perspective. The abstracts were read to identify the goal of each work. Moreover, in empirical research, the consumer perspective was confirmed by checking that the sample studied was consumers. In conceptual papers, only those which specified they aimed to explore consumer behavior were included.

After assessing these criteria, those articles that were effectively related to the objective of this work were selected. The final data set comprises 80 research articles that focus on multi, cross or omnichannel behavior from the consumer point of view. Once they were download, the articles were read analyzing the content of each article in detail. With the help of a database created in Excel software, the main information about the topics studied (i.e. the goal

of the research), the channel scope (i.e. which channels the author(s) considered in the analysis) and the theoretical framework (i.e. theory or model in which the study is based on) of each research was extracted. All the data is detailed in the appendix.

## 4. RESULTS

The systematic literature review allows us to see the main aspects addressed by research regarding consumer behavior using multiple channels. Moreover, the channels studied, and the main theoretical approaches applied are included in the analysis.

### 4.1. Main topics

During the twenty years studied, we see some evolution regarding the topics explored. Clearly, during the first ten years, different conceptual papers emerged to offer approaches and frameworks as a basis for researchers to advance knowledge. First, the papers of Schoenbachler and Gordon (2002), Balasubramanian, Raghunathan, and Mahajan (2005) and Neslin et al. (2006) proposed conceptual frameworks to build channel mix research. It is reasonable that at the beginning some authors, who anticipated the importance of this issue, laid the foundations of research and offered ideas to understand the new reality. However, 2010 is the year in which more conceptual papers emerged to identify gaps in the literature and propose ways and questions to fill these unexplored topics (Dholakia et al., 2010; Kumar, 2010; Telci, 2010). Some years later, new conceptual papers were published but, in these cases, they were more specific. For instance, Picot-Coupey et al. (2016) offered an overview of the main challenges retailers face regarding the consumer shopping experience. Besides, Arora and Sahney (2018) proposed a framework to understand showrooming behavior.

Concerning empirical studies, one of the topics that channel mix research has predominantly focused on is consumer channel decisions. However, this topic has evolved in importance and development during the two decades studied. Until 2010, it is common to see papers that analyze free riding and switching behaviors (Chatterjee, 2010a; Van Baal & Dach, 2005; Verhoef, Neslin, & Vroomen, 2007). These papers sought to understand why consumers changed between channels and firms, and the consequences of this behavior for retailers. Hence, channel choice behaviors attracted the attention of most scholars. At the beginning authors focused on the choice decisions in the different stages of the decision-making process

(e.g. Frasquet, Mollá, & Ruiz, 2015; Gensler, Verhoef, & Böhm, 2012; Valentini, Montaguti, & Neslin, 2011), and then, scholars started including consumer internal variables, such as emotions or personal traits (e.g. Londono, Davies, & Elms, 2017; Rodríguez-Torrico, San-Jose Cabezudo, & San-Martín, 2017). Migration across channels has been another topic in which researchers deepened, from describing the behavior (Pookulangara, Hawley, & Xiao, 2011) to exploring its effects on sales performance (Fornari, Fornari, Grandi, Menegatti, & Hofacker, 2016).

Besides, some works also explored consumer segmentation (Konus, Verhoef, & Neslin, 2008; Kwon & Jain, 2009) and the differences between single channel vs. multiple channel customers (Choi & Park, 2006; Kushwaha & Shankar, 2013). Nevertheless, this topic reached more attention during the first decade. After 2010, with some exceptions (Ieva & Ziliani, 2018; Nakano & Kondo, 2018), few studies have described groups of consumers.

More recently, channel mix scholars started focusing on other aspects. For instance, from 2015, showrooming and webrooming<sup>8</sup> behaviors became more visible to researchers (e.g. Daunt & Harris, 2017; Flavián, Gurrea, & Orús, 2019; Kokho Sit, Hoang, & Inversini, 2018; Rapp, Baker, Bachrach, Ogilvie, & Beitelspacher, 2015). Besides, some channel mix research started considering relationship variables such as satisfaction, trust, and loyalty (e.g. Frasquet, Mollá Descals, & Ruiz-Molina, 2017; Murfield, Boone, Rutner, & Thomas, 2017). In addition, in the last 5 years, some authors also focused on channel integration (e.g. Cao & Li, 2018; Herhausen, Binder, Schoegel, & Herrmann, 2015; Shen et al., 2018) and consumer-related variables, such as motivations, involvement or chronotypes (Boardman & McCormick, 2018; Haider, Zhuang, Hashmi, & Ali, 2019; Hall, Towers, & Shaw, 2017). Moreover, in this period, few cross-country and cross-cultural studies emerged in an effort to detect similarities and differences in consumers' behavior worldwide (e.g. Park & Kim, 2018; Rippé, Weisfeld-Spolter, Yurova, & Sussan, 2015).

In essence, during the twenty years studied, consumer channel decisions (e.g. Barwitz & Maas, 2018; Fornari et al., 2016; Park & Lee, 2017) and consumer segmentation (e.g. De Keyser, Schepers, & Konuş, 2015; Ieva & Ziliani, 2018; Nakano & Kondo, 2018) have been the main topics. However, in recent times, channel mix academics start opening new lines of research as a result of consumer behavior evolution.

## 4.2. Channel scope

From the standpoint of channel scope, the offline-online combination has accumulated most of the attention in the channel mix literature during all the period studied. However, we can detect some exceptions and evolution during these two decades.

The catalog appears as a prevalent channel studied during the first years of channel mix development. From 2005 to 2013, it is commonly considered together with the channel dichotomy to understand consumer behavior using multiple channels. This situation is because the catalog was, together with the store, part of the traditional channels that retailers used to contact consumers (Park & Lee, 2017). Thus, when the channel mix issue arose with the growth of online channels, researchers just included in the scope of analysis the online channel. However, after 2013, the catalog is seldom highlighted, with some exceptions (e.g. Boardman & McCormick, 2018; Harris, Dall’Olmo Riley, & Hand, 2018). The reason for this situation may be due to research on catalogs has decreased since 2010, and it has focused on the digitalization of them (Garnier & Poncin, 2019).

Considering phones, the evolution of this technology is detected across the years. On the beginning, the telephones were considered in some cases part of the mix of channels, including them (e.g. Kumar & Venkatesan, 2005; Montaguti, Neslin, & Valentini, 2015) but also the call centers (De Keyser et al., 2015; Gensler et al., 2012). However, once the technology development advanced, mobile devices replaced their traditional predecessors. In this sense, the multi and cross channel studies began to emerge while m-commerce research was in the focus of academic attention<sup>9</sup>. One example of this is the work of Holmes, Byrne, and Rowley (2014), which aimed to explore m-commerce attitudes but also included its influence on the decision-making process compared with the online and store channels. Hence, in about the last five years, more authors started including in channel mix research the mobile channel (e.g. Blom, Lange, & Hess Jr, 2017; Haider et al., 2019; Pantano & Viassone, 2015), possibly as a response for the calls to integrate these devices in the channel mix research (Verhoef et al., 2015). In addition, this issue is reflected in many channel mix works, which acknowledged the importance of the mobile channel and claimed to include it in future research (e.g. Arora, Singha, & Sahney, 2017; Frassetto et al., 2015; Kushwaha & Shankar, 2013).

Similarly to the mobile channel case, it was not until 2016, with the works of Juaneda-Ayensa, Mosquera, and Sierra Murillo (2016) and Sands, Ferraro, Campbell, and Pallant

(2016) when the social media attracted the attention of channel mix research. However, these works were an exception in the literature considering that from 2016 to 2018 social media has gone largely unnoticed. After that, although social media is included as a channel in research together with the mobile channel (Hong et al., 2019; Kang, 2019; Nakano & Kondo, 2018), it is not still generally established in the channel scope.

Accordingly, until around 2015, there was an online-centric view when researchers consider the digital channels. This might be determined by the m-commerce and social commerce growth stage. For instance, Groß (2015) pointed out the necessity to go further in the understanding of mobile devices as new channels. Nevertheless, after 2015, literature has increased the channel scope including these digital devices (e.g. Ieva & Ziliani, 2018; Kang, 2019; Shen et al., 2018), although their consolidation is still pending.

#### **4.3. Theoretical approach**

Finally, different theoretical approaches have nourished the channel mix literature. For instance, focusing on technology, researchers have built their models using the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), the Theory of Planned Behavior (TPB) (Ajzen, 1985, 1991) and the Technology Adoption Model (TAM) (Davis, 1989). These models helped channel mix academics to understand initial consumer-technology relationships. Channel mix scholars also broadly considered other approaches to examine consumer behavior, such as the Push-Pull-Mooring Theory (PPM)<sup>10</sup> and consumer decision-making models (Blackwell, Miniard, & Engel, 2001; Kotler, Keller, Ancarani, & Costabile, 2014). These theories allowed researchers to deepen their understanding of crucial aspects of channel mix behavior, such as consumer channel choice in the different stages of the decision-making process, channel migration or switching behaviors. Moreover, other theories –as the Self-Perception Theory<sup>11</sup> and the Cognitive Dissonance Theory<sup>12</sup>– were used to understand decision-making behaviors and facilitated researchers to comprehend consumers' channel choices in channel mix contexts.

## 5. CONCLUSIONS AND FUTURE RESEARCH OPPORTUNITIES

After the Internet expansion, consumer behavior has been undergoing important changes. Initially, consumers began using digital devices as purchase channels. However, after consumers gained expertise using these devices, they started combining them with the brick and mortar during all the stages of the decision-making process. Nowadays, channel combination is a reality, and, as a result, a hot topic in the literature. Consequently, in this research, our aim was to clarify and synthesize the main issues that literature has considered in the channel mix topic from the consumer point of view. After an extensive review of the last two decades of literature, this study sheds light on the main topics, channels and theoretical approaches considered by channel mix scholars.

Concretely, the findings of this research show that the main topics addressed by channels mix researchers have been related to consumer channel decisions, such as channel choice or free-riding behaviors; consumer segmentation; and some specific behaviors, such as showrooming and webrooming. From the channel point of view, although in last years the mobile channel has increased its importance in the literature, the offline and the online channels have been the most studied in general. Focusing on the theory, we find that technology-related models have been the basis of a vast literature, which is common in the initial stages of the developments related to technology. Furthermore, in this topic, academics have gone to decision-making approaches to develop their studies.

These findings show us some research opportunities that future studies could address:

- (1) Topic opportunities: As the omnichannel management is the current spotlight, further investigations could consider the seamless experience across all the different channels instead of analyzing separately how the consumers chose them. Literature has emphasized seamlessness as a central issue in omnichannel retailing (Verhoef et al., 2015). However, empirical knowledge about how firms can achieve this seamless experience and its impact on consumer behavior is lacked. In addition, although the search and purchase stages are critical, further research must delve into the post-purchase stage. Generally, the omnichannel shopping episode does not end when the consumer makes a purchase (Hall, Towers, & Shaw, 2017). As a result, the study of the post-purchase stage remains key for understanding the whole customer journey. Moreover, in future research, scholars should focus on consumers' internal

characteristics to understand how omniconsumers are. Also, cross-cultural and cross-country research are areas of research unexplored that can offer interesting contributions.

(2) Channel scope opportunities: although mobile and social media touchpoints need more attention, other new digital devices such as wearables (e.g. Apple Watch), robots (e.g. Alexa from Amazon) or digital assistants (e.g. Siri from Apple) are devices that are becoming part of people's everyday lives (Gummerus, Lipkin, Dube, & Heinonen, 2019). Accordingly, artificial intelligence (AI) and robotics are becoming hot topics in marketing research. Consequently, channel mix research should study the impact of these new devices in consumer behavior across channels. In this vein, future research could explore the integration of these emerging devices and technology in the studies, analyzing their particularities. Furthermore, the digitalization of the physical store could also appear as an interesting line of research. However, another line of research may explore the channels as a whole, considering the previously mentioned seamless experience.

(3) Theoretical approach opportunities: as some investigations are lacking theory, the first issue that might be considered is to build upon the theory. Besides, technology-related theories could be useful when researchers want to understand new behaviors related to new device adoption. However, if scholars address consumer internal states, psychology-related approaches could be more appropriated. Moreover, these approaches are not over considered in this context, which opens interesting lines of research.

This research contributes to the literature threefold. First, it clarifies the main differences and characteristics of channel mix terms, namely multi, cross and omnichannel. The literature has criticized the mixed uses and wrong interpretations of them (Beck & Rygl, 2015; Saghiri et al., 2017). In this case, we offer a thorough explanation in which we present a clear definition of each term. Moreover, we include the differences between these terms regarding their channel scope, view, and integration. In addition, we describe the main goal and way of management in each case.

Second, this research contributes to the field by outlining the most emphasized topics in the literature regarding channel mix consumer behaviors and explaining how they have been

evolved in the last two decades. Specifically, we synthesize the main objectives of 80 papers published in scientific journals. Moreover, we analyze the channel perspective taken for each article, considering the number of channels and touchpoints that have been included in the analyses from the beginning of the century. We also explore the theoretical approaches in which scholars have based their studies. In this way, we offer a broad view of three academic key issues regarding multi, cross and omnichannel consumer behavior.

Third, we contribute to the channel mix literature by proposing, in this last section, several research opportunities that could help channel mix scholars to design their investigations. In this sense, we propose different opportunities regarding each of the aspects that we have addressed in our review, which are topics, channel scope, and theory. Future authors may develop interesting lines of research that are still unaddressed using these proposals. Besides, these opportunities are not limited to a topic; scholars could contribute in several ways and issues, from exploring new theories to deepening in new channels or touchpoints. As a result, channel mix research shows up its multifaceted nature.

Finally, this work also presents limitations. First, although we used the most relevant database, they are limited. So, our search may have omitted some relevant research. Second, our work included articles published in academic journals only. Reports, books, dissertations, conference proceedings, and other materials were excluded. Third, although this review was assisted by Excel software, future studies could perform a bibliometric analysis using other software such as SciMAT. Finally, our review extracted information related to the topic, channel scope and theory of each article. However, future research could extend the analysis to other aspects such as the context, the method or the findings.



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<sup>1</sup> The term "digital" is used throughout this paper as an umbrella term (Hanson & Kalyanam, 2000) including both online (computer-mediated channel) and mobile (mobile-mediated channel) channels.

<sup>2</sup> Throughout this paper, we refer to brick and mortar channel also with the terms "offline" and "physical".

<sup>3</sup> Although we acknowledge the existence of other channels and touchpoints (e.g. catalogs, telemarketing, mail order, TV, kiosks...), this paper focuses on the brick and mortar, as offline channel, and the main digital channels (online, considering PC and laptop; and mobile that includes smartphone and tablet).

<sup>4</sup> Macy's (<https://www.macys.com/>) and Nordstrom (<https://shop.nordstrom.com/>) are two American department stores.

<sup>5</sup> Inditex Group is a Spanish clothing company (<https://www.inditex.com/es/home>).

<sup>6</sup> Although retailers have offered their services through multiple channels (e.g. catalog and store) for many years (Zhang et al., 2010), the beginning of multichannel started with the Internet popularity.

<sup>7</sup> A customer touchpoint refers to "an episode of direct or indirect contact with a brand or firm" (Verhoef et al., 2015, p. 175), including in addition to two-way communication channels, one-way communication channels, for example, social media as well as peer-to-peer communication. Channel is "a customer contact point, or a medium through which the firm and the customer interact, that includes only two-way communication interactions" (Neslin et al., 2006, p. 96).

<sup>8</sup> Showrooming occurs when consumers visit a physical store to gather information and then make their purchase on the Internet. Webrooming occurs when consumers gather information on the Internet and then make the purchase in a physical store (Flavián, Gurrea, & Orús, 2016).

<sup>9</sup> The development of mobile devices led to m-commerce emergence, but, until this moment, research focused on e-commerce, specifically on consumer purchase behaviors through PC and laptops.

<sup>10</sup> The Push–Pull Mooring (PPM) framework is a dominant paradigm in migration research, which proposes that negative factors push people to leave the original place, while positive factors at the destination pull people toward them (Lee, 1966). In addition, the push and pull factors interact with mooring variables (personal and social factors) that can influence the migrant's decision (Bansal, Taylor, & James, 2005).

<sup>11</sup> The Self-Perception Theory suggests that people develop their attitudes, emotions and other internal states by examine their own behavior and its associated circumstances (Bem, 1972).

<sup>12</sup> The Cognitive Dissonance Theory proposes that when an individual faces a situation that is inconsistent with his/her existing cognitions, a state of dissonance is created and the individual will try to resolve this state by altering his/her cognitions (Festinger, 1957).



**Appendix. Main literature on channel mix consumer behavior in the retail context from a consumer point of view since 2000.**

Author/s	Research objective	Channel scope	Theory	Main findings
Schoenbachler and Gordon (2002)	To propose a multichannel buyer behavior model to help the multichannel marketers develop a customer-centric vision.	-	-	The model developed is a first step toward an understanding of the multichannel shopper's behavior. The proposed model includes key variables identified in the direct and retail marketing literature that will affect shopping behavior.
Balasubramanian et al. (2005)	To propose a conceptual framework to understand consumers' channel choices in the multichannel context.	Offline and online.	Self-Perception Theory. The Theory of Cognitive Dissonance.	They summarize the existing insights and show new questions to understand consumers' channel choices in a multichannel environment.
Kumar and Venkatesan (2005)	To analyze the impact of consumer characteristics and supplier specific factors on multichannel shopping.	Salespersons, direct mail, telephone sales, and online.	-	Customers who buy multiple product categories: initiate more contacts with the company, have past experience with suppliers through online channels, buy more frequently, are larger and receive communication from suppliers through multiple channels of communication, especially impersonal. Those who buy through multiple channels provide high income, high participation in the portfolio, have a high past customer value and are more likely to be more active than other consumers.
Noble, Griffith, and Weinberger (2005)	To examine the influence of the utilitarian values (information attainment, price comparison, possession and assortment seeking) on channel information search and purchase frequency across brick and mortar, catalog and Internet retail channels.	Offline, catalog, and online.	-	Internet provides the greatest information attainment value across retail channels. The brick and mortar channel provided greater price comparison. Possession was a strong indicator of brick and mortar channel usage. Assortment seeking does not show differences across channels.
Van Baal and Dach (2005)	To investigate free riding behaviors and firm retention rates.	Offline and online.	-	Multichannel retailers lose more customers across channels than they retain. Online channels are particularly valuable for some products.
Choi and Park (2006)	To examine shopping orientation, information search, and demographics of multichannel customers in comparison to traditional single channel customers.	Offline and online.	-	Shopping orientation, information search, and demographics differentiated the shopper groups: single channel offline users, single channel online users, multichannel offline users, and multichannel online users.
Neslin et al.	1) To identify key challenges firms must	Offline,	-	They find five major challenges in multichannel: (a) data

Author/s	Research objective	Channel scope	Theory	Main findings
(2006)	address to manage the multichannel environment. 2) To propose a framework that shows the linkages among these challenges and provides a conceptual structure of the field. 3) To summarize academic research thus far about how to address the key challenges.	catalog, and online.		integration, (b) understanding consumer behavior, (c) channel evaluation, (d) allocation of resources across channels, and (e) coordination of channel strategies.
Van Birgelen, De Jong, and De Ruyter (2006)	To study the channel performance satisfaction–behavioral intentions relationship for different types of banking services.	Offline, online, and telephone.	The Cognitive Fit Theory.	There are differences in the satisfaction-behavioral intentions for the different types of services (nonroutine or routine). For nonroutine service employees are crucial. For routine service the online and telephone channels suit customers better.
	To investigate consumer preference for online versus offline purchasing across the three stages of purchasing, namely, pre-purchase, purchase, and post-purchase.	Offline and online.	The Loss Aversion Theory.	The offline channel is generally preferred in the three stages. The online channel usage intention in the pre and post stages is moderated by the consumer's Internet experience. The motivations for using a particular channel differ across the stages of the purchase process.
Frambach, Roest, and Krishnan (2007)	To test the impact of several customer–firm interaction characteristics on customer channel adoption duration.	Offline and online.	The Social Exchange Theory.	Frequency-related interaction characteristics and variation across customers in purchase-related attributes influence second-channel adoption duration. Proportion of returns, a purchase-related interaction characteristic, and variation across customers in the channel-related attributes impact on third-channel adoption duration.
	To develop and estimate a model for understanding the causes of using one channel for search and another for purchase (research shopping phenomenon) and investigate potential strategies for managing it.	Offline, catalog, and online.	TRA.	They develop a framework and identify three mechanisms that drive research shopping: attribute-based decision-making, lack of channel lock-in, and cross-channel synergy.
Venkatesan, Kumar, and Ravishanker (2007)	1. Segment consumers on the basis of their channel orientation in the information search and purchase phases of their shopping process; 2. Investigate the relationship between psychographic/demographic customer characteristics and segment membership; and	Offline, catalog, and online.	-	They identify three segments – multichannel enthusiasts, uninvolved shoppers, and store-focused consumers – and covariates, such as shopping enjoyment, loyalty, and innovativeness that predict segment membership.



Author/s	Research objective	Channel scope	Theory	Main findings
	3. Explore how multichannel segment membership might differ across different product categories.			
	1. To examine the number and prevalence of multichannel shoppers, 2. To examine the underlying motivational factors of multichannel shoppers, and 3. To investigate the motivational factors across different levels of multichannel shopping.	Telemarketing, mail order, TV, direct marketing through TV, and online.	Theory of Variety-Seeking Behavior.	The hedonic and utilitarian factors together are predictors of multichannel purchases. Hedonic motivations have more explanatory power for high-level multichannel purchases than for moderate-level multichannel purchases, compared to non-multichannel purchases.
Verhagen and Van Dolen (2009)	To assess the influence of the physical store image on online purchase intentions.	Offline and online.	-	The image of both the offline and online store influence consumer online purchase intentions. However, offline store merchandise was the strongest direct determinant of online purchase intentions.
Chatterjee (2010a)	To examine the role of purchase-occasion-specific goals and constraints on consumer decision to use 'order online pick up at store' (OOPS) relative to store and online delivery; and its impact on purchase deferral, purchase size, and repurchase intention.	Offline and online.	Self-Perception Theory.	Retailers with integrated store and web-based operations that offer OOPS are better positioned to retain consumers relative to multichannel retailers who restrict ordering and pick up to a single channel. Retailers that offer OOPS attract two segments of consumers: price-conscious consumers, and those with short purchase horizons who need the products soon.
Chatterjee (2010b)	To examine the role of consumer shopping orientations on consumer's channel choice, cross-channel shopping behavior, and shopping outcomes.	Offline and online.	Self-Perception Theory.	Cross-channel attracts consumers with high waiting time costs and offers convenience, greater confidence, and control in product search. Satisfaction is higher for cross-channel compared to multi-channel retailers.
Dholakia et al. (2010)	To provide a comprehensive and flexible approach for formulating promising consumer behavior-related research questions based in multichannel, multimedia retailing environments.	-		They propose an approach to understand consumer behavior based on three dimensions: channel, consumer and marketer. They delineate several research questions and applications of their proposal approach.
Kumar (2010)	To propose a multichannel and multimedia framework to manage clients based on the value they provide to the company.	-	Customer Lifetime Value-Based Approach.	They propose a framework and the guidelines to implement it using two cases: a B2C firm and a B2B firm.
Telci (2010)	To identify the gaps in the multichannel retailing literature about the role of	-	Consumer Decision-Making Styles.	She proposes a model that highlights consumer decision-making styles as predictors of their

Author/s	Research objective	Channel scope	Theory	Main findings
	consumers' decision-making processes on their channel choice and/or patronage behavior.			multichannel shopping intentions; and consumers' level of overall shopping involvement and gender to moderate the hypothesized relationships.
Cho and Workman (2011)	To examine whether gender, fashion innovativeness and opinion leadership, and need for touch have effects on consumers' multichannel choice and touch/non-touch shopping channel preference.	Offline, catalog, TV, and online.	Model of Purchase Decision-Making Process.	Results show that participants' multichannel choice is positively influenced by fashion innovativeness and opinion leadership. Touch channel preference is positively influenced by need for touch and multichannel choice. Non-touch channel preference is influenced by fashion innovativeness and opinion leadership and multichannel choice.
Pookulangara et al. (2011)	To examine how attitudes and subjective norms predict channel migration across three channels (brick-and-mortar store, catalogue, and Internet).	Offline, catalog, and online.	TRA.	Brick-and-mortar stores: consumers' attitude toward channel migration was predicted by hedonic and utilitarian behavioral beliefs. For catalogues and Internet, only utilitarian beliefs were significant in predicting the attitude toward migrating. Attitude and subjective norms predict the channel migration intention for all three channels.
Valentini et al. (2011)	To analyze the evolution of a customer's channel choice decision process.	Offline, catalog, and online.	-	Customers' decision processes evolve; the evolution is heterogeneous across customers; and customers become less responsive to marketing over time.
Gensler et al. (2012)	To explain consumers' channel choices in the different stages of the buying process.	Branch, online, call center, self-service terminal.	Utility-Based Model.	They show the importance of an integrative approach to understand channel choice. Channel attributes, experience, and spillover effects matter.
Hsiao, Yen, and Li (2012)	To understand the hierarchical structure of consumer value in the multichannel shopping context.	Offline, catalog, and online.	Means-End Theory.	They find four multichannel shopping values: safety, freedom, pragmatism and enjoyment. The results also show that both expert and novice shoppers emphasize the utilitarian value; however, shopping novices pay more attention to the hedonic value than experts do.
Holmes et al. (2014)	To add to knowledge on key aspects of consumer shopping behavior through mobile devices by exploring attitudes to the use of mobiles in shopping, the use of mobile phones at different stages in the consumer decision-	Offline, online, and mobile.	-	In general, respondents are more positive regarding computer shopping than mobile shopping. Mobile shopping is valued by its convenience and accessibility. There is higher use of the mobile phone in the information search and consideration of alternatives

Author/s	Research objective	Channel scope	Theory	Main findings
	making process, the impact of involvement on the mobile consumer decision-making process and mobile shopping location.			phases, than in the purchase transaction. The extent of use of mobile devices in the decision-making process is higher with higher involvement products. The most frequent location for the use of their mobile in shopping is at home.
Kushwaha and Shankar (2013)	To develop a conceptual model to understand how the monetary value of multichannel customers differs from single channel customers.	Offline, catalog, and online.	Regulatory Focus Theory.	Traditional channel customers of low-risk categories provide higher monetary value than other customers. Moreover, for utilitarian product categories perceived as high (low) risk, web-only (catalog- or store-only) shoppers constitute the most valuable segment.
Blázquez (2014)	To gain a better understanding of multichannel fashion-shopping experiences, focusing on the role of IT and the crossover effects between channels.	Offline and online.	Hedonic and Utilitarian Shopping Values.	Multichannel consumers do not perceive channels separately when they shop fashion, they use them based on their convenience. They expect a consistent experience between channels.
Boulay, de Faultrier, Feenstra, and Muzellec (2014)	To examine the advantages and disadvantages of online vs offline purchasing as perceived by children.	Offline and online.	-	Online shopping shows one main advantage for children: it makes life easier (no more shopping chores). However, this advantage is outweighed by a series of negative perceptions: dishonest, offering limited choice at higher prices. Offline shopping offers a real shopping experience, fastness to collect (and consume) the product and a wider choice all combined allow for a preference towards the physical store.
De Keyser et al. (2015)	To replicate and extend the original study of Konuş et al. (2008) in four ways: including (1) the after-sales service stage and (2) the call center channel. (3) Using the behavior of the self-report channel instead of the channel adequacy measures and (4) investigating the value of previously ignored covariables, such as product complexity, to predict the segment's membership.	Offline, call-center, and online.	-	The market can be segmented based on channel usage for information search and purchase, and that psychographics can be used to predict segment membership. A 3-stage solution results in 6 segments, refining the original 2-stage solution. The six segments differ in average revenue and customer loyalty.
Frasquet et al. (2015)	To analyze the drivers of channel choice for the three main stages of the purchasing process: search, purchase and post-sales activities, adopting a segmentation approach to account	Offline and online.	TAM. Motivational Model.	Different motivations explain channel choice for search, purchase and post-sales. They found five: one segment that uses the Internet more intensively than the rest of consumers at the different stages of the purchase

Author/s	Research objective	Channel scope	Theory	Main findings
	for the diversity of behavioral patterns.			process, a segment of offline shoppers, and three segments of cross-channel customers.
Herhausen et al. (2015)	To examine the impact of online–offline channel integration.	Offline and online.	Technology Adoption Research. Diffusion Theory.	Retailers can create a competitive advantage with channel integration. Customers' Internet shopping experience moderates the impact of channel integration. Only weak, non-significant cannibalization of the physical store arises from channel integration. No undesired effects of channel integration on customers' willingness to pay across channels.
Melis, Campo, Breugelmans, and Lamey (2015)	1) To identify the drivers of online store choice. 2) To explore if and how these drivers change when multi-channel shoppers gain online shopping experience.	Offline and online.	-	When consumers start buying online, they tend to select the online store belonging to the same chain as their preferred offline store.
Montaguti et al. (2015)	To investigate the positive association between multichannel purchasing and customer profitability.	Offline, mail order, phone, and online.	TRA. TPB. Theory of Consumer Reactance.	Multichannel customers can be more profitable due to self-selection, marketing, using higher margin channels or higher satisfaction.
Pantano and Viassone (2015)	To understand how the multichannel context influences consumers experiences and intentions.	Offline, online, and mobile.	SOR model.	They demonstrate that the integration of multiple channels is feasible and successful. Physical store atmosphere and channels availability are determinants of the service quality perception, which in turn improve consumer attitude and satisfaction.
Rapp et al. (2015)	To understand showrooming and its effects on salesperson self-efficacy and performance.	Offline, online, and mobile.	Self-Regulation Theory. Expectancy Theory.	They find negative relationships between perceived showrooming and salesperson self-efficacy and salesperson performance, which are positively moderated by salesperson coping strategies and cross-selling strategies.
Rippé et al. (2015)	To conceptualize a consumer-centric process-based framework that describes a buying process for the multichannel consumer and how differs across countries.	Offline and online.	TPB. Economic Theory of Bounded Rationality. Principal/Agent Theory. Economic Theory of Information Asymmetry.	Results support the concept of the convergence of multichannel consumers' behavior globally in that the amount of information gathered about a product in the pre-purchase stage and feeling of control during the purchase significantly contributes to purchase behavior. In country comparisons, there is converging (online information search) and diverging (retail store) behaviors exhibiting nuanced differences.

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Chou, Shen, Chiu, and Chou (2016)	To explore the antecedents that contribute to the consumer multichannel shopping behavior and understand how within-channel switching and cross-channel free-riding behavior differ.	Offline and online.	PPM Model.	The perceived risk, switching barriers associated with an online store influence positively the cross-channel free-riding intentions. The perceive risk, switching barriers from a service provider and attractiveness from other service providers significantly affect their within-channel switching intentions.
Flavián et al. (2016)	To examine the consumer's webrooming search experience and decision.	Offline and online.	Information Processing. Uncertainty Reduction Theories.	Webrooming improves the consumers' purchase intentions, search-process satisfaction and choice confidence. When consumers read a positive online review their choice confidence increases. A positive review offline influences all the decision-making stages. The need for touch has a positive effect on the webrooming purchase process.
Fornari et al. (2016)	To determine whether and to what extent store openings generate effects of migration or synergy on retailer's sales performance and if such effects change over time.	Offline and online.	-	Web is preferred for goal-directed (or planned) shopping and physical store for experiential (or recreational) shopping. In the long run, migration turns into synergy and different channels tend to interact with and reinforce each other.
Huang, Lu, and Ba (2016)	To investigate how consumers' purchase behavior changes with the introduction of the mobile channel in the multichannel context.	Online and mobile.	-	After the adoption of the mobile channel, the purchases on the web channel are slightly cannibalized; however, the consumers' purchases increase overall, suggesting that the positive synergy effect of the new channel overrode the negative cannibalization effect.
Juaneda-Ayensa et al. (2016)	To identify the antecedents of omnishoppers' technology acceptance and use in relation to early adoption of omnichannel stores.	Offline, online, mobile, and social media.	Unified Theory of Acceptance and Use of Technology (UTAUT2) Model.	The key determinants of purchase intention in an omnichannel context are personal innovativeness, effort expectancy, and performance expectancy.
Picot-Coupey et al. (2016)	To provide a comprehensive overview of the range of challenges e-tailers face when shifting to an omnichannel strategy and to explore the mechanisms they develop to support this transformative process.	-	-	They show that the challenges faced by the company evolve gradually in terms of scope and priority and can be categorized into two main categories: 1) The strategy-related challenges (organizational, cultural, managerial, marketing and resources) –which are the highest priority in the first stage. 2) The development-related challenges (retailing mix, information systems and customer relationship management (CRM)) –which

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				become the highest priority during the second stage–.
Rippé, Weisfeld-Spolter, Yurova, Hale, and Sussan (2016)	To investigate the impact of adaptive selling when multichannel consumers encounter in-store salespeople.	Offline, online, and mobile.	TPB.	The findings indicate that while perceptions of control in the retail store increase as customers engage in more multichannel search behavior, the path from perceived control to purchase intention is also affected by adaptative selling as multichannel search increases.
Sands et al. (2016)	To examine consumer behavior in physical store, Internet, mobile, and social media channels across the search, purchase and after-sales buying stages.	Offline, online, mobile, and social media.	-	They find distinct segments that differ in the importance consumers place on using different channels at different stages of buying, as well as psychographic and demographic characteristics. They offer support for the channel integration view, which involves a synergistic combination of channel functions.
Arora et al. (2017)	To investigate the reasons for consumers' showrooming behavior and propose a comprehensive model.	Offline and online.	TPB. Uncertainty Reduction Approach. Regret Theory.	"Touching and feeling the product" and "sales staff assistance" motivate customers to visit the physical store before buying online. "Better online service quality" and "lower prices online" induced customers to later purchase online. Price conscious customers and those with the ability to use multiple channels were more likely to engage in showrooming behavior.
Blom et al. (2017)	To examine the effects of promotions on two highly relevant omnichannel variables: purchase behavior (related to performance) and brand image (related to customer experience).	Offline, online, and mobile.	Congruity Theory.	Shopping goal congruent promotions have a positive effect on both promotion redemption and retail brand attitude shopping goal congruent promotions enhance redemption more for utilitarian than hedonic product categories and are preferred in planned purchases compared to spontaneous ones for retail brand attitude.
Chang, Wong, and Li (2017)	To investigate consumer channel switching intention related to physical (off-channel) and mobile stores (m-channel).	Offline and mobile.	PPM Theory.	High m-shopping self-efficacy pushes consumers switching from off-channel to m-channel. High procedural switching cost pulls consumers retaining in off-channel. Low relational switching cost pushes consumers switching from off-channel to m-channel.
Chatterjee and Kumar (2017)	To examine differences in consumer willingness to pay for online purchases of functional and expressive products –that differ	Offline and online.	-	Consumers are willing to pay higher prices for products at omnichannel retailers compared to pure-online retailers but differ for functional and expressive

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	in the length of product life– at omnichannel vs. pure-online retailers.			products. Consumers prefer omnichannel retailers only for durable expressive product purchases.
Chiou, Chou, and Shen (2017)	To examine the effects of the customer-sales associate relationship, customers' receptiveness to online store shopping, and their interaction effects on the customer's attitude toward multichannel shopping behavior.	Offline and online.	-	The customer-sales associate relationship reduces customers' attitude toward searching offline but purchasing online. Receptiveness to online store shopping has effects on customers' attitude toward multichannel shopping. The customer-sales associate relationship also moderates the relationship between customers' receptiveness to online store shopping and multichannel shopping. Shoppers who prefer physical stores for both information searching and product purchasing display lower spending intentions.
Daunt and Harris (2017)	To investigate the antecedents of consumer showrooming behavior.	Offline and online.	Theory of The Value Co-Destruction.	Consumer characteristics, channel characteristics and product characteristics are shown as showrooming antecedents.
Frasquet and Miquel (2017)	To investigate the effects of multichannel integration on customer loyalty, both directly and by mediation of customer satisfaction.	Offline and online.	-	Channel integration has two dimensions: reciprocity, which refers to the possibility of crossing the channels while shopping, and coordination, which refers to the alignment of offline and online offers. Multichannel integration affects both offline and online loyalty both directly and through satisfaction, which partially mediates the relationship.
Frasquet et al. (2017)	To test the interplay between offline and online loyalty and the direct and indirect effects on loyalty of brand trust and attachment, in a cross-cultural study.	Offline and online.	Cognitive Dissonance Theory.	Online loyalty is largely driven by offline loyalty, which is also positively affected by brand trust and brand attachment. These relationships hold across the two different cultures, Spain and UK.
Gensler, Neslin, and Verhoef (2017)	To examine the impact of channel-related factors on the consumer's decision to engage in showrooming.	Offline and online.	The benefit/cost approach.	The factors that affect positively showrooming: consumer perceptions that on average, better quality and price are available online and perceptions of larger price dispersion online. The factors that affect negatively showrooming: online search costs, greater availability of in-store sales personnel, and consumers' time pressure.
Hall et al. (2017)	1) To explore the decision making and purchase intention activity for online millennial	-	-	The findings highlight a picture of shoppers going on very different shopper journeys with different lengths,



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	shoppers. 2) To investigate the use of technology and social media involvement in the shopper journey leading up to the point of purchase.			influenced by different touchpoints and using different media and devices. They are influenced by other people beyond the control of any retailer –using platforms that are not necessarily specifically related with any retailer. They can undertake numerous activities before they make their final purchase decision, seeking content from different retailers, asking for social validation of their decision from their social networks both online and offline which is often out of sight of the retailer or brand.
Huré et al. (2017)	To investigate the omnichannel shopping value (SV) by proposing and testing an omnichannel SV model based on SV literature and omnichannel literature reviews to identify the key omnichannel concept characteristics.	Offline, online, and mobile.	Mixed-Method Design	Omnichannel SV is caused by touch points' (offline, online and mobile) SV; this causal effect is moderated by omnichannel shopping perceived consistency.
Londono et al. (2017)	To extend the TPB to create a conceptual model to examine the role of anticipated negative emotions on channel intention.	Offline, online, and mobile.	TPB.	Men's intention to shop for an embarrassing product using single or multiple channels is positively associated with their attitude and subjective norms in both channels. Multichannel shoppers spend more because their behavior is not impacted by the negative emotions generated by shopping in a physical store.
Murfield et al. (2017)	To investigate the impact of logistics service quality (LSQ) on consumer satisfaction and loyalty in an omnichannel retail environment.	-	-	Omni-consumers differ from the rest regarding the three dimensions of LSQ (condition, availability, and timeliness) satisfaction and loyalty. Unlike other customers that focus on multiple service attributes, omni-consumers have an intense focus on time utility.
Park and Lee (2017)	To analyze the consumer channel choice behavior in the perspectives of consumer sociodemographic information, consumer behavior, and corporate communication strategies.	Audio Response System, telephone call, online, and mobile.	-	Channel choice is influenced by age, gender and communication strategy. The mobile channel is used to make purchases without time constraints. Experience and credence goods tend to be purchased via mobile and Internet. Cannibalization is observed between most of the channels, except Internet and telephone.
Rodríguez-Torrico et al. (2017)	To analyze how two traits of consumer personality (impulsiveness and need for touch) influence the channel choice in omnichannel	Offline, online and mobile.	Trait theory.	Impulsive shoppers make greater use of mobile devices whereas individuals with high need for touch are more predisposed to use online devices in their omnichannel



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	processes.			processes.
Arora and Sahney (2018)	To propose an integrated framework to augment the understanding on consumers' showrooming behavior.	Offline and online.	TPB. TAM.	Consumers mainly visit an offline store to gain access to the "touch and feel". Socialization does not emerge as a benefit for showroomers. Showrooming helps consumers avoid the regret of making suboptimal product choices and paying a higher price for the same product. Online trust is found to partially mediate the relationship between consumers' intention to showrooming and the actual showrooming behavior.
Barwitz and Maas (2018)	To investigate the underlying and overt reasons for customers' interaction choices.	-	-	They show answers to three questions: What drives customers' interaction choices along the customer journey? What are the underlying reasons for customer journey patterns? How to more effectively (non-descriptively) segment omnichannel customers and predict segment affiliation?
Boardman and McCormick (2018)	To provide a greater understanding of why and how different ages use shopping channels, analyzing preferences and motivations for use.	Offline, catalog, online, and mobile.	-	Multichannel shopping behavior increases with age; the 20s do not engage in multichannel shopping behavior but viewed each channel as a separate entity. M-commerce is the preferred shopping channel for the 20s, but its popularity and motivations to use decreases with age. Ecommerce is the most popular shopping channel due to convenience, selection, adventure/exploration and idea shopping. The physical store was the preferred channel for the 60+, who shopped there for convenience and enjoyment. Catalogues were seen as outdated and no longer considered a transactional channel.
Cao and Li (2018)	To examine the determinants of cross-channel integration.	-	The Diffusion of Innovation Theory.	Cross-channel integration is determined by the firm information-technology capabilities, the provision of private labels, the firm diversity, and firm growth.
Harris et al. (2018)	1) To conduct a detailed examination of multichannel shoppers' journeys. 2) To assess the consistency of individual shoppers' journey configuration within and across product	Offline, catalog, online, mobile, click, and collect and	Goal Theory.	Multichannel shopping behavior is shaped by multiple drivers operating at varying levels of abstraction. The higher level, more abstract, drivers may be relatively stable and enduring but the lower level drivers vary

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	categories. 3) To relate journey configuration to the shoppers' goals in order to assess the applicability of goal theory as a conceptual framework to explain multichannel shopper journey configuration.	telephone.		over time, place and context. Shopper journeys are configured around a focal goal, but that goal is not necessarily the shopping activity itself.
Ieva and Ziliani (2018)	To identify the patterns of customer exposure to touchpoints by segmenting consumers based on the frequency of their exposure, and to understand the relationship of patterns of exposure with customer loyalty intentions, and demographic characteristics.	Several channels and touchpoints.	-	Based on the touchpoint exposure, six customer segments emerge: Unexposed, low exposed, average exposed, omniexposed, promotion exposed – ad unexposed and overexposed. The main differences across segments are the intensity of frequency of exposure and the types of touchpoints customers have been exposed to. Demographics, shopping role and geographic area of residence are related to segment membership. Clusters displaying higher exposure to touchpoints display higher loyalty intentions.
Kleinlercher, Emrich, Herhausen, Verhoef, and Rudolph (2018)	To investigate how customers' channel choice is influenced by explicit communication about the physical store's resources on its website.	Offline, online, and mobile.	-	Consumers' channel choice is influenced not only by retailers' explicit communication but also by very subtly communicated information cues that may occur without retailers' and consumers' awareness.
Kokho Sit et al. (2018)	To investigate showrooming from a positive standpoint and offer retailers recommendations to diagnose and appreciate potential opportunities that may be presented by this shopper behavior.	Offline, online, and mobile.	Consumer-Experience Theoretical Lens.	They show that showrooming can be understood from a positive standpoint. Showroomers are likely to experience positive emotions at the stages of problem recognition, information search and post-purchase, whereas negative emotions occur at the evaluation stage and mixed emotions at the purchase stage.
Mosquera, Olarte-Pascual, Juaneda Ayensa, and Sierra Murillo (2018)	To analyze which omniretailing technologies matter most to consumers, as well as how consumers' intention to use such technologies affects their purchase intention. To test the moderating effect of gender.	Offline, online, mobile, and social media.	-	The incorporation of new technologies (in store technology, fitting room technology and consumer own technology) in the physical store positively affects purchase intention. No significant differences were found between males and females.
Nakano and Kondo (2018)	To segment customers considering the way they use multiple channels and media in modern retail environments.	Offline, online, mobile, and social media.		They reveal seven segments: four store-focused customer segments, who use bricks-and-mortar stores often; one uninvolved shopper segment, low frequency of purchase channel use, and two multichannel

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				enthusiast segments, who purchase from both bricks-and-mortar and online.
Shen et al. (2018)	To explore two potential drivers (channel integration quality and perceived fluency) of omnichannel service usage.	Offline, telephone, online, mobile, and social media.	Wixom & Todd Model.	Perceived fluency, which is affected by channel integration, is the key determinant of omnichannel service usage. Relationship between fluency and usage is weakened by internal experience, whereas strengthened by external experience.
Zhang, Ren, Wang, and He (2018)	To offer answers about whether investment in channel integration will achieve a payoff in consumer trust, satisfaction and retention.	Offline and online.	S-O-R Model.	If consumers perceive the channels well-integrated, they perceive more empowerment and have more trust and satisfaction, and stronger shopping intention.
Flavián et al. (2019)	To examine the influence of webrooming and showrooming on the consumer's search process satisfaction.	Offline and online.	-	Webrooming increases more the consumers' satisfaction and makes consumers feel more confident and like "smart shoppers" than showrooming.
Park and Kim (2018)	To examine emerging consumers channel preferences for touchpoints in the midst of reforming retail environment in Korea and US.	Offline, online, and mobile.	The Five-Stage Purchasing Process Model.	Overall, shopping patterns of Korean and US consumers are found to be significantly different. They find four US consumers clusters and six Korean clusters.
Haider et al. (2019)	To examine the effect of chronotypes (evening- and morning-type individuals) on omnichannel behaviors, considering separately mobile and online devices.	Offline, online, and mobile.	The Task-Technology Fit Theory.	Evening-type chronotypes tend to use mobile channel more as compared to morning-type chronotypes during omnichannel process.
Homburg, Lauer, and Vomberg (2019)	To explore consumer responses to higher offline prices than online prices.	Offline and online.	Price Fairness Theory.	In the studied context, consumers accept higher prices in the offline context than in online. In addition, consumers accept offline price premiums for unplanned purchases.
Kang (2019)	To investigate the relationship between fashion lifestyle and perceived value of showrooming and webrooming; the perceived value of showrooming and webrooming were associated and omnichannel shopping intention; and the omnichannel shopping intention and product review sharing intention.	Offline, online, mobile, and social media.	Engel Model. Prospect Theory.	Consumers who have favorable perceptions of the value of showrooming and webrooming are likely to shop using omnichannel methods, which in turn increases their likelihood of sharing their product reviews online. Fashion lifestyle partially increases perceived value of showrooming and webrooming.
Santos and Gonçalves (2019)	To examine how different motivations determine three types of webrooming: traditional webrooming, webrooming	Offline, online, and mobile.	Information-Processing. Uncertainty-	Information attainment, price comparison, and empowerment are the most important motivations that contribute to webrooming.

Author/s	Research objective	Channel scope	Theory	Main findings
	extended to include mobile devices, and multidevice webrooming.		Reduction Theories.	
Viejo-Fernández, Sanzo-Pérez, and Vázquez-Casielles (2019)	To test the moderating effect of webrooming and showrooming on the relationship between emotions, perceived value, and satisfaction.	Offline and online.	-	Webrooming and showrooming moderate emotions-perceived value-satisfaction relationships. In addition, webrooming increases more the negative effect of negative emotions on perceived value and satisfaction than showrooming.
Flavián, Gurrea, and Orús (2020)	To analyse the impact of webrooming and showrooming on smart shopping.	Offline and online.	-	Webrooming increases consumers' perception of saving time and/or effort and making the right choices and their smart shopping feelings.
Shi, Wang, Chen, and Zhang (2020)	To conceptualize omnichannel customer experience and develop a survey instrument that explains the relationships between omnichannel experience, perceived innovation characteristics, and omnichannel shopping intention.	-	The Diffusion of Innovation Theory.	Connectivity, integration, consistency, flexibility, and personalization are identified as key dimensions of the omnichannel experience. They increase the omnichannel shopping intention by increasing perceived compatibility and decreasing perceived risk.