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Multichannel Retailing: A Review and Research Agenda

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ABSTRACT

The emergence of multiple channels is reshaping consumers' purchase behavior and retailers' marketing styles. We synthesize existing research on multichannel retailing based on more than 150 articles published in peer-reviewed marketing journals, most after 2006. From this synthesis, we reveal conditions under which both consumers and retailers can benefit from a multichannel context. More specifically, we identify multichannel retailing as a win-win game contingent on market environments, retailer characteristics, channel attributes, product categories, social and situational factors, and customer heterogeneity. Last, we highlight multiple directions for future research.

Keywords: Multichannel retailing; Multichannel shopping; Multichannel marketing

Introduction

The plethora of new channels has changed the infrastructure of today's retailing environment (Neslin et al. 2006). Especially Internet-based channels (i.e., online and mobile channels) and advanced technologies have created new and innovative opportunities for retailers' marketing activities and improved the flexibility of their marketing decisions (Verhoef et al. 2015). For example, channels such as e-mail, websites, mobile devices, and social media allow retailers to reach consumers through various formats without the limitations of time and location. Technologies such as location-based services installed in mobile phones allow retailers to use the exact locations where target consumers are to transmit coupons and advertisements to them in real time (Andrews et al. 2016; Verhoef et al. 2017). Retailers no longer rely solely on traditional channels (e.g., physical stores, catalogs) given the omnipresence of advanced channels. A report by Episerver (2015) indicates that nearly 95% of retailers realize the importance of a multichannel strategy to target consumers. Another study by Pew Research Center shows that approximately 86% of apparel retailers have already adopted up to four social media channels to communicate with consumers (Morrison 2015).

A wealth of related research has emerged since the appearance of Internet-based channels. A majority of early studies focused on the intention of consumers to purchase from a retailer's new channels. Later studies have discussed how new channels and the mix of traditional and new channels influence customer loyalty and retailer performance. Some of these studies show that adding a new channel has a positive effect on customer loyalty and firm value by increasing customer revenue, decreasing search cost, and providing better service outcomes to consumers (e.g., Homburg et al. 2014; Wallace et al. 2004). Other studies argue that cannibalization effects exist across channels (e.g., Falk et al. 2007). For example, Ofek et al. (2011) show that the addition of a website decreases a retailer's overall profit when competition is intense, because the retailer needs to invest more in customer assistance

provided in stores (e.g., greater shelf display, more qualified sales staff, floor samples) to improve differentiation from rivals that do not provide similar store assistance. However, not all customers benefit from the focal retailer's improved store assistance. Huang et al. (2016) find that a small percentage of website purchases shifted to a newly added mobile app because of its greater convenience. Other research further indicates that synergy and cannibalization effects co-exist and are contingent on retailer characteristics (e.g., the presence of stores) (Wang and Goldfarb 2016). In essence, different findings appear in articles on multichannel retailing with different contexts, though little is known about what drives these divergent findings.

Thus, the aim of this article is to present an overview of and draw conclusions from extant studies related to multichannel retailing. Neslin et al. (2006) provide an influential review on multichannel retailing that includes both traditional and online channels. Thereafter, academic interest increased dramatically, with a large number of new articles being published on this topic (see Figure 1). For example, retailers have adopted additional new channels and new channel technologies with unique characteristics, which has further increased the complexity of multichannel retailing. These new channels generate different effects on retailer performance from the effects of offline and online channels (Fong et al. 2015). Thus, an updated understanding of how retailers and consumers influence and interact with each other in multichannel retail contexts is required. More specifically, we focus on the following questions: (1) What factors influence channel choices of retailers and customers? (2) How do retailers employ multichannel marketing strategies, and how do customers use different channels to search and purchase during their purchase journey? and (3) How do multichannel strategies and channel selection behavior affect customer outcomes (e.g., satisfaction, loyalty) and retailer performance (e.g., purchase frequencies, sales, profit)?

After presenting the definitions of key terms used in multichannel retailing, we introduce our framework. Next, we synthesize existing research and specify the three research questions with six subtopics by considering the perspectives of both customers and retailers. At the end of each subtopic, we discuss future research directions derived from research gaps, unresolved issues in practice, and environment changes. We conclude with thoughts about future retailing.

[Figure 1 here]

Definitions

Channel

Neslin et al. (2006, p. 96) conceptualize a *channel* as "a customer contact point, or a medium through which the firm and the customer interact." To explain the differences across channels, we categorize them into four groups according to their corresponding technologies and functions: (1) offline channels, mainly including physical stores and catalogs; (2) online channels, including e-mail and websites; (3) mobile channels, including mobile websites and apps; and (4) other touchpoints,[1] such as social media, word of mouth, advertising, promotions, and thank-you cards. The major difference between the first three categories is the technology used (i.e., without Internet, with Internet, and with mobile Internet). The difference between the first three categories and the last one involves channel functions. In most cases, the former have both informational and transactional functions, while the latter emphasizes the informational function and the interaction between customers and retailers.

This article focuses on transactional channels. Of the four channel categories, the most common transactional channels are offline, online, and mobile. In terms of touchpoints (i.e., different social media platforms), some also have transactional functions. However, customers

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[1] Verhoef et al. (2015, p. 175) define touchpoints as "episodes of direct or indirect contact with a brand or firm." According to this definition, the first three groups of channels are included in touchpoints. Here with "other touchpoints," we mean other touchpoints that cannot be covered in the first three groups of channels.

are not yet ready to purchase products directly through social media; they are using such channels to inspire purchases by viewing products and communicating with retailers and friends (Chahal 2016). Thus, we treat social media as search and communication channels instead of transactional channels. Furthermore, we define our research scope as multichannel retailing, focusing on retail channels instead of omnichannel retailing because omnichannel retailing is discussed as an evolution of multichannel retailing taking a broader perspective of channels including and emphasizing multiple interaction touchpoints (Verhoef et al. 2015).

Multichannel retailing

Previous studies define multichannel retailing as a set of activities through which retailers sell products or services via more than one channel (Levy and Weitz 2009; Lin 2012). In this article, we extend multichannel retailing to a broader concept, including not only retailers' activities but also customers' shopping behavior in a multichannel environment.

Multichannel marketing

From a retailers' perspective, multichannel marketing is defined as, that retailers provide customers with information, products, services and support through two or more synchronized channels at the same time (Rangaswamy and Van Bruggen 2005). For example, retailers can develop various marketing strategies on whether to add or eliminate a channel, offer a specific marketing mix across channels, or integrate channels.

Multichannel customer management

Neslin et al. (2006, p. 96) propose the concept of multichannel customer management and define it as "the design, deployment, coordination, and evaluation of channels to enhance customer value through effective customer acquisition, retention and development." The concept is used for guiding retailers to develop multichannel marketing strategies from a customer-centric view.

Multichannel shopping

From a customers' perspective, we define multichannel shopping as consumers' usage of more than one channel in the shopping process covering different stages (e.g., searching information, purchasing products/services, obtaining after-sales services). Accordingly, a multichannel shopper is a person who shops in (uses) more than one channel during the buying process (Konuş et al. 2008; Schröder and Zaharia 2008).

Framework

Previous works discuss multichannel customer management from aspects of channel selection, multichannel strategy implementation, and channel evaluation (Neslin et al. 2006; Neslin and Shankar 2009; Verhoef 2012), and from the view of how retailers communicate with customers based on customer needs (Kumar 2010). We propose a framework grounded on these studies and refined by considering the whole interaction decision process between retailers and customers from channel selection to its consequences in retailing contexts. The current framework is served to understand customers' channel choices and responses to retailers' multichannel marketing activities, and help retailers to make better multichannel strategies and resource allocation. Specifically, our framework includes three stages (i.e., input, process, and output stages) (see Figure 2) to guide the following discussion. In the input stage, we summarize determinants of channel choice. Retailers decide whether to add or eliminate channels in their channel mix (Konuş et al. 2014; Verhoef 2012), while consumers decide whether to adopt new channels or migrate from one channel to another. In the process stage, we explain how customers' shopping behavior evolves and how retailers implement marketing strategies in a multichannel environment. Multichannel retailers may implement various marketing-mix and channel integration strategies to attract and retain customers and increase sales. Customers may use different channels to search and purchase in various contexts. In the output stage, we synthesize the consequences of the multichannel activities on both customers and retailers. A retailer's marketing strategies and consumers' shopping

behavior across channels affect (1) consumers' satisfaction, retention, and loyalty (Wallace et al. 2004) and (2) retailer and channel performance (e.g., purchase frequencies, sales, profits) (Wang et al. 2015). Note that customer outcomes such as satisfaction and loyalty also affect retailer performance. We also consider several moderators categorized as market-, retailer-, product-, customer-, and context-related (Konuş et al. 2008; Pauwels et al. 2011).

[Figure 2 here]

RQ1: Determinants of retailers' channel choices

Changing the retail channel mix is an important strategy to improve customer loyalty and experience, increase sales and profits, and respond to competitors' activities (for reviews, see Lewis et al. 2014; Zhang et al. 2010). In this section, we discuss what drives retailers to change their channel mix and add or eliminate channels. One major challenge in answering this question is that very limited research on drivers of retailers' channel choices exists. One exception is the study of Jindal et al. (2007), who consider the role of generic firm strategies (i.e., cost-leadership and differentiation) and the impact of customer orientation. They argue that generic strategies affect the breadth of retailers' channel mix because of different strategic natures. They find that retailers with a low-cost strategy use many channels to achieve economies of scale by providing more access to products and services, while those implementing a differentiation strategy also use many channels but keep low intensity in each. Jindal et al. maintain that retailers with a strong customer focus aim to deliver an improved customer experience and therefore use a more narrow variety of channels to avoid intra-brand competition and channel conflicts.

To derive more insights, we consider which factors moderate the success of retailers' channel-mix decisions. Extant research suggests the success of a channel decision depends on

market environments, retailer characteristics, channel capabilities, product categories, and customer characteristics.

Market environments

Literature has considered multiple market environment characteristics that are relevant for a retailer's channel choice. Studies find that the addition of a new channel creates more value in a turbulent market characterized by high customer demand volatility, by allowing the firm to spread risk across more channels (Homburg et al. 2014), but do not provide support for the effect of demand growth (Geyskens et al. 2002). Homburg et al. (2014) also indicate that adding an online channel is a viable way to differentiate from competitors without online channels, thus generating more value in heavily competitive markets. However, Ofek et al. (2011) argue that for apparel and jewelry retailers that sell products with high "touch and feel" attributes, adding an online channel in a market with strong competition does not necessarily yield competitive advantages and profits. This is because, on one side, retailers face higher return costs on websites than offline channels and, on the other side, need to invest more in offline channels to differentiate it from others.

Competitors' marketing activities also matter. Van Nierop et al. (2011) find that a competitor's strategies of both introducing a web store and advertising new loyalty programs have negative effects on the value creation of a focal retailer's online channel addition. In summary, extant research suggests that retailers should add channels in turbulent markets, while there is some mixed evidence on the role of competitive intensity. Still, competitor actions may drive changes in the channel mix (Verhoef 2012).

Retailer characteristics

Retailer-specific characteristics, including market position, the channel power over distributors, retailer size, sales growth, operating efficiency, and operation experience of different channels, also affect the value creation of channel addition. Homburg et al. (2014)

find that operating efficiency and achieved sales growth negatively affect the value creation of an online channel addition. This is because the new channel not only is unnecessary for the retailer with high efficiency and sales growth but also needs extra investments and costs of setting up new resources or integrating with existing channels. Geyskens et al. (2002) show that the number of established direct channels also has a negative effect on value creation of online channel additions. The more direct channels a retailer already offers, the lower is the likelihood that a new online channel will be perceived as distinct and attract new demand. Channel power is positively related to performance potential of channel additions, because sufficient channel power reduces conflicts with existing channel partners. However, market position (i.e., market leaders vs. market followers) and firm size do not have significant impacts in the two studies.

Findings from the literature indicate that a retailer's channel-introduction strategy also matters in retailers' channel choices. Pauwels and Neslin (2015) explore the value of adding physical stores to a retail website and show differential effects from studies that explore the effects of adding a retail website to a set of existing physical stores (Homburg et al. 2014). In particular, they find that announcing the availability of a new channel can develop customer awareness of this channel and thus enhance value creation. Retailers that are early followers with their channel addition also benefit more from the online channel addition than those that are pioneers and later entrants (Geyskens et al. 2002). Jindal et al. (2007) also show that the size of product assortment is positively related to the variety of channel mix.

Existing channel capabilities

Channels differ in the ability to provide information, compare and touch products, and compare prices (Verhoef et al. 2007). For example, customers can more easily obtain information, price comparisons, and assortment-seeking value through the Internet than in traditional channels (Noble et al. 2005), while customers in physical stores can touch, feel,

and immediately possess a product. Avery et al. (2012) show that adding physical stores to the catalog channel (the Internet) generates cannibalization (synergy) effects because of the higher (lower) overlap of channel capabilities.

Product categories

Because products differ in complexity, purchase frequency, and tangibility (Konuş et al. 2008), some are better suited to be sold in a specific channel than others (Inman et al. 2004). For example, habitual products with short consumption cycles and high frequency of use (e.g., fresh produce, baby food) fit mobile channels better than products requiring research, planning, and extended consideration because of the limited screen size of a mobile device (Wang et al. 2015). Sensory and intangible products are more suited for online channels because of low search costs and a lower need to experience products (Kollmann et al. 2012; Pauwels et al. 2011), while products with more involvement and experience attributes (e.g., automobiles, perfume) tend to be purchased in physical stores (Chen and Tan 2004; Gensler et al. 2012b). Chang et al. (2016) further reveal that buying products from a "fit" channel can significantly improve customers' trust in retailers and increase their spending.

Kushwaha and Shankar (2013) further assess the interaction of different product attributes across channels (i.e., utilitarian vs. hedonic, high- vs. low-risk). They find that low-risk categories have positive effects on value generated by customers who only purchase in traditional channels, while hedonic categories and categories of both low risk and a hedonic nature positively affect value creation of multichannel customers (traditional and Internet-based channels). They also show that utilitarian categories with high (low) risk positively affect performance generated by web-only (catalog- or store-only) customers.

Customer characteristics

Retailers may also change the channel mix as their customers desire the availability of new channels. Individual customers differ in channel preferences because of various characteristics

(i.e., geographic characteristics, demographics, and behaviors) (Wilson et al. 2008). Thus, we discuss drivers of channel additions by considering which customers are more likely to use new (online and mobile) channels.

We consider two geographic characteristics: distance to stores and level of urbanization. Previous research shows that customers who live far away from the closest physical store are more likely to purchase through online and mobile channels (Melis et al. 2016; Venkatesan et al. 2007; Wang and Goldfarb 2016). Regarding urbanization, Montaguti et al. (2015) show that customers in big cities tend to choose more channels when purchasing books, while Konuş et al. (2008) do not find a significant effect of urbanization on the number of channels used to buy books, but do so for clothing.

Studies have also explored the effects of age, gender, income, education, and family size as demographic variables. Findings show that young customers tend to use Internet-based channels in general (De Keyser et al. 2015; Narang and Shankar 2016; Van Nierop et al. 2011; Xue et al. 2011), while customers older than 61 years show the lowest likelihood to purchase via mobile channels because of the high cognitive effort involved in learning how to handle a new technology and their low need for a fast-paced life (Wang et al. 2015). Kushwaha (2007) finds an inverted U-shaped relationship between age and multichannel shopping. Middle-age people are more likely to purchase via multiple channels, while older and younger people have a higher propensity to be offline-only shoppers due to more available time. Other studies show that male customers are more inclined to use new channels than female customers across categories (i.e., health and natural products, video games, electronics and wireless services, and apparel) (Li et al. 2015; Narang and Shankar 2016; Venkatesan et al. 2007). However, the effect of gender may differ depending on product categories. Montaguti et al. (2015) find that in the book category, women are more likely to use multiple channels to purchase than men. Moreover, customers with higher incomes and

higher education show a higher online and multichannel shopping tendency (e.g., Kumar and Venkatesan 2005; Van Nierop et al. 2011). Kushwaha and Shankar (2013) indicate that customers with a large family size prefer shopping online, while customers without children are more likely to stay offline and less likely to migrate to online channels (Ansari et al. 2008). Nevertheless, some studies do not find significant roles of these demographics in channel choices, as demographics are not strongly related to customer behavior in all contexts (e.g., Kollmann et al. 2012; Konuş et al. 2008).

Retailers should consider several key consumer behaviors as well. Customers with more online experience, higher purchase frequency, higher cross-buying, and a longer relationship are prone to adopt new channels more quickly (Ansari et al. 2008; Frambach et al. 2007; Kumar and Venkatesan 2005; Narang and Shankar 2016; Pauwels et al. 2011; Venkatesan et al. 2007). Customers' past returns of products have a U-shaped relationship to the second channel addition but a negative effect on the third channel addition (Venkatesan et al. 2007). We summarize key topics and current findings of each section in Table 1.

[Table 1 here]

Future research

Previous studies provide valuable knowledge of multichannel retailing; still, research gaps can be identified. Moreover, multichannel retailing has created many challenges for retailers. Although retailers develop their multichannel marketing strategies cautiously, they still face issues that need to be resolved. In addition, environmental changes due to technological advances (e.g., apps, augmented reality, virtual reality) drive different developments of multichannel retailing. Thus, we systematically derive three research areas that deserve future study: (1) research **g**aps, (2) **u**nresolved issues in practice, and (3) **e**nvironment changes (e.g., technological advances). We abbreviate our perspectives as the GUE approach and summarize future research questions for each section in Table 2.

Research gaps The majority of studies have discussed a retailer's decision for channel additions. However, with multichannel retailing becoming the new norm, the question arises if providing customers with multiple channels (e.g., by adding new channels to the mix) will continue to be a value driver for companies, or will multichannel provision become a basic requirement rather than a differentiating factor?

Turning to channel elimination, research is still scant. Only Konuş et al.'s (2014) study provides a first investigation into channel elimination. However, their study focuses on how channel elimination influences customers' subsequent purchase behavior and does not discuss the drivers of channel elimination. L Brands, the parent company of Victoria's Secret, recently announced that it will eliminate its famous catalogs because they had little to no impact on product sales (Dostis 2016). However, L Brands did not consider the role of catalogs as a channel to retain customer; many customers like their famed catalogs even though they did not purchase often through this channel and probably will negatively respond to its elimination. Thus, more knowledge of the effects of channel elimination is required. We pose two questions. First, what drives retailers' channel elimination? Potential drivers could be the customer base in a channel, customer preference for and usage of a channel, and the role of a channel in the whole channel system (e.g., sales channel vs. search channel). Second, how does channel elimination influence customers' purchase behavior and loyalty to retailers?

Another interesting and relevant topic is that the moderators or drivers of retailers' channel mix may play different roles for different channel decisions, i.e., channel addition versus channel elimination. For instance, intense competition potentially leads retailers to add new channels as a differentiation mechanism or simply a defensive mechanism to compete with others. However, strong competition might reduce the possibility of eliminating channels because of the fear of losing customers in existing channels to competing retailers, although

some existing channels might only create low profit or not generate net margin any more. Such questions should be considered in future research of channel decisions.

Unresolved issues Some retailers are still operating only a single channel, even though multichannel retailing has become the dominant strategy. These retailers might lose multichannel shoppers and give customers of multichannel competitors extra benefits due to, for example, the showrooming phenomenon (Gensler et al. 2017; Van Baal and Dach 2005). Do retailers view a single channel as a durable strategy, or will they adopt a multichannel strategy soon? We suggest that future research explore why some retailers maintain a single channel instead of moving to a multichannel strategy. The majority of retailers operating multiple channels might weight these channels differently in terms of their role in consumers' purchase journey. These different approaches might require a new taxonomy that takes into account different channel roles in the channel mix. Thus, research should determine what drives retailers to assign different weight to the roles of channels in their channel mix.

Environment changes With the development of new technologies, social media can also provide transactional functions similar to online and mobile channels. For example, customers can directly purchase a product on the Twitter account of Zara after seeing related information on Twitter; they do not necessarily need to switch to another purchase channel to complete the transaction. Given that social media platforms show different attributes (e.g., strong social networks on social media) than websites or retailer apps, the drivers of retailers' choices might also be different. Thus, the question is why retailers adopt social media as transaction channels and how they should manage all these channels. Moreover, with the increase of available customer data, more knowledge on how retailers can make more informed decisions based on these data is necessary. Although previous research provides first insights into the impact of different customer patterns on subsequent purchase(-related) behaviors (e.g., Joo et al. 2014), a comprehensive overview of within- and cross-channel

effects and how retailers can integrate these findings into their strategic decision making is still lacking.

[Table 2 here]

RQ2: Determinants of customers' single-channel selections

The topic of customers' antecedents of channel choices has been popular for a long time. We classify determinants of channel choices into six groups: channel attributes, marketing effort, channel integration, social influence, situational variables, and consumer heterogeneity (Neslin et al. 2006). As we already discussed the role of socio-demographics in the prior section, we do not repeat the respective findings again.

Channel attributes

Research on channel attributes emphasizes consumer perceptions of channel capabilities and functions. Early research on multichannel retailing addressed the effects of general attributes that can be applied to all channels, such as ease of use, usefulness, enjoyment, risk, and trust, on consumers' channel adoption by employing the technology acceptance model (e.g., Vijayasarathy 2004), the theory of reasoned action (e.g., Verhoef and Langerak 2001), the theory of planned behavior (e.g., Shim et al. 2001), and innovation adoption theory (e.g., Chen and Tan 2004). Later studies continued to apply these theories to focus on new capabilities and functions of online channels, including security and privacy (e.g., Ha and Stoel 2009), service quality (e.g., Kollmann et al. 2012), information quality (e.g., Noble et al. 2005), the speed of purchase and response time (e.g., Verhoef et al. 2007), convenience (e.g., Kollmann et al. 2012), system accessibility (e.g., Lin and Lu 2000), website design (e.g., Montoya-Weiss et al. 2003), and price (e.g., Teerling and Huizingh 2005).

With the appearance of mobile websites and apps, similar studies on general attributes have emerged (e.g., Bruner and Kumar 2005; Ko et al. 2009; Sultan et al. 2009). For example, usefulness and ease of use mediate the effects of perceived risk and perceived benefits on

mobile shopping intentions (Hubert et al. 2017). In addition, the particular characteristics of mobile devices (e.g., smartphones, tablets), including location specificity, portability, and wireless feature, affect customers' intention to use these channels (Shankar and Balasubramanian 2009). For example, customers' perceived visual complexity of a mobile website due to the relatively smaller mobile screen increases search cost, time, and effort, which subsequently decrease their intention to use the mobile website (Fritz et al. 2017).

Marketing efforts

Marketing efforts are intended to persuade customers and influence their behavior in multichannel contexts (Dholakia et al. 2005; Montaguti et al. 2015). Retailers convey information about their products, services, promotions in different channels to potential consumers through marketing activities, such as e-mail and catalogs. Ansari et al. (2008) show that marketing communication through e-mail accelerates customer migration to online channels, while marketing communication through catalogs promotes customers' use of catalogs. However, catalogs that remind customers of all a retailer's available channels can improve the likelihood of purchasing in these channels. Kushwaha (2007) finds that catalogs also spur customers to become multichannel shoppers. Moreover, the frequency of e-mail and catalogs has a critical and nonlinear effect on consumers' channel adoption (Venkatesan et al. 2007)—it reduces the time to channel adoption when it is below a threshold and increases the adoption duration when it is beyond a certain threshold. The wear-out effect, in which customers respond less to marketing activities over time, also occurs in multichannel contexts (Valentini et al. 2011).

Channel integration

Integration across channels helps consumers perceive more consistency and have less confusion. It caters to customers' needs for a seamless experience during multichannel shopping (Melero et al. 2016). Cao and Li (2015) provide detailed evidence of the positive

effect of channel integration, which can be explained by four mechanisms. They argue that channel integration positively influences a retailer's overall sales growth by improving consumer trust, improving customer loyalty, increasing conversion rates, and providing more opportunities to cross-sell. At the channel level, Herhausen et al. (2015) report that integrating access to and knowledge about an offline store into an online channel increases the perceived quality of the focal website and leads to more online purchases. Melis et al. (2015) also show that consumers prefer a newly added website that offers a similar assortment to the offline channels of the same retailer, as they are more familiar with such an online shopping environment and perceive lower risk when they purchase in this new channel.

Social influence

Customers' channel choices are also affected by the interaction with their social networks (Verhoef et al. 2007). Moreover, studies reveal that interactions between customers who can be observed in the same consumption environment influence their consideration of products and brands (Baxendale et al. 2015; Wang et al. 2012). Bilgicer et al. (2015) detail that a customer's network peers, who live in close proximity and are similar to him or her, are easier to communicate with and share purchase experience, thus influencing his or her adoption of a new channel. More important, the effects of geographic proximity on imitation behavior of online channel usage in one's social network decrease over time, while the effects of similarity among individuals on imitation behavior in the social network have a rising trend (Choi et al. 2010).

Situational factors

Situational factors cover environmental conditions and temporal issues in extant research. Environmental conditions influencing channel choice refer to the environment in which consumers access a specific channel, "together with any complicating factors arising from the intervening technologies" (Nicholson et al. 2002, p. 134). They include weather, mobility,

distance, crowdedness, and visible configurations of channels. Recent studies also provide evidence of the effects of these environmental conditions. For example, Andrews et al. (2015) and Li et al. (2017) show that increased physical crowding and sunny weather make consumers more susceptible and respond more to mobile promotions, respectively. Regarding temporal issues, the urgency of purchase is significant. Customers under larger pressure of limited time are more likely to purchase in Internet-based channels, which are convenient to use and accessible at any time and place (Konuş et al. 2008; Melis et al. 2016). Studies also suggest that holidays and event proximity, such as date relative to "pay day," can affect customers' channel choices (e.g., Nicholson et al. 2002; Van Nierop et al. 2011; Wang et al. 2015).

Consumer heterogeneity

In addition to the heterogeneity of customer demographics and past behaviors mentioned in RQ1, customer psychographics lead to distinct intrinsic preferences for a certain channel (Konuş et al. 2008). We discuss multiple variables that have been studied. First, online self-efficacy, defined as "a consumer's self-assessment of his/her capabilities to shop online" (Vijayasarathy 2004, p. 751), can improve consumers' preference for online shopping (O'Cass and Fenech 2003). Second, Bruner and Kumar (2005) find that consumers who are more predisposed toward a visual model have a higher tendency to adopt Internet-based channels because they tend to process information by mental imagery and are more attracted by visual cues (e.g., icons, symbols) than low-visual consumers. Third, consumers with higher price sensitivity tend to choose online channels more often because of the convenience of price comparisons and an overall lower perceived price (Degeratu et al. 2000; Lynch and Ariely 2000). Fourth, goal-oriented consumers are more likely to use online channels, which ease the search for information and thus save time, while experiential-oriented consumers are

more prone to use catalogs and physical stores because they can experience enjoyment of shopping in traditional channels (Pauwels and Neslin 2015).

Future research

Research gaps Numerous studies have explored the antecedents of customers' channel choices, making it a rather mature research area. First, a meta-analysis on this topic would be valuable to provide generalized conclusions (Verhoef et al. 2015). Second, the potential boundary conditions of channel adoption have not been discussed. For example, the time of day could have an influence on what kind of channels a consumer chooses to pursue (e.g., consumers likely turn to online channels outside regular opening hours of physical stores). People on the way to work likely browse news on their smartphones in the morning; thus, they might also be more likely to shop on their smartphones as only their smartphones are available at that point in time. People working in an office during the day might shop on their work computers, while they might play games or chat with others on their smartphones before going to bed at night and thus are more likely to use their smartphones to shop at that time. Another potential boundary condition is the channel through which a purchase link is recommended by retailers, brands, or friends. For example, a consumer who receives a product link through WhatsApp or WeChat will probably open the purchase link and not switch to other channels to avoid extra switching costs because he or she trusts the source of the provided information. Similarly, if retailers or brands recommend a purchase link to consumers through e-mail, consumers might use websites to purchase when they read their e-mail on their PCs.

Antecedents of channel choices might influence customers differently according to distinct usage, i.e., purchases versus communications. Polo and Sese (2016) explore and reveal different roles of same drivers played in channel decisions of purchasing and communicating. They show that prior experience, customer attitude, and offline-channel

preference play more important roles in purchasing channel decisions, while marketing activities and online-channel preference drive more communication-related channel choices. The study of Polo and Sese (2016) contributes to our understanding of customers' channel choices in different situations, but more related research is needed in the future.

Customers also behave differently during their purchase journey (e.g., Lemon and Verhoef 2016). Thus drivers of customers' channel decision might be different across purchase stages. For example, consumers may choose channels based on their prior experience in the pre-purchase stage, or being influenced by retailers' marketing effort like advertisements. In the purchase stage, consumers' channel choices might depend more on the association between product categories and channel attributes, peer contagion, and also marketing activities like coupons. Post-purchase stage involves both purchase-related activities (e.g., consumption, product return, service request) and non-purchase behaviors (e.g., word of mouth). Purchase-related behaviors shape customer experience and lay the foundation of customers' further engagement. Moreover, consumers might be triggered to become loyal or start new purchase processes in this stage. However, little research differentiates purchase stages when studying drivers of customers' channel choices. We thereby urge future research to contribute to this topic and refine antecedent differences in purchase journey.

Unresolved issues Mobile apps are important for mobile channels. However, approximately 20% of apps are only used once after being downloaded (Hoch 2014), and 50% of customers will delete an app if they find it does not work properly (SmartBear 2014). It seems that stickiness of apps is a problem for retailers. Further research on the drivers of repeated usage and disadoption of apps is required (Prins et al. 2009).

Another related question is apps' dark side, namely, privacy issues. More and more retailers are adopting apps to attract and engage customers. One of the advantages of

marketing products in apps is to develop personalized strategies for individuals, which is based on customers' personal information (e.g., email address, phone number, location), searching and purchasing histories, external information derived from one's social media, etc. However, such information and data is highly connected to customer privacy and may trigger customers' perception of intrusiveness (e.g., van Doorn and Hoekstra 2013; for a literature review, see Beke, Eggers, and Verhoef 2018). Thus privacy information collected and used by retailers might be a concern inhibiting customer usage of apps. Furthermore, it also influences customers' reactions to retailers' marketing efforts and probably reduce the effectiveness of personalized strategies when privacy related information is very sensitive or not used in an appropriate approach. We suggest future studies on mobile apps pay more attention on privacy issues and its consequences of customer responses to retailers' marketing activities.

Environment changes Retailers are integrating more technologies in their offline stores to improve customer experience. For example, since 2017 Walmart has installed in-store pick-up kiosks (Retail Customer Experience 2017). Customers can scan a barcode located on their purchase receipt and receive items appearing on a conveyor belt within 45 seconds. These new technologies pose the following research question: How do such technologies combined in physical stores change customers' attitudes, experiences, and purchase intentions offline? An extreme example is when technology in-store replaces all employees, such as in the case of the Alibaba Group in China, which publicly opened the physical store Tao Cafe without any employees on July 8, 2017 (Liangyu 2017). A similar store concept is the upcoming Amazon Go (Retail Customer Experience 2016). However, this is a new retailing phenomenon that has not been discussed in research. More knowledge of physical stores without any employees is required. For example, how will customers perceive and adopt them? In addition to advanced physical stores, knowledge is required on why

customers choose or do not choose to purchase products on social media if social media has transactional functions.

RQ3: Multichannel shopping and customer segments

Only one of three shoppers exhibited a single-channel shopping style, with the other two-thirds regularly using more channels to shop, according to an online study by the Baker Retailing Center (2011); another recent study showed that 73% of customers used multiple channels during their purchase journey (Sopadjieva et al. 2017). The phenomenon of multichannel shopping is well-established, as it can satisfy consumers' different needs and preferences in various contexts and along the purchase journey (Verhoef et al. 2007). For example, a customer might try on a dress and buy it immediately in one of Zara's offline stores, search and buy a book on Amazon's website, or buy a movie ticket with her smartphone; this customers also has the ability to buy the dress on Zara's website when she is in the office or through Zara's app when she is on the subway.

Multichannel shoppers may have no certain preference for a particular channel at all times, but rather their preferences are time- and context-varying. Their demands are indeed dynamic and changing, which is contingent on all the internal and external circumstances discussed previously in RQ2. Konuş et al. (2008) find that consumers prefer using multiple channels to buy low-touch products (without the need for inspection before purchase; e.g., airline tickets, software) to high-touch products (e.g., clothing, health products) because they value the convenience and quick purchasing. Multichannel behavior can be significantly boosted by marketing campaigns stressing multichannel benefits without financial incentives (Montaguti et al. 2015). In general, consumers can purchase through a combined channel mix to fulfill their multiple internal needs, such as their emotional and social needs in physical stores and convenience and independence in Internet-based channels (Schröder and Zaharia 2008).

Customer segments

Retailers need to reach the right customers with their channel approach and identify characteristics and needs of specific customer segments, which is a key goal of retailers' multichannel strategies (Konuş et al. 2008; Wilson et al. 2008). The primary differentiation of customer segments is based on channel categories and the number of channels adopted in customers' repeat purchases (see Table 3) (McGoldrick and Collins 2007; Montaguti et al. 2015). For example, multichannel shoppers express positive attitudes toward all channels and are much younger than other segments (McGoldrick and Collins 2007).

Konuş et al. (2008) identify three customer segments for offline stores, catalogs, and the Internet across several categories. The first segment is uninvolved shoppers, who neither rate any channel highly for two stages of the purchase journey (i.e., search and purchase) nor show an unequivocal preference for multichannel shopping. They exhibit low loyalty, low shopping enjoyment, relatively lower price consciousness, and slightly higher innovativeness. The second segment is multichannel enthusiasts. They have strong positive attitudes toward the three channels for search and transaction and show low loyalty but high innovativeness and high shopping enjoyment. The third segment consists of store-focused shoppers, who exhibit high loyalty, relatively high shopping enjoyment, and low innovativeness. This segment has a clear preference for physical stores but hold unfavorable attitudes toward other channels.

De Keyser et al. (2015) extend Konuş et al.'s (2008) study by also including an after-sales stage, a call center channel, and more covariates (e.g., product complexity) to predict customer segments. They refine the multichannel enthusiasts as research-shoppers and web-focused shoppers and further differentiate the two segments into subgroups according to the channel used in the after-sales stage. They also identify an important segment of call center–prone shoppers. Compared with covariates in Konuş et al.'s (2008) study, customer loyalty

and perceived complexity of products predict customer segments in De Keyser et al.'s (2015) work, but innovativeness is not significant.

Research-shoppers are a special segment because they switch channels during the purchase journey. Research-shoppers search information in one channel but accomplish final transactions in another channel (Verhoef et al. 2007). This segment occupies more than 30% of the total customer sample in related studies (e.g., Schröder and Zaharia 2008) (see Table 3), with some customers in this segment being free riders (Van Baal and Dach 2005). Free riders search in one channel of retailer A but purchase in another channel of retailer B. Verhoef et al. (2007) offer three mechanisms that explain the research-shopping phenomenon. The first is channel-stage association, or the perceived matching association between channel attributes and customer needs in a specific purchase stage. The second mechanism is channel lock-in. A high lock-in channel has enough stickiness to keep customers who both search and purchase products in it instead of switching to another channel after searching information. Thus, research-shopping is more likely to occur in low lock-in channels. For example, the Internet has a low lock-in level because of the ease of exiting and the perception of information source in customers' minds. The third mechanism suggests that searching in one channel will improve the experience of purchasing in another channel, thereby activating cross-channel synergy.

Research-shopping can be grouped into two opposite behaviors: web rooming and showrooming. With web rooming, consumers search information on websites and purchase products or services in offline stores (Phillips 2013), which enables them to combine the independence and convenience of searching information online with the decreased risks of buying offline (Schröder and Zaharia 2008). Conversely, showroomers view products in a physical store and later buy them through the online channel (Butler 2013; Wolny and Charoensuksai 2016). Recently, research has associated competitive showrooming with free-

riding behavior and defined it as searching in an offline channel of retailer A but purchasing online at retailer B (Chiu et al. 2011; Gensler et al. 2017). Daunt and Harris (2017) argue that in a situation of competitive showrooming, consumers use offline resources provided by retailer A but do not purchase from it, which damages A's benefits but is conducive to retailer B. They demonstrate that characteristics of consumers, channels, and products are critical antecedents of the value damage and creation of showrooming for different channels and retailers. Gensler et al. (2017) further show that a higher perceived price dispersion in an online channel leads to price comparisons and accelerates competitive showrooming. They find that lower perceived average prices, higher quality in the online channel, and long waiting times to receive help in a physical store are positively related to showrooming.

Consumers may also use different channels in the after-sales stage of the purchase funnel. Even consumers who search and purchase on websites do not necessarily go to websites to obtain after-sales services. Rather, approximately 30% of these customers choose stores or call centers in the after-sales stage (De Keyser et al. 2015), probably because they need human contact to deal with complex issues related to consumption. However, more Internet experience could improve the usage intention for online channels in the after-sales stage (Frambach et al. 2007).

[Table 3 here]

Future research

Research gaps Previous research has segmented consumers according to channel usage and psychographics. This segmentation only considers customers' current characteristics; however, according to Neslin and Shankar (2009), another promising approach to segment customers is to take into account a more forward-looking perspective. These authors suggest that customers differ not only in their intrinsic channel preferences for and responses to marketing efforts but also in their growth potential (i.e., based on purchase quantity, timing,

returns, and margin), which includes rich information for predicting future behavior. Thus, integrating the three perspectives (i.e., preferences, responsiveness, and growth potential) to segment customers would provide more insights and should be explored in future studies. Accordingly, this begs the question of how this segmentation method can be put into a measurable, accessible, and actionable scheme that can be applied to a retailer's entire customer base.

In all the customer segments identified in previous studies, research-shoppers are notable (Verhoef et al. 2007). However, previous studies on research-shoppers only use survey data and do not link this phenomenon with customers' real purchase behavior. Thus, future research could explore how customers' channel-switching behavior during the same purchase journey influences their spending and retailer performance.

Unresolved issues Given rapidly evolving markets and customers, multichannel retailers are faced with the challenge of accurately identifying customer segments. To be responsive to this dynamic environment, however, retailers need an approach with stronger predictive ability for customer segments (Neslin and Shankar 2009). After identifying different customer segments, retailers are still faced with the challenges of how to estimate financial and nonfinancial benefits generated by each segment, how much marketing efforts to expend in each segment, how to manage all segments across channels, product categories, brands, and so on.

Environment changes The most significant change brought by technology advances is related to mobile apps, social media, and other digital touchpoints. First, regarding customer segments, the proliferation of these new channels leads to changes in purchase-related behavior. Future research should take into account new channels to identify customer segments and explore customer characteristics and new channel usage in each segment. The increasing use of multiple touchpoints in an omnichannel environment also calls for new

segmentation studies (Verhoef et al. 2015). Such studies should also consider competitive touchpoints and channel usage.

Second, we might also expect research-shoppers' behavioral patterns to evolve with the proliferation of new channels. For example, a consumer might search information online and later make a purchase through his or her smartphone while being on the go or on a computer. This situation differs from web roomers and showroomers discussed in previous studies. Therefore, we encourage future research to identify more patterns of research-shoppers. Moreover, what kind of situational factors and customer characteristics can predict these different sequences of channel usage during consumers' purchase journey? How do consumers' experiences in one channel influence their perceptions of subsequent channel touchpoints?

Third, in focusing on one channel—mobile apps—most research has so far concentrated on whether a purchase took place through an app (e.g., Wang et al. 2015), but little is known about which app features (e.g., information look-up, check-in, loyalty program, promotion offer, customer services) consumers use in different contexts and how their usage influences subsequent purchase-related behaviors. Kim et al. (2015) find that using the feature of information look-up or location check-in can increase customers' future spending and using the combination of the two features can increase spending than only using one feature. However, they broadly define information look-up, which makes it unclear whether a customer is searching a product, checking point balances, browsing reward items, and so on, when he or she is looking up information on the app. Future research should explore how customers use specific functions of Internet-based channels in different contexts and how different function usage influences customers' purchase behavior.

RQ4: Multichannel marketing strategies

The strategies of multichannel marketing can be categorized into the marketing mix and channel integration (Friedman and Furey 2003). For the marketing mix, channels of the same retailer are independent of one another and separately provide a package of services that target certain customer segments. For channel integration, channels are not independent and offer joint services with links to other channels.

Marketing mix

Decisions regarding the multichannel marketing mix focus on pricing, promotion, assortment, communication, and service across channels in specific stages of the purchase funnel (Verhoef 2012). We expand on these components of the marketing mix next.

Pricing Most multichannel retailers set the same price across channels to avoid any perceived inconsistency and dissatisfaction, while other retailers apply channel-based price discrimination (Wolk and Ebling 2010). Empirical studies show that Internet-based channels set lower prices than physical stores on average, probably because of higher perceived risk and lower searching cost on the Internet (e.g., Ratchford 2009; Wolk and Ebling 2010). Li and Tang (2011) compare multichannel and online-only retailers and find that the former differentiate themselves from pure online retailers on nonprice dimensions and thus set higher prices.

Price discounts are a popular pricing strategy in multichannel retailing. However, Breugelmans and Campo (2016) find that price promotions in one channel can have negative effects on purchases in the other channel because customers reallocate their spending depending on promotions to maximize their benefit. Channel attributes (e.g., convenience and no travel costs in online channels) could lead to asymmetric effects; for example, Breugelmans and Campo show that online price promotions have a stronger negative impact on offline purchase than offline promotions have on online purchase. Some retailers choose to advertise in-store prices online to shift purchases to offline because an online channel can

well exhibit price information of all products and effectively target online customers. Zhang (2009) maintains that this strategy is useful only when the online margin is low because, in this case, the shifting to offline can generate higher profits. Prior research has recently proposed retailers' use of more pricing innovations because of technology advances and rich data in multichannel contexts, such as dynamic pricing models using data from Internet purchases (for a review, see Grewal et al. 2011).

Promotion Research shows that different promotions across channels interact with one another. For example, promotions in physical stores affect not only store purchases but also purchases in catalogs and on the Internet (Pauwels and Neslin 2015). Olbrich and Schultz (2014) find that print advertising can stimulate the click-through rate and conversion of search engine advertising, as search engines can navigate print media consumers to the advertised website. Naik and Peters (2009) conduct a generalized study on the interaction of offline (television, print, and radio) and online (banners and search) advertisements and find significant synergy effects among all the advertisements. They also reveal that offline/online advertisements can drive customer visits in both offline and online channels. Furthermore, Lobschat et al. (2017) suggest that for non-recent online customers, both banner and television advertisements can activate awareness of the advertised products, thus driving website visits and indirectly improving offline sales through website visits. However, banner ads are not effective for recent online consumers, while television ads can still remind these customers of the advertising retailer. Thus, banner ads do not affect recent online customers' website visits, but television ads increase the likelihood of an offline purchase for these customers.

Retailers also use customized promotions to take advantage of the increasing amount of individual data available in the multichannel environment. Customized promotions (promotions provided to selected consumers) can be implemented at three levels of

granularity: a mass-market level, a segment level, and an individual level. In general, performance improvements for customized promotions with more granular levels are small but hinge on product categories and shopping venue (Zhang and Wedel 2009). Zhang and Wedel (2009) also show that loyalty promotions, which target customers who purchased a specific product before the promotion, are more valuable for online stores, while competitive promotions, which target customers who did not purchase a specific product before the promotion, are more effective for offline stores.

Multichannel retailers are also widely delivering mobile promotions in formats such as short message services, in-app messaging, social media, e-mail, or push or pull notifications. Mobile promotions aim to incentive a specific consumer response in the short run (for a review, see Andrews et al. 2016). Consumer responses might be to visit a physical store, make an in-store purchase, share product/service or location-based information through social media, or try new products. For example, mobile coupons can be sent when customers swipe their smartphones at mall entrances by using location-based technologies to attract them to purchase offline. Danaher et al. (2015) show that offline redemptions of mobile coupons in this case vary by location and time of delivery, expiry lengths, face values, and product categories.

Assortment Different assortments across channels may lead to consumer confusion, cognitive overload, distrust, and frustration (Neslin and Shankar 2009), especially when customers initially shop in multiple channels (Melis et al. 2015). However, each channel has different attributes, costs, competitions, and target customers. Distinct assortments in different channels can also complement one another and extend retailers' product coverage; thus, it is reasonable to differentiate assortments across channels (Berry et al. 2010; Neslin and Shankar 2009). One popular assortment differentiation strategy is asymmetric assortment. Retailers with asymmetric assortments carry larger product assortments online than offline because of

lower search costs for customers in online channels. Offering a large assortment online also allows for lower inventory and less space constraints than in the offline setting (Zhang et al. 2010). For example, Ma (2016) argues that retailers can benefit from offering both main and niche products in their online channel but only main products in the catalog channel. Emrich et al. (2015) explore the effects of asymmetric assortment by comparing it with an identical assortment across channels and an entirely different assortment across channels for different retailers. They find that asymmetrical assortments have advantages only for general retailers providing independent products (e.g., a DVD player and a vase) but have detrimental effects on limited-line retailers providing substitutive products (e.g., different DVD players).

Another assortment decision concerns the design of assortments across channels. Retailers can use a prototypical design to offer a channel-specific format for online shops with standardized and conventional presentations of assortments. They can also use a homogeneous design to offer similar assortments across channels, typically using the offline design as the leader (Emrich and Verhoef 2015). In their study, Emrich and Verhoef (2015) show that store-oriented customers prefer homogeneous designs, but this preference is offset by competitive price cues online.

Communication In addition to the function of search and purchase, retailers provide two-way communication in Internet-based channels to reach and interact with customers (Verhoef et al. 2015). Retailers can provide both machine and person interactivity in online and mobile channels (Gu et al. 2013). Machine interactivity refers to interactions between humans and the medium, such as the provision of keyword search on websites and store locators in mobile devices, whereas person interactivity refers to interactions between people through the medium such as click to call and live chat. Gu et al. (2013) find that web machine interactivity and mobile person interactivity positively influence retailer sales. However, web machine interactivity has a stronger impact than mobile machine interactivity because web

interfaces with large screens better match consumers' search information and processing tasks (Ghose and Park 2013). Conversely, mobile devices have greater flexibility in dynamic and complex contexts (De Haan et al. 2015) and are easier for consumers to interact with service representatives by clicking to call.

Service The literature on service across channels is relatively scant. Sousa and Voss (2006) propose three types of service to apply to a multichannel environment: virtual services (based on the Internet), physical services (people-delivered, including logistics), and integration services (seamless service experience across channels). Keeping the same service level across channels is extremely difficult for retailers. First, each service environment differs in terms of ambient factors, design factors, and social factors (Baker 1986). For example, retailers offer face-to-face contact and immediate response of employees to customers in offline stores but, in most cases, self-service without actual employee interaction in Internet-based channels. Retailers' services also differ in product characteristics—they provide interpersonal contacts for nonroutine or complex products and convenient self-service for routine or normal products (Van Birgelen et al. 2006). Second, retailers may try to provide different or limited service levels across channels to point customers into a certain direction (Montoya-Weiss et al. 2003). Third, consumers have different perceptions of and sensitivity to service levels across channels. For example, some consumers value physical experiences more than others (Dumrongsiri et al. 2008; Montoya-Weiss et al. 2003).

Lund and Marinova (2014) also document that service performance has different effects on retailer revenues across channels. They detail that in physical stores, objective service performance, or "the observable unbiased outcome of the firm's service operation processes and initiatives" (p. 103), positively affects retailer revenues, while in remote channels (i.e., Internet-based channels, television), there is no significant effect. However, the interaction between perceived service and direct marketing affects revenues in both physical

and remote channels. Perceptions of service design quality enhance the impact of direct marketing on revenues of physical channels, while lower perceptions of time and effort costs do so in remote channels.

Channel integration

Channel integration is a challenging issue for retailers because each channel is likely to be governed by different managers, who aim to optimize profits for their specific channel (Verhoef 2012). Bendoly et al. (2005, p. 314) define channel integration as "the use of multiple modes of fulfillment for mutual support of, or as semi-interchangeable alternatives for, end-customers transactions." Retailers can integrate access to and knowledge about an offline channel into an online channel, for example, by providing online search functions, such as availability check and researching products, in their physical stores (Herhausen et al. 2015). They can also allow customers to order products online and pick them up in offline shops or buy products online but return them via offline channels (Gallino et al. 2016). Gao and Su (2017) find that the service of buying online and picking up in stores helps expand retailers' market coverage by attracting customers by offering real-time inventory information and avoiding shipping cost. However, this service is not suitable for bestsellers in stores because it weakens their ability to attract consumers to stores. Other research reveals that channel integration, such as sharing information, integrating prices and category assortments, and offering functions not available in other channels (e.g., ship-to-store), increase retailers' sales growth and sales dispersion (Cao and Li 2015; Gallino et al. 2016; Melis et al. 2016).

Future research

Research gaps Multichannel marketing strategy is a topic worthy of future research, and we derive two directions. The first pertains to channel integration and customer experience. Several studies find that channel integration can increase retailer sales. However, multiple questions still remain unanswered. For example, how can channel integration be defined and

measured? If the extent of channel integration can be measured, is there an optimal level of

integration? Is there a systematic and standard approach to channel integration that can be

applied to all retailers, or does channel integration depend on contexts instead of a standard

approach? How do customers perceive different approaches to channel integration? How does

channel integration influence retailer performance? Does it affect retailer performance

directly or indirectly, for example, through customer experience? An appropriate integration

could provide a seamless experience for customers (Melero et al. 2016) and thus increase their

spending. Little is known about how a multichannel marketing mix influences customer

experience. Thus, research could examine how retailers can integrate customer experience

across channels for optimization in multichannel retailing.

Second, within the multichannel marketing mix, research on the role of services in

multichannel retailing is relatively scant. However, the idea of better serving customers in

marketing has become strong (Grewal and Levy 2007; Lusch and Vargo 2011). Furthermore,

rich and advanced technologies and the corresponding automation put service in a more

salient position in retailing. On one side, automation creates many opportunities for customers

to serve themselves during their purchase journey. On the other side, poor customer service

and service failure (e.g., waiting a long time in automated telephone systems, website crashes)

lead to customer frustration and possible switching to other providers. To solve this dilemma,

Rust and Huang (2012) propose a theory of optimal service productivity, which differentiates

between short-term effects (a trade-off between the use of personnel and automation) and

long-term effects (based on how advanced the technology is). It also determines the

conditions under which an optimal level of service productivity should be higher or lower. We

call for more studies to test Rust and Huang's theory by exploring how to provide and manage

service experience across channels and expounding on service failures, recovery, and

guarantees in multichannel retailing.

Unresolved issues The cost of channel integration is a large issue for retailers in the short run, while the accumulated benefit from satisfying customer needs for a seamless experience can be achieved in the long run. How can retailers evaluate the short-term benefit of integration to ensure that this strategy will result in long-term profits?

Lemon and Verhoef (2016) suggest that retailers should identify key elements in each stage of customer journey by incorporating firm and customer perspectives. To develop effective and efficient multichannel strategies, retailers should track customers' shopping process and identify specific purchase stages to understand and satisfy customer needs at a given point and also predict their future needs. However, it seems to need advanced technologies and strong analytical tools to achieve this, which is a big challenge both for retailers to implement and for researchers to evaluate contributions of multichannel strategies in each purchase stage.

Environment changes Technological progress has enabled retailers to implement new marketing activities and channel integration formats. On the one hand, although many commentators had envisioned "the death of physical stores" after the appearance of Internet-based channels, physical stores have not faded away and are garnering attention again. A case in point is the online giant Amazon, which has stepped into opening offline book stores since 2015. Moreover, according to the study by Bouncepad, most customers want extended digital experience in stores and are more likely to purchase in physical stores offering self-serve or assisted tablets (Earley 2017). In essence, retailers are integrating new technologies into their offline stores to improve customer experiences. For example, the retailer Athleta places iPads and digital kiosks near offline checkout desks to prompt customers to search online to select free shipping to their homes (Schiff 2015). Retailers can also attach QR codes to particular online information or coupons in offline stores. Location-based technologies such as iBeacon help retailers track customer information through smartphones and send personalized

discounts based on customers' target products and their location in a store. Retailers such as Cabela's display user-generated content (e.g., online reviews in physical stores) or allow mobile payments to save consumers time in long lines. Moreover, they can use technologies of virtual or augmented reality in offline stores to improve shopping enjoyment. For example, Samsung provides a virtual reality experience at AT&T stores, where customers can try on a Samsung Gear VR to take a virtual Carnival Cruise. A recent study also predicts that the majority of retailers will be able to customize customers' offline store visits through the use of customer data by 2021, an approach called micro-locationing (Columbus 2017).

On the other hand, retailers are improving consumers' online purchasing experiences by using advanced technologies and combining services from offline channels. For example, Amazon has offered drone delivery since 2016 to provide products faster and quicker than ever. On websites, retailers post frequently asked questions on product pages and offer more contact points, such as Live Chat and e-mail, to answer customers' questions as soon as possible, because online customers cannot feel real products and thus have more questions about them. Some retailers create a 360-degree view of store or product images to enhance vividness of customer online experiences. A study by Mindtree (2015) shows that a 360-degree view with good zoom quality is one of the highest-ranked features influencing online purchase and improves customers' connection with retailers.

Although many of these activities are in the experimental stage, they forebode marketing trends and future customer behavior to a great extent. Future research should explore how retailers can successfully implement these activities and also assess how these activities influence customer experience and retailer performance. For example, one question is how retailers can collect and use big-volume data (both structured and unstructured) to profile customers more accurately. In addition, research that provides insights into customers' behavioral patterns and how retailers can use these patterns to provide a promising,

customized in-store experience is required. Moreover, how can retailers successfully integrate smart technologies, such as autonomously driving cars or smart refrigerators, into the channel mix to improve customers' overall journey experience?

RQ5: Synthesized outcomes of multichannel retailing at the customer level

Both retailers and researchers want to know whether investments in multiple channels can substantially improve customer satisfaction and loyalty. Studies show a positive (or at least a potential) effect of a multichannel offering on overall customer satisfaction and loyalty (e.g., Falk et al. 2007; Ghaleno et al. 2016; Hitt and Frei 2002; Shankar et al. 2003; Venkatesan et al. 2007). The rationale is that multichannel retailers provide more access to their brands, products, and services than single-channel retailers, thus creating diverse and more flexible choices of buying, paying, and delivering for customers. These elements help retailers better satisfy customer demands. From customers' perspective, they can use different channels in different contexts (e.g., time, locations, purposes), given the distinct advantages of each channel, and experience cross-channel synergies. Taken together, these reasons indicate that a multichannel setting can serve to enhance customer satisfaction and loyalty (Wallace et al. 2004). Furthermore, the positive relationship between a multichannel offering and customer satisfaction and loyalty can be intensified by improving service quality in all channels (Lin 2012; Montoya-Weiss et al. 2003), providing interactive advertising (Shen et al. 2016), and integrating channels in an appropriate way (Bendoly et al. 2005; Herhausen et al. 2015).

However, opposite findings also exist. Van Baal and Dach (2005) argue that the multichannel setting of a retailer could erode customer loyalty because the availability of Internet-based channels increases price transparency and decreases switching cost, which increase customers' probability of switching to competitors. Ansari et al. (2008) also report decreasing loyalty of customers who migrated to the online channel.

Furthermore, research indicates that customers exhibit different levels of satisfaction across channels. Falk et al. (2007) find that offline satisfaction cannibalizes online satisfaction because the former increases perceived risks and decreases perceived usefulness in an online channel. Customers perceive higher valuations of products and marketing activities, leading to greater satisfaction in touch-based mobile devices than in mouse-based computers due to enhanced perceptions of psychological ownership in mobile devices (Brasel and Gips 2014, 2015).

Other studies show that customers demonstrate loyalty discrimination across channels due to different channel attributes. Verhoef and Donkers (2005) find a negative (positive) relationship between catalogs (websites) used as an acquisition channel and customer loyalty in several industries. They provide evidence that catalogs that focus heavily on lower price attract less loyal customers, while websites provide retailers with economic and social bonds and foster more loyal customers. Moreover, Shankar et al. (2003) find that customer loyalty increases when service is established through an online rather than an offline channel in a travel industry. Melis et al. (2016) confirm this finding in a grocery retailing context. They indicate that after the first several purchases online, online purchasing quickly becomes a habitual behavior and customers tend to remain loyal. However other studies show that customers using physical stores and call centers have greater loyalty than customers staying online because the latter are more likely to switch channels or retailers (De Keyser et al. 2015; Konuş et al. 2008).

Future research

Research gaps Studies show opposite findings of the effects of multichannel offerings on customer loyalty. Future research should clarify the relationship between multichannel settings and customer loyalty and reveal the boundary conditions of the different findings in previous studies. In addition, customers who are more satisfied with and loyal to a retailer are

more likely to accept new channels because they have confidence in the retailer and may perceive less risk when using the new channels. For example, Melis et al. (2015) show that both offline store preference (considering an assortment interaction effect) and online store loyalty have a positive effect on online store choice. Thus, loyal customers tend to adopt multichannel offerings faster than nonloyal customers. In turn, after adopting multichannel systems, customers' overall satisfaction with and loyalty to the retailer are likely to increase even more. This mechanism is not well established though. Some studies hint at the existence of stronger attitudes when customers use multiple channels (Valentini et al. 2011); however, further research is clearly required.

Customer experience has garnered a great deal of attention because consumers' purchase journeys have become more complicated as a result of the plethora of channels and touchpoints. Scholars suggest that studies should consider customer experience a core customer outcome of multichannel retailing because it is a holistic concept and involves customers' cognitive, affective, emotional, social, and physical responses to retailers (Verhoef et al. 2009). The first research question is how customer experience can be measured along the customer purchase journey. Second, Lemon and Verhoef (2016) present an overview on this topic and propose research directions based on different aspects, such as the drivers and consequences of customer experience, customer journey design and management, and customer experience measurement and management. We repeat their research suggestions on customer experience and call for more empirical studies. Customer experience could also be an important antecedent of customer loyalty. Thus, how can retailers improve customer experience in multichannel retailing?

Unresolved issues The findings of improved satisfaction and loyalty reported in extant literature come from comparing customer perceptions of one retailer before and after implementation of a multichannel system. However, in practice, most retailers in a sector

provide the same/similar multichannel systems. Thus, loyalty may decrease because (1) customers' reference level of whether they are satisfied with a retailer's service expectations increases from the overall development of multichannel retailing and (2) higher competition and price dispersion in online channels may cultivate higher price sensitivity. Although the correctness of this speculation depends on factors such as competition in a specific market and consumers' original loyal strength, we suggest that researchers explore whether a multichannel system continues to increase customer loyalty, as well as the drivers of customer loyalty to multichannel retailers.

Environment changes Mobile channels have become more important in today's retail environment. A recent investigation shows that 62% of mobile users have shopped online and 42% of customers use mobile phones as their primary access to websites (Carney 2017). However, research is still lacking on whether the use of these digital channels increases customer loyalty to retailers and which retailers specifically benefit. A similar question can be posed for other digital touchpoints, such as social media, because little is known about how these touchpoints and their interaction affect customer loyalty. Retailers also combine technologies within a specific channel; for example, they offer iPads in their offline stores or integrate social media applications (e.g., the possibility to review products and communicate with other users) on their website. Thus, the question is whether and how such technologies combined in a specific channel affect customers' channel experiences of and satisfaction with the respective retailer.

RQ6: Synthesized outcomes of multichannel retailing at the retailer and channel levels

In this section, we detail the impact of consumer purchase behavior in multichannel retailing on retailers and channels. A relevant substream of literature addresses how multichannel environments affect consumers' psychological cognition and, subsequently, their preferences and purchase behavior (e.g., Bhargave et al. 2016; Emrich and Verhoef 2015; Ghose and Park

2013; Pauwels and Neslin 2015). One explanation is that consumers' cognition affects their information processes (i.e., memory encoding, storage, and retrieval), perceptions, and experiences at all purchase stages (Puccinelli et al. 2009). In an offline store having relatively rich information, for example, a reminder of the availability of online information could spark customer memory of the Internet and thereby enhance cognitive confidence in product information, further enhancing purchase intention (Bhargave et al. 2016). Such changes of consumer cognition and intention eventually affect retailer and channel performance (e.g., sales, profit).

Retailer level

Channel addition and elimination Online channel additions can lead to both advantages (e.g., extended market share, lower transaction cost) and disadvantages (e.g., consumer confusion, channel conflicts), though it is not clear which effect dominates in retailing practice. Cheng et al. (2007) investigate whether the addition of an online channel increases retailers' net profit by using an event study with data from the Taiwan Stock Exchange Corporation. They find that the announcement of an online channel addition directly improves investors' expectations of future cash flow and significantly increases both retailers' short-term (abnormal returns) and long-term (economic value added and market value added) performance. Homburg et al. (2014) use secondary data collected from the United States, Germany, and China to confirm that the announcement of a new channel positively influences retailers' stock returns. Moreover, they reveal that establishing a new channel can create more benefits in heavily competitive or turbulent markets because multiple channels help retailers resist demand fluctuations and differentiate themselves from others. However, this effect depends on retailers' predominant product category, as we discussed in RQ1. A newly added online channel for a retailer selling experience products (e.g., apparel, jewelry) reduces profits because of extra investments in physical stores (Ofek et al. 2011).

Other studies show that adding a mobile channel to an online channel improves overall purchase amount because customers order products and services more frequently after adopting the mobile channel (Huang et al. 2016; Wang et al. 2015). Similarly, adding a physical store to an online or catalog store also improves retailers' total revenue, though overall returns and exchanges increase at the same time (Avery et al. 2012; Pauwels and Neslin 2015).

Retailers with multiple channels may derive benefit compensation from other channels when one channel has losses or service failures. For example, Janakiraman, Lim, and Rashika (2018) discuss customers' subsequent behavior after data breach in a multichannel retailer. The authors find that customers reduce spending after their data is breached in one channel; more importantly, these customers migrate to unbreached channels of the focal retailer instead of leaving the retailer, in which case multichannel mix protects retailers from losing customers and mitigate losses in a specific channel.

The choice of channel elimination is also involved in multichannel mix and affects retail performance. Konuş et al. (2014) reveal a positive effect of channel elimination on retailer profits. In their field experiment, the savings from printing and mailing catalogs and also from migrating customers to the website are much larger and can offset the loss due to decreased purchase incidence after eliminating the catalog channels.

Multichannel shoppers Gensler et al. (2012a) demonstrate that online customers have higher purchasing demands than traditional, offline-only customers, in that they perceive greater information control, convenience, and accessibility. However, it could also be argued that lower transaction costs online due no traveling and waiting encourage more purchases to some extent. Moreover, studies show that online customers purchase more products and are more profitable for firms in general (Hitt and Frei 2002; Ma 2016). Furthermore, Li et al. (2015) find the late majority of adopters of an online channel are more valuable than

innovators, earlier adopters, and laggards. The late majority are heavy shoppers with a high purchase frequency and volume before the online channel introduction and perceive more convenience when purchasing offline. They are loyal, have trust in retailers, and are willing to adopt the new online channel later than innovators and earlier adopters; however, they purchase less online because they remain loyal to offline channels and respond less to marketing efforts persuading them to use the online channel. Regardless, they still create the highest value in all customers who adopt the website.

App adopters also tend to spend more money than nonadopters (Kim et al. 2015) because apps' ability to engage (through vividness, novelty, motivation, control, customization, feedback, and multiplatforming) and entertain customers increases interest in brands and products and improves purchase intention (Bellman et al. 2011; Kim et al. 2013). Moreover, the net spending of app adopters can be decomposed into two competing aspects: (1) these customers purchase more frequently because of apps' greater availability and convenience, and (2) other customers spend less per purchase because of apps' limited screens and thus lack of ability to complete complex tasks (Huang et al. 2016; Narang and Shankar 2016).

In general, multichannel shoppers are significantly more profitable, spend more, and purchase more items across more product categories than single-channel customers (Kushwaha 2007; Melis et al. 2016; Montaguti et al. 2015; Thomas and Sullivan 2005; Venkatesan et al. 2007). They also tend to initiate more contacts with retailers (Kumar and Venkatesan 2005), which in turn could enhance their relationship with retailers and increase their future spending. Montaguti et al. (2015) suggest that multichannel shoppers are of greater value for retailers because of their relatively higher satisfaction and tendency to use high-margin channels. Nevertheless, the proposition of "multichannel customers are more valuable" has boundary conditions, Kushwaha and Shankar (2013) reveal that multichannel

customers (two channels versus one channel) are not necessarily the most valuable segments except for hedonic products. Cambra et al. (2016) replicate Kushwaha and Shankar's study in a bank service context and confirm that multichannel customers who use all the four channels offered by retailers are not the most profitable. The authors find that customers using some single channels as well as using specific dual-channel combinations create more value. So clearly more research is required to further understand boundary conditions, of which the industry context seems very important.

Channel level

Changes in the channel mix differently affect existing channels when adding transactional Internet-based channels. According to Dholakia et al. (2005), a newly added online channel does not replace an established offline channel of the same retailer. Indeed, they find that customers complete not only their original purchases but also more recent purchases in the offline channel. In general, customers' purchases from the offline channel overwhelm purchases from the online channel. Deleersnyder et al. (2002) confirm that the online channel addition within the newspaper industry has a small but significantly positive effect on purchase quantities of traditional newspapers. Xu et al. (2014) also reveal a synergy effect, such that an app addition leads to more consumption on an incumbent mobile website. However, adding an app to a website can have an opposite effect. A newly added app slightly cannibalizes both purchase frequency and amount on a website because part of the purchases are switched to the app, given that an app has significant advantages (e.g., convenience, no location and time limitation) over a website (Huang et al. 2016).

In the context of adding a pure informational website to offline channels, the majority of stores in Van Nierop et al.'s (2011) study experienced a substantially negative impact on customer visits and spending after the channel addition. This is probably because informational websites help customers plan their purchases and easily find competitors'

stores. Nevertheless, the specific effect of informational websites on offline revenues is contingent on product categories and customer segments (Pauwels et al. 2011). For sensory products, which customers always evaluate through their senses (e.g., clothes, cosmetics), a synergy effect arises because the informational website complements the offline channels. This effect also exists for customers who live far away from physical stores or have high website visit frequencies.

Adding physical stores has different effects across channels as well (Avery et al. 2012; Pauwels and Neslin 2015). The addition of physical stores cannibalizes purchase frequency and sales in a retailer's catalog channel but has no effect on sales on websites or order size in catalogs and online channels. The cannibalization between stores and catalogs might be due to similar customer segments compared with the Internet, similar human capital required in the two channels, and similar amenability to experiential shopping. However, returns and exchanges in catalogs decrease because some are diverted to offline stores. Avery et al. (2012) also argue that in the long run, as "living" advertisements delivering rich information, physical stores strengthen customers' brand awareness; the positive customer experience and connection with retailers formed in physical stores can be transferred to established channels. Thus, newly added physical stores generate synergy effects for existing channels. Avery et al. show that the appearance of physical stores truly brings new customers to both websites and catalogs and encourages repeat customers to purchase in direct channels over time, thus increasing sales in these channels. Nevertheless, Wang and Goldfarb (2016) argue that when a retailer has a strong presence and is well-known locally before opening a store nearby, customers already know the information displayed in newly added stores and can easily get accustomed to the stores. In this case, new stores compete with existing websites. In the case of channel elimination, Konuş et al.'s (2014) show that removing the catalog channel cannibalizes the telephone channel but improves purchase incidence on websites mainly

because heavy users of telephone purchasing combined with catalog searching decrease their purchases or divert to the online channel after catalog elimination.

Future research

Research gaps Most studies focus on the effects of multichannel retailing on retailers' short-term performance. However, as Zhang et al. (2010) suggest, researchers should be careful when evaluating a multichannel retailing program using short-term results because marketing activities can have lagged effects and consumer behaviors change over time. We suggest that future research take a long-term perspective and also include other performance indicators, such as repeated purchases.

Regarding antecedents of channel performance, Melis et al. (2015) and Breugelmans and Campo (2016) show that in a grocery context, loyalty to a certain channel positively influences customers' purchase incidence in that channel. However, their findings do not generalize to other retailing sectors because the grocery setting differs substantially from other sectors (e.g., habitual purchases). Therefore, further knowledge on the link between channel loyalty and channel performance in other multichannel retailing sectors is required. Furthermore, little is known about the cross-channel effects of loyalty on channel performance—namely, whether and how loyalty to a certain channel influences performance of other channels of the same retailer. Further research could delve into this issue to a greater extent. Extant research also focuses on customers' past behavior and performance, but research on more forward-looking metrics, such as customer lifetime value (see Kumar and Reinartz 2016), would be worthwhile.

As we noted previously, prior research finds that multichannel customers are generally more profitable than single-channel customers (e.g., Ansari et al. 2008), thus driving companies' interests in developing multiple channels. However, little is known about the

factors that affect multichannel customer profitability. For example, does the context of multichannel adoption have an impact on how profitable a customer becomes?

Unresolved issues Almost all studies find that retailers' revenues and profits are improved after they add more channels. This conclusion derives from the comparison of whether the same retailer adopts a multichannel system, not from a comparison among multichannel retailers. However, the performance increment (e.g., profit, revenues) generated from a multichannel offering does not necessarily improve a focal retailer's performance. Thus, the question of how retailers can improve their competitive advantage by making full use of their experience in existing channels when they step into a new channel remains. For example, as an online giant, how does Amazon use its online experience at physical stores of Whole Foods? For traditional retailers, how do they succeed with lower technological and digital capabilities?

At a channel level, cannibalization and synergy effects exist at the same time. Therefore, we propose two questions for future studies. First, should retailers allow channel cannibalization even if their total profit remains stable or increases, or is it always beneficial for retailers to resolve cannibalization? According to our synthesis, cannibalization occurs between similar channels such as mobile and online channels or physical stores and catalogs. Retailers may set large channel differentiation to alleviate channel cannibalization, which, however, may lead consumers to perceive less consistency and thus result in decreased value for retailers. Second, what is the balance between channel cannibalization and synergy?

Finally, our discussions herein should help retailers make informed decisions about allocating resources in multichannel retailing. The payoff of resource allocations differs across channels, customer segments, and marketing activities over time (Hanssens and Pauwels 2016; Narayanan and Manchanda 2009; Saboo et al. 2016). Unfortunately, we cannot directly draw conclusions of how to allocate resources to improve retailer performance given

the limited research on this topic. Thus, we call for studies to explore resource allocation with an increasing number of channels and touchpoints, especially by using big-volume data collected in various channels and touchpoints.

      Environment changes A few studies discuss the effects of newly added mobile channels on retailer performance. However, mobile websites/apps can be a separate purchase channel or an integrated technology in physical stores to facilitate customers' in-store shopping. Additional knowledge on how and when mobile websites/apps in such different contexts affect retailer performance is required. A recent study shows that 70% of retail managers are ready to adopt more advanced technologies, such as the Internet of Things, augmented reality, and virtual reality, to improve customer experiences (Columbus 2017). Thus, further research is necessary to investigate how these types of technologies affect retailer performance. For example, how can retailers integrate new technologies that make grocery shopping more convenient (e.g., intelligent refrigerators that create retail shopping lists and automatically place an order at a focal retailer) into their operations, and how is customer loyalty affected accordingly? Further research would provide valuable insights into whether investing in these new digital technologies would be beneficial.

Concluding thoughts about future retailing

The appearance of Internet-based channels prompted some people to declare the end to physical stores in retailing. More than two decades later, reports have shown that the demise of physical stores was greatly exaggerated. As Ifti Ifhar, the CEO of ComQi, a company that provides digital technologies to retailers, noted, "the real story isn't about physical retail dying. It's about evolution—and that outlook is very positive" (Ifhar 2017). In essence, what we observe today is that retail sales in physical stores are still dominating (Howland 2017). Moreover, retailers are integrating increasingly more technologies and touchpoints into their offline channels, while customers are continuing to visit physical stores when technology is

part of the experience. According to a recent study, 75% of customers want more technology in stores, and more than 40% want it in physical stores to check prices, find items, and redeem discounts and promotions (Bouncepad 2017). Two exemplars are Tao Cafe and Amazon Go, in which employees are not present. At Tao Cafe, customers first obtain an entrance ticket by scanning a QR code in an app before going to the store. After picking up items, they pass through two doors: one to verify that they are leaving and the other to complete payment. At the second door, a screen shows that "products are being identified" and "products are being paid for." Payment is automatically processed through the app. At Amazon Go, the technologies of machine learning and cameras enable the store to identify the products in customers' carts and to automatically charge their store account, so customers can leave the store without taking their wallets out and waiting in a checkout line (Hartmans 2017).

For traditional retailers, how to survive and compete with online giants will be a crucial issue. Some retailers already seem effective in these cases. Specifically, Best Buy has been able to survive in its extremely competitive and dynamic environment through a strong customer focus, while some competitors (i.e., RadioShack) have failed to do so. Best Buy even recently reported unexpected sales increases, even though it directly competes with Amazon.[2] Other store-focused retailers have a strong discount focus, such as the Dutch-based retail chain, Action, but are still showing strong sales growth.[3] The exciting environment of retail calls for further research that takes a more strategic perspective on which retail business models will survive in an increasingly digital world.

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[2] See http://www.cnbc.com/2017/05/25/why-best-buy-shares-are-up.html.
[3] See http://www.3i.com/~/media/Files/G/Group-3i/documents/news/corporate-news/pr-action-annual-results%202015.pdf.

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Figures

Fig. 1 The number of published articles on multichannel retailing from 2006
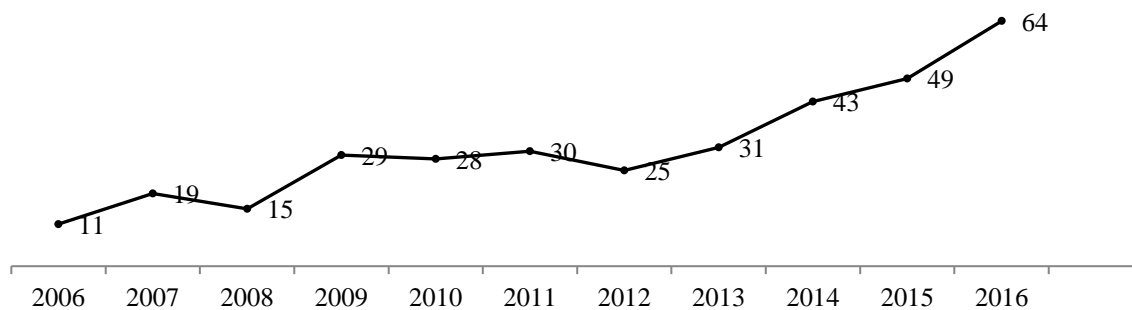
Note: We used 14 keywords to search 649 articles from Web of Science, limited to 26 journals of business, economic, management, and psychology, such as *Marketing Science* and *Journal of Retailing*. Reading the abstract of all articles, we deleted those that had low relativity with multichannel retailing. The final number of articles counted in the figure is 345, including one article published in 2017. The 14 keywords are "multichannel retailing," "online offline," "multichannel marketing," "cross-channel," "multichannel marketing," "channel elimination," "channel migration," "channel integration," "multichannel shoppers," "multichannel customers," "multichannel customer management," "mobile marketing," "mobile app," and "purchase journey."

Fig. 2 A framework for the multichannel retailing literature review
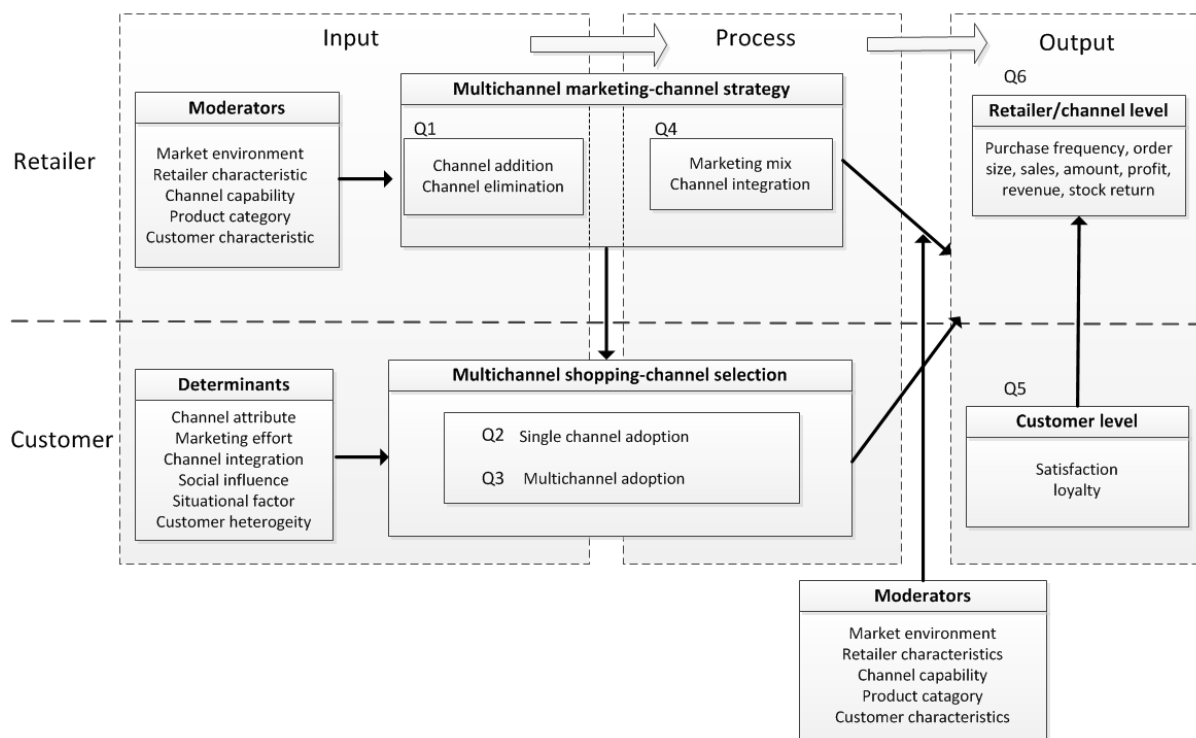
Tables

Table 1 Summary of key issues and current findings in multichannel retailing

Key topics	Critical questions	Current findings
RQ1. Determinants of retailers' channel choices	• What drives retailers to change their channel mix and add or eliminate channels?	• Little is known about the drivers of retailers' channel choice. Only generic firm strategies and customer orientation are examined in channel additions. • Multiple factors moderate the success of channel additions, including the characteristics of markets, retailers, channels, products, and customers.
RQ2. Determinants of customers' single-channel selections	• What motivates a customer to choose a specific channel to purchase?	• This is almost a mature area for most channels. Customers' channel choices are determined by channel attributes, marketing effort, channel integration, social influence, situational factors, and customer heterogeneity.
RQ3. Multichannel shopping and customer segments	• How do multichannel shoppers behave in their purchase journey? • What are the characteristics do multichannel shoppers? • How do retailers segment customers in multichannel retailing?	• Increasingly more customers are becoming multichannel shoppers. They combine different channels in their single and/or repeated purchases. • Multichannel shoppers' preferences for channels are time- and context-varying. • Customer segments can be identified on the basis of channel categories and the number of channels used in repeated purchases or customers' psychographic and demographic characteristics. • Research-shoppers are an important segment.
RQ4. Multichannel marketing strategies	• How do retailers implement the marketing mix in multichannel retailing? • How do retailers integrate channels in multichannel retailing?	• Multichannel retailers are using many innovative ways to implement strategies of pricing, promotion, assortment, service, and communication across channels. • Marketing effort in one channel affects other channels of the same retailer. • Some studies on channel integration have shown positive effects on retailers' sales growth.
RQ5. Synthesized outcomes of multichannel retailing at the customer level	• What are the effects of multichannel retailing on customer satisfaction and loyalty?	• Multichannel offerings enhance customer satisfaction. • Studies show opposite findings of the effects of a multichannel offering on customer loyalty. • Customers exhibit different levels of satisfaction and loyalty across channels.
RQ6. Synthesized outcomes of multichannel retailing at the retailer and channel levels	• What are the effects of different multichannel activities on retailer performance? • What are the effects of different multichannel activities on the performance of a particular channel?	• Adding or eliminating channels in general creates more profits and revenues for retailers, but this also depends on other factors, such as market competition. • Customers purchasing through Internet-based (vs. offline channels) or multiple channels (vs. single channel) are more valuable. However, multichannel customers is not always the most profitable.

Table 2 Summary of future research directions in multichannel retailing

Key topics	Future research directions derived from the GUE approach
RQ1. Determinants of retailers' channel choices	• What drives retailers' channel elimination? (G) • How does channel elimination affect customers' purchase behavior and loyalty to retailers? (G) • Will providing customers with multiple channels continue to serve as a value driver for companies, or will multichannel provision become a basic requirement instead of a differentiating factor? (G) • Whether do potential moderators/drivers play different roles in different channel decisions, i.e., channel addition versus channel elimination? (G) • Why do some retailers maintain a single channel instead of adopting a multichannel strategy, and when will they invest in a multichannel system? (U) • Is there a new taxonomy for channels taking into account different roles of channels in the channel mix? (G) • What drives retailers to assign different weight to the role of channels in their channel mix? (U) • Why do retailers adopt social media as transaction channels, and how should they manage all their channels? (E) • How can retailers make more informed decisions based on the increase of available customer data, for example, using the data of online browsing to improve customers' offline in-store experience? (E)
RQ2. Determinants of customers' single-channel selections	• Substantial articles on this topic can be synthesized in a meta-analysis. (G) • What are the boundary conditions of channel adoption (e.g., time of day, recommended channels)? (G) • Whether and how do drivers play different roles in different channel usage, i.e., purchases versus communications? (G) • Whether and how do drivers differently influences channel adoption across purchase stages? (G) • What drives repeated usage and disadoption of apps? (U) • Is privacy concern a factor inhibiting customer usage of apps? How do consumers response to retailers' marketing activities based on their privacy information, e.g., locations, browsing traces, and social media information? (U) • How do technologies combined in physical stores change customers' attitudes, experiences, and purchase intentions in the store—such as Walmart with kiosks and other retailers' offline stores with the technologies to check price, find items, and redeem discounts? (E) • How do customers perceive physical stores without any employees, such as Tao Cafe launched by the Alibaba Group in China and the coming Amazon Go? (E) • Why do customers choose or not choose social media to purchase products when social media has transactional functions? (E)

Key topics	Future research directions derived from a GUE approach
RQ3. Multichannel shopping and customer segments	• We suggest that studies segment customers from a forward-looking perspective according to preferences, responsiveness, and growth potential. (G)
	• How can the previous segmentation method be put into a measurable, accessible, and actionable scheme that can be applied to a retailer's entire consumer base? (G)
	• How does customers' channel switching behavior during the same purchase journey influence spending and retailer performance? (G)
	• How can retailers provide an approach that can identify and predict customer segments and is also adaptive to dynamic environments? (U)
	• How do retailers estimate financial and nonfinancial benefits generated by each customer segment, how do they provide pertinent marketing efforts in each segment, and how do they manage all segments across channels, products, brands, and so on? (U)
	• Future research should include new channels, such as mobile apps and multiple touchpoints, to identify customer segments and explore customer characteristics and their usage of new channels in each segment. (E)
	• How do research-shoppers evolve, and what are the new patterns of these shoppers with the proliferation of new channels? (E)
	• Which situational factors and customer characteristics can predict different sequences of channel usage in the purchase journey? (E)
	• How do customers use specific functions of Internet-based channels in different contexts, and how does different function usage influence customers' purchase behavior? (E)
RQ4. Multichannel marketing strategies	• How can channel integration be defined and measured? If channel integration can be measured, is there an optimal level of integration? (G)
	• Is there a systematic and standard approach to channel integration that can be applied to all retailers? Or does channel integration depend on contexts instead of being achieved with a standard approach? (G)
	• How does channel integration affect retailer performance? Does it affect performance directly or indirectly, for example, through customer experience? (G)
	• How does a different marketing mix influence customer experience? (G)
	• How can retailers integrate and optimize customer experiences across channels? (G)
	• How do retailers provide and manage service across channels? (G)
	• What are the roles of service failure, recovery, and guarantees in multichannel retailing? Future studies could test Rust and Huang's (2012) theory. (G)
	• How do retailers evaluate the long-term benefit of channel integration to ensure that such as a strategy will result in long-term profits? (U)
	• How can retailers identify customer needs in each stage of purchase journey and provide targeted strategies? How do retailers evaluate the contribution of marketing strategies in each stage? (U)
	• How can retailers succeed in new marketing activities with advanced technologies (e.g., AR, VR, and 360-degree views), and how do such marketing activities influence customer experiences and retailer performance? (E)
	• How can retailers collect and use big-volume data to profile customers more accurately?
	• How do retailers identify customers' behavioral patterns and use these patterns to provide customers with customized in-store experiences? (E)
	• How can smart technologies be successfully integrated into a retailer's channel mix to improve customers' overall journey experience? (E)

Key topics	• **Future research directions derived from a GUE approach**
RQ5. Synthesized outcomes of multichannel retailing at the customer level	• What are the general effects of multichannel retailing on customer loyalty? What are the boundaries of different findings in existing studies? (G)
	• How does the adoption of multichannel offerings and channel satisfaction/loyalty interact with each other? What is the role of attitudes in this interaction? (G)
	• Customer experience could be an important antecedent of customer loyalty. How can it be measured and improved in multichannel retailing? (G)
	• Can a multichannel system really increase a focal retailer's customer loyalty, given that all competitors provide multichannel systems? (U)
	• What drives customer loyalty to multichannel retailers in the long run? (U)
	• How do new channels, such as mobile apps, social media, and other touchpoints, influence customer loyalty to retailers, and which retailers specifically benefit? (E)
	• How do advanced technologies (e.g., AR, VR, iPads) in a specific channel affect customers' experiences and their satisfaction/loyalty? (E)
RQ6. Synthesized outcomes of multichannel retailing at the retailer and channel levels	• What are the effects of multichannel retailing on retailer performance in a long run given that marketing activities have lagged effects and customer behavior changes over time? (G)
	• What is the link between channel loyalty and channel performance in multichannel retailing? (G)
	• What are the cross-channel effects of loyalty on channel performance? (G)
	• How do retailers use a forward-looking metric (e.g., customer lifetime value) to measure and predict customer value across segments? (G)
	• What factors influence multichannel customer profitability? For example, does the context of multichannel adoption influence how profitable a customer becomes? (G)
	• How can retailers improve their competitive advantages by making full use of their experiences in existing channels when adopt a new channel? For example, as an online giant, how does Amazon use its online experiences at physical stores of Whole Foods? For traditional retailers, how do they succeed with lower technological and digital capabilities? (U)
	• Should retailers allow channel cannibalization even if total profit remains stable or increases? (U)
	• Is it always good for retailers to resolve channel cannibalization and synergy? (U)
	• What is the balance between channel cannibalization and synergy? (U)
	• How do retailers allocate their resources with an increasing number of channels and touchpoints, especially by using big data? (U/E)
	• Mobile websites/apps can be a separate purchase channel or an integrated technology in physical stores to facilitate customers' in-store shopping. How and when do websites/mobile apps in such different contexts affect retailer performance? (E)
	• What are the effects of touchpoints and advanced technologies such as IoT, AR, and VR on retailer performance? Is it worth investing in these new digital touchpoints and technologies? (E)

Note: AR = augmented reality, VR = virtual reality, IoT = Internet of Things

Table 3 Multichannel selection and customer segments

Articles	Purchase stage	Segments			
Multichannel selection for different purchases					
Schoenbachler and Gordon 2002	×				
Kumar and Venkatesan 2005	×				
Venkatesan et al. 2007	×				
McGoldrick and Collins 2007 (survey)	**N=2,340**	Stores-prone shoppers	Catalog-prone shoppers	Internet-prone shoppers	Multichannel shoppers
	×	61.9%	6.4%	9.3%	22.4%
Montaguti et al. 2015	**N=30,710**	No-purchase customer	Single-channel shoppers	Two-channel shoppers	Three-channel shoppers
	×	31.4%	61.3%	6.7%	0.6%
Multichannel selection in different purchase stages of the same purchase journey (1: information search; 2: purchase; 3: aftersales)					

Articles	1	2	3	Segments				
Verhoef et al. 2007	×	×						
Dholakia et al. 2010	×	×	×					
Voorveld et al. 2016	×	×	×					
Van Baal and Dach 2005	**N=1,094**			Shoppers without channel switch		Research shoppers at a retailer		Research shoppers at two retailers
	×	×		69.2%		10.4%		20.4%
Schröder and Zaharia 2008	**N=525**			Single-channel users		Research shoppers		
	×	×		67.4%		32.6%		
Konuş et al. 2008	**N=360**			Uninvolved shoppers		Multichannel enthusiasts		Store-focused shoppers
	×	×		40%		37%		23%
Gensler et al. 2017	**N=556**			Competitive showroomers		Nonshowroomers		
	×	×		26.3%		73.7%		

Articles	1	2	3	Research shoppers		Web-focused shoppers		Store-focused shoppers	Call center–prone shoppers
De Keyser et al. 2015	**N=314**			After sales: store	After sales: Internet/store	After sales: web	After sales: store/call center		
	×	×	×	35%	11%	22%	9%	18%	6%

Note: N is the sample size