



Combining channels to make smart purchases: The role of webrooming and showrooming



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ABSTRACT

In this study, the authors analyse the influence of specific combinations of online and physical channels (webrooming and showrooming) on the customer experience, specifically, on smart shopping perceptions and feelings. Taking into account that cross-channel consumers are driven by different motivations, the influence of shopping motivations is controlled. The results of an experiment in the fashion industry show that webroomers have greater perceptions of time/effort savings and of making the right purchase, and greater smart shopping feelings, than showroomers. Furthermore, webrooming leads to higher personal attribution than showrooming, meaning that consumers feel responsible and in control of their purchase outcomes. Personal attribution then mediates the impact of webrooming on smart shopping feelings. Although companies may have difficulties in tracking consumers' use of online and offline channels, their enhanced control over the process may improve their experience through smart shopping perceptions and feelings.

1. Introduction

Webrooming (searching for information online and then purchasing offline) (Flavián et al., 2016) and showrooming (gathering data and examining products in physical stores and then purchasing online) (Neslin et al., 2014) have become common practices in omnichannel consumer behaviour. In a recent report, Deloitte (2017) noted that 69% of consumers webroomed to research their purchases during Thanksgiving period, whereas 46% went first to a store to examine items, then went online to look for better prices and to make their purchases.

These behaviours have both negative and positive implications for retailers. On the one hand, webrooming and showrooming threaten multichannel retailers in the form of free-riding behaviours, where consumers use one retailer's channel in their planning and preparation, then switch to another retailer's channel to make their purchases (Chiu et al., 2012; Chiu et al., 2011). Both showroomers and webroomers can free ride, but the implications for online stores are not so marked, because their costs are largely fixed (Van Baal and Dach, 2005), and consumers often use multiple online sources to search for product information. Webroomers and showroomers are not necessarily free riders (they might use the same retailer's online and offline channels; Neslin and Shankar, 2009; Gensler et al., 2017), yet several authors have defined showrooming as an inherently free-riding behaviour (Daunt and Harris, 2017; Jing, 2018; Sit et al., 2018). Webroomers and

showroomers also penalise retailers that fail to provide smooth connections across channels (e.g. a service failure in one channel can prevent consumers from using the other channel; Piercy, 2012) and show increased return rates (Wollenburg et al., 2018).

On the other hand, webrooming and showrooming can provide multichannel retailers with important benefits. Consumers who use both online and offline channels in their purchasing processes constitute the most valuable segment for retailers (Fernández et al., 2018). The combination of online and offline channels positively affects consumer perceptions of service quality and attitudes towards retailers (Pantano and Viassone, 2015), and leads to favourable purchasing behaviours and customer experiences (Blom et al., 2017; Sit et al., 2018). It has been shown that consumers who use multiple channels purchase more products, spend more, and pay higher prices than single-channel consumers (Fernández et al., 2018; Lee and Kim, 2008; Van Baal and Dach, 2005). However, webrooming and showrooming have multiple drivers and determinants (e.g., Harris et al., 2018; Verhoef et al., 2007), and their effect on the competition between firms and firms' profitability can depend on several factors, such as product features (Kushwaha and Shankar, 2013), search costs (Jing, 2018), and consumer characteristics (Kang, 2018; Pauwels et al., 2011). Beyond transactional outcomes, the challenge in the omnichannel era, in which channels are used interchangeably during the search and purchase process, and even simultaneously in the same stage of the purchasing

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process thanks to the proliferation of mobile devices, is to leverage the synergies between channels to deliver an integrated, seamless, unique experience that retains consumers throughout the entire purchasing process (Herhausen et al., 2015; Verhoef et al., 2015). Channel integration, which encompasses decisions about how to combine channels to create cross-channel synergies, can contribute to sales growth (Cao and Li, 2015), is highly valued by consumers, and positively affects their satisfaction, loyalty, and positive word of mouth behaviour (Huré et al., 2017).

Little is known about the consequences of omnichannel behaviour for customer experience management (Lemon and Verhoef, 2016; Paccard, 2017). Previous studies have considered the influence of channel synergies on consumer behaviour, yet few address how specific channel combinations affect the customer experience (Li et al., 2018). Understanding the consequences of webrooming and showrooming will help researchers and practitioners to anticipate what consumers expect when undertaking these behaviours and to design effective customer experiences (Lemon and Verhoef, 2016). With the aim of bridging this gap, the authors analyse the impact of webrooming and showrooming on smart shopping. In the present study, the authors examine smart shopping, specifically, on smart shopping perceptions and feelings. Smart shopping perceptions are associated with the minimisation of expenditure of time, money, or energy, and/or the maximisation of the outputs obtained in the experience (Atkins and Kim, 2012). Smart shopping feelings have been associated with the ego-related aspect of emotions (e.g., pride), and the excitement generated by achieving positive shopping outcomes (e.g., taking advantage of a price promotion) (Schindler, 1989). In addition, taking into account that consumers are driven to carry out omnichannel behaviours by different motivations (Balasubramanian et al., 2005; Noble et al., 2005; Schröder and Zaharia, 2008; Heitz-Spahn, 2013; Harris et al., 2018), the influence of shopping motivations on smart shopping perceptions and feelings about webrooming and showrooming is controlled.

The findings have implications for customer experience theory and management. Feeling smart is a direct consequence of the enhanced control over the shopping experience derived from combining online and offline channels (Rodríguez-Torrico et al., 2017; Verhoef et al., 2015), which has been shown to empower customers in their relationships with firms through increased negotiation capabilities (Verhoef et al., 2007). In the omnichannel era, consumers have been proven to feel more in control and knowledgeable about purchases than salespeople (Juaneda-Ayensa et al., 2016). Thus, smart shopping feelings are more likely to arise in omnichannel shopping experiences, and these feelings can benefit multichannel retailers. In particular, smart shopping feelings impact on customer satisfaction and customer experience (Mano and Elliott, 1997; Lemon and Verhoef, 2016), which determine loyal, long-term relationships between consumers and firms (Audrain-Pontevia et al., 2013). In addition, smart shopping has been positively associated with utilitarian (e.g., usefulness) and hedonic (e.g., pleasantness) shopping values (Mano and Elliot, 1997; Burton et al., 1998; Chandon et al., 2000), attitude towards retailers (Manzur et al., 2011), behavioural intentions (e.g., purchase repetition) (Bicen and Madhavaram, 2013; Schindler, 1998), positive word of mouth (Chung and Darke, 2006; Clark et al., 2008; Schindler, 1998), and personal or self-related variables (e.g., happiness, self-confidence) (Bicen and Madhavaram, 2013; Chandon et al., 2000; Clark et al., 2008; Darke and Dahl, 2003). Thus, understanding how webrooming and showrooming lead consumers to perceive themselves and feel like smart shoppers may be critical for developing strategies aimed at increasing customer satisfaction with the purchase experience.

2. Theoretical development

2.1. Webrooming and showrooming

The definition of webrooming and showrooming used in the present

study is consistent with cross-channel shopping (e.g., Heitz-Spahn, 2013; Huré et al., 2017; Van Baal and Dach, 2005) and research shopping (e.g., Konuş et al., 2008; Neslin and Shankar, 2009; Verhoef et al., 2007) streams and with previous conceptualisations of purchase decision-making processes, where there is a two-stage choice phase: choosing the product and making the purchase (Balasubramanian et al., 2005; Peterson et al., 1997; Van Baal and Dach, 2005). Specifically, in webrooming the consumer first looks for and finds on the Internet the product that probably best matches her/his needs; thereafter, (s)he goes to the physical store to confirm the product information and make the purchase (Flavián et al., 2016). In showrooming, consumers examine the desired product at the physical store and then go online to make the purchase (Kang, 2018).

Webrooming and showrooming are now common practice among omnichannel consumers. Although showrooming is a growing trend in cross-channel shopping (Rejón-Guardia and Luna-Nevarez, 2017), most studies have acknowledged that the Internet is the preferred information source and the physical store is the main purchase channel (e.g., Alba et al., 1997; Dholakia et al., 2005; Fernández et al., 2018; Verhoef et al., 2007; Yadav and Pavlou, 2014). Recent reports, indeed, have confirmed that webrooming is the dominant cross-channel behaviour (eMarketer, 2014; Google Consumer Barometer, 2015; PushOn, 2018). According to eMarketer (2014), 72% of U.S. digital shoppers purchased a product after they examined it in a store, while 78% of shoppers examined the product online then bought it in a store. In Europe, the last Google Consumer Barometer (2015) showed that 10% of European online users researched products in physical stores before purchasing them online, and 33% engaged in webrooming. PushOn (2018) revealed that UK consumers webroom more frequently than they showroom.

The extant literature has generally adopted an economic perspective in its analysis of consumers' choices and their use of multiple channels in the purchase decision-making process. Consumers weigh up the costs and benefits of channel use during the different stages of the purchasing process, and choose the channel combination that minimizes their inputs (e.g., time, effort, money, risk) and/or maximizes the outputs (e.g., making the right purchase, finding better deals, hedonic value) of their shopping activities (Alba et al., 1997; Gensler et al., 2012; Kaufman-Scarborough and Lindquist, 2002; Noble et al., 2005; Pauwels et al., 2011; Ratchford et al., 2003; Singh et al., 2014; Verhoef et al., 2007). Since the arrival of digital channels, many researchers have analysed the drivers of channel preference and channel choice for information search and purchase (e.g., Burke, 2002; Dholakia et al., 2005; Harris et al., 2018; Herhausen et al., 2015; Jing, 2018; Keen et al., 2004; Konuş et al., 2008; Lemon and Verhoef, 2016; Neslin et al., 2014; Peterson et al., 1997; Singh and Swait, 2017; Wang et al., 2014; Wollenburg et al., 2018).

Some researchers who have examined the drivers of channel preferences and informational needs have focused on the shopping motivations, goals and schemas that led to different channel choices (e.g., Balasubramanian et al., 2005; Burke, 2002; Pauwels et al., 2011; Piercy, 2012; Puccinelli et al., 2009). Goal-directed consumers, and those who particularly demand convenience, combine channels to maximise shopping efficiency (Kang, 2018; Noble et al., 2005). The Internet saves these shoppers time and effort in searching for product information, and the physical store offers immediate possession of the merchandise (Heitz-Spahn, 2013; Kaufman-Scarborough and Lindquist, 2002). On the other hand, consumers may visit physical stores to look at the alternatives and thereafter purchase the product online to avoid crowds or long queues (Gensler et al., 2017), thus achieving shopping efficiency.

Important purchases, which carry high implicit risks, may motivate exhaustive information searches and affect the use of cross-channel shopping (Jang et al., 2017; Ratchford et al., 2003; Piercy, 2012). Consumers obtain objective information online about product attributes and prices, which reduces purchase risk; thereafter, a visit to the

physical store provides them with the reassurance that they are making the right choice (Flavián et al., 2016; Singh et al., 2014). This process can also be carried out in reverse: consumers gather information about products through direct experiences at physical stores, find a suitable alternative that satisfies their needs, and then make the purchase online. Cross-channel shopping may also help price-oriented consumers find better deals (Chatterjee, 2010; Konuş et al., 2008; Rapp et al., 2015).

Few authors have analysed the impact of webrooming and showrooming at the experiential level. Some previous studies have examined the influence of channel synergies on consumer behaviour. Specifically, they found that using multiple channels during the shopping process produced complementarities. Specifically, Gensler et al. (2012) investigated channel attributes (e.g., perceived convenience and risk), experience effects (the probability of using one channel for repeated purchase occasions) and spill-over effects (the probability of using a channel for different stages of the purchase process) in the search, purchase, and after-sales stage of the purchase process. They found that specific channel attributes are important for particular stages (e.g., convenience was important in the purchase and after-sales stages, but unimportant in the search stage), thus channels may complement each other during the purchase decision-making process. In a model assessing the use of information sources prior to the purchase of durable goods, Singh et al. (2014) showed that the use of online sources was a complement to, not a substitute for, visits to the physical store. Cross-channel shopping has been positively related to consumption (Lee and Kim, 2008; Pauwels et al., 2011), attitudes towards retailers (Kwon and Lennon, 2009; Pantano and Viassone, 2015), satisfaction (Flavián et al., 2016; Herhausen et al., 2015), and loyalty (Piercy, 2012; Sopadjieva et al., 2017). However, previous researchers have examined multiple channel usage in general, but neglected the specific impact of different channel combinations on the customer experience. The authors analyse the question of cross-channel usage by considering the influence of webrooming and showrooming on consumers' smart shopping perceptions and feelings.

2.2. Smart shopping perceptions and feelings

Combining channels during the purchase process may lead consumers to perceive themselves as, and feel like, smart shoppers. Consumers are continuously exposed to promotions and price deals through offline and online channels, such as company catalogues, websites and e-mail campaigns. The information explosion caused by the Internet has allowed consumers to make extensive and frequent real-time online comparisons of offers and prices and to become "smarter shoppers" (Audrain-Pontevia et al., 2013).

Smart shopping has been traditionally associated with non-monetary consequences (e.g., satisfaction, pride, perceptions of fairness, affirmation of personal values) of paying a low price for a product due to a discount offer or sales promotion (Darke and Dahl, 2003; Mano and Elliot, 1997; Schindler, 1998). From a utility perspective, transactional value has been shown to emerge when the consumer paid less than his or her internal reference price, and felt pleasure, pride or 'like a winner' (Burton et al., 1998; Manzur et al., 2011). Smart shopping feelings arise, therefore, because consumers are willing to invest time and effort in searching for and using promotion-related information to achieve price savings (Mano and Elliot, 1997).

Recent studies have shown that smart shopping may be related to outcomes other than taking advantage of a promotion or getting a low price. Smart shopping feelings are associated with both utilitarian and hedonic shopping benefits (Chandon et al., 2000). Atkins and Hyun (2016) showed that smart shopping involved consumer participation in information gathering, planning, comparison shopping, and shopping enjoyment. Atkins and Kim (2012) followed an economic approach by developing a three-dimensional structure of shopping benefits which can evoke smart shopping feelings. Their definition of smart shopping

extended previous conceptualizations to include "consumers seeking to minimise the expenditure of time, money, or energy to gain hedonic and utilitarian value from the experience" (Atkins and Kim, 2012, p. 370). Atkins and Kim (2012) showed that effort/time savings were associated with the degree to which consumers pursued practical and efficient purchases, expending the least possible investment of time and effort; right purchase perceptions can be defined in terms of the extent to which the product matched the consumer's needs and goals and provided good value for money; money savings referred to the consumer's perception of having paid a lower-than-expected price for a product. Several authors have shown that consumers feel smart not only because they achieve monetary savings (Bicen and Madhavaram, 2013; Mano and Elliot, 1997; Manzur et al., 2011; Schindler, 1998), but also because they can achieve time and/or effort savings (convenience), or because they perceive that they are making the right purchase (Atkins and Kim, 2012; Atkins and Hyun, 2016).

Smart shopping perceptions and feelings are likely to occur in cross-channel shopping settings. Previous cross-channel literature has suggested that consumers use multiple channels to affirm personal traits, such as thrift (the ability to acquire products inexpensively) and expertise (the ability to select the best product from a choice set with skill, also referred to as self-efficacy) (Balasubramanian et al., 2005; Chiu et al., 2011; van der Veen and van Ossensbruggen, 2015). Therefore, cross-channel consumers may feel smart because they believe that "searching on one channel allows them to make better purchase decisions on another channel due to their own 'smart' search behaviour" (Verhoef et al., 2007, p. 132). However, this issue has not been addressed empirically (Balasubramanian et al., 2005; Voropanova, 2015); or, in general, previous authors have focused narrowly on the use of channels to find low prices (Audrain-Pontevia et al., 2013). The study of smart shopping feelings is especially important in customer experience management, given that smart shopping seeks to achieve utilitarian or hedonic experiences (Atkins and Kim, 2012).

2.3. Hypotheses

Following previous studies that differentiate smart shopping behaviours and feelings (Gómez-Suárez et al., 2016), the authors proposed that webrooming and showrooming can lead to smart shopping perceptions (cognitive factor, related to behavioural actions) and feelings (affective factor, related to the emotional outcomes of the customer experience). To this end, the three-dimensional structure of smart shopping perceptions (effort/time savings, right purchase, money savings) developed by Atkins and Kim (2012) is applied. As regards perceptions of time and/or effort savings, consumers conveniently use both online and offline channels to search for information and make purchases. It has been shown that the Internet affords increased access to information (Fernández et al., 2018), which can have both positive and negative effects on consumer search behaviour. Gensler et al. (2017) recently found that saving time was an important reason why consumers showroomed. The large amount of information available on the Internet can overload consumers' minds and, thereby, create confusion and cause anxiety during the search process (Walsh and Mitchell, 2010). Thus, consumers may prefer to go the physical store to see and touch what they want, and thereafter make the purchase online, where there are no queues. However, it has been proven that the Internet allows consumers to make more efficient information searches than offline media, saving time and effort in the purchase process (e.g., Jang et al., 2017; Ratchford et al., 2003). In addition, the physical store provides immediate possession of the merchandise, which saves on delivery time (Aragoncillo and Orús, 2018; Wollenburg et al., 2018). Therefore, perceptions of time/effort savings are expected to be higher in webrooming than in showrooming:

H1. Webrooming experiences will have a stronger positive impact on consumers' perceptions of time/effort savings than showrooming.

Recent studies have shown that webroomers strive to reduce uncertainty and feel confident that a product best matches their needs and shopping goals (Flavián et al., 2016; van der Veen and van Ossensbruggen, 2015). It has been shown that webrooming searches enhance the consumer's knowledge of, and preferences for, the product (Daugherty et al., 2008; Keng et al., 2012), reduce information asymmetries,¹ and enhance control over the purchase process (Burke, 2002; Heitz-Spahn, 2013). Schul and Mayo (2003) demonstrated that when consumers combined channels, they created individuated information that increased their perceived control over the process and their belief that they were making the right choice. On the other hand, showroomers might be seeking low prices or convenience in their purchases (Chiou et al., 2012; Rapp et al., 2015). Online purchases may result in delayed delivery or in receiving a product that does not meet with expectations, which may increase showroomers' uncertainty about having made the right choice. Thus:

H2. Webrooming experiences will have a stronger positive impact on consumers' perceptions of making the right purchase than showrooming.

Money savings refer to the classical benefits associated with smart shopping feelings (Burton et al., 1998; Mano and Elliott, 1997; Schindler, 1998). Showrooming is expected to lead to higher perceptions of money savings than webrooming. Webrooming might allow consumers to save money in their purchases, because the enhanced product knowledge they acquire from online sources can help them negotiate more effectively with vendors (Jang et al., 2017). However, finding products cheaper online than offline has been shown to be the primary reason for showrooming (Gensler et al., 2017; Rapp et al., 2015; Rejón-Guardia and Luna-Nevarez, 2017). Showroomers are oriented towards searching for the retailer who offers the best price (Fernández et al., 2018). Therefore, perceptions of money savings should be higher in showrooming experiences than in webrooming experiences:

H3. Showrooming experiences will have a stronger positive impact on consumers' perceptions of money savings than webrooming.

Consumers carrying out webrooming are expected to have greater smart shopping feelings than consumers carrying out showrooming. In their study about the addition of informational websites to physical retailers, Pauwels et al. (2011) found that "smart fans" were intensive information seekers who wanted to make the right purchases. Informational websites helped these consumers make smarter offline purchases. The Internet is the preferred information search channel due to the quantity of information available, and its transparency and convenience. As previously stated, previous authors have found that the Internet allows consumers to be more knowledgeable about the product and capable of negotiating more effectively with vendors (Jang et al., 2017; Walsh and Mitchell, 2010). In addition, webroomers may perceive more personal attribution about purchase outcomes than do showroomers. Although showroomers may feel smarter when finding lower prices or saving time through an online purchase than in a purchase in a physical store (Gensler et al., 2017; Rapp et al., 2015), they are neither ultimately responsible for, nor have they control of, the final outcome of the purchase (e.g., the actual appearance of the product, when it arrives). The smart shopping literature has found that smart shopping feelings arise when consumers attribute the purchase outcome (e.g., getting the discount) to themselves, rather than to the situation, the retailer, or chance (Bicen and Madhavaram, 2013; Mano and Elliott,

1997; Schindler, 1998). This notion is based on attribution theory (Weiner, 1986), which argues that positive emotional outcomes (e.g., pride and personal esteem) are more rewarding when they are attributed to internal causes, such as one's own skill or effort (Darke and Dahl, 2003). The locus of causality (internal versus external) and controllability are key dimensions of personal attribution (Bicen and Madhavaram, 2013; Schindler, 1998). Thus, it is expected that webroomers will have more smart shopping feelings than showroomers, and that personal attribution will explain this effect:

H4. Webrooming experiences will have a stronger positive impact on consumers' smart shopping feelings than showrooming.

H5. Personal attribution mediates the effect of webrooming (versus showrooming) on consumers' smart shopping feelings.

3. Method

3.1. Design and sample

In the present study, the authors employed an experimental design using real consumers who were asked to evaluate webrooming versus showrooming behaviours. Taking into account that cross-channel consumers are driven by different shopping motivations (Harris et al., 2018; Noble et al., 2005; Schröder and Zaharia, 2008), and that the three-dimensional structure developed by Atkins and Kim (2012) showed that smart shopping perceptions are influenced by consumers' motivations, shopping motivations were manipulated and included in the experiment as a control factor. As previously stated, cross-channel consumers combine online and offline channels to minimise the inputs and/or maximise the outputs of the purchase decision-making process (Alba et al., 1997; Gensler et al., 2012; Kaufman-Scarborough and Lindquist, 2002; Noble et al., 2005; Pauwels et al., 2011; Ratchford et al., 2003; Singh et al., 2014; Verhoef et al., 2007). The inputs are related to the time, effort and money invested in the purchase, and the outputs can be making the right purchase or finding the best deal. This economic perspective was shared by Atkins and Kim (2012), as reflected by perceptions of time/effort savings, right purchase, and money savings, of smart shopping. However, cross-channel consumers can also have other instrumental (e.g., information attainment, risk avoidance) (Balasubramanian et al., 2005; Kang, 2018; Noble et al., 2005) and non-instrumental or hedonic motivations (e.g., enjoyment, pleasure) (Harris et al., 2018; Schröder and Zaharia, 2008). The present empirical study was focused on the utilitarian perspective of shopping (Babin et al., 1994; Chandon et al., 2000), and participants were randomly assigned a specific shopping motivation. The aim was to ensure environmental control to increase the internal validity of the experiment.

The empirical study was carried out in one of the largest cities in Spain. Specialist retailers were contacted through their trade associations and asked to collaborate in the study. Only multichannel retailers (using, at least, online and physical sales' channels) were selected for participation. In addition, to ensure control over the experimental design, a homogeneous set of product categories (from the fashion sector) was chosen. Fashion products are frequently purchased through both webrooming and showrooming (Google Consumer Barometer, 2015). Nine multichannel retailers in the selected categories provided the participants for the study from their customer databases. The participants were pre-screened to ensure that they had had previous online shopping experience. A final valid sample of 210 customers was obtained (66% female; mean age = 33.4; 42% had a university degree and 98.1% had more than 5 years internet experience).

Following the smart shopping literature (Schindler, 1998), a set of vignettes that described shopping situations under various circumstances was created. The aim was to recreate cross-channel shopping situations and control for a varied set of motivations that may lead to

¹ According to Boulding and Kirmani (1993), information asymmetries occur when sellers and buyers do not possess the same information during a market interaction. For example, sellers usually know the true quality of a product before the sale, but buyers may not, especially when the product has experience properties.

Table 1
Channel preferences and usage frequencies.

Item	Mean (SD)	T test (sign.)
1. Channel preferences: Which channel is the most ...		
appropriate to search for product information?	-0.89 (2.07)	-6.253 (0.000)
attractive to search for product information?	-1.20 (2.00)	-8.666 (0.000)
satisfactory to search for product information?	-0.99 (2.05)	-7.003 (0.000)
most appropriate to purchase the product?	0.78 (1.78)	6.350 (0.000)
attractive to purchase the product?	0.41 (2.15)	2.759 (0.006)
satisfactory to purchase the product?	0.85 (1.88)	6.532 (0.000)
2. Channel usage: How often do you ...		
search for product information on the Internet?	5.07 (1.74)	17.208 (0.000)
search for product information in physical stores?	4.53 (1.81)	12.280 (0.000)
make the purchase on the Internet?	4.35 (1.93)	10.171 (0.000)
make the purchase in physical stores?	5.33 (1.45)	23.340 (0.000)
search for product information and make the purchase on the Internet?	4.54 (1.86)	12.045 (0.000)
search for product information and make the purchase at physical stores?	5.13 (1.59)	19.445 (0.000)
search for product information on the Internet and make the purchase at physical stores?	5.06 (1.75)	17.045 (0.000)
search for product information at physical stores and make the purchase on the Internet?	3.53 (1.99)	3.873 (0.000)

Note: reference value for the one sample *t*-test regarding channel preferences = 0; reference value for the one sample *t*-test regarding channel usage = 3.

smart shopping perceptions and feelings (Atkins and Kim, 2012). Specifically, the study consisted of an experimental design with 2 (cross-channel shopping: webrooming vs. Showrooming) x 3 (shopping motivation: right purchase vs. time and effort savings vs. money savings) in a between-subjects factorial design. Each condition was adapted to the product type of the retailers to ensure that the participants faced a realistic situation, that is, one that could easily arise within that particular business area. However, in all the vignettes, potential extraneous variables, such as the protagonist's gender, the prices and sizes of discounts, and time horizons (where applicable), were held constant. Thus, a total of $9 \times 2 \times 3 = 54$ vignettes was generated.

3.2. Procedure and measurement

The procedure undertaken was as follows. First, in relation to fashion products, participants reported whether they preferred to use online or offline channels to search for information and make their purchases. Specifically, they indicated (from -3 = definitely the Internet, to +3 = definitely the physical store) which channel was the most (1) appropriate, (2) attractive, and (3) satisfactory to search for product information and to make the purchase (Verhoef et al., 2007). The participants also reported their frequency of use of the Internet and physical stores to search for information and make purchases, using 7-point scales (from 1 = I never use it, to 7 = I use it every time I make a purchase) (Google Consumer Barometer, 2015). These questions were asked to introduce the participants to the context of the experiment and to confirm that webrooming is the dominant cross-channel shopping pattern.

Second, the participants were randomly assigned to one of the six conditions and they were asked to read about their particular vignette. The vignettes all started in the same way, that is, the protagonist in the scenario had a shopping need. In the webrooming (or showrooming) conditions, the participants read about a shopping experience that started with an online search (or a visit to a physical store) and ended with a purchase at the physical store (online store). Appendix A provides examples of the vignettes for the different conditions.

After carefully reading the vignette, the participants judged how the protagonist would react to the shopping experience (Schindler, 1998). They answered, using 7-point Likert type scales, the three-dimensional smart shopping perceptions scale (time and effort savings, right purchase, money savings) of Atkins and Kim (2012). They also assessed smart shopping feelings with three items adapted from previous studies (Chandon et al., 2000; Mano and Elliot, 1997). In addition, the participants reported their perceived responsibility for, and control over, the purchase outcomes, to capture their level of personal attribution (Bicen and Madhavaram, 2013; Schindler, 1998). Appendix B provides the complete list of items used in the questionnaire.

4. Analysis and results

4.1. Channel preferences and behaviours

Table 1 provides descriptive data regarding participant preference for online and physical channels. The participants' average responses were compared to the mid-point of the scale (indicating indifference) to test whether their preferences for the online or physical channels were significant. The results of the analysis revealed a preference for the Internet to search for information and for the physical channel to make purchases. This is in line with previous literature (e.g., Dholakia et al., 2005; Fernández et al., 2018; Verhoef et al., 2007; Yadav and Pavlou, 2014) and suggests that participants prefer webrooming over showrooming.

In addition, the data on the participants' frequency of use of each channel to search for information and purchase fashion products are also very illustrative (Table 1). Scores of 1 and 2 reflect very low frequency (number 1 was anchored as "never"); answers significantly above 3 were deemed to have a medium-to-high degree of frequency. The results showed that the participants frequently used both channels to search for information and make purchases. They also carried out webrooming and showrooming with a significant degree of frequency. Furthermore, pairwise tests made comparisons between both channels for each specific behaviour. Four pairwise comparisons were made: (1) search for product information on the Internet versus physical stores; (2) making the purchase on the Internet versus the physical store; (3) searching for product information and making the purchase on the Internet versus the physical store; (4) searching for product information on the Internet and making the purchase at physical stores (webrooming) versus searching for product information at physical stores and making the purchase on the Internet (showrooming). The Internet was found to be more frequently used than the physical store to search for product information ($t_{(209)} = 2.994, p < 0.01$), whereas the participants used the physical store more often than the Internet to make their purchases ($t_{(209)} = -5.493, p < 0.001$). For single-channel purchases, the participants reported that they more frequently used the offline than the online channel ($t_{(209)} = -3.443, p < 0.001$). Finally, the participants practiced significantly more webrooming than showrooming ($t_{(209)} = 8.772, p < 0.001$).

4.2. Scale validation

The scales were validated in a two-step process. First, their reliability and dimensionality were analysed (see Appendix B). Regarding reliability, their Cronbach's alphas were calculated, using a cut-off value of 0.7 (Nunnally, 1978), as were their item-total correlations,

taking 0.3 as the threshold value (Norusis, 1993). The dimensionality of the scales was examined through an Exploratory Factorial Analysis based on principal components (Hair et al., 1999). The second validation step was a Confirmatory Factor Analysis using Structural Equation Modelling (SEM) and EQS 6.3 software. The initial factor structure showed that all item loadings were above the recommended 0.7 benchmark (Henseler et al., 2009), with the exception of one item of the perceived time and effort savings scale (“the consumer has made a convenient purchase”). This item was removed. The composite reliabilities were above 0.65 (Jöreskog and Sörbom, 1993), which supports the internal consistency of the scales. The Average Variance Extracted (AVE) was higher than 0.5 (Fornell and Larcker, 1981), thus assuring convergent validity. Finally, discriminant validity was supported, as the square root of the AVE was higher than the shared variance of the inter-construct correlations (Fornell and Larcker, 1981).

4.3. Hypotheses testing

The hypotheses were tested through analyses of variance (ANOVAs). Table 2 gives the descriptive statistics and the main results. The analysis revealed a marginally significant effect of the shopping experience on perceptions of time/effort savings, with webrooming producing higher perceptions than showrooming. This result indicates marginal support for H1. The type of shopping motivation had also a significant impact on these perceptions (Table 2). The post-hoc Tukey test revealed that the right purchase motivation produced significantly lower perceptions of time/effort savings than the other motivations. The interaction between the two treatments was not significant ($p = 0.383$).

As posited by H2, the participants’ perceptions of making the right purchase were higher for webrooming than for showrooming (see Table 2). Interestingly, interaction with the shopping motivation was marginally significant ($F_{(2, 209)} = 2.778, p = 0.065$). Fig. 1 shows that webrooming produced higher perceptions of making the right purchase than showrooming, except when the motivation was to achieve a low price for the product; in these vignettes, showrooming produced slightly higher perceptions of making the right purchase than webrooming, although the difference was not significant ($p = 0.692$). Overall, these results support H2.

Perceptions of money savings were similar in showrooming and webrooming (Table 2). H3 must, thus, be rejected. The type of shopping motivation had a significant influence, and the post-hoc analysis showed that money savings perceptions were highest when the motivation was to achieve a low price for the product, and lowest when the motivation was to save time/effort. The interaction term was not significant ($p = 0.923$). Finally, the results of the ANOVA supported H4, given that smart shopping feelings were higher for participants who read the webrooming vignettes than for those who read the showrooming vignettes (Table 2). The type of shopping motivation also had a significant effect; saving time and/or effort in the purchase produced lower smart shopping feelings than the other motivations. The interaction was not significant ($p = 0.454$).

Table 2
Descriptive statistics and ANOVA results for main effects.

	Time/Effort savings		Right purchase		Money savings		Smart shopping feelings	
	M (SD)	$F_{(2, 209)}$	M (SD)	$F_{(2, 209)}$	M (SD)	$F_{(2, 209)}$	M (SD)	$F_{(2, 209)}$
Shopping Experience								
Webrooming	5.09 (1.48)	3.302*	6.25 (0.95)	4.560**	4.80 (1.40)	0.432	6.26 (1.01)	4.951**
Showrooming	4.72 (1.59)		5.95 (1.14)		4.68 (1.49)		5.94 (1.12)	
Shopping motivation								
Time-Effort savings	5.35 (1.32)	10.213***	6.08 (1.11)	0.224	4.06 (1.40)	28.509***	5.83 (1.09)	4.443**
Right purchase	4.26 (1.52)		6.06 (1.05)		4.57 (1.32)		6.17 (1.02)	
Money savings	5.04 (1.61)		6.17 (1.01)		5.66 (1.11)		6.34 (1.06)	

Note: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

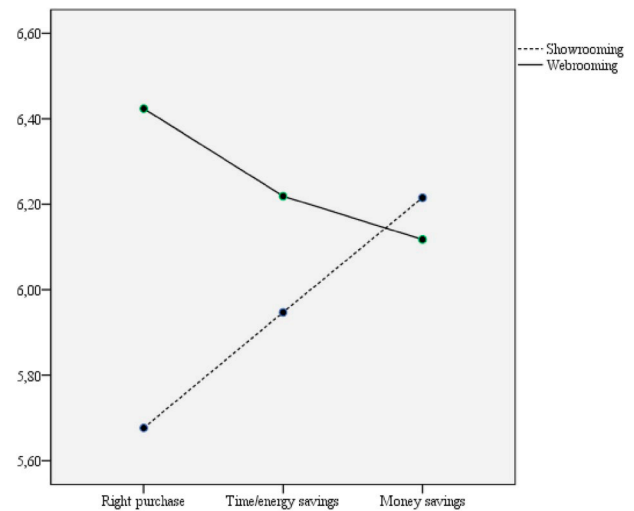


Fig. 1. Interaction effects on right purchase perceptions (estimated means).

The questionnaire asked participants about the extent to which the protagonist in the vignette was responsible for, and in control of, the purchase outcome. The participants who read the webrooming vignettes attributed more responsibility to the consumer ($M = 5.54, sd = 1.26$) than those in the showrooming condition ($M = 4.84, sd = 1.56; F_{(2, 209)} = 12.787, p < 0.001$). The same was true with perceived control of the purchase (webrooming: $M = 5.35, sd = 1.19$; showrooming: $M = 4.97, sd = 1.46; F_{(2, 209)} = 4.065, p < 0.05$). No other effects were significant ($ps > 0.173$). The two items were averaged to obtain a measure of personal attribution (Bicen and Madhavaram, 2013; Schindler, 1998). Following Eisinga et al. (2013) recommendations, the Spearman-Brown coefficient was used to check the reliability of the scale ($\rho = 0.712, p < 0.001$).

The PROCESS macro v33 for SPSS (Hayes, 2018) was used to test H5. The mediation model included the shopping experience (webrooming versus showrooming) as the independent factor, smart shopping feelings as the dependent variable, and personal attribution as the mediator. The shopping experience had a direct effect on personal attribution ($b = 0.543, se = 0.167, t_{(209)} = 3.240, p < 0.01$). When personal attribution was included in the regression on smart shopping feelings, the effect of the shopping experience disappeared ($b = 0.176, se = 0.144, t_{(208)} = 1.225, p = 0.220$), and personal attribution was shown to have a significant effect ($b = 0.273, se = 0.058, t_{(208)} = 4.699, p < 0.001$). The bootstrap results (samples = 5000) for the indirect effect revealed mediation for personal attribution, given that the zero value was not included in the 95% confidence interval (effect = 0.148, bootSE = 0.054, confidence interval: [0.052–0.265]). These results support H5.

5. Discussion

The results of the descriptive analysis of participants' preferences and channel use revealed that the Internet was clearly the dominant search channel, whereas the physical store remained the preferred medium to make purchases. These results are in line with previous studies (Alba et al., 1997; Verhoef et al., 2007; Yadav and Pavlou, 2014). The great amount of data available, from many different sources, the ease of making comparisons, and the convenience with which the information can be accessed and processed, are important advantages of the Internet, compared to the physical store, for researching product information. While e-commerce figures rise every year (Statista, 2018), and consumers' distrust of online shopping is expected to decrease as they become more experienced and familiar with the Internet (Frambach et al., 2007), consumers still see the physical store as more attractive, appropriate, and satisfactory for completing the purchasing process. The specialised literature has acknowledged the important advantages of physical stores in terms of service, assistance and immediate possession (Aragoncillo and Orús, 2018; Verhoef et al., 2007). These preferences were reflected in the participants' behaviours. Furthermore, regarding cross-channel shopping patterns, webrooming was more frequently undertaken than showrooming.

The results of the experiment showed that perceptions of time/effort savings were higher for webrooming than for showrooming, although the effect was only marginally significant. Recently, it was shown that consumers may be motivated to showroom because of its convenience (Gensler et al., 2017). Kang (2018) found that convenience seeking was not associated with showrooming or webrooming. The results of the present study did not contradict those of Gensler et al. (2017), but suggested that webrooming can lead to greater perceptions of time/effort savings than showrooming. For fashion item purchases, which have a strong experiential component, it seems that consumers perceived that they were more efficient when webrooming than showrooming. Nevertheless, shopping motivations appeared to determine these perceptions more than the type of experience. When consumers were motivated to make the right purchase, they might not consider saving time and/or effort in the experience (i.e. minimizing inputs) but might instead focus more on maximizing the output of the purchase.

The webrooming participants reported higher perceptions of having made the right purchase than the showrooming participants. Webroomers are motivated to make the best purchase possible, and they search for information intensively to be confident in their decisions (Flavián et al., 2016). Online searches enhance the consumer's knowledge and power in their interaction with retailers (Walsh and Mitchell, 2010). The physical channel provides them reassurance and immediate possession. Thus, webrooming induced consumers to perceive that they were making better purchases than showrooming experiences, where they may have less control over the final outcome of the purchase. However, shopping motivation moderated the effect of the type of experience. In webrooming, the perceptions of having made the right purchase were higher when the motivation was to make the right purchase than for the other motivations; in showrooming, these perceptions were highest when the motivation was to save money. This result revealed that consumers are driven by different motivations when webrooming and showrooming.

Contrary to the authors' expectations and previous studies (e.g., ComScore, 2012; Gensler et al., 2017), showrooming did not produce higher perceptions of money savings than webrooming. Although past studies have found that paying a low price is a key factor in showrooming, the authors directly compared webrooming and showrooming and found no significant differences. Instead, shopping motivations appeared to determine perceptions of money savings. Thus, omnichannel consumers with specific shopping motivations (e.g., saving money) may combine channels in their purchase decision-making processes to achieve their goals, regardless of the channels they use or

the order in which they use them (Kang, 2018; Sopadjieva et al., 2017).

Finally, webrooming had a more positive impact than showrooming on smart shopping feelings. The specialised authors on smart shopping have argued that personal attribution is an important antecedent of these feelings (Bicen and Madhavaram, 2013; Schindler, 1998). Feeling personally responsible and in control of a situation makes consumers feel smart about their purchases. The findings of the present study revealed that webrooming participants perceived higher personal attribution than showrooming participants, and personal attribution mediated the impact of webrooming on smart shopping feelings. Acquiring very full knowledge of a product online, and then touching it in the store and taking it home, made consumers feel smarter with their purchases than the reverse channel combination. Moreover, when consumers sought efficiency in their purchases, their smart shopping feelings were lower than with other shopping motivations. As Gensler et al. (2012) noted, convenience appears to have no significant role in terms of customer experience and synergetic effects between channels.

6. Conclusions

Webrooming and showrooming are prevalent patterns among omnichannel consumers. The proliferation of touchpoints (i.e. any direct or indirect contact between a customer and a brand or firm, including retailers; Verhoef et al., 2015) and the reduced control of the experience require firms to integrate channels seamlessly to retain customers through the purchase decision-making process. Although there is much literature about consumers' channel preferences and choices, and previous researchers have acknowledged that using multiple channels provides companies with more positive than negative outcomes, little is known about how specific channel combinations affect customer experiences at the individual level. The authors contribute to the literature by examining the impact of webrooming and showrooming on smart shopping perceptions and feelings. The transfer of control from companies to consumers in their purchase decision-making processes creates the conditions for smart shopping. Smart shopping feelings have a strong influence on consumer satisfaction, which is the first step in establishing long-term customer/company relationships.

In the present study, the authors showed that webrooming led consumers to perceive that they were saving time and/or effort and making the right choices to a greater extent than showrooming. In addition, webrooming led consumers to attribute the purchase outcomes to themselves, which increased their smart shopping feelings. Furthermore, consumers who searched for bargains were not affected by the channel combination in their perceptions of money savings, but showrooming made them perceive that they were making the right purchase more than did webrooming.

6.1. Managerial implications

The results have interesting implications for retailers. Delivering convenience in cross-channel and omnichannel experiences has been a mantra for multichannel customer management (Parry, 2016), and it definitely helps consumers make efficient purchases. However, the findings of the present study show that convenience may not be critical for managing customer experiences. Appealing to the consumer's intelligence, or diligence, during the decision-making process, and increasing his/her feelings of self-competence or sense of themselves as capable and in control of the experience (Gensler et al., 2012), may be more effective. Although companies may have difficulties in tracking consumers' use of online and offline channels (Verhoef et al., 2015), their enhanced control over the process may improve their customer experience through smart shopping perceptions and feelings. Webrooming consumers tend to attribute purchase outcomes to themselves; in-store reassurances (e.g., allowing customers to freely handle the merchandise, compliant behaviours from salespersons) can help consumers to perceive that they are making the right purchase and feel like

smart shoppers. Online retailers might create communication strategies to challenge the showroomers' mastery in making clever purchases, and offer them the possibility of continuously tracking their orders to increase their perceived control over the purchase process.

Information integrity across channels is seen to be valuable. Offering good product information online and good in-store physical interactions may help retailers integrate their channels more efficiently. A recent report stated that “by providing customers with desired information, [retailers can] keep them in their retail ecosystem—not pushing them away with inconsistent, incompatible, inhospitable or incomplete experiences” (Accenture, 2015, p. 4). The new omnichannel environment blurs the natural boundaries between online and offline channels (Juaneda-Ayensa et al., 2016; Kang, 2018) and managers need to ensure that information provided in-store and online is consistent (Sit et al., 2018). Managers must also take into account that cross-channel consumers may have different shopping goals, so their behaviour may be guided by different cognitive and affective variables.

6.2. Limitations and future research lines

This study has limitations that offer opportunities for future research lines. First, the authors focused on fashion items. Although this product category is frequently purchased through webrooming and showrooming, future studies should consider the potential moderating effect of product characteristics in the proposed relationships.

Second, the analysis of cross-channel shopping was based on the purchase decision-making process with a choice phase divided into two parts. However, real-world experiences may involve several

interactions across virtual and physical channels during the information search stage of the process. Future studies might, thus, investigate the online-offline channel combination not only as a unidirectional sequence (from online to offline, or from offline to online) but examine also the effects of varied channel combinations. For example, consumers may search for product information online, go the physical store to test the product, and then make the purchase online (Research, Testing and Buying (RTB)) (Fernández et al., 2018). Mobile technologies allow consumers to use several channels simultaneously in the same stage of the purchasing process, turning cross-channel experiences into omnichanneling (Verhoef et al., 2015). Consumers may search for information online (e.g., prices, additional product information, reviews) while they are in-store and interacting physically with a plethora of stimuli. The incorporation of social media, geolocation technologies, and mobile commerce (SoLoMo) allows consumers to find store locations, receive location-based promotions and coupons, and compare prices in real time, which may have an effect on webrooming and showrooming practices (Kang, 2018). Further analyses should consider how omnichannel environments affect the generation of smart shopping perceptions and feelings, and lead to optimal customer experiences.

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Appendix A. Shopping Vignettes Used in the Experiment

The design of the vignettes was adapted to the commercial offer of each of the nine specialist multichannel retailers that collaborated in the recruitment of the participants. The following are examples of a retailer specializing in designer t-shirts. Other vignettes included jeans and running shoes. Note that the original vignettes were in a language that supports the gender-neutral article.

Webrooming – time/effort savings

Alex needs a new t-shirt to go to a party with friends next weekend. Alex wants to make the purchase in the quickest time possible. Alex starts searching for information on the Internet, where (s)he can look for different models, designs, colours ... After researching several websites, Alex picks a t-shirt for the party, but if the order is made online, the product will not arrive in time. So Alex decides to check the product's availability at (NAME OF THE STORE)'s website. Indeed, the product is available so Alex goes to the store and makes the purchase. The purchase is a success. Alex has saved time and gets the product as soon as possible.

Webrooming – right purchase

Alex needs a new t-shirt to go to a party with friends next weekend. Alex cares about this type of purchase, and spends time searching for information to make the best purchase possible. Alex starts searching for information on the Internet, where (s)he can look for different models, designs, colours ... After researching several websites, Alex picks the t-shirt for the party, but (s)he decides to go to a physical store to make sure that the product matches (her)his needs. Alex goes to (NAME OF THE STORE) where (s)he can touch and try on the product. The purchase is a success. Alex has got the t-shirt that (s)he wanted.

Webrooming – money savings

Alex needs a new t-shirt to go to a party with friends next weekend. Alex loves bargain hunting, and spends time trying to find the best deal and pay a low price for the product. Alex starts searching for information on the Internet, where (s)he can look for different models, designs, colours ... After researching several websites, Alex picks the t-shirt for the party, but (s)he knows that at (NAME OF THE STORE) (s)he can get an offer or special discount, given that the store usually offers discounts for regular customers like him/her. Alex goes to (NAME OF THE STORE), and indeed, (s)he gets a price 20% lower than the one (s)he found online. The purchase is a success. Alex has got a great deal for the t-shirt.

Showrooming – time/effort savings

Alex needs a new t-shirt to go to a party with friends next weekend. Alex wants to make the purchase in the quickest time possible. One day, while going home from work, Alex shops around. After looking for different models, designs, colours ..., in different shops, Alex picks the t-shirt for the party. However, the store is very crowded and there is a long queue to make the purchase. So (s)he decides to check the (NAME OF THE STORE)'s website and make the order online. Alex will receive the t-shirt at home in two days. The purchase is a success. Alex has got the product on time and has saved time in the store, avoiding the long queue.

Showrooming – right purchase

Alex needs a new t-shirt to go to a party with friends next weekend. Alex cares about this type of purchase, and spends time searching for information to make the best purchase possible. One afternoon, Alex goes shopping around and starts searching for different models, designs, colours ... After researching several shops, Alex picks one t-shirt for the party, but (s)he cannot make up her/his mind about it. Alex thinks that (s)he may have not found the best option, so (s)he decides to search for information on the Internet. Indeed, (s)he finds the t-shirt (s)he wants in the (NAME OF THE STORE)'s website, where (s)he eventually makes the order. The purchase is a success. The fit and colour are perfect; Alex has got the t-shirt that (s)he wanted.

Showrooming – money savings

Alex needs a new t-shirt to go to a party with friends next weekend. Alex loves bargain hunting, and spends time trying to find the best deal and pay a low price for the product. One afternoon, Alex goes shopping around and starts searching for different models, designs, colours ... After researching several shops, Alex picks the t-shirt for the party, but (s)he decides to search for the product online to find a lower price for the product. Indeed, at (NAME OF THE STORE)'s website, Alex gets a price 20% lower than the one in the physical store. The purchase is a success. Alex has got a great deal for the t-shirt.

A pre-test was carried out to check the suitability of the vignettes. Specifically, there were 102 participants (45% female; median age = between 26 and 32 years old; 58% had a university degree and 98% had more than 5 years Internet experience), recruited through a market research agency (Prolific: <https://prolific.ac/>). The participants were randomly assigned to one of the six vignettes. After reading the vignette, the participant assessed the realism and believability of the purchase experience by addressing the following three items (Bagozzi et al., 2016): (1) the purchase experience in the vignette is realistic; (2) the purchase experience in the vignette is credible; (3) it is likely that I could encounter a situation similar to that described in the vignette. The three items showed good indices of reliability ($\alpha = 0.889$) and dimensionality (KMO = 0.713; explained variance = 81.895%), so they were averaged to create a single measure of the realism of the vignettes.

Table A1 displays the descriptive statistics of the different vignettes. First, the results of a sample *t*-test confirmed that the vignettes were highly realistic, given that the mean value was significantly higher than the mid-point of the scale (4) ($t(102) = 13.193, p < 0.001$). In addition, the ANOVA results showed non-significant differences between conditions (webrooming/showrooming: $p = 0.667$; motivation: $p = 0.319$; interaction: $p = 0.652$). These results confirm the suitability of the vignettes.

Table A1
Descriptive statistics pre-test vignettes

		M (SD)	N
Webrooming	Time/effort savings	6.10 (0.82)	17
	Right purchase	5.81 (1.41)	20
	Money savings	5.33 (1.27)	15
	Total webrooming	5.73 (1.22)	52
	Showrooming	Time/effort savings	6.10 (0.82)
Right purchase		5.81 (1.41)	16
Money savings		5.33 (1.27)	18
Total showrooming		5.73 (1.22)	50
Total		Time/effort savings	5.89 (1.11)
	Right purchase	5.76 (1.36)	36
	Money savings	5.41 (1.38)	33
	TOTAL	5.69 (1.29)	102

Appendix B. Measurement Instruments

Please, indicate your level of agreement (from 1 = completely disagree, to 7 = completely agree) with the following statements about the purchase vignette that you have just read.

Smart shopping perceptions of time and effort savings (adapted from Atkins and Kim, 2012)

Reliability: Cronbach's $\alpha = 0.785$

Dimensionality: Only one eigen-value > 1; KMO = 0.689; Explained Variance = 69.986%

Making this purchase has been convenient for Alex*	1	2	3	4	5	6	7
Making this purchase has not been a hassle for Alex	1	2	3	4	5	6	7
Alex has not spent extra effort on this purchase	1	2	3	4	5	6	7
Alex has been able to make this purchase quickly	1	2	3	4	5	6	7

Smart shopping perceptions of making the right purchase (adapted from Atkins and Kim, 2012)

Reliability: Cronbach's $\alpha = 0.843$

Dimensionality: Only one eigen-value > 1; KMO = 0.705; Explained Variance = 76.167%

The purchase has been exactly what Alex was looking for	1	2	3	4	5	6	7
This purchase perfectly fit Alex needs	1	2	3	4	5	6	7
Alex has got a good quality product from this purchase	1	2	3	4	5	6	7

Smart shopping perceptions of money savings (adapted from Atkins and Kim, 2012)

Reliability: Cronbach's $\alpha = 0.799$

Dimensionality: Only one eigen-value > 1; KMO = 0.641; Explained Variance = 71.779%

Alex has got a lower price on this purchase than normal	1	2	3	4	5	6	7
Alex has got a reasonable price on this purchase	1	2	3	4	5	6	7
Alex has got a good deal on this purchase	1	2	3	4	5	6	7

Smart shopping feelings (adapted from Chandon et al., 2000; Mano and Elliott, 1997)

Reliability: Cronbach's $\alpha = 0.883$

Dimensionality: Only one eigen-value > 1; KMO = 0.734; Explained Variance = 81.070%

Alex feels good about the purchase that has been made	1	2	3	4	5	6	7
Alex feels that (s)he has made a smart purchase	1	2	3	4	5	6	7
Alex feels pride about the purchase that has been made	1	2	3	4	5	6	7
Control and Responsibility (adapted from Bicen and Madhavaram, 2013; Schindler, 1998)							
To what extent do you think that the final outcome of this purchase is Alex's own responsibility?							
Not responsible at all	1	2	3	4	5	6	7
To what extent that do you think the final outcome of this purchase is under Alex's control?							
Not controllable at all	1	2	3	4	5	6	7
							Completely responsible
							Completely controllable

* This item was removed as a result the validation process.

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