Impulse buying behaviour: an online-offline comparative and the impact of social media

Comportamiento de compra impulsiva: comparativa online-offline e impacto de las redes sociales

Laura Aragoncillo and Carlos Orús
University of Zaragoza, Zaragoza, Spain

Abstract

Purpose – This paper aims to explore the phenomenon of impulse buying in the fashion industry. The online and offline channels are compared to determine which is perceived as leading to more impulsive buying.

Design/methodology/approach – As the result of the literature review, three research questions are proposed and examined through an online self-administered survey with 212 valid responses.

Findings – Results show that the offline channel is slightly more encouraging of impulse buying than the online channel; factors that encourage online impulse buying explain this behaviour to a greater extent than do discouraging factors; social networks can have a big impact on impulse buying.

Research limitations/implications – Findings are limited by the sampling plan, the sample size and the measurement of some of the variables; only one product type is analysed. Further research is needed to confirm that shipping-refund costs and delayed gratification (traditionally, discouraging factors of online buying) encourage online impulse buying; clarify contradictory results regarding the role of online privacy and convenience. This research contributes to the validation of a scale to measure the influence of social media on impulse buying behaviour.

Practical implications – Offline companies can trigger the buying impulse to a greater extent than online retailers. Managers must carefully select social networks to encourage impulse buying, Facebook and Instagram being the most influential; Twitter has the least impact.

Originality/value – This study compares the impulse buying phenomenon in both the physical store and the internet. Moreover, the influence of social networks on impulse buying is also explored.

Keywords Internet, Social networks, Motivators, Impulse buying, Physical store

Paper type Research paper

Resumen

Objetivo – Este trabajo explora la compra por impulso en el sector de la moda, comparando los canales físico y online para determinar cuál se percibe como más impulsivo.

Diseño/metodología/enfoque – De la revisión de la literatura se extraen tres preguntas de investigación, examinadas a través de una encuesta auto-administrada online con 212 respuestas válidas.

Resultados – Los resultados muestran que: el canal offline es ligeramente percibido como más impulsivo que el online; los factores motivadores de la compra impulsiva online explican mejor este comportamiento que los desmotivadores; las redes sociales pueden tener un gran impacto en la compra impulsiva.

Limitaciones/implicaciones de la investigación – Las limitaciones radican en el plan de muestreo, el tamaño muestral, y la medición de algunas variables; sólo una industria es analizada. Futuras investigaciones deberán: confirmar que los gastos de envío-devolución, así como la gratificación retrasada (tradicionalmente considerados como motivadores de la compra online) pueden motivar la compra impulsiva online; clarificar resultados contradictorios sobre la privacidad y la conveniencia de Internet. Esta investigación contribuye a la validación de un instrumento para medir la influencia de las redes sociales en la compra impulsiva.

Implicaciones para la gestión – Las tiendas físicas pueden estimular la compra por impulso más que los vendedores online. Los gestores deben seleccionar cuidadosamente las redes sociales para favorece la compra por impulso, siendo Facebook e Instagram las más influyentes; Twitter tiene el menor impacto.

Originalidad/valor – Este estudio compara el fenómeno de la compra impulsiva tanto en el canal físico como online, y explora la influencia de las redes sociales en la compra impulsiva.

Palabras clave – Compra impulsiva, Internet, Tienda física, Motivadores, Redes sociales

1. Introduction

The importance of impulse buying in consumer behaviour has been clear for some years. Previous research both in the academic and the professional fields has shown that impulse buying represents between 40 and 80 per cent of all purchases, depending on the type of product (Amos *et al.*, 2014; Marketingdirecto, 2012). Impulse buying has aroused the interest of researchers and organizations which have tried to understand the psychological underpinnings of this behaviour, as well as "impulse temptations", to boost sales (Beatty and Ferrell, 1998, Kacen and Lee, 2002; Kacen *et al.*, 2012; Amos *et al.*, 2014).

However, because of the serious impact of the economic crisis and the growing use of the internet as an information search and purchase channel, consumer behaviour seems to have changed towards a more planned and informed process (Experian Marketing Services, 2013; Banjo and Germano, 2014). At the same time, several authors claim that the internet indeed favours impulse buying (Gupta, 2011; Rodríguez, 2013). Thus, a certain degree of uncertainty now exists about the role of impulse buying, both in the conventional, physical store and the online channel, as well as about which channel encourages this behaviour to a greater extent. Although previous research has addressed the impulse buying phenomenon, focusing either on the physical store or on the internet in isolation, there is a lack of studies analysing both the channels simultaneously.

Thus, the goal of this research is to contribute to a better understanding of this shopping phenomenon, by analysing the consumer's impulse buying behaviour on both the physical and the online channels but paying special attention to the latter. Specifically, this exploratory research proposes three research questions that will be answered by means of an empirical study. These questions are related to:

- the consumer's perceptions about how the internet and the traditional, physical store affects his or her impulse buying behaviour;
- which characteristics of the internet, compared to the physical channel, encourage or discourage online impulse buying; and
- because of the growing impact of social media on consumer behaviour (Xiang *et al.*, 2016), the influence of social networks on impulse buying is also explored.

This research is focused on the fashion industry for several reasons. First, a significant proportion of consumers' purchases are of clothing and shoes (INE -Instituto Nacional de Estadística, 2015). Second, online shopping in this industry has been steadily growing during the past years (CNMC -Comisión Nacional de los Mercados y la Competencia, 2016; Eurostat, 2017) and this growth is particularly observed in social media (IAB Spain, 2016). Finally, it is one of the industries that IS most prone to impulse buying (Luna and Bech-Larsen, 2004).

2. Literature review
2.1 Impulse buying
The phenomenon of impulse buying was first acknowledged as an irrational behaviour in the decade of the 1940s (Luna and Quintanilla, 2000). This phenomenon aroused the interest of numerous researchers, who thereafter faced the challenge of measuring it: participants in experiments were reluctant or unwilling to overtly declare all the products that they intended to purchase (these were subsequently compared with actual purchases; Kollat and Willett, 1969). Even though there is still no consensus in the literature about the definition of the concept (Amos *et al.*, 2014), this review aims at offering a clear overview of its evolution.

The first studies on impulse buying can be found in the *consumer buying habits studies* carried out by the Du Pont de Nemours and Co. (1945/1949/1954/1959/1965; cited in Rook, 1987), which focused mainly on understanding how the phenomenon occurred and its extent. Some years after the first studies, the importance of impulse buying was underlined by another study which showed that a considerable percentage of sales in retail stores came from unplanned purchases (Clover, 1950). In this research, an impulse buy was first conceptualized as an unplanned purchase, that is, "the difference between a consumer's total purchases at the completion of a shopping trip, and those that were listed as intended purchases prior to entering a store" (Rook 1987, p. 190).

However, several authors have argued that defining impulse buying only on the basis of unplanned purchases is rather simplistic (Stern, 1962; Kollat and Willett, 1969; Rook, 1987) and went a step further by arguing that while all impulse purchases can be considered as unplanned, not all unplanned purchases can be considered as impulsive (Koski, 2004). An unplanned purchase may occur simply because the consumer needs to buy a product but it has not been placed on the shopping list in advance. Unplanned purchases are not necessarily accompanied by an urgent desire or strong positive feelings, which are usually associated with an impulse buy (Amos *et al.*, 2014).

In this way, authors such as Applebaum (1951), Stern (1962) and Kollat and Willett (1969), extended the concept by establishing that impulse buying emerged after the exposure to a stimulus. Applebaum (1951, p. 176) defined it as "buying which presumably was not planned by the customer before entering a store, but which resulted from a stimulus created by a sales promotional device in the store". However, this definition was also considered limited, given that the stimulus that provoked the impulse was exclusively a sales promotion device. On the other hand, Stern (1962) distinguished four types of impulsive buying: *pure impulse buying* totally breaks the normal buying pattern. It occurs when the consumer has no purchase intention but the product elicits emotions that eventually lead to the act of buying; *reminder impulse buying* occurs when the consumer sees an item and remembers that the stock at home is low, or recalls an advertisement or other information about the product and a previous wish to purchase it; *suggestion impulse buying* takes place when the consumer sees an item for the first time and detects a need that it can satisfy; and *planned impulse buying* occurs when the consumer enters the store with the intention to purchase some specific products, but also expects to make other purchases depending on the special offers and promotions that he or she finds at the store.

The contribution of Rook to the literature had a significant impact on the conceptualization of the term (Rook and Hoch, 1985; Rook, 1987; Rook and Fisher, 1995). This author affirmed that:

> [...] impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. The impulse to buy is hedonically complex and may stimulate emotional conflict. Also, impulse buying is prone to occur with diminished regard for its consequences (Rook, 1987, p. 191).

Further investigations focused on the study of consumer behaviour in the buying decision process with the goal of identifying factors, both internal (related to personal characteristics) and external (related to situational – store and product – characteristics) that affect impulse buying (Amos *et al.*, 2014; Muruganantham and Bhakat, 2013; Badgaiyan and Verma, 2014). Previous studies emphasized that impulse buying was primarily affective in nature, wherein the hedonic and emotional aspects of these purchases determine consumer behaviour to a greater extent than the utilitarian and rational aspects (Luna and Quintanilla, 2000). Recently, impulse buying has been defined as "a sudden, compelling, hedonically complex purchase behavior in which the rapidity of the impulse purchase decision precludes any thoughtful, deliberate consideration of alternatives or future implications" (Sharma *et al.*, 2010, p. 277).

2.2 Online impulse buying
There is a need to study impulse buying on the internet, because of the increasing importance of this medium as a sales channel. According to Google Consumer Barometer (2015) and Eurostat (2017), around two-thirds of the European population makes online purchases. If we focus on the fashion industry, clothing and sport garments were the bestselling categories in Europe in 2016 (Eurostat, 2017).

One may argue that online buying behaviour is rather rational, as the consumer tends to search for information and make comparisons before making the final decision. However, rational choices are not always made, and impulsive buying also has room in this medium (Jeffrey and Hodge, 2007; Verhagen and van Dolen, 2011). Taking into account the importance of impulse buying for companies' revenues, it would appear worthwhile to investigate this phenomenon in the online channel.

In the late 1980s, it was acknowledged that impulse buying had become easier because of innovations such as credit cards, direct marketing and in-home shopping (Rook, 1987). The ease of choosing a product and "clicking" on it may create temptation and thus increase the likelihood of impulse buying (Greenfield, 1999). Other authors argue that the internet may lessen consumers' capacity to control their buying impulses. LaRose (2001) found that the characteristics of the internet that empowered consumers to control their buying impulses were few (13), compared to those that weakened such control (50). On the other hand, other authors state that consumers carry out less impulse purchases online than offline (Kacen, 2003). In fact, most research on e-commerce has considered online purchase decisions as rational processes, based on problem solving and information processing (Verhagen and van Dolen, 2011). In the specific context of this research, McCabe and Nowlis (2003) indicate that products for which touch is important, such as clothing, are more impulsively acquired at physical stores than online, given that the internet prevents consumers from touching and trying on the garments.

The evolution of the internet to the 2.0 Web has dramatically changed the way in which consumers and companies interact and carry out transactions. Specifically, it has been noted that social commerce is as branch of e-commerce which incorporates the use of social media in all kinds of commercial activities (Xiang *et al.*, 2016). In this sense, 65 per cent of social media users affirm that social networks influence their shopping processes, and almost half

of them say that social media inspire their online purchases (IAB Spain, 2016; PWC, 2016). Previous research has shown that consumers are influenced by others at the time of buying a product, and this influence may be higher online than offline (Riegner, 2007). Therefore, social media can represent a powerful tool to boost impulse buying.

3. Research questions

The literature review points out a controversy regarding which channel, online or offline, leads to more impulse buying (Verhagen and van Dolen, 2011). This research contributes to this debate by examining whether consumers perceive the online channel to be more or less encouraging of impulsive buying than the offline channel when they carry out purchases. With this goal, we focus on the factors or characteristics of the internet that can encourage or discourage impulse buying through this medium. Finally, to obtain a more complete and current picture of the phenomenon of impulse buying, we explore the possible influence of social media on this behaviour. To sum up, we propose the following research questions:

RQ1. Which channel – online or offline – is considered by the consumer as leading to more impulse buying?

RQ2. Which factors encourage and discourage online impulse buying?

RQ3. What is the influence of social networks on impulsive buying?

Table I summarizes the conceptual framework that attempts to address the research questions.

3.1 Impulsiveness of the online versus offline channel (RQ1)

On the one hand, authors such as Greenfield (1999) and LaRose (2001) argue that the online channel can lead to more impulse buying than the offline channel: the greater product assortment, the possibility of making purchases 24/7 from any location and the use of advanced marketing techniques based on personalization, have the capacity to encourage online shopping to a greater extent than other factors, such as delayed possession or shipping costs, that might discourage it. Furthermore, despite the fact that the internet prevents consumers from touching and trying on garments (McCabe and Nowlis, 2003), this limitation can be overcome by good quality product presentation, with realistic pictures and detailed information about sizes and measures. Offering the possibility of free shipping or in-store refunds can also be used to overcome the limitations of online shopping.

On the other hand, the capacity of physical stores to create sensory experiences, as well as the store's atmosphere, can lead the physical channel to be more impulsive than the online channel (Gupta, 2011). The previous literature review has pointed out that impulse buying is hedonically complex and has a strong emotional character (Luna and Quintanilla, 2000; Sharma *et al.*, 2010). Emotions and hedonic experiences are strongly related to sensory stimulation (Krishna, 2012). To the extent that physical stores are able to stimulate the senses better than the internet, we might expect that consumers will perceive the physical channel as more impulsive than the online channel. A recent report by Kearney (2013) revealed that 40 per cent of the participants in a survey (3,000 consumers from the USA and the UK) spent more money than planned in physical stores, while the percentage doing so in the online channel was 25 per cent.

Finally, several authors argue that, beyond channel characteristics, personal and situational characteristics also determine impulse buying (Badgaiyan and Verma, 2014; Lim and Yazdanifard, 2015). Sociodemographic variables, such as gender or age, can strongly affect behaviour (Youn and Faber, 2000). As we noted in our introduction, the economic crisis of the past years may have changed consumer behaviour and the way they use new technologies, pivoting in general towards more planned purchases.

Research question	Arguments	References
RQ1	Internet leads to more impulse buying than the physical store	Greenfield (1999), LaRose (2001), Jeffrey and Hodge (2007), Verhagen and van Dolen (2011)
	Physical store leads to more impulse buying than the internet	Sharma *et al.* (2010), Gupta (2011), Kearney (2013)
	Personal and situational characteristics, rather than channel characteristics, determine impulsiveness	Youn and Faber (2000), Badgaiyan and Verma (2014), Lim and Yazdanifard (2015)
RQ2	*Encouraging factors*	
	Greater product assortment	Brohan (2000), Chen-Yu and Seock (2002)
	Advanced marketing techniques	Brohan (2000), LaRose (2001), Koufaris (2002), Reibstein (2002), Kacen (2003), Koski (2004), Dawson and Kim (2009)
	Use of credit cards	Dittmar and Drury (2000), LaRose (2001), Koski (2004), Karbasivar and Yarahmadi (2011), Tuttle (2014)
	Anonymity	Rook and Fisher (1995), Koufaris (2002)
	Lack of human contact	Greenfield (1999)
	Easy access and convenience	Koufaris (2002), Koski (2004), Moe and Fader (2004), Dawson and Kim (2009)
	Discouraging factors	
	Easy access and convenience	Koufaris (2002), Koski (2004), Moe and Fader (2004), Dawson and Kim (2009)
	Delayed gratification	Rook (1987), Dittmar and Drury (2000), LaRose (2001), Kacen (2003), Koski (2004)
	Inability to activate the five senses	Brown (1999), Chen-Yu and Seock (2002), Kacen (2003), McCabe and Nowlis (2003), Koski (2004), Peck and Childers (2006)
	Easy comparisons	Brohan (2000), LaRose (2001), Koski (2004)
	Shipping and refund costs	Huang and Oppewal (2006), Kukar-Kinney and Close (2010)
RQ3	Consumers influence others by sharing pictures or recommendations in social media, which stimulates impulse buying	Xiang *et al.*, (2016)
	Social media help to build positive brand images, favouring impulse buying	Kim and Johnson (2016)

Table I.
Conceptual framework for the research questions

3.2 Encouraging and discouraging factors for online impulse buying (RQ2)
The literature review also reveals differentiating characteristics of the online and the offline channels that can encourage or discourage impulse buying (Table I). Among the encouraging factors with regard to online impulse buying, we find the following defining characteristics of the internet: greater product assortment and variety, sophisticated marketing techniques, credit cards, anonymity, lack of human contact and easy access and convenience. First, greater assortment and product variety is one of the most influential factors for online consumers in carrying out impulse purchases (Brohan, 2000; Chen-Yu and Seock, 2002). Online stores have the capacity to offer greater assortment and variety than physical stores, which are more limited by physical constraints.

Regarding the second factor, the use of advanced marketing techniques, such as personalized emails based on purchasing history or with information about new products and a direct link to the electronic store, can be highly effective in encouraging online impulse buying (Koufaris, 2002; LaRose, 2001). Sales promotions devices, though they are also

available at physical stores, seem to be more effective in online shopping. In the virtual environment, the possibilities for multisensory stimulation are limited and sales promotions and offers more easily grab consumers' attention (Kacen, 2003). Furthermore, online promotions can be more customized than offline promotions, so consumers will be more likely to be offered products of specific, personal interest (Koski, 2004).

Third, credit cards can encourage impulse buying (Karbasivar and Yarahmadi, 2011; Koski, 2004). This payment method is commonly used in offline purchases, but it is more widespread in the online channel. Consequently, use of the online channel could encourage more impulse buying than the offline channel. When using virtual payment methods, money appears less real and consumers have the feeling that they are not really spending it (Dittmar and Drury, 2000; Tuttle, 2014). Thus, the monetary consequences of making (impulse) purchases are not perceived immediately (LaRose, 2001).

The anonymity and lack of human contact that the internet provides can also encourage online impulse buying. According to Rook and Fisher (1995), impulse buying is more likely to occur when the situation assures anonymity, so this characteristic may be an important advantage of the internet over the physical store. Consumers may feel more comfortable buying online those products which would make them feel embarrassed if purchased offline (Koufaris, 2002). Similarly, we may state that, by and large, online consumers carry out their purchases alone and in private; if the purchase is made offline, it is common to have physical contact and interaction with other people (salespeople, companions). Taking into account that human contact leads to a better control of the impulse to buy (Greenfield, 1999), its absence may encourage impulse buying on the internet.

Finally, buying at physical stores is limited to a geographic location and to opening hours; on the internet, these limitations disappear (Koufaris, 2002). Furthermore, access to an online store does not entail any cost or effort on the part of the consumer (transportation, parking, etc.), so the probability of a spontaneous visit, with no initial purchase plan but ending up in an impulse buy, is higher online than offline (Moe and Fader, 2004). Also, consumers browsing online are constantly exposed to products that they might like, even though they are not intentionally searching for them, or plan to purchase them; and buying these items is only one click away. This ease of completing transactions can lead to more impulse buying than in the physical channel (Dawson and Kim, 2009; Koski, 2004; Koufaris, 2002).

Regarding the discouraging factors for online impulse buying, the specialized literature identifies the following: delayed satisfaction or gratification, the impossibility of using the five senses, easy comparisons, shipping and refund costs and easy access and convenience (Table I). One of the defining elements of impulse buying is the urgent need to possess the product; immediate possession provides satisfaction and encourages impulse buying (Rook, 1987; LaRose, 2001). Consumers have to wait for product delivery when buying online (in the context of physical goods), and this time lapse can deter them from carrying out impulse buying (Kacen, 2003; Koski, 2004).

Impulse buying is the result of seeing, touching, hearing, smelling and/or tasting (Underhill, 2009). However, the internet does not have the same capacity to stimulate the five senses as does the physical store, and therefore, the online channel can be less encouraging of impulsive buying than the offline channel (Kacen, 2003; Koski, 2004). Online stores can only stimulate sound and sight, but they cannot do anything (at the moment) to appeal to the other senses. This can be especially important in the context of clothing, where touch is a fundamental sense that can trigger impulse buying (Peck and Childers, 2006).

The ease with which consumers can make comparisons online, and the existence of shipping and/or refund costs, can also discourage online impulse buying. The internet

allows consumers to easily compare products and prices before making the purchase decision (Brohan, 2000; LaRose, 2001; Koski, 2004). In addition, one of the most important deterrent factors for online shopping is the cost of shipping and refunding merchandise (Kukar-Kinney and Close, 2010). Consumers try to avoid these costs as much as possible. Therefore, high shipping and refund costs can restrain their buying impulse.

Finally, easy access and convenience, while previously described as an encouraging factor, may also be considered a discouraging factor. When the consumer carries out his or her shopping in a physical store, he or she may more readily follow the impulse to make the purchase to avoid the costs involved in returning to the store to make the purchase later. In the online environment, coming back to the store does not entail much effort, and consumers may better control their impulses and thus delay their purchase decision (Moe and Fader, 2004).

3.3 The role of social networks in impulse buying behaviour (RQ3)

RQ3 explores the influence of social networks on impulse buying behaviour in the fashion industry (clothing, shoes and accessories). Social media strongly affect individuals' behaviours, and particularly consumer behaviour (IAB Spain, 2016). Social media users share a wide spectrum of experiences, ranging from what they are in the mood to do that day, to vigorously evaluating the products and services they consume (Anderson *et al.*, 2011). This behaviour is leading consumers to influence others, through sharing pictures of their purchases and offering recommendations. These actions can stimulate unplanned and impulse buying (Xiang *et al.*, 2016). Furthermore, recommendations and opinions not only affect buying behaviours but also help to build favourable brand images, which also stimulate impulse buying (Kim and Johnson, 2016).

Thus, we may expect that consumers will use information from social media to gain ideas that can subsequently turn into purchase actions; after seeing a garment on social media, the consumer may also search for it and buy it either online or at a physical store. Moreover, previous research reveals that because of recommendations and photographs showing purchases in social media, information coming from other consumers is the most influential factor on consumer behaviour (Anderson *et al.*, 2011; Xiang *et al.*, 2016). Therefore, this research explores whether users use social media as a tool to inspire their purchases. At this point, it is important to note that the photograph or recommendation shared by a consumer must represent an external stimulus that motivates the impulse buying. That is, the recommendation is not a piece of information that the consumer has been considering as part of his or her product research (within a planned purchase decision process), but it is a stimulus that triggers the desire to acquire the product without further deliberation.

Also, we aim at identifying which social networks affect impulse buying to a greater extent. This knowledge would help fashion brand companies in their commercial strategies. Specifically, we focus on the four social networks with the highest penetration rates and which could therefore have the greatest impact on the fashion industry (AIMC -Asociación para la Investigación de Medios de Comunicación, 2016; IAB Spain, 2016): Facebook, Twitter, Instagram and Pinterest.

4. Method

4.1 Data collection procedure

We conducted an online self-administered survey to address the research questions. The sampling procedure consisted of a non-probabilistic, convenience sampling method (Malhotra and Birks, 2007), obtaining a total of 243 questionnaires. The survey was

structured in five sections. In the first section, introductory questions were asked regarding the participants' fashion product preferences and how frequently they bought clothing. The second section gathered information about their impulse buying behaviour, both in the offline channel and in the online channel (participants only answered the online-channel questions if they had ever made any online purchase in the product category). If the participants declared that they had made online purchases of clothing, shoes and/or accessories, they answered the third block of questions regarding their perceptions about the encouraging and discouraging factors associated with online impulse buying. The participants who were users of social networks (regardless of the previous section) were asked about their influence on their shopping behaviour. The fifth and last section gathered the participants' sociodemographic information (age, gender, occupation and their experiences with the internet, social networks and online shopping).

4.2 Measurement instruments
The majority of the variables were measured using scales validated in prior studies, with minor modifications to ensure contextual consistency. The Appendix shows the full list of items used in the survey, together with the references used to measure impulse buying (both online and offline) as well as the encouraging and discouraging factors for online impulse buying. However, the items related to the influence of social networks were developed for this present research, as we found no appropriate scale in the literature. All the items used seven-point Likert scales. In addition, the section about the use of social networks asked participants whether or not they were users of the four networks (Facebook, Twitter, Instagram and Pinterest). If they were users, the participant indicated whether he or she had ever seen a garment in that social network and felt the need to buy it (1 = yes, 0 = no), as well as the probability of using it to carry out purchases (1 = not at all likely; 7 = very likely).

4.3 Sample characteristics
Once the sample was refined by screening out questionnaires with mistakes and inconsistencies, the final valid sample consisted of 212 participants. We used IBM SPSS software (v22) to analyse the data. The characteristics of the sample appear in Table II. It should be noted that, through the convenience nature of the sample, we were satisfied with the sample profile because it showed similarities to recent studies about the use of the internet and e-commerce (AIMC -Asociación para la Investigación de Medios de Comunicación, 2016; ONTSI -Observatorio Nacional de las Telecomunicaciones y de la Sociedad de la Información, 2016), with the exception of gender. The majority of participants in the survey were female (Table II). Although this consumer segment has been widely used in research about the fashion industry (Luna and Bech-Larsen, 2004; Lee and Kim, 2008), this imbalance represents a limitation of the current study.

Table II presents information for the three groups of participants and is used to analyse all three research questions. Specifically, out of the 212 participants, 62.3 per cent (*n* = 132) affirmed that they had carried out online purchases of clothing, shoes and/or accessories. We used this subsample to compare the indices of impulsiveness for the online and the offline channels (*RQ1*), as well as to examine the impact of the encouraging and discouraging factors for online impulse buying (*RQ2*). In addition, 81.1 per cent of participants were social media users (*n* = 172), who were used for the analysis of the *RQ3*.

Variable	TOTAL (%)	Online clothing shoppers (%)	Social media users (%)
Gender (female)	66.5	69.7	64.0
Age			
Under 25 years old	30.7	36.4	34.9
Between 25 and 45 years old	41.0	47.7	44.8
Older than 45 years old	28.3	15.9	20.3
Occupation			
Student	26.4	32.6	30.8
Worker	56.6	56.8	56.4
Other	17.0	10.6	12.8
Clothing shopping frequency (at least monthly)	45.4	55.3	47.7
Internet use experience (more than 5 years)	94.4	98.5	99.4
Social networks use experience (more than 5 years)	81.1	87.9	90.7
Online shopping experience (past 12 months)	67.9	93.2	78.5
TOTAL	*212*	*132*	*172*

5. Data analysis and results

5.1 Impulse buying scales' validation

Prior to the analysis of which channel is perceived as encouraging more impulse buying, we checked the validity of the scales in two steps. First, we carried out an analysis of reliability and dimensionality (Churchill, 1979; Anderson and Gerbing, 1988). Regarding the scales' reliability, we based this on Cronbach's alpha (Cronbach, 1970), considering a cut-off value of 0.7 (Nunnally, 1978), and on the item-total correlations (Bagozzi, 1981), 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.*, 1998). After this exploratory analysis, two offline impulse buying items (IMPUL2 and IMPLUL8), and one online impulse buying item (IMPUL8), were removed from their corresponding scales.

The second step of the validation process consisted of a Confirmatory Factor Analysis with the partial least squares (PLS) method and the SmartPLS 2.0 software (Ringle *et al.*, 2005). The initial factor structure revealed that all the item loadings scored above the recommended benchmark of 0.7 (Henseler *et al.*, 2009), with the exception of the item IMPUL1 of the offline impulse buying scale (λ = 0,600). This item was removed from the scale. The composite reliabilities were above 0.65 (Jöreskog and Sörbom, 1993), being ρ_c = 0.886 for the offline impulsiveness scales and ρ_c = 0.936 for the online impulsiveness scale. These results supported the internal consistency of the scales. In addition, the average variance extracted (AVE) was higher than 0.5 (Fornell and Larcker, 1981) for both scales (AVE_{impul_off} = 0.565; AVE_{impul_on} = 0.647), assuring convergent validity. Finally, discriminant validity was supported, as the square root of the AVE was higher than the shared variance among the constructs (correlations) (Fornell and Larcker, 1981), and the heterotrait-monotrait ratio (HTMT) was 0.534, below 0.85 (Henseler *et al.*, 2015).

5.2 Impulse buying offline and online (RQ1)

Once the scales were validated, the items were summed to create indices of impulse buying, following the procedure developed by Rook and Fisher (1995). Those participants who scored above 60 per cent of the index (25.2 for the physical channel, 33.6 for the online

channel) were considered as impulsive. Table III shows the descriptive statistics and the results of the analysis carried out to test *RQ1*. It is observed that the average value of perceived impulsiveness demonstrated in the offline channel was around the middle point of the scale, and the percentage of impulsive participants was nearly 30 per cent. In the online channel, the average value of impulsiveness was significantly lower than the middle point of the scale, and less than 25 per cent of participants perceived this channel as leading to impulse buying.

Next, we calculated the mean values of the indices to make them comparable. In line with the previous results, the participants say they are more likely to plan their purchases (less impulsive) in the online channel than in the offline channel. The results of a non-parametric Wilcoxon test (Leech *et al.*, 2008) revealed that this difference was significant (Table III). Finally, we directly asked participants which channel they considered to be associated with more impulsiveness: 35.4 per cent ($n = 75$) chose the offline, whereas 10.8 per cent ($n = 23$) chose the online (one sample chi^2 test: $p = 0,000$)[1]. Therefore, in response to *RQ1* we may conclude that, although the participants perceived that neither channel led them to carry out impulse buying, the online channel was perceived as less impulsive than the offline channel.

5.3 Encouraging and discouraging factors of online impulse buying (RQ2)
Multiple regression analyses were carried out to analyse *RQ2* (Hair *et al.*, 1998). Taking into account the limited sample size ($n = 132$), and that the diverse nature of the items prevented us from grouping or reducing them to more reliable constructs, two separate regressions were conducted, corresponding to the encouraging and the discouraging factors, respectively. The dependent variable was the mean value of the impulsiveness perceived in the online channel. All the variables were standardized prior to the analysis. The results of the regressions showed that the encouraging factors had more explanatory power of online impulse buying than the discouraging factors (adjusted R^2 0,581 vs. 0,175) (Table IV).

The use of credit cards (MOT1), the greater product assortment and variety (MOT4) and the possibility of receiving personalized recommendations (MOT8), had a significant positive impact on online impulse buying. The easy access and convenience (MOT2) and the lack of human contact (MOT6) also had a positive influence, although these effects were only marginally significant (Table IV). However, the anonymity that the internet offers (MOT5) had a marginally significant negative effect. This result is somewhat unexpected, given that the specialized literature states that impulsive buying is likely to occur in contexts that provide anonymity (Rook and Fisher, 1995).

Regarding the discouraging factors, they did not have the proposed influence, with the exception of the ease by which the internet allows the making of comparisons (DMOT5) (Table IV). However, we found several unexpected results. First, the existence of shipping

Channel	Average impulsiveness index	One sample *t*-test (significance)	% impulsive participants	M (SD)	Related samples Wilcoxon test
Offline channel[a]	20.81	−0.342 (0.733)	28.3	3.47 (1.32)	0.000
Online channel[b]	25.73	−2.249 (0.026)	24.2	3.22 (1.44)	

Notes: [a]Group size: $n = 212$; reference value for the one simple T test = 21; % impulsive participants above 29.4 [b]Group size: $n = 127$; reference value for the one simple T test = 28; % impulsive participants above 33.6

Table III.
Indices and average values of impulsiveness of the offline and online channels

and refund costs (DMOT4) had a significant, positive influence on online impulse buying (Table IV). This result is in line with previous studies (Huang and Oppewal, 2006) and could be explained by the fact that some online stores offer free shipping in exchange for a minimum purchase volume; this circumstance may lead to higher spending on spontaneous purchases. Second, the factors related to delayed gratification and satisfaction (DMOT6 and DMOT7) had a positive impact on online impulse buying (Table IV). The literature review showed that immediate possession provides satisfaction and thus encourages impulse buying (LaRose, 2001), and the lack of it on the online environment could prevent consumers from impulsively buying online (Kacen, 2003; Koski, 2004). However, our results are in line with those of Dittmar and Drury (2000) who argue that consumers derive satisfaction from the buying process itself, and not just from having the product. Thus, feeling the thrill while waiting for a product after buying it online may encourage impulse buying.

5.4 Influence of social media on impulse buying (RQ3)

For the analysis of *RQ3*, we examined those participants who used social networks ($n = 172$). Table V shows the descriptive usage data for each social network considered. The data are consistent with recent studies, Facebook being the most used social network, followed by Instagram, which has overtaken Twitter and confirms the growth of this social network (AIMC -Asociación para la Investigación de Medios de Comunicación, 2016; IAB Spain, 2016). It should be noted that, although Pinterest is the least used

	Encouraging				Discouraging		
Model:							
ANOVA	$F_{(8, 131)} = 23.735; p = 0.000$				$F_{(7, 126)} = 4.973; p = 0.000$		
Adjusted R^2	0.581				0.175		
Predictors	β	t	p		β	t	p
MOT1	0.200	2.748	0.007	DMOT1	0.054	0.623	0.534
MOT2	0.129	1.688	0.094	DMOT2	−0.050	−0.588	0.557
MOT3	0.118	1.447	0.150	DMOT3	0.084	0.978	0.330
MOT4	0.281	3.147	0.002	DMOT4	0.182	2.091	0.039
MOT5	−0.181	−1.798	0.075	DMOT5	−0.197	−2.330	0.021
MOT6	0.187	1.896	0.060	DMOT6	0.268	3.288	0.001
MOT7	0.056	0.787	0.433	DMOT7	0.245	2.886	0.005
MOT8	0.279	3.312	0.001				

Table IV.
Multiple regressions of the encouraging and discouraging factors of online impulse buying

Social network	Users (N = 172) Freq. (%)	% impulse usage[a]	Purchase intention Mean (SD)[b]
Facebook	165 (95.9)	53.3	4.06 (2.21)
Twitter	59 (34.3)	6.7	1.99 (1.55)
Instagram	90 (52.3)	73.0	4.33 (2.38)
Pinterest	28 (16.3)	57.7	4.04 (2.44)

Table V.
Use of social networks and influence on impulse buying of clothing and accessories

Noets: [a]Significant differences ($p = 0.015$) (non-parametric Cochran Q test for related samples; [b]Significant differences ($p < 0.05$) between Twitter and the other social networks (related samples T tests)
Source: Leech *et al.* (2008)

social network, 80.7 per cent of its users are online buyers of clothing and accessories. In addition, users of each social network indicated whether they had ever seen a garment on these platforms and had felt the need to buy that item, as well as their purchase intention through the social network. Instagram stood out as the social network than most affects impulse buying, followed by Facebook and Pinterest; Twitter received the lowest scores (Table V).

Finally, we asked the participants about the influence of social media on impulse buying. Three comparisons were carried out:

(1) buyers and non-buyers of clothing and accessories;

(2) impulsive and planned buyers in the offline channel; and

(3) impulsive and planned buyers in the online channel[2].

Descriptive data and results of the analyses are in Table VI. Online buyers gave significantly higher scores than non-buyers to all the items; however, participants' answers were below the midpoint of the scale (except for the IMP_SN1). In addition, online buyers on average used more social networks than non-buyers. Similar results were obtained for participants with high and low levels of impulsiveness. In both channels, impulsive buyers perceived social networks to encourage their impulse buying behaviour to a great extent. Only the item IMP_SN3 was below the midpoint of the scale (Table VI). In sum, the results indicate that social networks are not generally perceived as tools that stimulate impulse buying to a great extent, even though they are acknowledged as a source of ideas and inspire purchases of clothing and accessories.

As previously indicated, the items to capture the influence of social networks on impulse buying were built *ad hoc* for the current study, as it was not possible to find a validated scale in the literature. In our view, it is interesting to analyse the validity of this scale. Although the development of a scale is outside the scope of this research, it may have utility for future research. The scale showed adequate indices of reliability (Cronbach's $\alpha = 0.867$; item-total correlations $> 0,314$) and dimensionality (only one Eigen value greater than the unit explained 65.60 per cent of the variance). The confirmatory factor analysis yielded one item with a loading below 0.7 (IMP_SN3). After removing this item, all the remaining analyses were satisfactory (λ s > 0.822; $\rho_c = 0.913$; AVE = 0.725 the square root of which was above the correlations with the rest of variables; HTMT = 0.581). Thus, the four-item scale can represent a valid measure of the influence of social networks on impulse buying behaviour.

Item	Online buyers		Offline impulsiveness		Online impulsiveness	
	Yes ($n = 122$) M (SD)	No ($n = 50$) M (SD)	High ($n = 72$) M (SD)	Low ($n = 100$) M (SD)	High ($n = 52$) M (SD)	Low ($n = 70$) M (SD)
IMP_SN1	4.88 (1.93)	3.48 (1.98)*	5.14 (2.02)	3.99 (1.93)*	5.67 (1.57)	4.29 (1.95)*
IMP_SN2	3.90 (1.99)	2.00 (1.41)*	4.21 (2.12)	2.73 (1.72)*	4.88 (1.71)	3.17 (1.87)*
IMP_SN3	3.17 (1.82)	2.18 (1.57)*	3.26 (1.93)	2.61 (1.67)*	3.35 (1.77)	3.04 (1.86)
IMP_SN4	3.73 (2.12)	2.28 (1.69)*	4.22 (2.14)	2.65 (1.82)*	4.75 (1.84)	2.97 (2.00)*
IMP_SN5	3.74 (2.01)	2.64 (1.75)*	4.26 (1.93)	2.81 (1.82)*	4.65 (1.74)	3.06 (1.94)*
No. SSNN used	2.09 (0.87)	1.74 (0.75)*	2.02 (0.90)	1.96 (0.82)	2.29 (0.85)	1.94 (0.87)*

Table VI.
Influence of social networks on impulse buying behavior

Notes: *Significant differences ($p < 0.05$); Mann-Withney U non-parametric tests
Source: Leech *et al.* (2008)

6. Conclusions

This research tries to offer a better understanding of the current role of impulse buying. Traditionally, impulse buying has had an important influence on consumer behaviour. However, the growth of the internet and social networks may provoke changes in behavioural patterns towards more planned and rational purchase processes (Experian Marketing Services, 2013). Taking this question as a starting point, this research reviews the specialized literature about the concept of impulse buying, paying special attention to the phenomenon in the online channel and tries to uncover the factors or characteristics of this medium that can encourage and discourage this behaviour. In addition, considering the emerging influence of social media on consumer behaviour (Xiang *et al.*, 2016), the influence of social networks on impulse buying has been explored.

The results of the analysis offer several conclusions and implications. First, we must reject the notion defended by authors such as Banjo and Germano (2014) who advocate that rigorous planning will end impulse buying. According to our findings, almost 30 per cent of offline consumers, and 25 per cent of online consumers, consider themselves impulsive buyers. When comparing both channels, we must note that impulse buying is determined by the senses' capacity to generate a sudden response, and it has a strong hedonic component, which leads to a decision without further deliberation (Sharma *et al.*, 2010). Thus, the physical store is still superior in terms of sensory stimulation, which can trigger the emotional and unconscious response that leads to the buying impulse to a greater extent than the online channel (Peck and Childers, 2006; Krishna, 2012). Nevertheless, our results point to the possibility that the degree of impulsivity may depend more on personal factors than on channel factors; for our sample, we observed that the participants who perceived themselves as impulsive in the offline channel also perceived they were impulsive in the online channel, and vice versa (Pearson correlation between the two indices: $r = 0.649$; $p = 0.000$).

Second, the regression analyses showed that encouraging factors are more influential for online impulse buying than the discouraging factors. The ease of payment, the greater variety and the existence of personalized recommendations can be powerful tools to encourage impulsive buying through this channel. However, the results regarding the privacy that the internet provides are somewhat confusing: lack of human contact can boost impulse buying, whereas anonymity can restrain it. In a similar vein, the analysis regarding the convenience of the internet (easy access and comfort), which was proposed as both an encouraging and a discouraging factor of online impulse buying, did not offer conclusive results. Finally, factors that were alleged to undermine online impulse buying were revealed as just the opposite: shipping and refund costs, and delayed gratification, can indeed encourage this behaviour. Despite the exploratory nature of this research, and the caution with which our results must be treated, these findings may offer important implications for retail managers operating in both the online and the offline channels.

Third, social networks can play a relevant role in motivating impulse buying behaviour. The results of this research reveal that Facebook and Instagram have a great degree of penetration; moreover, the participants acknowledged that these social networks had triggered some impulse buying and showed a notable intention to use them to make purchases. On the contrary, Twitter is the social network with the lowest potential to inspire impulse buying. This result may be explained by the fact that Twitter offers less visual support than the other social networks; although Twitter incorporates photograph functionality, it is fundamentally a text-based platform. If a

buying impulse is provoked by a sensory stimulation, the lack of an image that usually accompanies a tweet can represent a limitation. Again, these results offer opportunities for effective management of social media by fashion brand companies.

Finally, online buyers of clothing and accessories consider social networks as a source of inspiration that can trigger their buying behaviour. As expected, the influence of social networks on impulse buying was evidenced for those individuals who consider themselves as impulsive, both in the offline and the online channels. This result confirms the potential of social media to affect shopping behaviour (Xiang *et al.*, 2016). Furthermore, this research offers the first step for the validation of a scale that effectively measures the influence of social media on impulse buying behaviour.

6.1 Limitations and future research lines

This research has several limitations that should be addressed in future research lines. First, the validity of the empirical study is limited by the sampling plan (non-probabilistic, convenience sampling) and the low sample size. In addition, the sample was very largely made up of women, which biases the analysis and interpretation of results. As a consequence, this investigation can be considered as merely exploratory and the results cannot be generalizable. Further research should use large, representative samples, using probabilistic sampling methods, to confirm or refute our findings.

The second limitation is related to the measurement of the study variables. The items used in the questionnaire were based on the specialized literature (Appendix). Regarding the impulse buying indices, we were able to use previously validated scales. However, for the measurement of the encouraging and discouraging factors of the online impulse buying, a parsimony criterion was used and we considered only one or two items to measure each factor. This prevents us from obtaining conclusive results from the analysis. Along the same lines, we were not able to find scales to measure the influence of social networks on impulse buying. Future studies are needed to analyse this behaviour in depth and to identify and develop scales for their correct measurement.

Third, this research explores impulse buying behaviour for only one type of product. Previous research has demonstrated differences on impulse buying depending on product characteristics, such as price, materials, or quality perceptions (Amos *et al.*, 2014). Therefore, future research should take into account the impact of product or other situational characteristics (e.g. degree of involvement) when analysing impulse buying behaviour in the offline and online channels.

Notes

1. It must be noted that 11.8% (n = 25) indicated that both channels were equally impulsive, and 4.2% (n = 9) declared that none of them was.

2. Only social media users were considered for the analyses (n = 172). In this way, for the offline channel, we set the percentile 60 of the impulsiveness index (23.0) as the cutoff to split the sample into high and low impulsive buyers. Regarding the online channel, we only included those participants who were social media users and also buyers of clothing and accessories online (n = 122). The cutoff in the online impulsiveness index was also set in the percentile 60 (29.0).

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Appendix

Item		References
Impulse buying (offline and online)		
IMPUL1	*I often buy things spontaneously*	Kacen and Lee (2002),
IMPUL2	*"Just do it" describes the way I buy things*	Rook and Fisher (1995)
IMPUL3	I often buy things without thinking	
IMPUL4	"I see it, I buy it" describes my shopping behaviour	
IMPUL5	"Buy now, think about it later" describes my shopping behaviour	
IMPUL6	Sometimes I feel like buying things on the spur-of-the-moment	
IMPUL7	I buy things according to how I feel at the moment	
IMPUL8	*I carefully plan most of my purchases (reversed item)*	
IMPUL9	Sometimes I am a bit reckless about what I buy	
Encouraging and discouraging factors of online impulse buying: On the internet, compared with the physical store. . .		
MOT1	I care less about how much I spend when I use my credit card, so I tend to buy more spontaneously	Javadi *et al.* (2012), Kim and Eastin (2011),
MOT2	I am able to make purchase anytime, so I tend to buy more spontaneously	McDonald and Cranor (2010), Mihić and Kursan
MOT3	I can search and buy more easily, so I tend to buy more spontaneously	(2010), Peck and Childers (2006), Roberts and Jones
MOT4	There is a greater variety of clothes and accessories, so I tend to buy more spontaneously	(2001), Swinyard and Smith (2003)
MOT5	I can buy when nobody sees me, so I tend to buy more spontaneously	
MOT6	I can buy alone and without company, so I tend to buy more spontaneously	
MOT7	I can get promotions and discounts which make me buy more spontaneously	
MOT8	Websites offer recommendations based on my previous purchases and this can make me buy more spontaneously	
DMOT1	I can take as much time as I need to think of the purchase and take a decision, so I tend to control my impulses better	
DMOT2	I cannot see, touch and try on the garments before buying them, so I tend to control my impulses better	
DMOT3	The atmosphere of the physical store (music, aromas, lighting, product arrangement. . .) encourages me to buy more impulsively than in an online store (reversed item)	
DMOT4	I tend to control my buying impulses better when there are shipping and refund costs	
DMOT5	I usually visit several websites to search for information and compare prices of a product I like before making the shopping decision	
DMOT6	I have to wait until the product is delivered, so I tend to control my impulses better	
DMOT7	I like to fell the thrill of waiting for the product delivery when I buy it online	
Impulsiveness of social networks		
IMP_SN1	Social networks are a good source to inspire my purchases of clothing and accessories	Own development
IMP_SN2	When I see a garment on a social network, I often search for it online to buy it	

Table AI.
Items used in the
questionnaire

(*continued*)

Item		References
IMP_SN3	When I see a garment on a social network, I often search for it offline to buy it	
IMP_SN4	Sometimes I have seen a garment on a social network from one of my contacts and I have felt the impulse of buying it	
IMP_SN5	Sometimes I feel attracted by clothes and accessories shared by my contacts on social networks	

Note: The items that were removed during the validation process of the scales (IMPUL1, IMPUL2 and IMPL8 of the offline impulse buying; IMPUL8 of the online impulse buying) appear in italics

Corresponding author
Carlos Orús can be contacted at: corus@unizar.es