Role of marketing and technological innovation on store equity, satisfaction and word-of-mouth in retailing

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Abstract
Purpose – Despite the importance of innovation in business performance, investigation into innovation in services is scanty and lacking consensus. In retailing, it is a topic that has been awakening considerable academic and business interest in recent years. In this study context, this work aims to analyse innovation in retail experiences from two aspects – marketing innovation and technological innovation – to understand the role it exercises in satisfaction and subsequent recommendation.

Design/methodology/approach – The authors’ objective is to investigate the direct and indirect influence of marketing and technological innovation on satisfaction and word-of-mouth (WOM) through three core constructs: store image, consumer value and store brand equity. SEM methodology is applied on a sample of 820 retail customers of grocery, clothing, furniture and electronics stores.

Findings – The results show that technological innovation is more important than marketing innovation in shaping image, value and satisfaction. At the same time, store image is the variable that most influences customer satisfaction and that satisfaction is a very significant antecedent of WOM behaviour. Practical implications for retail managers and further research are presented.

Originality/value – The main value of this work has been to go deeper into the study of retail innovation, both in marketing and technologies, and its direct and indirect effects on satisfaction and subsequent recommendation through store image, consumer value and store brand equity. It is a new line of study, which is still fragmented and with little empirical evidence.

Keywords Marketing, Innovation, Word-of-mouth, Retailing, Satisfaction, Brand equity, Technologies

Paper type Research paper

1. Introduction

Innovation in the services sector has received little attention (Djellal et al., 2013). Although retailers are among the most influential actors in developed economies, there has been relatively little research on retail innovation from a conceptual and empirical perspective compared to other sectors (Hristov and Reynolds, 2015). This work seeks to deepen the study of retail innovation in marketing and technologies and examines the direct and indirect effects of innovation in these areas on satisfaction, subsequent recommendation through store image, consumer value and store brand equity.

Innovation refers to the introduction of new technologies, products, services, marketing ideas, systems and ways of operating to stimulate a company’s economic performance (Townsend, 2010). One new research line examines marketing activities and practices (Gil et al., 2014), but empirical evidence relating such innovation with variables associated with satisfaction and loyalty is still scanty (Nemati et al., 2010). Furthermore, the rapid evolution of information and communication technologies (hereinafter ICT) has radically changed market conditions by providing new instruments to add value to customer experience (Thiesse et al., 2009). There is consensus in the literature over the advantages for firms of ICT use such as cost reductions, enhanced customer satisfaction, increased market share, more flexible jobs and better competitive advantages (Gil et al., 2014). However, technological innovation in retailing is a
recent area of interest with challenges and debates still to be resolved (Renko and Druzinian, 2014).

This work studies retail innovation by exploring marketing innovation and technological innovation from the consumer perspective. We analyse the direct and indirect effects of both types of innovation on satisfaction, as well as the influence of satisfaction on one of the most important dimensions of loyalty, that is, word-of-mouth behaviour (hereinafter WOM). Three variables – store image, consumer value and store brand equity – were selected for this study from the retailing literature as they are closely related to satisfaction and loyalty. They are particularly relevant in competitive sectors and show little differentiation between products and services (Cortiñas et al., 2010). Store image is a key strategic tool for achieving a competitive advantage (Delgado et al., 2014) and has recently received particular attention (Kumar et al., 2014). Value has also been found to be especially relevant in retail experiences in recent years (Yoon et al., 2014). Whilst brand equity is an emerging area in the context of retailing and requires greater in-depth study (White et al., 2013; Gil et al., 2016). We thus believe that these variables will offer an improved and broader conceptual framework than classical linear models of loyalty.

Our aim, therefore, is to study the contribution of marketing and technological innovation on satisfaction and WOM through image, consumer value and brand equity in retailing experiences. This analysis will enable us to detect differences in the effects of each type of innovation and further understand the relationship between innovation and customer satisfaction. The results can help commercial managers design strategies and distribute resources to improve customers’ levels of satisfaction and their subsequent recommendations.

2. Theoretical framework and research hypotheses

The contribution of satisfaction to loyalty has been widely studied in the literature (Agustin and Singh, 2005), and the relationship has traditionally been approached through antecedent variables like expectations, service quality and perceived value (Payne and Holt, 2001), among others. Although the link between satisfaction and loyalty seems obvious, various recent studies have highlighted the need to go deeper into the antecedents and type of relationship between the two constructs (Pomirleanu et al., 2016). While some studies have revealed nonlinear and/or asymmetric effects (Cooil et al., 2007), others confirm that the effect of satisfaction depends on numerous mediator and moderator factors (Kumar et al., 2013; Eisenbeiss et al., 2014). This complex relationship is particularly important on a practical level as firms have to assess to what extent and where it is advisable to invest in satisfaction to generate loyalty (Kumar et al., 2013). Therefore, the loyalty process still presents important challenges that require further investigation.

Technological development has led to significant changes in consumer demands and behaviours (Grewal et al., 2017). In this digital era, the latest works on loyalty in retailing highlight the limitations of evaluating satisfaction as an end result and insist on the need to measure each consumer touchpoint with the retailer (e.g. website), and integrate the technologies in loyalty programmes (e.g. mobile wallets) (Kumar et al., 2017). In view of these challenges, the study of innovation in any areas of retailer strategy is crucial for identifying what aspects contribute directly and indirectly to satisfaction and loyalty.

In addition to innovation, variables such as store image, consumer value and brand equity have a significant presence in the loyalty process. Store image refers to the perception of marketing activities (Jinfeng and Zhilong, 2009) (e.g. merchandising, promotion, etc.), value is usually associated with utilitarian and hedonic aspects (Sweeney and Soutar, 2001) (e.g. price) and brand equity is the added value linked to the brand perceived by consumers (Yoo et al., 2000). These variables are, therefore, closely linked to different touchpoints between the customer and the store and make key contributions to satisfaction and loyalty. Given the growing recent interest in consumer recommendations and comments (Jayawardhena et al., 2016; Leppäniemi et al., 2017), especially online (King et al., 2014), loyalty is approached in the present study on the basis of WOM behaviour (Jayawardhena et al., 2016; Leppäniemi et al., 2017).

2.1 Marketing and technological innovation

Innovation in services is less tangible and tends to be ongoing and more difficult to define and measure (Tether, 2005). In retailing especially, literature on innovation is relatively new and fragmented (Musso, 2010; Djellal et al., 2013) and offers two lines of research: marketing innovation and technological innovation.

Attempts to define and classify marketing innovation in retail are still scanty. One of the most representative contributions is from Homburg et al. (2002), who consider that it refers to the degree of adoption of new ideas about merchandising or services. Innovation in merchandising focuses on incorporating new forms of presenting, organising and distributing products and services in the store, whereas innovation in services focuses on offering new services linked to the shopping experience (e.g. nurseries, entertainment spaces for shopping companions, personalized service while shopping, etc.) (Kotler and Keller, 2012). From this perspective, innovation means incorporating new techniques and tools to improve sales. Thus, the definition provided by the OECD (2005) focuses on this line, defining marketing innovation as the implementation of new marketing methods.

Most contributions to the literature on marketing innovation are merely conceptual (Ganesan et al., 2009; Musso, 2010; Hristov and Reynolds, 2015); there are some qualitative studies with a business focus (Hristov and Reynolds, 2015) and a few quantitative works that analyse end consumers (Anselmsson and Johansson, 2009). There have, however, been hardly any contributions from the academic field of marketing (Naidoo, 2010).

Table I summarises the main contributions from studies analysing marketing innovation. In general, the works show the advantages and benefits of innovations and call for further study of the variable. More empirical research is needed to find better measurement scales and explore the relationship between marketing innovation and satisfaction and loyalty. In short, the study of marketing innovation presents major challenges and areas to be exploited (Christofi et al., 2015).

Innovation is usually associated with technological change. Technological innovation through the introduction and development of ICTs has become consolidated in
recent years as a long-term strategic investment, which can deliver competitive advantages by generating value for the end consumer (Thiesse et al., 2009). There are, however, clear opportunities for improvement for businesses in the retail sector because, according to the 2014 report of the Spanish National Observatory on Telecommunications and the Information Society (ONTSI, 2015), retail commercial distribution is at intermediate levels of development and access to advanced ICTs. Technologies such as radiofrequency, self-scanning/self-payment for products and mobile applications are a genuine technological revolution which will be vital for the competitive improvement of retailers (Gil et al., 2014), but further investigation is required (Visich et al., 2009).

Table I  Review of main contributions on marketing innovation

<table>
<thead>
<tr>
<th>Authors</th>
<th>MI concept</th>
<th>Research type</th>
<th>Sample</th>
<th>Main results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homburg et al. (2002)</td>
<td>Degree of adoption of new ideas about merchandising or services</td>
<td>Quantitative</td>
<td>Clothing and furniture retailers</td>
<td>Retailers in a more innovative retail environment tend to be more service-oriented MI is an effective way of gathering consumer information, and reduces consumer transaction costs</td>
</tr>
<tr>
<td>Chen (2006)</td>
<td>Development of new marketing tools and methods</td>
<td>Quantitative</td>
<td>Industry firms</td>
<td>MI can deliver a sustainable competitive advantage, thereby enhancing profit performance</td>
</tr>
<tr>
<td>Shergill and Nargundkar (2005)</td>
<td>Innovation in all the areas of marketing (the classic four Ps)</td>
<td>Quantitative</td>
<td>Senior marketing executives</td>
<td>MI can deliver a sustainable competitive advantage, thereby enhancing profit performance</td>
</tr>
<tr>
<td>Ganesan et al. (2009)</td>
<td>Changes in products and processes, which either reduce costs or improve efficiency, and enhance customer value through improved market offerings and lower prices</td>
<td>Literature review</td>
<td>Retailers</td>
<td>Three recent trends: global sourcing practices, multichannel routes to market, and relationship-based innovation</td>
</tr>
<tr>
<td>Anselmsson and Johansson (2009)</td>
<td>New general ideas and methods</td>
<td>Quantitative</td>
<td>Household</td>
<td>A significant positive relationship found between growth in the retailer market share in a category and level of innovativeness in the category</td>
</tr>
<tr>
<td>Musso (2010)</td>
<td>Strategic perspective: competitive advantage along the distribution channel/Operational perspective: offer of new services</td>
<td>Literature review</td>
<td>Marketing channels</td>
<td>MI classification: technological, relational and structural</td>
</tr>
<tr>
<td>Naidoo (2010)</td>
<td>Improvements in the marketing mix</td>
<td>Quantitative</td>
<td>Manufacturing small and medium enterprises</td>
<td>MI assists in developing and sustaining competitive advantages based on differentiation and cost leadership strategies MI capabilities improve when firms are competitor-oriented and have good inter-functional capabilities</td>
</tr>
<tr>
<td>Moreira et al. (2012)</td>
<td>Implementation of a new concept or marketing strategy (e.g. changes in design or product packaging, in distribution and promotion, in pricing policy)</td>
<td>Quantitative</td>
<td>Industrial, trade and services firms</td>
<td>MI can deliver a sustainable competitive advantage</td>
</tr>
<tr>
<td>Hristov and Reynolds (2015)</td>
<td>Application of new ideas that stimulate economic performance</td>
<td>Qualitative</td>
<td>Retail executives and other industry experts</td>
<td>Innovation in retailing possesses a range of sector-specific meanings and measurement approaches that are distinct from more generic understandings of the phenomenon</td>
</tr>
</tbody>
</table>

Note: MI: Marketing innovation
Table II presents some previous studies and their findings on technological innovation in retailing. This review shows that although few studies deal with this variable, there is consensus over the advantages of introducing technologies in terms of costs, satisfaction, market share and competitiveness (Karadag and Dumanoglu, 2009; Gil et al., 2014). As with marketing innovation, in the area of technological innovation more empirical evidence is needed on the contribution of innovation to consumer assessments and behaviours.

2.2 Store image
Store image management is a key strategic tool for achieving a competitive advantage (Delgado et al., 2014). Currently, the concept is receiving considerable attention from academia and the business world (Kumar et al., 2014) and is linked to consumers’ perception of a retailer (Morschett et al., 2005). The study of image management began in the 1950s, and the literature is very extensive. Most authors use Martineau’s (1958, p. 47) classical conceptualization as their basis, according to which image is “the way in which the shopper’s mind pictures the store, partly by its functional qualities and partly by its atmosphere of psychological attributes”. Other conceptualization proposals have defined it as a multidimensional concept (Marks, 1976; Shen, 2010a) based on the interaction of functional and emotional attributes (Lindquist, 1974), in addition to the physical characteristics of the establishment, marketing mix, and a set of psychological attributes (Chang and Tu, 2005). More recent studies integrate in the formation of image perceptions, beliefs and knowledge about a particular store (Hartman and Spiro, 2005). In this context, store image is defined as “perceptions of consumers on primary marketing activities of a store” (Jinfeng and Zhilong, 2009, p. 488).

Image therefore reflects the store’s identity or personality because it is a combination of beliefs and perceptions based on tangible and intangible elements that consumers attribute to an establishment (Ailawadi and Keller, 2004; Hartman and Spiro, 2005). It is agreed that image is a subjective, consumer-centred concept and totally dependent on the context (Burt et al., 2007). Thus, a variety of variables or attributes have been recognized as contributing to image formation and, in particular, quality, atmosphere, product display, services, convenience, prices and assortment (Shen, 2010a). However, emotions, accessibility and location, merchandising, promotion image, loyalty programmes and payment methods are also mentioned (Ailawadi and Keller, 2004; Shen, 2010a; Kumar et al., 2014). As a consequence of these different approaches, a wide variety of attributes have been considered as forming part of point-of-sale image although most studies retain attributes linked to accessibility, organization of the space, comfort and facilities as being essential components (Beristain and Zorrilla, 2011; Delgado et al., 2014; Gil et al., 2017).

2.3 Consumer value
Value has received special attention in recent years (Gallarza et al., 2011, 2016) and is most commonly conceptualized following Zeithaml (1988, p. 14) who defined it as “the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given”. This get-versus-give perspective considers value as consumers’ global assessment of the relationship between benefits (what is

Table II  Review of main contributions on technological innovation

<table>
<thead>
<tr>
<th>Authors</th>
<th>TI concept</th>
<th>Research type</th>
<th>Sample</th>
<th>Main results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thiesse et al. (2009)</td>
<td>Focused on the use of RFID technology</td>
<td>Quantitative</td>
<td>Apparel retail</td>
<td>ICTs can deliver competitive advantages by generating value for the end consumer</td>
</tr>
<tr>
<td>Karadag and Dumanoglu (2009)</td>
<td>Oriented to appropriate management of information within the firm</td>
<td>Quantitative</td>
<td>Hotel managers</td>
<td>There is a strong relationship between guest-related ICT applications and productivity in the accommodation industry</td>
</tr>
<tr>
<td>Mihajlovic ć (2012)</td>
<td>Adoption of new technologies</td>
<td>Quantitative</td>
<td>Travel agencies</td>
<td>ICTs improve efficiency, provide added value for transactions and facilitate activities</td>
</tr>
<tr>
<td>Gil et al. (2014)</td>
<td>All forms of new technology utilized to create, capture, manipulate, communicate, exchange, present and use information</td>
<td>Quantitative</td>
<td>Retail stores (grocery, textile, electronics and furniture)</td>
<td>ICTs improve store competitiveness</td>
</tr>
<tr>
<td>Ochoa and Pimienta (2014)</td>
<td>Adoption of new technologies</td>
<td>Quantitative</td>
<td>Retail banking customers</td>
<td>ICTs increase customer satisfaction</td>
</tr>
<tr>
<td>Romero and Martínez (2015)</td>
<td>New technology for the firm</td>
<td>Quantitative</td>
<td>Small- and medium-sized retail enterprises</td>
<td>ICTs increase competitive, productivity and service quality</td>
</tr>
</tbody>
</table>

Note: TI: Technological innovation
achieved) and sacrifices (what is invested) in an exchange. Value can also be easily confused with satisfaction although the constructs are different. Value takes into account the sacrifices in an exchange, whereas satisfaction does not (Grace and O’Cass, 2005). Value occurs at various stages of the purchase process whereas satisfaction is a postpurchase evaluation (Oliver, 1997).

Academic research has proposed many typologies of value (Babin et al., 1994; Holbrook and Hirschman 1982; Holbrook, 1999; Sweeney and Soutar, 2001; Gallarza et al., 2011, 2016), which have given rise to different dimensions, from the most utilitarian and functional to the most hedonic. In general, typologies of value can be grouped into the following four approaches: 1 benefits vs sacrifices; 2 transaction value vs acquisition value of the product; 3 utilitarian value vs hedonistic value; and 4 Holbrook’s (1999) typology.

Research into value has traditionally focused on the product and is scanty in the retail context, where studies focus on a variety of perspectives, e.g. value of the in-store experience (Terblanche and Boshoff, 2004), value of the shopping process (Mathwick et al., 2002), or value of the outcome of the general shopping experience (Babin et al., 1994). The study by Davis et al. (2012) presents the main value dimensions investigated in the shopping context. Empirical retail studies have traditionally focused on more utilitarian aspects of the shopping process, but more recent literature indicates that consumers have motivations which go beyond the purchase of the product (Sharma et al., 2012).

The debate over utilitarian value vs hedonistic value is linked to the economic and non-economic approach, respectively, to the study of value (Babin et al., 1994; Sweeney and Soutar 2001). The utilitarian value of shopping includes location, merchandise assortment, price and sales promotion (Sullivan et al., 2012) and is positively associated with customer satisfaction and WOM (Babin et al., 2005). However, hedonic value is intangible and more emotional (Kim et al., 2007) and is associated with higher purchase frequency or purchase amount (Scapri, 2006).

A common practice in the literature on services is to select some dimensions for the study of value (Mathwick et al., 2002; Sánchez and Iniesta, 2006; Leroi-Webelds et al., 2014). Following that line, from the dimensions of value proposed in the literature, we consider economic value, in relation to utilitarian value, to be the most appropriate approach for our study as we intend to study its relationship with satisfaction and WOM. Furthermore, economic value has traditionally been considered the main component of consumer perceived value (Sullivan et al., 2012; Gallarza et al., 2016).

2.4 Store brand equity

Brand equity is an emerging concept in the retail distribution literature (Pappu and Quester, 2006; Beristain and Zorrilla, 2011; White et al., 2013). A wide variety of terms are used such as “customer-based store equity” (Hartman and Sprio, 2005), “retailer equity” (Arnett et al., 2003; Pappu and Quester, 2006) or “store value” (Bigné et al., 2013). Based on the concept of brand equity that traditionally focuses on the product (Rust et al., 2000), brand equity refers to the added value derived from the existence of the brand (Yoo et al., 2000) and occurs when consumers make favourable associations with a familiar brand (Keller, 1993). One of the most outstanding contributions in the literature on brand equity is from Aaker (1991, p. 15) who defines it as:

\[ \ldots \text{a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm’s customers.} \]

Various authors recognize that the bases of brand equity can apply to the store but with some variations (Ailawadi and Keller, 2004; Pappu and Quester, 2006; Ghodeswar, 2008). Contributions on store brand equity are somewhat limited and mainly highlight the power brand knowledge (Hartman and Sprio, 2005) and added value of the store has over consumers (Jinfeng and Zhilong, 2009). Most studies focus on conceptual and dimensional aspects (Hartman and Sprio, 2005; Swoboda et al., 2009; Shen, 2010b; Gil et al., 2016), identifying research lines (Grewal and Levy, 2007) or developing measures (Arnett et al., 2003; Pappu and Quester, 2006). There is extensive analysis of antecedents and consequences in the literature on product-oriented brand equity (Cai et al., 2015) but less so in retailing studies (Gil et al., 2013, 2016). The most recent studies indicate that empirical evidence is difficult to compare due to the diversity of variables, terms and measures.

2.5 Satisfaction

Satisfaction is the main objective for retail managers and a concept of great interest in consumer research (Coool et al., 2007). The literature has defined satisfaction from a specific/cumulative approach (Boulding et al., 1993) and a cognitive/affective approach (Oliver, 1997). Analysis of satisfaction with a concrete experience is an approach shared by many authors (Spreng et al., 1996; Giese and Cote, 2000). However, in the retailing context satisfaction refers to a set of accumulated experiences (Jones and Suh, 2000; Sivadas and Baker-Prewitt, 2000). From the cognitive perspective satisfaction is a judgment on a pleasurable level of consumption-related fulfillment (Oliver, 1997). In this line, store satisfaction refers to a subjective evaluation that the store meets or exceeds expectations (Helgesen et al., 2010), and expectation disconfirmation theory has the widest acceptance in the literature. The affective perspective states that satisfaction is a summary of emotional responses of varying intensity (Giese and Cote, 2000). Converging both approaches, Lovelock and Wirtz (1997, p. 631) define satisfaction as:

\[ \ldots \text{a person’s feelings of pleasure or disappointment resulting from a consumption experience when comparing a product’s perceived performance or outcome in relation to his or her expectations.} \]

Thus, we consider customer satisfaction with the store to be a cumulative, affective and cognitive evaluation.

2.6 Word-of-mouth behaviour

One of the most significant consequences of satisfaction recognized in the loyalty literature (Carl, 2006) is WOM behaviour or recommendations. Although WOM was originally studied in the 1960s, research on the topic has increased significantly in recent years. There are different definitions of the WOM concept (Litvin et al., 2008). For example, according to Westbrook’s (1987, p. 261) classic
definition, WOM is “all informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services or their sellers”. Significant aspects of WOM include the fact that it is direct, personal and contains an independent message from the company that is more real and credible than advertising or promotion (Litvin et al., 2008). Therefore, WOM excludes formal communication from customers to companies (complaints or suggestions) and from companies to customers (promotional activities) (Mazzarol et al., 2007). Second, WOM is also both an antecedent and a consequence of consumers’ evaluations (Godes and Mayzlin, 2004). In the pre-purchase stage, individuals seek information as a risk reduction strategy, and in the post-purchase stage, consumers use WOM for help, revenge or to reduce cognitive dissonance (Halstead, 2002).

WOM has been characterized traditionally as having a two-dimensional nature, with an evaluative dimension (valency or extent to which the information is positive) and a conative dimension (degree of diffusion to others) (Harrison-Walker, 2001; Halstead, 2002). More recent work has identified new WOM dimensions. For example, Sweeney et al. (2012) also add the cognitive component which refers to what is being said and the affective component that reflects the emotions in how it is said (Mazzarol et al., 2007). Gelbrich (2011) considers referral and activity as WOM dimensions. Referral is the degree to which customers praise and recommend an organization and its products or services (Swan and Oliver, 1989) and activity is the intensity of talking to others about the advantages and benefits (Harrison-Walker, 2001). Gelbrich (2011, p. 212) argues “both dimensions may become salient when customers experience particular emotions”. Because consumer experiences in retailing have some hedonic and emotional content, we follow this approach in our context.

2.7 Proposed model and research hypothesis

One area of innovation with calls for more studies is the contribution of marketing innovation to satisfaction and other related constructs such as image and value. Works on the link between innovation and image, such as Weerawardena et al. (2006), highlight the importance of innovation in improving business image. In regards to the relationship between innovation and value, various authors agree that the main objective of innovation is to create value for customers otherwise innovation would be an expense (Beckeman and Olsson, 2011; Jensen et al., 2013). Empirical evidence reported by Ganesan et al. (2009), Lin et al. (2013) and Sekhon et al. (2015) shows that innovation in services or some aspects of the store has a positive impact on value because it helps to improve supply and reduce prices.

In addition, the essence of innovation, from a marketing perspective, consists in offering customers something unique and different that satisfies their needs (Simon and Honore Petnji Yaya, 2012). In this sense, “marketing innovation could assist in the development of new marketing tools and methods for targeting consumers more efficiently” (Christofi et al., 2015, p. 360). Therefore, all marketing innovation should be oriented towards attracting and satisfying customers (Nemati et al., 2010). In this line, Gil et al. (2014) find a significant direct relationship between satisfaction and innovation in the store. This empirical evidence indicates that consumers’ perceptions of innovation in the store’s marketing practices will have a positive effect on image, value and satisfaction judgements (Figure 1). Therefore, we posit the first group of hypotheses:

**H1.** Marketing innovation in retail experience has a positive impact on H1a store image, H1b consumer value and H1c satisfaction.

As already noted, the development of ICTs provides advantages in the form of value not only for consumers (Thiesse et al., 2009) but also through businesses by improving competitiveness (Gil et al., 2014). This increased competitiveness can be transferred to customers by improving consumers’ brand image (Yeh, 2015) and reducing the price of the products (Tsai et al., 2010). Following these contributions, we assume that the innovation perceived by customers with the technologies introduced in the store can have a positive effect on image and perceived value. Some works show that these effects lead to increased customer satisfaction stemming from the introduction of ICTs (Gil et al., 2014; Ochoa and Pimiento, 2014). In fact, as Renko and Druzijanic (2014) point out, technological innovation enables retail companies to understand customer needs better, and so, they can develop strategies to improve their satisfaction. This finding also suggests that perceived technological innovation will have a positive impact on satisfaction. Therefore, we posit the second group of hypotheses:

**H2.** Technological innovation in retail experience has a positive impact on H2a store image, H2b consumer value and H2c satisfaction.

Regarding the potential effect of store image on satisfaction, past research recognizes that this image plays an important role in these judgements (Thomas, 2013; Yoon et al., 2014). One of the most representative studies on the causality...
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The influence of consumer value on store brand equity is another relationship we attempt to test. In this area, various studies dealing with the nature of brand equity identify perceived value as one of its dimensions (Arnett et al., 2003; Gil et al., 2013) and even as a consequence (Wagner and Benoit, 2015). There are, however, various empirical studies that confirm the impact of value or different dimensions of value such as price or perceived quality on store brand equity (Jinffeng and Zhilong, 2009; Gil et al., 2013; Bigné et al., 2013).

In addition, the influence of value on brand equity can be explained by the “use of signals” theory proposed by Richardson et al. (1994), according to which consumers base their decisions on the elements of marketing-mix and business designs. Given that value represents a cost-benefit comparison (Zeithaml, 1988), it can be a key indicator of the assessment of a brand (Woodruff, 1997; Teas and Agarwal, 2000) generating preference and positive attitudes and, therefore, influence brand equity. Some empirical studies support this theory (Hellier et al., 2003; Johnson et al., 2006). Following this approach and taking into account the above evidence, we assume that if consumers perceive a store as providing greater value through investment in marketing actions (e.g. price reductions), they will show greater preference and consequently, their perception of brand equity will improve. Therefore, we propose the following hypothesis:

H3. Store image in retail experience has a positive impact on satisfaction.

In addition to the effect of image, store brand equity can also play a significant role in consumer satisfaction. The literature relates satisfaction to brand equity from a variety of perspectives (Aaker, 1991; Schreuer, 2000; Huang et al., 2014). According to some contributions, satisfaction is an antecedent because results suggest that satisfaction levels increase brand equity (Pappu and Quester, 2006; Ramboças et al., 2014). Empirical evidence for the opposite effect, however, is scanty. For example, the qualitative study by Glynn et al. (2012) suggests that brand equity may play a significant role in customer satisfaction. The work by Huang et al. (2014) confirm that as brand equity increases, so does the level of satisfaction. These contributions indicate that if brand equity represents the added value perceived by the consumer of the brand (Yoo et al., 2000), the associations, preferences or positive attitudes customers may have about the store brand may condition their assessments of the shopping experience and, therefore, influence their level of satisfaction. Therefore, in this study we consider that brand equity, together with store image, is an antecedent of satisfaction. Therefore, we posit:

H5. Store brand equity in retail experience has a positive impact on satisfaction.

Finally, in the satisfaction–WOM relationship, there are some contradictory results for the link between satisfaction and loyalty (Seiders et al., 2005; Verhoef, 2003; Kumar et al., 2013). However, many recent studies in retailing confirm the direct effect of satisfaction on WOM behaviour or intention. For example, Walsh et al. (2008) conclude that satisfaction has a positive impact on WOM intentions. Binninger (2008) reports that satisfaction with the store promotes recommendation preferences, intentions and attitudes. According to Vesel and Zabkar (2009) and Nessel et al. (2011), satisfaction directly influences intention to recommend. And Fuentes et al. (2014) also find a positive, significant impact of satisfaction on WOM behaviour. In addition, the relationship between satisfaction and WOM can be represented in the form of an inverted “U”, such that the most satisfied and dissatisfied consumers will provide the most comments on their experiences (Litvin et al., 2008). According to these results, we consider that satisfaction will have a positive impact on WOM (Figure 1), and we posit the final hypothesis:

H6. Satisfaction in retail experience has a positive impact on WOM.

3. Methodology

The empirical research was developed in the context of shopping experiences at grocery, clothing, furniture and electronic products stores. Information was collected using a quantitative research method based on a structured questionnaire. The survey was developed with a set of carefully selected scales, tested in the most recent literature and adapted to the retail context. A pilot test was carried out and some improvements were made to the wording of the items. A seven-point Likert-type scale was used to measure all the variables.

The marketing innovation scale (three items) is adapted from Homburg et al. (2002), which represents one of the few attempts to develop a measure of innovation in the retailing sphere. This proposal considers that innovation is related to new ideas about merchandising or services, providing a measurement that includes the number of innovations adopted, the moment they are adopted and the consistency of innovation over time. Bearing in mind that innovation in marketing is related to the implementation of new marketing methods (OECD, 2005), the items were constructed based on the contribution from Homburg et al. (2002) considering that new ideas refer to innovative marketing actions carried out by the store in aspects of merchandising, such as product assortment, in-store product placement, promotions, point of sale animation and atmosphere, and in services aspects, such

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as new services and new experiences (Kotler and Keller, 2012) [1]. The technological innovation scale (four items) was taken from Wu et al. (2006), and it measures consumer perception of retailers’ use and development of ICTs. The image scale has four items based on Chowdhury et al. (1998), retaining the attributes of accessibility, organization, comfort and facilities.

To measure consumer value (four items), we adopt the economic focus (Sullivan et al., 2012) using the measure of economic value proposed by Sweeney and Soutar (2001). This dimension is related to the utility derived from reducing perceived short-term and longer-term costs. With regard to store brand equity scale (four items), some authors argue that this construct could be evaluated from purchase intention or preference for a specific store in comparison with a fictional store (Hartman and Spiro, 2005; Yoo et al., 2000), using global brand equity measures adapted from the product context. Following this approach, the items for measuring global store equity are based on Shen (2010b), who adapted the scale initially developed by Yoo et al. (2000) for product equity to the retail store setting. The satisfaction scale (five items) reflects the cognitive component (Nesset et al., 2011) and the affective component (Gelbrich, 2011) based on Oliver (1997). Finally, WOM behaviour (six items) was measured according to Gelbrich’s (2011) proposal that differentiates WOM referral (Harrison-Walker, 2001) and WOM activity (Swan and Oliver, 1989).

Personal ad hoc questionnaires were used. Respondents were randomly selected and interviewed at the store exit about their perceptions and relationship with the store. For this research, we consider a sample of 13 chain stores (Alcampo – Auchan, Carrefour, Mercadona, Lidl, Dia, H&M, Zara, Mango, Fnac, Media Markt, Apple Store, El Corte Inglés Hogar and Ikea) with 4 types of product assortment (grocery, apparel, electronics and home furnishings). The store brands were selected because of their product assortment and their position among the most prominent retail brands in Europe (Interbrand, 2016) and in the Spanish market (Interbrand, 2015). Through the inclusion of these different chains in terms of nationality, retail formats and sectors, we aim at collecting a representative sample of retail store customers.

A total of 820 valid questionnaires were collected at the exit of the above-mentioned 13 chain stores in a region that is quite representative of the Spanish retail sector (Valencia, Spain). Data were collected at different times and days over several weeks during the months of February-March 2013 to avoid potential biases due to special periods (e.g. Christmas, Winter or Summer sales). Interviewers conducted face-to-face surveys, obtaining valid questionnaires from customers of grocery stores (300), apparel (180), electronics (180) and home furnishings (160). The main characteristics of the sample distribution are shown in Table III.

Following Hair et al. (2006), various statistical analyses were run on the data to achieve the objectives and test the proposed hypotheses. Scale dimensionality and validity were verified by exploratory factor analysis (EFA) with varimax rotation. The results allowed us to test if the items loaded on their corresponding dimension and to refine the measurement scales. Then, confirmatory factor analysis was conducted to confirm the preliminary dimensionality. A measurement model was estimated to validate the factor structure of constructs and their psychometric properties. Following Marsh and Hocevar (1985) and Gerbing and Hamilton (1996), the correlation between latent constructs was verified to analyse for a possible higher order between factors or dimensions. Internal consistency of the dimensions was evaluated considering two indicators: composed reliability coefficient and variance extracted for each scale. Analysis of the scales ended with the study of scale construct validity for the factors in the latent variables and absence of multicollinearity between latent constructs.

Table III Sample distribution

<table>
<thead>
<tr>
<th>Consumer characteristics</th>
<th>n</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>293</td>
<td>35.7</td>
</tr>
<tr>
<td>Female</td>
<td>527</td>
<td>64.3</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-25</td>
<td>151</td>
<td>18.4</td>
</tr>
<tr>
<td>26-35</td>
<td>163</td>
<td>19.9</td>
</tr>
<tr>
<td>36-45</td>
<td>184</td>
<td>22.4</td>
</tr>
<tr>
<td>46-55</td>
<td>164</td>
<td>20.0</td>
</tr>
<tr>
<td>56-65</td>
<td>114</td>
<td>13.9</td>
</tr>
<tr>
<td>&gt;65</td>
<td>44</td>
<td>5.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consumer characteristics</th>
<th>n</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no studies</td>
<td>14</td>
<td>1.7</td>
</tr>
<tr>
<td>primary studies</td>
<td>125</td>
<td>15.2</td>
</tr>
<tr>
<td>secondary studies</td>
<td>286</td>
<td>34.9</td>
</tr>
<tr>
<td>university studies</td>
<td>386</td>
<td>47.1</td>
</tr>
<tr>
<td>NA</td>
<td>9</td>
<td>1.1</td>
</tr>
<tr>
<td>Labour status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>123</td>
<td>15.0</td>
</tr>
<tr>
<td>Housewife</td>
<td>67</td>
<td>8.2</td>
</tr>
<tr>
<td>Unemployed</td>
<td>102</td>
<td>12.4</td>
</tr>
<tr>
<td>Retired</td>
<td>76</td>
<td>9.3</td>
</tr>
<tr>
<td>Employer</td>
<td>72</td>
<td>8.8</td>
</tr>
<tr>
<td>Employee</td>
<td>380</td>
<td>46.3</td>
</tr>
</tbody>
</table>

| Retail sector                |     |       |
| Food                         | 300 | 36.5  |
| Textile                      | 180 | 22.0  |
| Electronic goods             | 180 | 22.0  |
| Household goods              | 160 | 19.5  |
Before estimating the causal relations, we controlled for potential common method bias problems with three analyses: Harman’s (1976) one-factor method; index of correlation between latent factors; and Lindell and Whitney’s method to assess common method bias (Lindell and Whitney, 2001). Finally, we proceeded to verify the hypotheses by estimating a structural equation model. This type of causal modelling enabled us to consider jointly the measurement of the constructs and the prediction to evaluate the effects of the latent variables without contamination from measurement errors.

4. Results

4.1 Dimensionality, reliability and validity of measurement scales

The preliminary study on scale dimensionality was conducted through EFA using maximum likelihood estimation. In terms of scale refinement, three items were eliminated because they considerably increased the alpha reliability indicator (one item from the technological innovation scale, one item from the store image scale and one item from WOM activity). All the scales were one-dimensional except the WOM scale that extracted two dimensions: WOM referral and WOM activity. In regards to multidimensionality, both extracted dimensions explain 87.16 per cent of the variability of the information (49.03 per cent and 38.13 per cent, respectively), where no factor accumulates the majority of the variance and both factors have eigenvalues greater than 1. Therefore, following Gelbrich’s (2011) theoretical proposal, we retain two dimensions of measurements from the WOM scale.

Exploratory dimensionality was confirmed with a two-order measurement model estimation using robust maximum likelihood. Taking the significance of the Chi²Sat-B statistic, the global fit indexes show that the variables converged towards the dimensions established. Going deeper into the analysis of the multidimensional WOM construct, the dimensions referral and activity were highly correlated (0.890**), and the fit of the first order model (Chi²Sat-B(df = 322) = 946.1474; RMSEA = 0.05; CFI = 0.963) was worse than that obtained when contemplating the multidimensionality in a higher order (Table IV). Internal consistency of the dimensions was evaluated considering two indicators: the composed reliability coefficient was greater than 0.7 (Anderson and Gerbing, 1988) and the average variance extracted was over 0.5 (Fornell and Larcker, 1981) (Table IV).

Scale construct validity was analysed for the factors:

1 Convergent validity was confirmed for one-dimensional scales as all the variables had significant and high standardized loadings (>0.6 and t-value > 2.58) (Steenkamp and Van Trijp, 1991), and it was also confirmed for the multidimensional WOM because the covariances between WOM referral and WOM activity were significant at 0.01 and their loadings were significant when analysing a second-order measurement model (Anderson and Gerbing, 1988).

2 Discriminant validity was checked by linear correlation between each pair of dimensions. These values were less than the square root of the AVE in the scales (Table I). This validity was analysed in depth with the Chi² difference test between estimation of the model restricting the correlations between each pair of constructs to the unit and the unrestricted model following the indications in Anderson and Gerbing (1988). The statistical value Chi² (df = 21) = 354.39 was significant at 99 per cent (p-value = 0.000). The variance inflation factors measures, shown in Table IV, were also found to be much lower than the recommended minimum threshold of 10.0 (Kleinbaum et al., 1988), showing a clear absence of multicollinearity between factors.

The exogenous and endogenous variables were collected for the same consumers, and at the same time, we checked for possible common method bias problems. We applied Harman’s single-factor test (Podsakoff et al., 2003), loading all scale items on one latent factor. Fit indexes were Chi²Sat-B (df = 350) = 9,612.86; RMSEA = 0.183; CFI = 0.453; GFI = 0.431; AGFI = 0.340. Comparing this estimation with the results in Table IV for the measurement model with the seven latent variables (ΔChi²Sat-B = 8,903.7280; Δdf = 23; p-value < 0.000001), we can conclude that the single-factor estimation had a significantly poorer fit. Furthermore, none of the correlations between constructs in Table IV are over 0.9 (Bagozzi et al., 1991). Finally, according to Lindell and Whitney (2001), we used interviewee age as a marker variable (theoretically not related to the factors) and found that none of the correlations of the factors with age were significant. These analyses indicate that the common bias method did not significantly affect the findings from our model.

4.2 Structural analysis and model testing

After studying the reliability and the dimensionality of the measurement scales, we proceeded to estimate the structural equation model to verify the hypotheses (Figure 2). The fit indexes for the causal model, except the contrast associated to the robust Chi²Sat-B(df = 337) = 1,277.26, are adequate (RMSEA = 0.060; CFI = 0.944; GFI = 0.872; AGFI = 0.846; BB-NFI = 0.926; BB-NNFI = 0.938).

The results for the estimated coefficients of causal relationships show the significant effects of marketing and technological innovation in the retail experience on store image (γ₁₃ = 0.192**) and γ₂₃ = 0.282**). However, technological innovation has a significant and positive impact on consumer value (γ₄₄ = 0.104**) and on satisfaction (γ₆₆ = 0.192**) but not marketing innovation. Therefore, technological innovation influences store image, consumer value and satisfaction, whereas marketing innovation only impacts on store image. These results mean that H1a and the second group of H2a, H2b and H2c are accepted consumer value significantly increases store brand equity (β₄₅ = 0.420**) and H4 is verified. The satisfaction construct, in addition to significant dependency on technological innovation also depends on store image (β₆₆ = 0.432**) and store brand equity (β₅₆ = 0.457**), verifying H3 and H5. Finally, WOM behavior (evaluated from WOM referral and WOM activity) has a positive and significant dependency on satisfaction (β₇₇ = 0.788**). That is, most of the recommendations made by customers are due to their level of satisfaction, thereby confirming H6.
Table IV Measurement model (dimensionality, reliability and validity)

First-order factors

<table>
<thead>
<tr>
<th>Items</th>
<th>SL (t-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marketing innovation (α = 0.948; CR = 0.947; AVE = 0.856)</strong></td>
<td></td>
</tr>
<tr>
<td>This store adopts a lot of new ideas relative to other stores</td>
<td>0.904</td>
</tr>
<tr>
<td>This store adopts new ideas more quickly than other stores</td>
<td>0.926 (37.48**)</td>
</tr>
<tr>
<td>This store consistently adopts new ideas over time relative to other stores</td>
<td>0.946 (32.83**)</td>
</tr>
<tr>
<td><strong>Technological innovation (α = 0.929; CR = 0.931; AVE = 0.818)</strong></td>
<td></td>
</tr>
<tr>
<td>This store invests in technology</td>
<td>0.840</td>
</tr>
<tr>
<td>The ICT in this store are always the latest technology</td>
<td>0.953 (50.34**)</td>
</tr>
<tr>
<td>In relation to its competitors, its technology is more advanced</td>
<td>0.917 (47.06**)</td>
</tr>
<tr>
<td><strong>Store image (α = 0.864; CR = 0.864; AVE = 0.615)</strong></td>
<td></td>
</tr>
<tr>
<td>I feel comfortable shopping in this store</td>
<td>0.856</td>
</tr>
<tr>
<td>This store is easily accessible</td>
<td>0.726 (18.53**)</td>
</tr>
<tr>
<td>This store is well-organized</td>
<td>0.786 (18.29**)</td>
</tr>
<tr>
<td>It is easy to move within this store</td>
<td>0.762 (20.78**)</td>
</tr>
<tr>
<td><strong>Consumer value (α = 0.881; CR = 0.897; AVE = 0.686)</strong></td>
<td></td>
</tr>
<tr>
<td>In this store, the products are reasonably priced</td>
<td>0.847</td>
</tr>
<tr>
<td>In this store, the products offer value for money</td>
<td>0.846 (27.52**)</td>
</tr>
<tr>
<td>In this store, the products are good for the price</td>
<td>0.905 (29.65**)</td>
</tr>
<tr>
<td>In this store, the products are inexpensive</td>
<td>0.701 (25.99**)</td>
</tr>
<tr>
<td><strong>Brand store equity (α = 0.967; CR = 0.968; AVE = 0.882)</strong></td>
<td></td>
</tr>
<tr>
<td>It makes sense to go to this store instead of any other store, even if they are the same</td>
<td>0.910</td>
</tr>
<tr>
<td>Even if another store has same features as this store, I would prefer to shop at this store</td>
<td>0.960 (50.34**)</td>
</tr>
<tr>
<td>If there is another store as good as this store, I prefer to shop at this store</td>
<td>0.955 (47.06**)</td>
</tr>
<tr>
<td>If the other store is not different from this store in any way, it seems smarter to shop at this store</td>
<td>0.931 (44.31**)</td>
</tr>
<tr>
<td><strong>Satisfaction (α = 0.919; CR = 0.923; AVE = 0.707)</strong></td>
<td></td>
</tr>
<tr>
<td>In general, what is your level of satisfaction with this store?</td>
<td>0.701</td>
</tr>
<tr>
<td>Considering what is expected from this type of store, assess your satisfaction with this one</td>
<td>0.844 (20.26**)</td>
</tr>
<tr>
<td>I am delighted to visit this store</td>
<td>0.932 (20.41**)</td>
</tr>
<tr>
<td>I am grateful this store exists</td>
<td>0.847 (18.59**)</td>
</tr>
<tr>
<td>Shopping in this store is pleasant</td>
<td>0.864 (20.13**)</td>
</tr>
<tr>
<td><strong>WOM</strong></td>
<td></td>
</tr>
<tr>
<td>WOM referral (α = 0.956; CR = 0.957; AVE = 0.881)</td>
<td></td>
</tr>
<tr>
<td>I tell other people about the advantages of this shop</td>
<td>0.934</td>
</tr>
<tr>
<td>I tell other people that this shop is better than others</td>
<td>0.964 (70.97**)</td>
</tr>
<tr>
<td>I tell other people that in this shop they treat me better than in other shops</td>
<td>0.917 (47.72**)</td>
</tr>
<tr>
<td>WOM activity (α = 0.919; CR = 0.919; AVE = 0.881)</td>
<td></td>
</tr>
<tr>
<td>I recommend this shop to my family/friends</td>
<td>0.887</td>
</tr>
<tr>
<td>If my family/friends ask my advice, I tell them to go to this shop</td>
<td>0.957 (39.48**)</td>
</tr>
</tbody>
</table>

Second-order factors

<table>
<thead>
<tr>
<th>Items</th>
<th>SL (t-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WOM</strong></td>
<td></td>
</tr>
<tr>
<td>WOM (CR = 0.883; AVE = 0.792)</td>
<td>0.850</td>
</tr>
<tr>
<td>WOM referral</td>
<td>0.928 (24.52**)</td>
</tr>
</tbody>
</table>

Scale correlations

<table>
<thead>
<tr>
<th>1. Marketing innovation</th>
<th>Mean</th>
<th>SD</th>
<th>VIF</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Technological innovation</td>
<td>4.23</td>
<td>1.69</td>
<td>1.24</td>
<td>0.925</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3. Store image</td>
<td>4.28</td>
<td>1.54</td>
<td>1.41</td>
<td>0.424</td>
<td>0.904</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Consumer value</td>
<td>5.70</td>
<td>1.11</td>
<td>1.61</td>
<td>0.310</td>
<td>0.362</td>
<td>0.784</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Brand store equity</td>
<td>4.50</td>
<td>1.20</td>
<td>1.42</td>
<td>0.109</td>
<td>0.116</td>
<td>0.418</td>
<td>0.828</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Satisfaction</td>
<td>4.18</td>
<td>1.57</td>
<td>1.84</td>
<td>0.216</td>
<td>0.247</td>
<td>0.481</td>
<td>0.412</td>
<td>0.939</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. WOM</td>
<td>4.79</td>
<td>1.36</td>
<td>2.99</td>
<td>0.307</td>
<td>0.432</td>
<td>0.659</td>
<td>0.546</td>
<td>0.613</td>
<td>0.841</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Fit indexes: Chi² sat. (df = 327) = 945.13 (p-value = 0.000); RMSEA = 0.049; CFI = 0.964; GFI = 0.899; BB-NFI = 0.945; BB-NNFI = 0.958; α = Cronbach’s alpha; CR = Composite reliability; AVE = Average variance extracted; SL = Completely standardised loadings; **: t-values are significant at p-value < 0.01; ¹: The elements on the main diagonal represent the square root of the AVE
5. Discussion and conclusions

The main aim of our work has been to go deeper into the study of retail innovation, both in marketing and technologies, and its direct and indirect effects on satisfaction and subsequent recommendation through store image, consumer value and store brand equity. It is a new line of study, which is still fragmented and with little empirical evidence (Musso, 2010; Djellal et al., 2013; Christofi et al., 2015). Given this gap, our work presents, after a theoretical review of the variables, an empirical model which was tested on a sample of 820 consumers in different types of stores.

The results of this empirical work suggest that both technological innovation and marketing innovation enable improvements in consumer-perceived store image. The introduction of technologies also improves consumer value and customer satisfaction with the store. However, whereas marketing innovation does influence store image, its effect on consumer value and satisfaction is not significant. Therefore, in our case, customers perceive marketing innovation as being less significant than technological innovation. This difference may be partly explained by the difficulty in identifying marketing innovation with results that consumers can perceive because they may be more to do with the internal management of the commercial establishment. That is, marketing innovation refers to improvements in services and merchandising offered by the store. However, these improvements, which are easy to link to store image, are more difficult to relate to product prices (in the form of economic value) or with satisfaction with the purchase.

The different contributions of the two innovations on value and satisfaction may be due to the significance of each innovation for consumers. Shoppers (informants) may have skewed their interpretation of marketing innovation towards store actions focused on advertising, deception or unethical practices; but they appear to have a clearer idea of the concept of technological innovation, especially given the technological developments in the retail trade.

Marketing innovation does have a significant indirect effect on satisfaction through store image. Thus, marketing innovation helps to improve store image and said improvement increases customer satisfaction. The “consumer value-store brand equity-satisfaction” chain has also been confirmed as the relationships between these variables are significant. The increase in consumer value improves customers’ perception of the brand and the better this perception, the more satisfied the customer. Finally, our results confirm the relationship between satisfaction and WOM behaviour, so that customers who are more satisfied with the retail experience will make more recommendations. This work contributes to the literature on satisfaction and loyalty in retailing through studying the role of innovation. We have found that marketing and technological innovation improve satisfaction levels both directly and indirectly through store image, consumer value and brand equity and that satisfaction stimulates recommendations to other consumers. From a theoretical perspective, these results provide a broader approach by incorporating new antecedents to the processes of satisfaction and loyalty.

5.1 Managerial implications

These results enable us to make a series of recommendations for the management of retail firms. First, firms should invest in innovation. Innovation is mainly linked to the industrial sector, but our work shows that innovation in the services sector can also improve a firm competitiveness and help better meet customers’ needs. In particular, it is especially important to invest in ICTs because consumers more easily identify the results and appreciate them significantly. Marketing innovation, understood as improvements in services, can also offer competitive advantages, associated in particular with improved store image and consequently greater satisfaction and more recommendations. Companies need to innovate in marketing by developing new ideas related to aspects of service that generate greater value for customers. Firms should also focus their efforts on making customers aware of the improvements in marketing that have been introduced and how they affect their shopping experience, for example, by lowering prices, making shopping easier, reducing effort and so on.

More specifically, we can cite a series of concrete innovations at point of sale. In the particular case of the fashion industry, stores could improve their services by incorporating the new technologies that improve the shopping experience with digital mirrors. These mirrors enable customers to see how they would look in different clothes without having to try them on because the software generates an avatar for the customer to try out the different garments. There are also technological applications like the digital personal shopper which recommends suitable combinations of accessories or garments and make-up that would suit the customer, thereby promoting cross-selling. In this line are smartphone applications that identify customers as they enter...
the shop and offer recommendations suited to their preferences.

Another option would be to incorporate new mobile phone payment systems like near field communication technology that permits payment by smartphone. The telephone keeps an encrypted replica of the credit or debit card, but instead of sending the number, it sends an identifier that is valid for a single payment. The advantage of this system is that it guarantees security, the disadvantage being that the store must have a dataphone. Payment applications between smartphones are another technology stores could incorporate with the advantage of not requiring a dataphone.

A second practical implication stemming from this work is the “value-brand equity-satisfaction-WOM” chain of effects. Identifying elements that generate value for customers is key for retail stores to improve brand equity and increase customer satisfaction and recommendations. In these relationships, what the brand can do to satisfy customers becomes particularly important, so actions should be designed to help customers feel more closely identified with the brand and more involved with the store. Furthermore, given that in this work, we have considered the economic component of value, firms should focus on aspects oriented at improving the relationship between price and the perception of quality in the service and product. For example, firms could improve their position in relation to their competitors by offering price discounts or adding services (e.g. home delivery, click and collect or personalized recommendations) tailored to the customer’s shopping profile.

5.2 Limitations and future directions

This study has a series of limitations which provide important opportunities for future research. First, the marketing innovation scale is too general and a future analysis should use a scale that reflects different dimensions of this construct. For example, following Mussio (2010), a differentiation could be made between innovation in technologies in customer relations and structural or strategic innovations. Contemplating different types of innovation could shed light on possible reasons for the absence of the impact of marketing innovation on image and satisfaction. Another scale which could be improved is the store image scale. To reflect the nature of the construct more appropriately, in future studies, we propose using the image scale in Shen (2010a) which has four dimensions: merchandise, service, facility and atmosphere. The value scale could also be enlarged to reflect, in addition to value for money, other dimensions recognized in the literature (Holbrook, 1999; Gallarza et al., 2016).

Second, in future works, new relationships could be analysed like the effect of marketing and technological innovation on private label or on new product offering. Given the current importance of WOM behaviour in consumers’ store choice decisions, the direct effect of innovation on shoppers’ recommendations after shopping could be studied. It would also be interesting to find out whether these new relations differ depending on the sector of activity or commercial format. Finally, given that this research was conducted in a specific geographical area, we propose extending the study to other provinces in Spain so the results can be generalized to the Spanish market. The study could also be replicated to other service contexts where marketing innovation is acquiring an important role in business strategy, like restaurants and hotels, or in cross-channel retailing (physical vs online channel).

**Note**

1 During the interview phase, the interviewer clearly explained to interviewees that new ideas refer to this type of marketing actions carried out in store

**References**


Role of marketing and technological innovation

Maria Fuentes-Blasco et al.


**Further reading**


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