This is the accepted version of a paper published in Journal of Services Marketing

Citation for the original published paper:

Marín-García, A., Gil-Saura, I. and Ruiz-Molina, M.-E. (2021), "Understanding innovativeness and commitment to sustainable service practices", Journal of Services Marketing, Vol. 35 No. 8, pp. 1092-1103. https://doi.org/10.1108/JSM-12-2019-0479

Understanding Food Retailer Innovativeness and Commitment on Sustainability

Abstract

Purpose: The aim of this study is two-fold. Firstly, to examine the relationship between the retailer's innovativeness and sustainability from the customer standpoint. Secondly, to assess the impact of the retailer's innovativeness and commitment towards sustainability as perceived by the consumer on store image and store equity.

Design/methodology/approach: In order to achieve this objective, a theoretical model is proposed based on the literature, that is tested through an empirical study conducted on a sample of 510 customers of three grocery retail formats – i.e. hypermarkets, supermarkets, and discount stores-.

Findings: The results obtained confirm the hypotheses proposed and, consequently, both retailer innovativeness and commitment to sustainable development emerge as key elements in the development of store equity through store image.

Originality/value: This work allows to draw a set of managerial recommendations for food retailers based on the benefits of investing in innovative initiatives, that boosted by the implementation of innovative solutions, assist in the development of sustainable practices, thus allowing improvements in store image and store brand equity.

Keywords: Service innovation, Sustainability, Retail, Corporate image, Perceived retailer innovativeness, Retailer's commitment to sustainable development, Store image, Store equity, Food retailing

Article classification: Research paper

1. Introduction

Service sectors represented 73.95% of the value added in the EU countries in 2019 (OECD, 2020). Considering the geographical area where this work is carried out, Spain, and the sector it analyzes, the retail sector, it is necessary to point out that retailing is one of the most important economic activities in the services industry in this country. The present research aims at progressing in the analysis of the retail sector, since it is considered an important pillar of the service sector as evidenced by its contribution to the Gross Value Added (GVA) of the Spanish economy. In this sense, the service sector contributes 74.9% of the GVA of Spain in 2019, representing the commercial activity 13%, a percentage higher than the European average i.e. 11.2% (Eurostat, 2020). The service industries, to which retail companies belong, are undergoing a process of restructuring their businesses as a consequence of the drastic changes produced in their environment.

However, despite the threats in the environment in which companies in the services and retail sectors operate, some factors emerge as opportunities for the survival and progress of companies. As a consequence of the above, from the point of view of companies in the service sector, innovation is postulated as a key element in the survival and economic development of companies, (Berthon et al., 2004; Clark, 2010; Dawson, 2013; González-Lafaysse et al., 2016; Marcon et al., 2017; Cheah et al., 2018; Pantano et al., 2018; Bilińska-Reformat et al., 2019; Horvat et al., 2019). In this sense, organizations need to develop and implement innovative measures in their business models in order to access new market segments, be competitive, contribute to wealth creation, and guarantee their survival and growth in the long run (Sigauw et al., 2006; Sorescu et al., 2011; Ruiz-Molina et al., 2017; Bilińska-Reformat et al., 2019).

However, despite the attention paid by academics to the development and adoption of innovative practices by retailers in services industries, measuring their impact from a consumer perspective requires further research in the retail and services sector (Blut et al., 2018). Furthermore, innovation strategies applied by retail firms have received comparably less attention than those adopted by other service industries, such as banking and insurance (Pinto et al., 2017). In this sense, it is necessary to explain how retailer innovativeness, as perceived by consumers, affects retail companies (Marín-García et al., 2020). In particular, previous studies call for further research on how customer perceived retailer innovativeness contributes to enhancing brand equity (Omar et al., 2018).

Moreover, marketing research suggests that innovation is an element closely linked with other constructs of preferential interest. In this sense, recent studies show a growing interest in analyzing the impact of the introduction of some innovations in retail, such as sustainable practices (Chen, 2010; Kumar, 2014; González-Lafaysse et al., 2016; Marcon et al. al., 2017; Cheah et al., 2018; Pantano et al., 2018; Bilińska-Reformat et al., 2019; Marín-García et al., 2019; 2020; Xiao et al., 2019). Some conceptual and analytical proposals in retailing argue the need to provide evidence of the role of sustainability and innovation, due to its importance for strategic management and academic research (Grewal et al., 2017; Kumar et al., 2017). Increased consumer awareness of social, economic, and environmental issues has led many retailers to include sustainability-related practices in their daily activities, such as saving energy resources, collaborating with non-profit associations, marketing products from developing countries, or improving the working conditions of employees (Lavorata, 2014).

In addition to the suggested links between innovativeness and sustainability, some studies have argued the need to explore the existence of links between the consumer perceptions of innovation and sustainability with variables traditionally related to store equity creation (Marín-García et al., 2020). In particular, store image has been pointed out as one of the most relevant drivers of store equity (Moliner-Velázquez et al., 2019), but there is still little evidence in the context of innovation (Huang et al., 2016), and even less in retailing (Marín-García et al., 2020).

In this way, the present paper pursues a double aim. First, it attempts to assess the effects of innovation in sustainability, as perceived by the customers of retail stores. Second, it aims at analyzing the influence of customer's perceptions of the retailer's innovation and sustainability in the "store image-store equity" chain. From the results of this research, we draw a series of implications that will allow food store managers to gain insight into the perceptions of their customers about the innovative and sustainable practices developed by their companies to improve the consumer's perception of retail establishments.

2. Theoretical framework

2.1. Innovation and Perceived Retailer Innovativeness

Innovation refers to the fulfillment of novel ideas held within an organization (Amabile, 1983; Wang and Tsai, 2014; Pantano et al., 2018). The literature in marketing highlights that innovation is a cornerstone in the process of restructuring the retailing sector (Musso, 2010; Lin, 2015; Marín-García et al., 2020). Previous research provides support for the notion that innovation allows to face up changes that occur in highly dynamic (Dawson, 2000; Dawson, 2013; Cao et al., 2018) and turbulent surroundings (Sigauw et al., 2006). Innovation is crucial for economic development (Berthon et al., 2004) and competitiveness of companies and/or industries (Clark, 2010), thanks to its ability to create wealth and generate economic growth. Likewise, it has been emphasized that innovation enables companies to access new market segments (Laaksonen and Reynolds, 1994), be more competitive, and thus, strengthen their growth, as well as ensure their survival on a long-term basis.

In the past years, studies focused on innovation in retailing have adopted a service perspective (Homburg et al., 2017). In this sense, previous research on innovation has explored the impact on the customer experience of the service innovations introduced by retailers -e.g. self-service technologies (Fernandes and Pedroso, 2017; Kim and Yang, 2018), multichannel retailing (Fernández-Sabiote and Román, 2016), retailers' m-commerce mobile applications (McLean et al., 2018) - and the ability of these innovations to differentiate retailers from the competition and thus to achieve competitive advantages (Homburg et al., 2002).

Recent calls for research argue the interest of innovation in retailing, with a special focus on the analysis of innovative business models, the use of interactive technologies in stores (Pantano et al., 2019), as well as innovations in retail formats (Musso, 2010; Lin, 2015; Botschen and Wegerer, 2017; Marín-García et al., 2020). In the context of retailing, from the perspective of the organization, four main types of innovation have been identified, based on their technological vs. non-technological nature (Cliquet, 2011). On one hand, technological innovations include product innovations and process innovations (McKee, 1992; García and Calantone, 2001; Henard and Dacin, 2010; Jaravel, 2018; Horvat et al., 2019). On the other hand, non-technological innovations contain organizational innovations, innovations in marketing, and relational innovations (Lin, 2015). In particular, product innovations and process innovations are characterized by radical or incremental changes produced during product manufacturing, development, or commercialization. In contrast, organizational innovations, innovations in marketing, and relational innovations are linked to changes in the structure of the company, changes in prices, communication, distribution, and new types of relationships between the organizations and their partners or stakeholders (Lorenzini et al., 2018).

Adopting an approach based on consumer's perceptions, perceived firm innovativeness is "the consumer's perception of an enduring firm capability that results in novel, creative, and impactful ideas and solutions for the market" (Kunz et al., 2011, p. 817). In particular, retailer innovativeness, defined as the ability of a retailer to innovate (Lin, 2015), has been related to the capability of a retailer to introduce new products (Dupuis, 2002) – particularly private label products (e.g., Anselmsson and Johansson, 2009; Chimhundu et al., 2010), new offerings, services, and promotions (Kunz et al., 2011).

In an empirical study conducted in Taiwan, Lin (2015) develops a scale for perceived retailer innovativeness, identifying four dimensions for consumers' perceptions towards retailer innovativeness, i.e. product, service, experience, and promotion-related innovation capabilities. Firstly, perceived product-related innovation capability is related to the image perceptions of the innovativeness of merchandise sold in the store. Secondly, perceived service-related innovation capability is related to intangible aspects such as a new idea of organizing a solution to a customer problem or need. Thirdly, perceived experience-related innovation capability refers to consumer perceptions of store environment, atmosphere, and design. Last, perceived promotion-related innovation capability is related to consumer perception of the ability of a retailer to offer new promotions based on their loyalty program, point-of-sales data-collection system, and Radio Frequency Identification (RFID) technology (Grewal et al., 2011).

2.2. Consequents of perceived retailer innovativeness

2.2.1. The relation between perceived retailer innovativeness and commitment to sustainable development

The literature that examines the concept of sustainability states that its growing interest is motivated by two main facts. Firstly, in the definition formulated by the World Commission on Environment and Development through the Brundtland's (1987), sustainability is considered as the adoption of strategies and actions aimed at protecting natural and human resources in the future. Secondly, the increasing consumer awareness about sustainability and the impact of the business activity on the environment, and the society explain that many organizations decide to implement sustainable practices not previously developed (González-Lafaysse et al., 2016; Marcon et al., 2017; Marín-García et al., 2019). In this line, Bilińska-Reformat et al (2019) state that the development of competitive advantages by companies must be based on the creation of innovative business models connected with sustainable elements.

In the context of the retail sector, numerous papers examine the links between innovation and sustainability from the point of view of companies. However, from a consumer point of view, the contributions examining retailer innovativeness and retailer's commitment to sustainable development (RCSD) are scarce. Some of these approaches seek to link the effect of some innovative practices such as the use of digital communication channels to transmit to consumers the sustainable behaviour that companies engage in (e.g. participation in solidarity events, marketing of healthy products or removal of plastic bags). Through these mechanisms linked to relational innovation, companies try to change the image consumers have of them (González-Lafaysse et al., 2016). Besides, also from the point of view of the consumer, preliminary studies indicate the importance of considering consumers' views on product/services innovations, such as the creation or inclusion of new products and/or services in the commercial offer of companies, using materials less harmful to the environment. From a social point of view, some companies are demanding the cooperation of consumers in the development of new promotions that have a greater impact on their customers and that also have positive effects on society (Kumar, 2014; Marín-García et al., 2019). Business-consumer collaboration seems necessary if organizations want to transmit an image of their most innovative and more sustainable businesses.

Moreover, Leon-Bravo et al. (2019) argue how innovative practices in grocery retailing play a fundamental role in the development of environmental, social, and economic sustainability. The new innovative actions implemented by companies – and retailers in particular – are based on economic sustainability, social sustainability, and environmental sustainability (Elkington, 2004; Lavorata, 2014; González-Lafaysse et al., 2016; Marcon et al., 2017; Cheah et al., 2018; Marín-García et al., 2019). In retailing, service innovations evidencing the RCSD - i.e. combining diverse resources to create novel resources to enhance the consumer experience such as the introduction of Fair Trade products in the assortment, social actions, measures to save energy and water, and the use of biodegradable materials for packaging products - are highly valued by their customers, according to previous empirical evidence (Marín-García et al., 2019).

Thus, given the existing evidence on the relation between perceived retailer innovativeness and retailer's commitment to sustainable development as perceived by consumers, we propose the first hypothesis:

H1: PRI has a positive effect on RCSD as perceived by consumers.

2.2.2. The relation between innovation and store image

Brand image has been defined as "*the sum of beliefs, attitudes, stereotypes, ideas, relevant behaviors or impressions that a person holds with respect to an object, person or organization*" (Belanger et al., 2002:218). In the context of retailing, Bloemer and De Ruyter (1998:501) have defined store image as "the complex of a consumer's perceptions of a store on different (salient) attributes". More recently, store image is considered as determined by several aspects of a retail store, expressed by price, merchandise, store atmosphere, customer service, etc. (Graciola et al., 2020).

As far as innovations are introduced by retailers in the service they deliver, previous studies find support for the role of innovation in the development of associations on the retailers in the minds of consumers, therefore contributing to building store image. In this sense, several studies (e.g. Shiau, 2014; Huang et al., 2016; Moliner-Velázquez et al., 2019; Marín-García et al., 2020) conclude the existence of a positive relationship between perceived retailer innovativeness and store image, where store image is a mediating variable between innovativeness and other constructs such as customer loyalty and intentions to patronize the store.

In the context of food retailing, it has been empirically observed that innovative products, creative store design, distinctive promotions, and services increase store prestige perceptions of consumers (Konuk, 2019). Similarly, Marín-García et al. (2020) find a positive effect of consumer perceptions towards innovative actions implemented by grocery retailers on the image of the store. From this evidence, it can be inferred that retailer innovativeness – as perceived by consumers - is one of the fundamental pillars on which the development of store image in consumers' minds is based. Thus, improvements in consumer perceptions towards the innovative practices developed in retail stores may lead to enhanced store image.

Furthermore, the increasing concern about corporate social responsibility by researchers has driven academic interest in the term "sustainable innovation" and its effects on the image of the store. In this sense, Huang et al. (2016) confirm the positive and significant effect of sustainable innovation on brand image and business performance.

Therefore, according to the evidence reported by the literature so far, we formulate the following hypothesis:

H2: PRI has a positive effect on store image.

2.2.3. The relation between retailer's commitment to sustainable development and store image

Sustainability and brand image have been related in the literature, where several studies analyse the impact of the former on the latter (Chen, 2010; Kumar, 2014; Lavorata, 2014; González-Lafaysse et al., 2016; Xiao et al., 2019; Marín-García et al., 2020). In particular, Chen (2010) finds empirical support for the positive relationship between sustainability, brand image, satisfaction, trust, and brand equity. This author argues that all these constructs have been widely explored, but not sufficiently from a sustainable perspective.

Furthermore, in a research conducted in the retailing industry in France, González-Lafaysse et al. (2016) highlight the positive relationship between sustainability and store image, and therefore the need to increase the investment in the marketing policies to convey to the consumers the actions of sustainable development implemented by the retailer, and develop the image of a sustainable brand. In addition to this, the authors include ICT and innovative processes in marketing as key drivers to achieve the objective of developing the image of a sustainable brand.

In the same line of study, Lavorata (2014) analyses the relationship between RCSD and other variables such as retailer's image, loyalty, and behavioral intentions, from the consumer perspective, and concludes the positive relation between the sustainable actions implemented by the retailer and the retailer's image. From this result, it is inferred that sustainable practices can help retailers to build commitment and a good image among consumers. Similarly, in a conceptual study, Kumar (2014) suggests that the introduction of ecological products in the store assortment and the promotion of sustainable commercial practices are sufficiently relevant actions to improve the retailer's brand image. Finally, Marín-García et al. (2020) point out that the implementation and communication of actions directly linked to economic, social, and environmental sustainability may involve changes in the image which consumers develop towards the retail store. In this sense, positive consumer perceptions towards the sustainable practices implemented by retailers may exert a direct influence on the image of the establishment that consumers develop in their minds.

Thus, considering all the previously described evidence, we posit the following hypothesis:

H3: RCSD, as perceived by consumers, has a positive effect on store image.

2.2.4. The relation between store image and store equity

The image/associations linked to a brand are defined as any element (e.g. a character, an object, a symbol, a sound, a consumer segment, a feeling, among others) linked to the memory of a brand (Aaker, 1991). Brand image is considered one of the key determinants of brand equity (Aaker, 1991; Chen, 2010; Chi et al., 2019), since it facilitates the evaluation by the consumer, and constitutes a fundamental element of brand personality (Hartman and Spiro, 2005; Chi et al., 2019). According to Yoo et al. (2000:196), brand equity is defined as "the difference in consumer choice between the focal branded product and an unbranded product given the same level of product features". Keller (1993) explains that associations have a direct effect on brand equity, since consumers attribute a meaning to a brand in their minds, and relate it with the brand in itself. Brand associations, developed as verbal or visual descriptions, sensory (flavour, aroma or sound) and emotional impressions (Supphellen, 2000), generate bonds of strong knowledge on the brand, organized in the mind of the consumer, being this one of the main elements in brand equity management due to its ability to develop competitive advantages (Aaker, 1991; Biel, 1992; Faircloth et al., 2001; Chen, 2010). Moreover, it has been empirically observed the positive influence of consumers' perceptions of brand innovativeness on brand equity, mediated by the consumer's perceptions of brand quality (Pappu and Quester, 2016).

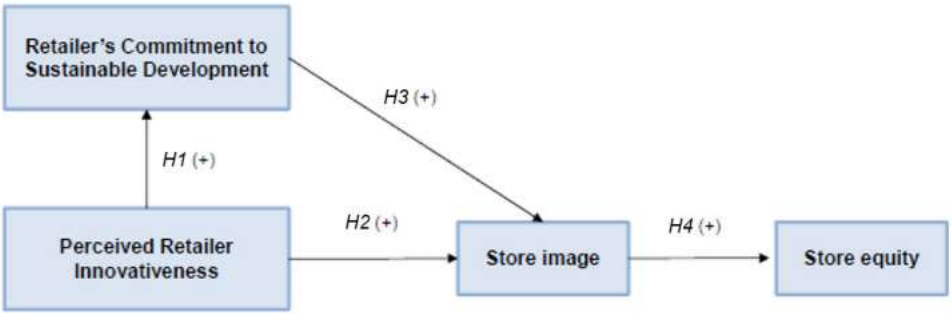
The study of store equity, i.e. the role that the brand of the store plays, in itself, as a brand differentiated from the brands the retailer sells (Jinfeng and Zhilong, 2009), has attracted the interest of several researchers in the last decade (Ailawadi and Keller, 2004; Hartman and Spiro, 2005; Pappu and Quester, 2006a, 2006b). Arnett et al. (2003) point out the importance of brand associations made by the consumer in the context of retailing, assuming that strong and positive brand associations lead to strong brands, superior over other brands. This differentiation will depend to a great extent on the marketing strategies carried out by the retailer.

Several authors have reported the existence of positive relations between store image and store equity (Pappu and Quester, 2006a, b; Chen, 2010; Arnett et al., 2003; Gil-Saura et al., 2013; Gil-Saura et al., 2017; Chi et al., 2019; Marín-García et al., 2020). Therefore, in view of these considerations, we formulate the following hypothesis:

H4: Store image has a positive effect on store equity.

All in all, Figure 1 shows the research model that includes the proposed hypotheses.

Figure 1 Proposed model



3. Method

To achieve the proposed aim, quantitative research is developed using an *ad-hoc* structured questionnaire, i.e., a closed questionnaire designed for the purpose of this research to assess the consumer's degree of agreement or disagreement with several sentences. In particular, the questionnaire aims at gathering information on PRI, and RCSD as perceived by consumers, as well as the brand image of the retailer and store equity of the establishment.

The items to measure the variables analyzed have been extracted and adapted from several scales used in the marketing literature, which have been already validated in terms of their content, and have been adapted to the characteristics of the context and aims of the present study (Appendix). In particular, the items to measure perceived retailer innovativeness (PRI) have been extracted from the scale proposed by Lin (2015), since it gathers the main types of innovation identified in the literature from the consumer perspective, i.e.

product, service, experience, and promotion-related innovation capabilities. Regarding sustainability, we have adapted the scale for the RCSD construct from Lavorata (2014).

Regarding the measurement of store image, the scale of Yoo et al. (2000) has been adapted; and last, the items for the store equity scale are adapted from Yoo and Donthu (2001) to the context of retailing from its global brand equity scale. All the items are measured through a 7-point Likert scale. The items used in this "ad-hoc" questionnaire were adapted from scales that measured the same constructs and provided evidence of the validation of the psychometric properties of these scales. The questionnaire also includes several classification questions to determine the respondent profile. A pretest was conducted on 10 grocery shoppers and all items were considered appropriate and easily understandable.

The data collection process was carried out in the third most populated region in Spain, following a non-probabilistic sampling procedure by quotas in terms of gender and age, through the interception technique at the store exit, and asked about their perceptions on the retailer whose store they have just visited. They are assumed to be in a position to assess the retailer's innovativeness and commitment towards sustainable development since 95.5% of respondents patronize the retailer since two years ago or more. Respondents participated in the study voluntarily, without receiving any incentive. To include the three main commercial formats in Spain - hypermarkets, supermarkets, and discount stores -, a sample of 170 consumers has been considered for each retail format. The store chains of each retail format have been selected based on their assortment and their positioning in the Spanish grocery retail industry. Finally, 510 valid questionnaires were collected.

The samples obtained are considered representative of Spanish grocery retail customers in terms of gender and age, according to Observatorio Cetelem (2016). Regarding the sociodemographic characteristics of the total sample, female and male consumers amount to 59.6% and 40.4%, respectively. Regarding age, the biggest age segment is between 36 and 45 years old, amounting to 26.1%, followed by those between 36 and 45 years old (22.2%). Considering the educational level, almost half of the sample had a high-school education (46.7%), and 22% had a bachelor-level qualification. Last, 55.3% of respondents are employees, 12.4% are employers/self-employed, 11.4% are pensioners, whereas the rest of the sample are unemployed (7.8%), housewives (7.3%), or students (5.8%). Sample distributions are quite similar across store formats.

For the data analysis, exploratory factor analyses are performed to examine the dimensionality of the constructs included in this research. Next, a two-step procedure is followed. First, we validate the measurement instrument; and second, we estimate the structural model. Both analyses performed through Partial Least Squares regression (PLS) using the software SmartPLS (version 3.0). This technique has been widely used by researchers in the last years (Hänseler et al., 2017), since PLS-SEM is a non-parametric statistical procedure that does not require data to follow a normal distribution (Hair et al., 2016).

4. Results

As a preliminary step before the estimation of the proposed model, we perform exploratory factor analyses with the objective of studying the dimensionality of the different constructs analysed. The results of component factor analysis using VARIMAX rotation allow us to conclude, first of all, the unidimensionality of the perceived retailer innovativeness (PRI) construct (KMO: 0.871; determinant: 9.55E-005; Bartlett's test of sphericity sign. level: 0.000), whereas the author who develops the scale adapted to this research, Lin (2015), concludes that the goodness of fit is better for the construct with four factors in comparison to the one with only one factor. Similarly, retailer's commitment to sustainable development (RCSD) as perceived by consumers emerges as a unidimensional construct factor (KMO: 0.859; determinant: 0.000; Bartlett's test of sphericity sign. level: 0.000), although Lavorata (2014), who developed the scale adapted to the context of the present research, identifies three different dimensions. These discrepancies in the dimensionality of PRI and RCSD may be due to a "halo effect", since consumers may make inferences about the retailer's innovativeness and/or commitment to sustainable development on the basis of very limited information so that their perceptions of one set of retailer's actions may influence their perceptions of innovativeness and/or commitment to sustainable development in other domains about which they have little or no information (Smith et al., 2010; Jin and Lee, 2019).

Regarding store image and store equity, the unidimensionality of these constructs is also confirmed, with Kaiser-Meyer-Olkin measures of sampling adequacy suggesting that the factor analyses were appropriate (i.e. KMO is 0.854 and 0.805, respectively).

4.1. Validation of the measurement instrument

Using the PLS-SEM technique and calculating a PLS algorithm with a parameter of 300 interactions maximum, we obtained the results about factor loadings, reliability coefficients (Cronbach alpha and composite reliability), and the average variance extracted (AVE) for each factor included in the causal model. Following Bagozzi and Yi (1988), item loadings should be higher than 0.6; thus, the indicators IM4 and IM9 are deleted so that the reliability of the Store image scale improves (Table 1).

Table 1. Confirmatory factor analysis results

Factor	Item	Loading	t	CA	CR	AVE
F1. Perceived retailer innovativeness (PRI)	IN1	0.618***	18.794	0.916	0.928	0.501
	IN2	0.628***	19.339			
	IN3	0.698***	23.754			
	IN4	0.662***	23.150			
	IN5	0.661***	20.365			
	IN6	0.682***	23.020			

	IN7	0.697***	25.391			
	IN8	0.772***	44.059			
	IN9	0.737***	34.175			
	IN10	0.775***	37.871			
	IN11	0.750***	30.351			
	IN12	0.710***	28.554			
	IN13	0.610***	17.671			
	IN14	0.661***	22.027			
F2. Retailer's Commitment to Sustainable Development (RCSD)	SN1	0.751***	27.675	0.911	0.924	0.505
	SN2	0.726***	23.266			
	SN3	0.688***	27.092			
	SN4	0.673***	23.122			
	SN5	0.702***	29.833			
	SN6	0.755***	39.856			
	SN7	0.686***	21.561			
	SN8	0.732***	24.301			
	SN9	0.807***	43.930			
	SN10	0.635***	16.573			
	SN11	0.668***	19.471			
	SN12	0.691***	24.086			
F3. Store image	IM1	0.776***	36.450	0.871	0.901	0.567
	IM2	0.835***	61.284			
	IM3	0.672***	17.110			
	IM5	0.632***	17.220			
	IM6	0.790***	43.372			
	IM7	0.790***	36.736			
	IM8	0.755***	35.871			
F4. Store equity	SE1	0.871***	49.771	0.880	0.917	0.735
	SE2	0.800***	26.039			
	SE3	0.917***	98.482			
	SE4	0.838***	32.036			

CA=Cronbach's alpha reliability coefficient, CR=Composite Reliability, AVE= average variance extracted
*p<0.1; **p<0.05; ***p<0.01

All values for the Cronbach alpha coefficients are higher than 0.7, above the minimum required (Churchill, 1979; Nunnally and Bernstein, 1994), and oscillating between 0.8 and 0.9, recommended values for advanced stages of research (Nunnally and Bernstein, 1994). The analysis of the values of composite reliability is also satisfactory since they are all higher than the required value of 0.7 (Chin, 1998). Regarding the values for the average variance extracted, they are higher than 0.5 for all the constructs of the structural model (Fornell and Larcker, 1981). Thus, the results obtained allow us to confirm the reliability and the convergent validity of the measurement instrument of the structural model.

Next, discriminant validity is analyzed using the criterion proposed by Fornell and Larcker (1981). As shown in Table 2, the square root of the AVE presented on the diagonal of the matrix is higher than the correlation between the factors for each pair of constructs, thus corroborating discriminant validity. This result is also ratified by the analysis of cross-loadings (Chin, 1998), evidencing that the cross-loadings of each indicator with its corresponding latent variable are higher than the rest of cross-loadings with other dependent variables.

Table 2. Test for discriminant validity (Fornell-Larcker criterion)

Factor	F1	F2	F3	F4
F1. Perceived retailer innovativeness (PRI)	0.692			
F2. Retailer's Commitment to Sustainable Development (RCSD)	0.502	0.711		
F3. Store image	0.660	0.456	**0.753**	
F4. Store equity	0.211	0.504	0.422	**0.857**

Diagonal: square root of average variance extracted (AVE)
Below the diagonal: correlations between factors

Once analyzed the psychometric properties of the measurement instrument, confirming the reliability and convergent and discriminant validity, we proceed to estimate the structural model.

4.2. Estimation of the causal model

The proposed structural model is estimated through PLS regression with a *bootstrapping* with 5000 subsamples (Ringle et al., 2015) to evaluate the causal relations stated in the hypotheses of the model and the significance of the path coefficients, as well as the value of the variance explained, R^2. The *blindfolding* technique provides the results for the Q^2 test for predictive relevance. Table 3 and Figure 2 show the results for the estimated structural model of this research.

Table 3. Causal model results and hypotheses testing

Hypothesis		Decision	Standardised coeff.	t
H1	PRI → RCSD	Supported	0.502***	17.800
H2	PRI → Store image	Supported	0.576***	17.634
H3	RCSD → Store image	Supported	0.167***	3.819
H4	Store image → Store equity	Supported	0.432***	11.602

RCSD: R^2=0.252, Q^2=0.109; Store image: R^2=0.457, Q^2=0.232; Store equity: R^2=0.178, Q^2=0.118
*p<0.1; **p<0.05; ***p<0.01; ns = non significant

Figure 2. Causal model results

Source: Authors' proposal

From the results displayed in Table 3, it is observed that all the dependent constructs of the structural model show values for R^2 above 0.1, the minimum threshold established by Falk and Miller (1992). Regarding the results for the Q^2 test, all values are higher than zero, thus confirming the predictive validity of the model. Therefore, the results obtained for R^2 and Q^2 allow us to confirm the explanatory capacity and the predictive relevance of the model, thus allowing us to continue examining the significance of the proposed structural relations. Table 3 presents the results obtained for the path coefficients and the decisions regarding the hypotheses proposed.

The results obtained through the PLS-SEM analysis allow us to support all the relations proposed in the causal model.

Concerning the hypotheses between PRI and its consequences, first, the positive relationship between PRI and RCSD is supported ($\beta1=0.502$, $p<0.01$, H1). Likewise, the role of PRI and RCSD as antecedents of store image has been supported by the results of the causal model estimation in both cases ($\beta2= 0.576$, $p<0.01$, H2; $\beta3= 0.167$, $p<0.01$, H3). Moreover, we find support for the hypothesis that links store image to store equity, since a significant and positive path coefficient is obtained ($\beta4=0.432$, $p<0.01$, H4).

5. General discussion

The present paper aims at contributing to the extant literature on PPI and retailer commitment to sustainable development in food retailing. The study performed has allowed gaining insight into the nature of these constructs and their impact on the customer experience in terms of store image and store equity. Therefore, to achieve this aim, an integrative model is proposed to analyse the effects of retailer innovativeness as perceived by the consumer.

More specifically, the findings allow us to shed light on the effect of innovative practices in the development of more sustainable business models, resolving the controversy raised in the literature (Grewal et al., 2017; Kumar et al., 2017; Pantano et al., 2018). Moreover, our results provide empirical evidence based on quantitative research to support the conclusion of Arcese et al. (2015) after analysing 10 case studies, who conclude the key role of innovation and sustainability to overcome the issues of the food industry and to achieve their competitiveness goals.

6. Theoretical conclusions

This research makes several contributions to prior literature. Among the theoretical implications of our findings, we highlight, first, the findings of the present research that allow confirming that innovativeness in grocery retailing, from a consumer perspective, is a one-dimensional construct, in spite of being measured with indicators related to innovations of different nature. Thus, innovativeness is formed from items that refer to product innovation, marketing innovation and relational innovation.

Secondly, the literature indicates that, due to its contribution to the progress of companies, sustainability is a construct of special interest. In addition, our results confirm the one-dimensional nature of RCSD. In this way, the sustainability scale, formed by items that refer to economic, social, and environmental sustainability cues, is globally perceived by consumers as a single construct.

Thirdly, the findings allow concluding that the innovative solutions implemented by stores are positively related to the introduction of sustainable practices (Marcon et al., 2017; Bilińska-Reformat et al., 2019). In this sense, we confirm the connection between consumers' perceptions about the retailer's innovativeness and commitment to sustainable development. All of this, enables us to affirm the paramount importance of innovation and sustainability in retail.

Fourth, the implementation of innovative and sustainable practices in retailing can lead to store equity creation through their contribution to building a positive store image, in support of Marín-García et al. (2020). In other words, store image may be considered as a major factor in store equity creation (Aaker, 1991), thus confirming its role in the development of competitive advantages in grocery retailing (González-Lafaysse et al., 2016; Marín-García et al., 2019).

7. Managerial Implications, Limitations and Agenda for Further Research

Regarding the managerial implications of our research, first, in view of the relevance of retailer innovativeness in creating positive store image and store equity, it is vital for retailers to prioritize their investments in the introduction of innovative practices that are highly visible for consumers. The introduction of new products, such as organic or bioproducts, the implementation of new promotional actions, the modernization of the store sections, or the active collaboration between stores and consumers for the development of new products and/or innovative services, might be some of the measures that could be implemented in grocery retailers, and that would also allow improving the image that consumers have towards this type of establishments. Thus, the key role of retailer innovativeness to influence the image of companies in the food industry held by consumers, as highlighted in previous studies – e.g. Arcese et al. (2015) –, might be crucial for grocery retailers' competitiveness in the post-COVID19 era.

Second, regarding the positive contribution of retailer's commitment to sustainability on store image, the implementation of some of the practices proposed by Kumar (2014) may allow retailers to be more respectful with the environment and with the society, as well as to convey a positive image of the retailer that is translated into enhanced store equity. In this sense, with the aim of achieving these improvements in store image, retailers should pay greater attention to energy savings in their daily activity, encouraging recycling of materials, reduction of plastics, or collaboration on social causes. Thus, grocery retailers implementing proactive innovation combined with the development of sustainable practices may benefit from projecting a differentiated image to the market, therefore building the foundations for distinct store equity.

Furthermore, the present research provides evidence about the role of store image as a mediator between the retailer innovativeness and retailer commitment to sustainable development as perceived by consumers, and store equity. From this finding, it is suggested the importance for retailers to invest in both tangible and intangible elements that may be positively associated with the brand of the store, in view of its contribution to store equity. In this sense, communication actions combining different promotional tools to raise customer awareness about the innovative and sustainable actions developed by the retailer may play a key role in conveying a positive image of the store.

However, the present research is not free from limitations that can be understood as opportunities for further investigation. Regarding the constructs of the PRI and RCSD as perceived by consumers, we recognize the need to continue exploring their measurement and dimensionality as well as to deepen in the study of the directionality of the relationship between these constructs. Furthermore, we understand that the model proposed in this research does not cover all the possible variables that can influence store equity in grocery retailing, so that we propose the inclusion of other variables, such as awareness, perceived quality, and loyalty, that have been related to store equity in previous studies.

Regarding to the methodology used, we consider that it is possible to use tools such as Neuromarketing or Big Data that support to interpret the results obtained when testing these causal models. Higher knowledge of consumer perceptions will lead to improvements in decision-making by companies.

Last, competing on innovativeness and sustainability may not be suitable for all retailers and further research should be conducted on the contribution of these variables across retail activities and formats. A wider sample, including consumers from other geographical areas, as well as other retail formats (e.g. independent product specialists), additional retail chains, and stores of other retail sectors, may allow conducting multigroup analyses to compare results across retail formats and assortment and validating the results of the present research. Therefore, there is a need to continue moving forward considering these issues.

8. References

Aaker, D. A. (1991), *Managing Brand Equity: Capitalizing on the Value of a Brand Name*, Free Press, New York, NY.

Ailawadi, K. L. and Keller, K. L. (2004), "Understanding Retail Branding: Conceptual Insights and Research Priorities", *Journal of Retailing*, Vol. 80 No. 2, pp. 331-342.

Amabile, T. M. (1983), "The social psychology of creativity: A componential conceptualization", *Journal of personality and social psychology*, Vol. 45 No. 2, pp. 357.

Anselmsson, J. and Johansson, U. (2009), "Retailer brands and the impact on innovativeness in the grocery market", *Journal of Marketing Management*, Vol. 25 No. 1, pp. 75–95.

Arcese, G., Flammini, S., Lucchetti, M. C. and Martucci, O. (2015), "Evidence and experience of open sustainability innovation practices in the food sector", *Sustainability*, Vol. 7 No. 7, pp. 8067-8090.

Arnett, D. B., Laverie, D. A. and Meiers, A. (2003), "Developing parsimonious retailer equity indexes using partial least squares analysis: a method and applications", *Journal of Retailing*, Vol. 79 No. 3, pp. 161-170.

Bagozzi, R. P. and Yi, Y. (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74-94.

Belanger, C., Mount, J. and Wilson, M. (2002), "Institutional image and retention", *Tertiary Education and Management*, Vol. 8 No. 3, pp. 217-230.

Berthon, P., Mac Hulbert, J. and Pitt, L. (2004), "Innovation or customer orientation? An empirical investigation", *European Journal of Marketing*, Vol. 38 No. 9/10, pp. 1065-1090.

Bilińska-Reformat, K., Kucharska, B., Twardzik, M., and Dolega, L. (2019), "Sustainable development concept and creation of innovative business models by retail chains", *International Journal of Retail and Distribution Management*, Vol. 47 No.1, pp. 2-18.

Biel, A. L. (1992), "How brand image drives brand equity", *Journal of Advertising Research*, Vol. 32 No. 6, pp. 6-12.

Bloemer, J., and De Ruyter, K. (1998), "On the relationship between store image, store satisfaction and store loyalty", *European Journal of Marketing*, Vol. 32 Nos. 5/6, pp. 499-513.

Blut, M., Teller, C., and Floh, A. (2018), "Testing retail marketing-mix effects on patronage: A meta-analysis", *Journal of Retailing*, Vol. 94 No. 2, pp. 113-135.

Botschen, G., and Wegerer, P. K. (2017), "Brand-driven retail format innovation: a conceptual framework", *International Journal of Retail and Distribution Management*, Vol 45, No. (7/8), pp.874-891.

Brundtland, G.H. (1987), *Report on the World Commission on Environment and Development: Our Common Future*, Oxford University Press, New York, NY.

Cao, L., Navare, J. and Jin, Z. (2018), "Business model innovation: How the international retailers rebuild their core business logic in a new host country", *International Business Review*, Vol. 27 No. 3, pp. 543-562.

Cheah, S., Ho, Y. P., and Li, S. (2018), "Business Model Innovation for Sustainable Performance in Retail and Hospitality Industries", *Sustainability*, Vol. 10 No11, p. 3952.

Chen, Y. S. (2010), "The drivers of green brand equity: Green brand image, green satisfaction, and green trust", *Journal of Business Ethics*, Vol. 93 No. 2, pp. 307-319.

Chi, H. K., Huang, K. C., and Nguyen, H. M. (2019), "Elements of destination brand equity and destination familiarity regarding travel intention", *Journal of Retailing and Consumer Services*. In press.

Chimhundu, R., Hamlin, R. P. and McNeill, L. (2010), "Impact of manufacturer brand innovation on retailer brands", *International Journal of Business and Management*, Vol. 5 No. 9, pp. 10–18.

Chin, W. W. (1998), "The partial least squares approach to structural equation modelling", *Modern Methods for Business Research*, Vol. 295 No. 2, pp. 295-336.

Churchill Jr, G. A. (1979), "A paradigm for developing better measures of marketing constructs", *Journal of Marketing Research*, pp. 64-73.

Clark, D. N. (2010), "Innovation management in SMEs: Active innovators in New Zealand", *Journal of Small Business and Entrepreneurship*, Vol. 23 No. 4, pp. 601-619.

Cliquet, G. (2011), "La innovación en la distribución: el caso de Francia", *Distribución y consumo*, Vol. 21 No. 115, pp. 26-33.

Dawson, J. (2000), "Retailing at century end: some challenges for management and research", *The International Review of Retail, Distribution and Consumer Research*, Vol. 10 No. 2, pp. 119-148.

Dawson, J. (2013), "Retailer activity in shaping food choice", *Food Quality and Preference*, Vol. 28 No. 1, pp. 339-347.

Dupuis, M. (2002), "L'Innovation dans la distribution: les paradoxes de la prospective", *Revue Française de Marketing*, Nº. 188 (3), pp. 61-68.

Elkington, J. (2004), "Enter the triple bottom line". In Henriques, A. and Richardson, J. (Ed.), *The triple bottom line: Does it all add up?'Assessing the sustainability of CSR* (pp. 1-16). Earthscan Publications: London.

Eurostat (2020), “Gross value added - NACE Rev. 2: A - current prices”, available at https://ec.europa.eu/eurostat/web/products-datasets/-/teina404_r2

Faircloth, J. B., Capella, L. M. and Alford, B. L. (2001), “The effect of brand attitude and brand image on brand equity”, *Journal of Marketing Theory and Practice,* Vol. 9 No. 3, pp. 61-75.

Falk, R. F. and Miller, N. B. (1992), *A primer for soft modeling*, University of Akron Press, Ohio.

Fernandes, T. and Pedroso, R. (2017), “The effect of self-checkout quality on customer satisfaction and repatronage in a retail context”, *Service Business,* Vol. 11 No. 1, pp. 69-92.

Fernández-Sabiote, E. and Román, S. (2016), “The multichannel customer’s service experience: building satisfaction and trust”, *Service Business*, Vol. 10 No. 2, pp. 423-445.

Fornell, C. and Larcker, D. F. (1981), “Structural equation models with unobservable variables and measurement error: Algebra and statistics”, *Journal of Marketing Research*, pp. 382-388.

García, R. and Calantone, R. (2002), “A critical look at technological innovation typology and innovativeness terminology: A literature review”, *Journal of Product Innovation Management,* Vol. 19 No. 2, pp. 110-132.

Gil-Saura, I., Ruiz-Molina, M. E., Michel, G. and Corraliza-Zapata, A. (2013), “Retail brand equity: A model based on its dimensions and effects”, *The International Review of Retail, Distribution and Consumer Research,* Vol. 23 No. 2, pp. 111-136.

Gil-Saura, I., Šerić, M., Ruiz-Molina, M. E. and Berenguer-Contrí, G. (2017), “The causal relationship between store equity and loyalty: Testing two alternative models in retailing”, *Journal of Brand Management,* Vol. 24 No. 2, pp. 193-208.

González-Lafaysse, L. and Lapassouse-Madrid, C. (2016), “Facebook and sustainable development: a case study of a French supermarket chain”, *International Journal of Retail and Distribution Management,* Vol. 44 No. 5, pp. 560-582.

Graciola, A. P., De Toni, D., Milan, G. S., and Eberle, L. (2020), “Mediated-moderated effects: High and low store image, brand awareness, perceived value from mini and supermarkets retail stores”, *Journal of Retailing and Consumer Services*, 55, 102117.

Grewal, D., Ailawadi, K. L., Gauri, D., Hall, K., Kopalle, P., Robertson, J. R. (2011), “Innovations in retail pricing and promotions”, *Journal of Retailing*, Vol. 87, pp. S43–S52.

Grewal, D., Roggeveen, A. L. and Nordfält, J. (2017), “The future of retailing”, *Journal of Retailing,* Vol. 93 No. 1, pp. 1-6.

Hair Jr, J. F., Hult, G. T. M., Ringle, C. and Sarstedt, M. (2016), *A primer on partial least squares structural equation modeling (PLS-SEM),* Sage Publications, California.

Hänseler, F. S., Lam, W. H., Bierlaire, M., Lederrey, G. and Nikolić, M. (2017), “A dynamic network loading model for anisotropic and congested pedestrian flows”, *Transportation Research Part B: Methodological,* Vol. 95, pp. 149-168.

Hartman, K. B, and Spiro, R. L. (2005), “Recapturing store image in customer-based store equity: a construct conceptualization”, *Journal of Business Research,* Vol. 58 No. 8, pp. 1112-1120.

Henard, D. H. and Dacin, P. A. (2010), “Reputation for product innovation: Its impact on consumers”, *Journal of Product Innovation Management,* Vol. 27 No. 3, pp. 321-335.

Homburg, C., Hoyer, W.D. and Fassnacht, M. (2002), “Service orientation of a retailer’s business strategy: dimensions, antecedents, and performance outcomes”, *Journal of Marketing,* Vol. 66 No. 4, pp. 86-101.

Homburg, C., Jozić, D., and Kuehnl, C. (2017), "Customer experience management: toward implementing an evolving marketing concept", Journal of the Academy of Marketing Science, Vol. 45 No. 3, pp. 377-401.

Horvat, A., Granato, G., Fogliano, V., and Luning, P. A. (2019), "Understanding consumer data use in new product development and the product life cycle in European food firms–an empirical study", *Food Quality and Preference*, Vol. 76, pp. 20-32.

Huang, J. W., Li, Y. H. and Yen, M. T. (2016), "The Relationship between Green Innovation and Business Performance-The Mediating Effect of Brand Image", *Xing Xiao Ping Lun*, Vol. 13 No. 1, pp. 89.

International Institute for Sustainable Development (1992). *Business Strategy for Sustainable Development, Leadership and Accountability for the '90s*. Winnipeg: International Institute for Sustainable Development.

Jaravel, X. (2018), "The unequal gains from product innovations: Evidence from the us retail sector", *The Quarterly Journal of Economics*, Vol. 134 No. 2, pp. 715-783.

Jin, C. H. and Lee, J. Y. (2019), "The halo effect of CSR activity: Types of CSR activity and negative information effects", *Sustainability*, Vol. 11 No. 7, 2067, pp. 1-20.

Jinfeng, W. and Zhilong, T. (2009), "The Impact of selected store image dimensions on retailer equity: Evidence from 10 Chinese hypermarkets", *Journal of Retailing and Consumer Services*, Vol. *16 No.* 6, pp. 486-494.

Keller, K. L. (1993), "Conceptualizing, measuring, and managing customer-based brand equity", *Journal of Marketing*, pp. 1-22.

Kim, E. Y. and Yang, K. (2018), "Self-service technologies (SSTs) streamlining consumer experience in the fashion retail stores: The role of perceived interactivity", *Journal of Global Fashion Marketing*, Vol. 9 No. 4, pp. 287-304.

Konuk, F. A. (2019), “The impact of retailer innovativeness and food healthiness on store prestige, store trust and store loyalty”, *Food Research International*, Vol. 116, February, pp. 724-730.

Kumar, P. (2014), “Greening retail: an Indian experience”, *International Journal of Retail and Distribution Management,* Vol. 42 No. 7, pp. 613-625.

Kumar, V., Anand, A. and Song, H. (2017), “Future of retailer profitability: an organizing framework”, *Journal of Retailing,* Vol. 93 No. 1, pp. 96-119.

Kunz, W., Schmitt, B., and Meyer, A. (2011), “How does perceived firm innovativeness affect the consumer?”, *Journal of Business Research,* Vol. 64 No. 8, pp. 816-822.

Laaksonen, H. and Reynolds, J. (1994), *Own brands in food retailing across Europe*, Oxford Institute of Retail Management, Oxford.

Lavorata, L. (2014), “Influence of retailers’ commitment to sustainable development on store image, consumer loyalty and consumer boycotts: Proposal for a model using the theory of planned behaviour”, *Journal of Retailing and Consumer Services,* Vol. 21 No. 6, pp. 1021-1027.

Lemon, K. N., and Verhoef, P. C. (2016), “Understanding customer experience throughout the customer journey”, *Journal of Marketing*, Vol. 80 No. 6, pp. 69-96.

León-Bravo, V., Moretto, A., Cagliano, R., & Caniato, F. (2019), “Innovation for sustainable development in the food industry: Retro and forward-looking innovation approaches to improve quality and healthiness”, *Corporate Social Responsibility and Environmental Management*, Vol. 26 No. 5, pp.1049-1062.

Lin, C. Y. (2015), “Conceptualizing and measuring consumer perceptions of retailer innovativeness in Taiwan”, *Journal of Retailing and Consumer Services,* Vol. 24, pp. 33-41.

Lorenzini, G. C., Mostaghel, R., and Hellström, D. (2018), “Drivers of pharmaceutical packaging innovation: A customer-supplier relationship case study”, *Journal of Business Research,* Vol. 88, pp. 363-370.

Lusch, R.F., and Nambisan, S. (2015), “Service innovation: a service-dominant logic perspective”, *MIS Quarterly,* Vol. 39 No. 1, pp. 155-175.

Marcon, A., de Medeiros, J. F. and Ribeiro, J. L. D. (2017), “Innovation and environmentally sustainable economy: Identifying the best practices developed by multinationals in Brazil”, *Journal of Cleaner Production,* Vol. 160, pp. 83-97.

Marín-García, A., Gil-Saura, I. & Ruíz-Molina, M.E. (2020), “How do innovation and sustainability contribute to generate retail equity? Evidence from Spanish retailing”, *Journal of Product & Brand Management*, Vol. 29 No. 5, pp- 601-615.

Marín-García, A., Gil-Saura, I., and Ruiz-Molina, M. E. (2019), “Influence of commercial format on sustainability in grocery retailing in Spain”, *UCJC Business and Society Review (formerly known as Universia Business Review),* Vol. 16 No. 4, pp. 132-173.

McKee, D. (1992), “An organizational learning approach to product innovation”, *Journal of Product Innovation Management,* Vol. 9 No. 3, pp. 232-245.

McLean, G., Al-Nabhani, K. and Wilson, A. (2018), “Developing a mobile applications customer experience model (MACE)-implications for retailers”, *Journal of Business Research,* Vol. 85, pp. 325-336.

Moliner-Velázquez, B., Fuentes-Blasco, M., Servera-Francés, D., and Gil-Saura, I. (2019), “From retail innovation and image to loyalty: moderating effects of product type”, *Service Business*, Vol. 13 No. 1, pp. 199-224.

Musso, F. (2010), “Innovation in marketing channels”, *Emerging Issues in Management,* Vol. 1, pp. 25-44.

Nunnally, J. C. and Bernstein, I. H. (1994), *Psychological theory*, MacGraw-Hill, New York, NY.

Observatorio Cetelem (2016), *El Observatorio Cetelem Consumo España 2015. El regreso del consumo a España*. Available at: http://www.elobservatoriocetelem.es/observatorio/Observatorio_Consumo_Espana_%202015.pdf

OECD (2020), "Value added and its components by activity, ISIC rev4", available at https://stats.oecd.org/

Omar, N. A., Kassim, A. S., Shah Alam, S., and Zainol, Z. (2018), "Perceived retailer innovativeness and brand equity: Mediation of consumer engagement", *The Service Industries Journal*, 1-27.

Pantano, E., Priporas, C.V. and Foroudi, P. (2019), "Innovation starts at the storefront: Modelling consumer behaviour towards storefront windows enriched with innovative technologies", *International Journal of Retail and Distribution Management*, Vol. 47 No. 2, pp. 202-219.

Pantano, E., Priporas, C. V., and Stylos, N. (2018), "Knowledge Push Curve (KPC) in retailing: Evidence from patented innovations analysis affecting retailers' competitiveness", *Journal of Retailing and Consumer Services*, 44, 150-160.

Pappu, R. and Quester, P. (2006a), "A Consumer-Based Method for Retailer Equity Measurement: Results of an Empirical Study", *Journal of Retailing and Consumer Services*, Vol. 13 No. 5, pp. 317-329.

Pappu, R. and Quester, P. (2006b), "Does Customer Satisfaction Lead to Improved Brand Equity? An Empirical Examination of Two Categories of Retail Brands", *Journal of Product and Brand Management*, Vol. 15 No. 1, pp. 4-14.

Pappu, R. and Quester, P. G. (2016), “How does brand innovativeness affect brand loyalty?”, *European Journal of Marketing*, Vol. 50 No. 1/2, pp. 2-28.

Paunov, C., and S. Planes-Satorra (2019), “How are digital technologies changing innovation?: Evidence from agriculture, the automotive industry and retail”, OECD Science, Technology and Industry Policy Papers, No. 74, OECD Publishing, Paris, available at https://doi.org/10.1787/67bbcafe-en.

Pinto, G. L., Dell’Era, C., Verganti, R. and Bellini, E. (2017), “Innovation strategies in retail services: solutions, experiences and meanings”, *European Journal of Innovation Management*, Vol. 20 No. 2, pp. 190-209.

Ruiz-Molina, M. E., Gil-Saura, I. and Servera-Francés, D. (2017), “Innovation as a key to strengthen the effect of relationship benefits on loyalty in retailing”, *Journal of Services Marketing*, Vol. 31 No. 2, pp. 131-141.

Ringle, C. M., Wende, S. and Becker, J. M. (2015), *SmartPLS 3*. Bönningstedt: SmartPLS. GmbH, available at http://www. smartpls.com.

Shankar, V. and Yadav, M. S. (2011), “Innovations in retailing”, *Journal of Retailing*, Vol. 87, pp. S1-S2.

Shankar, V., Inman, J. J., Mantrala, M., Kelley, E., and Rizley, R. (2011), “Innovations in shopper marketing: current insights and future research issues”, *Journal of Retailing*, 87, S29-S42.

Shiau, H. C. (2014), “The impact of product innovation on behavior intention: The measurement of the mediating effect of the brand image of Japanese Anime Dolls”, *Anthropologist*, Vol. 17 No. 3, pp. 777-788.

Siguaw, J. A., Simpson, P. M., and Enz, C. A. (2006). “Conceptualizing innovation orientation: A framework for study and integration of innovation research”, *Journal of Product Innovation Management*, Vol. 23 No. 6, pp. 556-574.

Smith, N.C., Read, D. and López-Rodríguez, S. (2020), "Consumer Perceptions of Corporate Social Responsibility: The CSR Halo Effect", *INSEAD Working Paper No. 2010/16,* INSEAD Social Innovation Centre, Hong Kong, China.

Sorescu, A., Frambach, R. T., Singh, J., Rangaswamy, A., and Bridges, C. (2011), "Innovations in retail business models", *Journal of Retailing,* 87, S3-S16.

Souiden, N., Ladhari, R., and Chiadmi, N. E. (2019), « New trends in retailing and services", *Journal of Retailing and Consumer Services*, Vol. 50, pp. 286-288.

Supphellen, M. (2000), "Understanding core brand equity: guidelines for in-depth elicitation of brand associations", *International Journal of Market Research,* Vol. 42 No. 3, pp. 319.

Trischler, J., Zehrer, A., and Westman, J. (2018), "A designerly way of analyzing the customer experience", *Journal of Services Marketing*, Vol. 32 No. 7, pp. 805-819.

Wang, C.J. and Tsai, C.Y. (2014), "Managing innovation and creativity in organizations: an empirical study of service industries in Taiwan", *Service Business,* Vol. 8 No. 2, pp. 313-335.

Xiao, L., Guo, F., Yu, F., and Liu, S. (2019), "The Effects of Online Shopping Context Cues on Consumers' Purchase Intention for Cross-Border E-Commerce Sustainability", *Sustainability,* Vol. *11* No. 10. Pp. 2777.

Yoo, B., Donthu, N. and Lee, S. (2000), "An examination of selected marketing mix elements and brand equity" *Journal of the Academy of Marketing Science,* Vol. 28 No. 2, pp. 195-211.

Yoo, B. and Donthu, N. (2001), "Developing and validating a multidimensional consumer-based brand equity scale", *Journal of Business Research, Vol. 52* No. 1, pp. 1-14.

Appendix. Measurement scales

Variable		Item
Innovation	IN1	Store X offers many new products.
	IN2	Store X offers creative own designed products.
	IN3	Store X offers innovative private brand products.
	IN4	Store X offers more innovative products than other stores.
	IN5	Store X offers various products for selection.
	IN6	Store X offers many innovative services.
	IN7	Store X offers more services and more innovative services than other stores.
	IN8	Store X creates a pleasant atmosphere through store decoration.
	IN9	Store X has ability to create a different in-store atmosphere.
	IN10	Store X offers an innovative shopping environment.
	IN11	Store X offers a creative store design.
	IN12	Store X offers different promotional programs (discounts, offers…).
	IN13	Store X offers an innovative promotion mix.
	IN14	Store X offers more creative promotions than other stores.
Sustainability	SN1	Store X pays producers a fair price.
	SN2	Store X pays its employees a decent wage.
	SN3	Store X pays its employees a minimum wage in developing countries.
	SN4	Store X monitors the working conditions of its employees.
	SN5	Store X sells fair trade products.
	SN6	Store X sells organic products.
	SN7	Store X implements humanitarian actions.

	SN8	Store X engages in actions directed at social communities.
	SN9	Store X sells share products (donations to charitable associations).
	SN10	Store X recycles its products and packaging.
	SN11	Store X cuts back its consumer of electricity.
	SN12	Store X pays attention to the environment.
Store image	IM1	Store X has friendly personnel.
	IM2	Store X extensive assortment.
	IM3	Store X can easily be reached.
	IM4	Store X offers value-for-money.
	IM5	Store X has a nice atmosphere.
	IM6	Store X has attractive promotions in the store.
	IM7	Store X provides excellent customer service.
	IM8	Store X offers an attractive loyalty program.
	IM9	I can quickly recall the symbol or logo of X.
Store equity	SE1	It makes sense to buy in Store X instead of in any other store chain, even if they offer the same products.
	SE2	Even if another store chain has the same features as X, I would prefer to buy in Store X.
	SE3	If there is another store chain as good as X, I prefer to buy in Store X.
	SE4	If another store chain is not different from X in any way, it seems smarter to purchase in Store X.