Do innovation and sustainability influence customer satisfaction in retail? A question of gender

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Routledge
Taylor & Francis Group

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ABSTRACT

As a consequence of advances in the digitisation process and increased consumer awareness of social, economic and environmental issues, more and more companies are embarking on innovative and sustainable initiatives in response to these new demands. However, given the nature and scope of these practices, research in this direction has not reported clarifying results to date, especially when pursuing a marketing approach to their analysis. Through this research, it is intended to test a model that makes it possible to analyse the effect of innovative and sustainable actions on retail and explain their contribution to customer satisfaction. To do this, this research is based on those studies stating that the progress in retailing is based on two main pillars: innovation and sustainability. From a sample of 510 customers across three retail business formats, empirical evidence has been obtained that both innovation and sustainability drive customer satisfaction, but in a different way according to gender, evidencing the moderating nature of this last variable when explaining satisfaction. In this way, the study highlights that the path to achieving satisfaction in retail trade requires the promotion of both innovative (product, marketing and relational innovation) and sustainable (environmental, social and economic) practices, especially in the case of women.

1. Introduction

The COVID-19 health crisis has generated a situation of paralysis that has affected the very fabric of business and especially activities related to trade. Owing to their marked nature as activities that are strategic for employment and income in Spain, it is essential to focus research efforts on these types of companies, in order to orient their development in the face of future challenges presented by the post-COVID-19 era. In this context, the search for strategic options to propel the sector is urgent, and

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among the different alternatives, innovation and sustainability are postulated as differentiating factors for retail businesses.

The Marketing literature is advancing towards the study of innovative and sustainable business models (De Oliveira et al., 2020; Lüdeke-Freund et al., 2017; Marcon et al., 2017; Marín-García et al., 2020a). It seems evident that innovation is positioned as a fundamental component on which to support the reconstruction of the retail and distribution commercial sector. This statement is supported by the numerous studies that point to innovation as a key element for the progress of companies due to its contribution to the development of competitive advantages (González-Lafaysse and Lapassouse-Madrid, 2016; Marcon et al., 2017; Marín-García et al., 2020a, 2020b; Moliner-Velázquez et al., 2019; Pantano et al., 2018). In turn, sustainability, studied from a three-pronged approach (economic, social and environmental), comes across as a key factor in the growth of companies (Elkington, 2004).

In addition to their contribution to the progress and survival of companies, innovation and sustainability appear to directly affect consumer behaviour (González-Lafaysse and Lapassouse-Madrid, 2016; Kumar and Polonsky, 2019; Marín-García et al., 2020a, 2021). Thus, some studies are targeted at an analysis of their effect on variables considered as highly relevant in marketing, such as consumer satisfaction, indicated as one of the main axes in the positioning of organisations (Cooil et al., 2007; Giese and Cote, 2000; Helgesen et al., 2010). The increase in the number of companies, and with it the increase in competitive rivalry in the different economic sectors, causes many companies to make an effort to implement mechanisms that retain their customers through programmes that generate satisfaction with commercial establishments. For this, some preliminary studies are starting to indicate that the efforts made by organisations to increase customer satisfaction must focus on the development of sustainable and innovative practices (Cassivi et al., 2008; Cottrell and Vaske, 2006; Iniesta-Bonillo et al., 2016).

However, research in this direction has not reported clarifying results to date. Consequently, this work aims to examine consumer perceptions in relation to innovative and sustainable practices implemented by retailers, and examine their effect on consumer satisfaction. In addition, considering the discrepancies that exist in the marketing literature about the existence, or not, of differences in the perceptions of these actions between men and women (Contreras et al., 2016; Meuter et al., 2005; Moise et al., 2021; Torres and Arroyo-Cañada, 2016; Weijters et al., 2007), it is relevant to make progress in this regard in the context of retail trade. Therefore, this study adopts the approach of previous research arguing that the current business model in retailing must be built from a dual perspective to ensure success in the market: retailing must be innovative and sustainable. In summary, this work aims to expand the knowledge in the study of retail trade, integrating innovation, sustainability and satisfaction in the same structural model, and observing the moderating effect of gender in these relationships.

To achieve the objective proposed in this research, after the introduction, the conceptual framework that supports this work will be developed, with particular emphasis on the constructs on which it is based: innovation, sustainability and satisfaction. Subsequently, after formulating the hypotheses that will shape the theoretical

model, we will propose the study methodology and present the main results obtained. Finally, as a conclusion, we demonstrate the main theoretical and practical contributions and outline future derived lines of research.

2. Theoretical framework

2.1. Innovation

Innovation in retail trade has been identified by numerous authors as a particularly important factor for the growth and survival of companies and the development of competitive advantages (Blanco-Callejo and de Pablos-Heredero, 2019; De Oliveira et al., 2020; Grewal et al., 2017; Marín-García et al., 2020a, 2020b, 2020c, 2021; Reinartz et al., 2011).

In the context of commercial distribution, two main types of innovation have been identified: technological innovations and non-technological innovations. Regarding technological innovations, product and process innovations are most commonly referenced in the literature (Dupuis, 2002). In this sense, the tools derived from Information and Communication Technologies (ICT) play a crucial role (Grewal et al., 2017; Musso, 2010; Rodgers et al., 2021). On the other hand, organisational innovation, relational innovation and marketing innovation are those that have provoked the greatest interest in the group of non-technological innovations (Dupuis, 2002; Lin, 2015).

Making progress as to the nature of innovation, some research attempts to shed light on the main types of innovation identified from the market point of view. Along these same lines, product innovation, marketing innovation and relational innovation are postulated as its main dimensions from the consumer point of view (Dupuis, 2002; Lin, 2015). Regarding product innovation, some establishments make decisions related to the development of new products and/or services, or the introduction of products on their shelves that are different from those of their competitors. In addition, the creation of attractive spaces in establishments and changes in the design of store windows are presented as actions linked to innovation in marketing. Finally, from the relationship marketing perspective, the development of new loyalty plans with the purpose of attracting new consumers or joint retailer-consumer collaboration in the development of new products, are some of the actions to be carried out by establishments.

Attending to different types of innovation, this work addresses innovation considering the main dimensions identified from the consumer perspective (Dupuis, 2002; Lin, 2015; Marín-García et al., 2020a, 2020b, 2020c) – product innovation, from a technological standpoint; and innovation in marketing and relational innovation, with a non-technological approach.

2.2. Sustainability

Marketing literature shows that sustainability is postulated as a key element in the development of competitive advantages for organisations (Bakos et al., 2020; Bottani et al., 2019; González-Lafaysse and Lapassouse-Madrid, 2016; Marín-García et al., 2020a; Ruiz-Real et al., 2018). As a consequence of the presentation of the Report of

the World Commission on Environment and Development of the United Nations (UN), sustainability has started to acquire capital relevance, especially for companies (Chow and Chen, 2012; Lavorata, 2014). In this report, sustainable development is defined as '*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*' (Brundtland, 1987, p. 40). However, the different perspectives from which sustainability is analysed indicate that it is not a simple task to come up with a single definition. In this sense, a part of the literature examines this concept from an environmental perspective, without taking into account other factors that could be part of this term. Thus, Callicott and Mumford (1997) define sustainability as '*meeting human needs without compromising the health of ecosystems*' (p. 32). This conceptualisation is based on the responsibility that society has over the evolution of the environment and the importance of caring for it, taking into account the fragility of ecosystems.

On the other hand, some academics develop broader understandings of sustainability and consider that this concept goes beyond an environmental perspective, including also social and economic variables (McCann-Erickson, 2007). As a result of these contributions, we are beginning to gain an understanding of sustainability from a three-pronged approach (environmental, social and economic), on which the Triple Base Line (TBL) theory postulated by Elkington (2004) is constructed.

First, with regard to environmental sustainability, Chow and Chen (2012) approach their study from a generic and comprehensive perspective, which includes both reactive and proactive approaches. The reactive approach implies actions that could reduce the environmental impact of products and services or eliminate waste responsibly, while the proactive approach implies alternative production processes that could reduce waste and emissions (Kumar and Polonsky, 2019; Lüdeke-Freund et al., 2017). These processes include the use of alternative fuels over traditional ones, reducing the impact on animal species, natural habitats and the like.

The second of the dimensions identified by Elkington (2004), social sustainability, mainly integrates two processes: stakeholder management and management of social issues. Stakeholder management includes actions that make it possible to achieve stronger and more lasting relationships with agents that interact with organisations (employees, customers, suppliers, local communities, governments, etc.). These actions may include the provision of health and safety care to stakeholders or the creation and distribution of value that makes it possible to combat existing inequalities (Bottani et al., 2019). On the other hand, the management of social issues by companies entails a demonstration of ethical behaviour towards human rights, social impact, community projects, etc.

Finally, the evaluation of economic sustainability is mainly based on the long-term financial performance of a company and its economic growth (Bottani et al., 2019; Kumar and Polonsky, 2019; Lavorata, 2014). Recently, this factor has acquired a broader notion, with the understanding that this variable includes all the actions that allow companies to create greater value, thus achieving economic and competitive success. This value can be generated through the goods and services produced by organisations, earning income, reducing the tax paid by employees, minimising

environmental cost, stimulating sales growth, optimising the production process and improving government regulations.

In consideration of the foregoing, this work addresses sustainability in retail based on the three dimensions formulated by Elkington (2004): economic sustainability, social sustainability and environmental sustainability.

2.3. Satisfaction

In marketing, and more specifically, in the retail context, satisfaction is a variable of special interest to both academics and managers (Cooil et al., 2007). Regarding its conceptualisation, satisfaction has been handled with a double approach: specific/cumulative (Boulding et al., 1993) and cognitive/affective (Oliver, 1997). The specific perspective is an approach shared by a large number of authors (Giese and Cote, 2000; Spreng et al., 1996). However, in the retail context, the cumulative approach, understood as the sum of a set of experiences, has in turn been widely accepted (Jones and Suh, 2000; Sivadas and Baker-Prewitt, 2000). From a cognitive perspective, consumer satisfaction is understood as a subjective evaluation of the store (Helgesen et al., 2010). This perspective, associated with the theory of the lack of confirmation of expectations, understands that the consumer's evaluation of their experiences with the establishment may be inferior, equal or superior to reality. The affective perspective sustains that satisfaction is a summary of emotional responses of varying intensity (Giese and Cote, 2000). Finally, the convergence of both approaches maintains that satisfaction is the feeling of pleasure or disappointment that consumers have when comparing the experience of consuming a product and/or service with the perception that they had built up in their minds (Lovelock and Wirtz, 2007).

Based on all of the above, this research addresses consumer satisfaction from a cumulative, cognitive and affective approach. In addition, this triple vision allows us to address the concept of satisfaction as the result of the experiences lived by the consumer. In other words, this approach allows us to explain satisfaction as an aspect that goes beyond the experience of using the desired product, and that is linked to the cognitive approach. This vision of satisfaction includes those elements that support the purchase process, such as the experience of buying in the establishment (affective approach), or the service offered by the store employees, customised service and problem solving, maintained over time (cumulative approach). However, the analysis of satisfaction from this triple perspective also has some disadvantages. The analysis of satisfaction from such a general perspective can contribute to the loss of information. That is, a general vision of satisfaction will cause less specificity in the analysis of the elements of the store and in the purchase than actually the development of consumer satisfaction.

2.4. Background on satisfaction in retail

2.4.1. Innovation and satisfaction

Although the study of satisfaction in the retail sector is widespread, the analysis of the relationship between innovation and consumer satisfaction has received little

attention. However, the growing interest in innovative practices and the impact that these can have on company performance is a driving force behind the study of the relationships between innovation and variables with a long tradition of research in marketing, such as satisfaction (Moliner-Velázquez et al., 2019).

In this sense, Cassivi et al., (2008) and Lin (2015) try to examine the existing links between product innovation, marketing innovation and relational innovation with key elements related to brand equity such as loyalty, satisfaction and confidence in the retail industry. These types of innovation, identified from the consumer perspective, are considered vital because of their positive impact on these constructs.

Furthermore, works such as that of Fuentes-Blasco et al. (2017) analyse the relationship between technological innovations and satisfaction in the service sector. Similarly, these authors also examine the links between marketing innovation and consumer satisfaction. In both cases, significant and positive evidence is found between these relationships, with the relationship between technological innovation and consumer satisfaction being stronger. In the same study context, the services sector, Ta and Yang (2018) point out that the implementation of innovative practices by companies entails a dual purpose; on the one hand, the need to differentiate itself from its competitors; on the other hand, the development of consumer satisfaction.

Thus, the first of our hypotheses is supported by these arguments, and therefore, we formulate the following:

> H1: Customer perceptions of retailer innovations have a positive and significant effect on customer satisfaction with the store.

2.4.2. Sustainability and satisfaction

Despite the growing interest in the study of sustainability, there is still little evidence in the distribution sector focussed on examining the relationship between sustainability and customer satisfaction. The literature investigating these links has found more evidence in other fields of study in the service sector. In this way, Iniesta-Bonillo et al. (2016) explore the relationships between the sustainability perceived by visitors to a tourist destination and their perceived value and satisfaction with the trip. The authors put forward the concept of sustainability as a multidimensional construct based on economic sustainability, social sustainability and environmental sustainability. The results obtained support the positive relationship between sustainability and satisfaction. Based on these findings, Iniesta-Bonillo et al. (2016) argue that sustainability can be put forward as a key factor in the development of more competitive and market-oriented tourist destinations, given its ability to generate satisfaction in tourists. Along the same lines, Cottrell and Vaske (2006) confirm that the dimensions of sustainability (economic, social and environmental) contribute positively to tourist satisfaction.

In the field of retail distribution, Marín-García et al. (2020c) analyse the effect of sustainability on consumer satisfaction, indirectly, through the image and notoriety of the store. The authors demonstrate sustainability from the three dimensions postulated by Elkington (2004) in his theoretical model of the TBL. In their study, the authors manage to establish the important role of sustainability in the retail sector from the consumer's perspective, and its effect on satisfaction. These same authors

examine the effect of sustainability on satisfaction through the moderation of the store's brand equity (Marín-García et al., 2021). The results obtained indicate the direct and indirect effects of sustainability on consumer satisfaction.

As a consequence of all the above, we propose the second hypothesis of this research:

H2: Customer perception of the retailer's sustainable practices has a significant and positive effect on customer satisfaction with the store.

2.4.3. Moderating effect of gender

Traditionally, it has been contended and empirically corroborated the existence of differences in the use of ICT, especially the Internet, between men and women in the retail trade (Meuter et al., 2005; Weijters et al., 2007). However, more recent studies provide results in the opposite direction (Contreras et al., 2016; Torres and Arroyo-Cañada, 2016). These new contributions argue that there are no significant gender differences in retail, neither in the use of ICT nor in the perception of innovations introduced by retailers. In this sense, the results of these studies indicate that the differences in perceptions of the use of ICT do not depend so much on gender but on the availability of resources. In other words, these distinctions are observed by examining the differences that may exist between geographic areas with greater access to technologies and geographic areas with less access to these tools.

On the other hand, when it comes to sustainability, studies that have addressed the differences between men and women have not obtained conclusive results. While some researchers conclude the existence of the moderating effect of gender on the perception that customers have about the sustainable practices implemented by stores (Das, 2014; Moise et al., 2021; Walsh et al., 2017), others do not find such an effect (Calabrese et al., 2016; Kassinis et al., 2016). The first studies maintain that the female segment perceives a greater risk when purchasing a product, which also influences their perception of the processes and materials used by companies in the manufacture of products and their impact on the environment. On the other hand, to the contrary, some research indicates that the effect of gender on perceptions of sustainable actions implemented by companies is scarce, so other sociodemographic variables, such as age or level of education, should also be analysed.

Following the same line of those studies that indicate the moderating effect of gender on the perceptions of innovative and sustainable practices in retail, we formulate the set of relationships that make up the third hypothesis of this work:

H3a: The effect of innovation on customer satisfaction in retail is moderated by gender.

H3b: The effect of sustainability on customer satisfaction in retail is moderated by gender.

Figure 1 shows the research model that brings together the relationships raised in the previous hypotheses.

3. Methodology

To achieve the proposed objective, a quantitative investigation is proposed through an *ad hoc* structured questionnaire with closed-ended questions. The items to
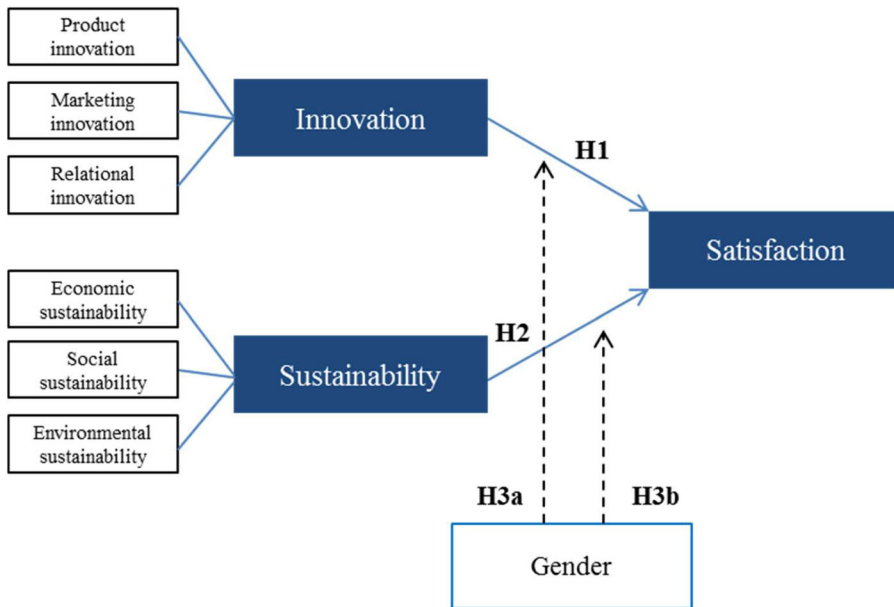
Figure 1. Proposed research model.
Source: Authors' proposal.

measure the variables analysed have been extracted from various scales used in the marketing literature, and have been adapted to the specifications of the context and objective of the present study. In particular, to measure innovation, the scale has been adapted from the one proposed by Lin (2015). The scale proposed by Lavorata (2014) has been used to measure the customers' perception of the sustainable practices developed by retail establishments. Finally, customer satisfaction with the store has been evaluated through the scale proposed by Bloemer and Oderkerken-Schröder (2002). All the items in the questionnaire were measured with a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree).

To obtain the necessary information to contrast the proposed hypotheses, face-to-face surveys were conducted. Data collection was carried out in the months of April and May 2017 in the Valencian Community (Spain), following a non-probability convenience sampling, requiring that the respondent was a customer of the establishment where the survey was carried out. In this sense, following the interception technique, the data collected was obtained at the exit of the establishments, guaranteeing that the interviewees who make up the sample are customers of said establishments through a filter question. The selection of the retail stores was based on two main criteria: (1) food retailers and (2) leaders in terms of turnover in the Spanish market. Finally, 510 valid questionnaires were obtained, of which 59.6% correspond to women and 40.4% to men. Table 1 shows the sociodemographic profile of the sample.

The data obtained were analysed in two phases. Firstly, the measurement instrument was validated; and secondly, the structural model was estimated. Both analyses were carried out using the partial least squares (PLS) regression technique and the software used was SmartPLS (version 3.0). It is a technique widely used in recent years by academics (Henseler et al., 2016). The PLS-SEM analysis is a nonparametric

Table 1. Sample distribution: sociodemographic variables.

	Total		Hypermarket		Supermarket		Discount store	
	N	%	N	%	N	%	N	%
Gender								
Male	206	40.4	68	40.0	67	39.4	71	41.8
Female	304	59.6	102	60.0	103	60.6	99	58.2
Age								
18–25 years old	36	7.1	16	9.4	9	5.3	11	6.5
26–35 years old	88	17.3	34	20.0	20	11.8	34	20.0
36–45 years old	133	26.1	35	20.6	63	37.1	35	20.6
46–55 years old	113	22.2	18	10.6	50	29.4	45	26.5
56–65 years old	108	21.2	50	29.4	24	14.1	34	20.0
Over 65 years old	32	6.3	17	10.0	4	2.4	11	6.5
Education								
No schooling	40	7.8	20	11.8	9	5.3	11	6.5
Primary education	84	16.5	41	24.1	22	12.9	21	12.4
Secondary education	148	29.0	41	24.1	46	27.1	61	35.9
University studies	238	46.7	68	40.0	93	54.7	77	45.3
Occupation								
Employee	282	55.3	90	52.9	102	60.0	90	52.9
Employer/Self-employed	63	12.4	16	9.4	24	14.1	23	13.5
Pensioner	58	11.4	39	22.9	6	3.5	13	7.6
Unemployed	40	7.8	6	3.5	16	9.4	18	10.6
Housewife	37	7.3	16	9.4	12	7.1	9	5.3
Student	30	5.8	3	1.8	10	5.9	17	10.0
Total	510		170		170		170	

Source: Authors' proposal.

statistical procedure, in which it is not required that the data present a normal distribution (Hair et al., 2017). Although it is not possible to apply significance parameters as in the case of regressions to check if the loads are significant, through the PLS-SEM analysis we can test the significance of the loads and paths using the nonparametric bootstrapping method (Efron and Tibshirani, 1986).

4. Results

In the first place, in order to observe the grouping of the items of the scales used, we performed an Exploratory Factor Analysis. The results of the Principal Components Analysis, with Varimax rotation, show that innovation and sustainability are grouped into three main factors, respectively. The results of the factor analysis carried out for innovation make it possible to define them as a construct formed by three dimensions: product innovation, marketing innovation and relational innovation, which in the literature had also been identified by Lin (2015). Together, these three factors explain 68.93% of the total variance. In addition, the results obtained also confirm that sustainability is constructed by three dimensions, namely: economic sustainability, social sustainability and environmental sustainability, as Lavorata (2014) had previously postulated. As a whole, the three sustainability factors explain 72.91% of the total variance. Next, in order to analyse the validity and reliability of the measurement instrument, we use the PLS-SEM technique, calculating a PLS algorithm with a parameter of 300 maximum interactions and a path weighting scheme. Through this procedure, we obtained information about the factor loadings, Cronbach's alpha, the

composite reliability (CR) index and the average variance extracted (AVE) for each of the factors that make up the causal model (Table 2).

As we can see in Table 2, the results obtained from Cronbach's alpha are satisfactory, amply exceeding the required minimum of 0.7 (Churchill, 1979; Nunnally and Bernstein, 1994), and oscillating between 0.8 and 0.9, recommended values for more advanced stages of the investigation (Nunnally and Bernstein, 1994). In the same way, the composite reliability presents satisfactory results, amply exceeding the value of 0.7, the minimum required in the literature (Chin, 1998). Regarding the average variance extracted, all the factors of the structural model present values higher than 0.5, that is, each construct explains at least 50% of the variance of the assigned indicators (Fornell and Larcker, 1981). Therefore, the results obtained allow us to confirm the reliability and convergent validity of the structural model measurement instrument. Furthermore, the analysis of discriminant validity using the criterion put forward by Fornell and Larcker (1981), shows that the square root of the average variance extracted (AVE), presented on the diagonal of the matrix, is higher than the estimated correlation between the factors, values represented below the diagonal (Table 3). These data allow us to confirm the discriminant validity of the constructs included in the model.

On the other hand, the weightings of innovation and sustainability are examined, since they are operationalised as second-order formative constructs. To do this, we previously had to corroborate the absence of collinearity using the variance inflation factor (VIF), as pointed out by Diamantopoulos and Winklhofer (2001). The results obtained (Table 4) confirm the absence of collinearity since the VIF values for the dimensions of the second-order constructs are below the critical level of 5 in all cases.

Having confirmed the reliability and validity of the measurement instrument of this investigation, we proceed to estimate the structural model. For the analysis of the proposed structural model, a complete bootstrapping was carried out with 5000 subsamples (Ringle, 2015) to evaluate the causal relationships that make up the hypotheses of the model and their significance, in addition to obtaining the results of the values of the explained variance R^2. Using the blindfolding technique, we obtain the results provided by the predictive relevance criterion of the Q^2 test. Table 5 shows the results of the estimation of the structural model of this investigation.

Evaluating the results of the PLS-SEM analysis of the first two relationships of the structural model of this research, it is possible to accept the hypotheses raised. Regarding the relationship that links innovation with consumer satisfaction towards the retail establishment, its positive and significant effect of ($\beta1 = 0.348$, $p < 0.001$) is confirmed. Furthermore, the second of the hypotheses of this study confirms the relationship between sustainability and consumer satisfaction, by obtaining a positive and significant result ($\beta2 = 0.405$, $p < 0.001$).

On the other hand, in response to the group of hypotheses that make up H3 of this research, a multigroup analysis was performed using the PLS-MGA technique. The results shown in Table 6 indicate the existence of a positive and significant difference for H3b. In this sense, it is possible to affirm that the relationship between sustainability and consumer satisfaction is moderated by gender, observing that this relationship is more intense in the subsample made up of women. These results agree

Table 2. Measurement instrument of the structural model: Reliability and convergent validity.

Factor	Item	Loading	T	Cronbach α	CR	AVE
Product innovation	IN1 Offers many new products	0.860***	40.647	0.860	0.900	0.642
	IN2 Offers creative own designed products	0.723***	17.779			
	IN3 Offers innovative private brand products	0.808***	32.704			
	IN4 Offers more innovative products than other stores	0.803***	31.919			
	IN5 Offers various products for selection	0.827***	35.824			
Marketing innovation	IN6 Offers many innovative self-services	0.711***	23.422	0.890	0.916	0.646
	IN7 Offers many innovative services	0.776***	35.205			
	IN8 Offers more innovative services than other stores	0.873***	92.558			
	IN9 Creates a holiday atmosphere through store decoration	0.838***	51.140			
	IN10 Has ability to create a different in-store atmosphere	0.841***	55.654			
	IN11 Offers an innovative shopping environment	0.775***	26.608			
Relational innovation	IN12 Offers a creative store design	0.849***	54.383	0.866	0.918	0.789
	IN13 Offers different discount programs	0.903***	70.992			
	IN14 Offers an innovative promotion mix	0.911***	90.391			
Economic sustainability	SB1 Hypermarkets pay producers a fair price	0.781***	24.032	0.871	0.912	0.723
	SB2 Hypermarkets pay their employees a decent wage	0.898***	78.949			
	SB3 Hypermarkets pay their employees a minimum wage in developing countries	0.853***	48.385			
	SB4 Hypermarkets monitor the working conditions of their employees	0.864***	57.421			
Social sustainability	SB5 Hypermarkets sell fair trade products	0.747***	32.503	0.883	0.913	0.679
	SB6 Hypermarkets sell organic products	0.881***	90.125			
	SB7 Hypermarkets implement humanitarian actions	0.799***	30.507			
	SB8 Hypermarkets engage in actions directed at schools	0.819***	34.465			
	SB9 Hypermarkets sell share products (donations to charitable associations)	0.867***	62.947			
Environmental sustainability	SB10 Hypermarkets recycle their products and packaging	0.830***	34.328	0.817	0.889	0.728
	SB11 Hypermarkets cut back their consumer of electricity	0.864***	41.329			
	SB12 Hypermarkets pay attention to the environment	0.864***	46.997			
Satisfaction	SF1 Store X confirms my expectations	0.874***	74.282	0.946	0.958	0.822
	SF2 I am satisfied with price/quality ratio of Store X	0.936***	157.292			
	SF3 I am really satisfied with Store X	0.921***	105.215			
	SF4 In general, I am satisfied with Store X	0.931***	147.988			
	SF5 In general, I am satisfied with the products I get from Store X	0.871***	87.099			

Statistically significant at $*p < 0.05$; $**p < 0.1$; $***p < 0.01$; ns = non statistically significant.
Source: Authors' proposal.

Table 3. Measurement instrument: Discriminant validity (Fornell-Larcker criterion).

	1	2	3	4	5	6	7
1. Marketing innovation	**0.804**						
2. Product innovation	0.597	**0.801**					
3. Relational innovation	0.579	0.431	**0.888**				
4. Satisfaction	0.533	0.368	0.426	**0.907**			
5. Economic sustainability	0.447	0.294	0.198	0.452	**0.850**		
6. Environmental sustainability	0.338	0.251	0.281	0.383	0.511	**0.853**	
7. Social sustainability	0.444	0.361	0.308	0.575	0.570	0.617	**0.824**

Source: Authors' proposal.

Table 4. Parameter estimates of the formative second-order constructs.

1st Level Factor	2nd Level Factor	Weights	VIF	*p*-Value
Innovation	Product innovation	0.379	1.581	0.000
	Marketing innovation	0.539	1.936	0.000
	Relational innovation	0.265	1.530	0.000
Sustainability	Economic sustainability	0.384	1.577	0.000
	Social sustainability	0.515	1.881	0.000
	Environmental sustainability	0.276	1.719	0.000

Source: Authors' proposal.

Table 5. Causal relationships estimation.

	Causal relationship	Hypothesis	Standardized beta	*t*
H1	Innovation ⟶ Satisfaction	Supported	0.348***	9.319
H2	Sustainability ⟶ Satisfaction	Supported	0.405***	10.305

Satisfaction: $R^2 = 0.411$, $Q^2 = 0.314$.
* Statistically significant at *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$; ns = statistically non-significant.
Source: Authors' proposal.

Table 6. Results of the multigroup analysis.

		Female N = 304		Male N = 206		
Hypothesis	Relationship	Standardised parameter	*t*	Standardised parameter	*t*	*p*-Value
H3a	Innovation ⟶ Satisfaction	0.325	6.888***	0.402	7.138***	0.308
H3b	Sustainability ⟶ Satisfaction	0.476	10.910***	0.289	4.446***	0.038*

Statistically significant at *$p < 0.1$; ***$p < 0.01$.
Source: Authors' proposal.

with those studies that suggest that in the retail trade (Borges et al., 2013; Karande et al., 2007; Marín-García et al., 2021), when making decisions, it is relevant to consider the gender variable due to differences in the perception of the purchasing process between men and women. While the female segment perceives the purchase process as a hedonic action, the male population perceives this action as routine (Herter et al., 2014).

5. Discussion and conclusions

5.1. Discussion

The objective of this work was to analyse the impact of innovative and sustainable actions as drivers of consumer satisfaction. In addition, its implementation aimed to

test the moderating role of gender in the relationships proposed. Following the consumer's perspective, innovation has been explained through product innovation, marketing innovation and relational innovation, as pointed out by Lin (2015). On the other hand, following the Triple Base Line promulgated by Elkington (2004), sustainability has been approached from a triple approach: economic, social and environmental.

The development of this study acquires greater interest given the acceleration of the digitisation process of companies as a result of the global crisis caused by COVID-19. We are aware of the fact that the present research has been completed before the COVID-19 virus outbreak. Notwithstanding, we understand that that there are learning points from this study for supporting the importance for the retail sector to develop innovative and sustainable practices, especially those related to the way products are made available to consumers and health safety measures, emerging as key factors in restructuring retailing to alleviate the impact of the pandemic in the Spanish retail industry in the short/medium term. In addition, in order to attract consumers to establishments, it will be necessary to make use of ICT tools, including Artificial Intelligence, to facilitate their purchase process (Rodgers et al., 2021).

In this sense, the results obtained provide a set of theoretical and practical conclusions that are formulated below. In addition, in the final part of the study, some limitations derived from the development of this research will be presented, which can be taken as future lines of research.

5.2. Theoretical implications

First, the results obtained indicate the multidimensionality of innovation and sustainability, as perceived by the consumer. Thus, innovation in retail trade from the consumer's perspective is a variable formed from three dimensions: product innovation, marketing innovation and relational innovation. In the same way, sustainability is a multidimensional construct made up of the dimensions formulated by the Triple Bottom Line: economic, environmental and social.

Second, through this research, it is possible to affirm that consumer satisfaction with the store is a consequence of the effect of consumer perceptions towards sustainable and innovative practices implemented by retail establishments. In this sense, although both factors are fundamental in the development of customer satisfaction, the effect of sustainability is higher.

Finally, the results obtained confirm the moderating effect of gender on the sustainability–satisfaction relationship. In this sense, it should be noted that the retailer's actions aimed at sustainability have a greater impact on consumer satisfaction with the store in the case of women compared to men.

5.3. Managerial implications

Regarding the implications for management derived from this work, the findings obtained allow us to conclude that there is the need to implement innovative actions and sustainable practices in order to generate consumer satisfaction, for both men and women, in the food retail trade. In relation to gender, it is necessary for retailers

to take into consideration that the development of communication campaigns to place value on sustainable actions will have a greater effect on women than on men, and for them to focus their efforts on designing campaigns aimed at a female audience.

When it comes to innovation, some of the practices that can be implemented in retail should focus on developing new products, offering additional innovative services, introducing changes in the store environment and devising new promotions. For the success of these actions, retailers can consider a closer collaboration with their customers through participation/co-creation programmes, meetings with customers, and online forums among other initiatives. A better understanding of consumer needs will allow actions to be more effective and lead to better results.

In terms of sustainability, it is important that store managers promote the introduction of eco-friendly and Fairtrade products in the establishment's range, participation of the company in humanitarian actions, use of public transport by employees, reduction of energy consumption, recycling or elimination of plastic packaging of some products and/or substitution with biodegradable materials. Currently, there are movements such as 'Fridays for Future' that aim to make society aware of the importance of taking preventive action against climate change and global warming. Movements like this one support responsible consumption, as well as the development of sustainable productive activity by companies, causing the least possible damage to society and the environment. Furthermore, as a result of the COVID-19 crisis, many commercial establishments will be forced to make decisions, likely innovative in nature, to adapt their businesses to this new reality. Some of the measures implemented by retail establishments are aimed at ensuring the safety of their customers when making purchases. In this sense, many stores have included signage in the aisles for customers to be able to safely move around the establishment, as well as capacity limitations in order to reduce social contact. In addition, the incorporation of protective gloves or hygienic disinfectant at the entrances of establishments are other measures implemented by retail stores. Digital communication channels (press or social media) may be good ways for communicating those actions related to sustainability that are difficult to be perceived by the consumer. In this sense, to make sure that the message that the retailer wants to convey is correctly received by consumers, it is necessary for the company to know how to select the appropriate communication channel based on its target market. In this sense, netnography can be a useful tool to select the correct media and messages.

In this way, operating within the dimensions of innovation (product innovation, marketing innovation and relational innovation) and the dimensions of sustainability (environmental, social and economic sustainability), retail establishments will achieve higher levels of consumer satisfaction. In this sense, the development of customer satisfaction can be an ally in their retention by companies.

5.4. Limitations and future research perspectives

Finally, some limitations of this work are presented that can lead to a series of opportunities for future research in marketing. Firstly, the results of this study are focussed on a specific geographic region; therefore, we consider that its analysis could be

extended to larger samples and to other geographic areas. Secondly, satisfaction is traditionally a construct that has been studied from different perspectives and approaches, so that it would be useful to examine other perspectives and scales that evaluate this construct. Furthermore, we consider it necessary to expand the proposed model to include other variables that may act as antecedents or as a consequence of satisfaction in the retail trade, thereby improving the explanatory capacity of the model. Brand equity, loyalty and retail commitment can be variables to take into account to understand the mechanisms through which innovation and sustainability generate links between customers and retailers. In a similar way, other moderating variables can be analysed, such as the customer's age, occupation or behavioural variables (purchase frequency) or retail formats that can help explain how the effects of innovation and sustainability are intensified in the generation of satisfaction.

Acknowledgement

Disclosure statement

No potential conflict of interest was reported by the authors.

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