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## WHAT CLAIMS BEST CONVEY THE QUALITY OF RETAILERS' STANDARD PRIVATE LABEL PRODUCTS?

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## **What claims best convey the quality of retailers' standard private label products?**

### **Abstract**

#### **Purpose:**

Consumers consider retailers' standard private labels (PLs) as relevant choices, compared to national brands (NBs), and their demand for private label products has increased significantly over the past decade. At the same time, PLs have undergone a profound transformation as retailers have enhanced their quality. The goal of this research is to investigate the impact of claims used to highlight the enhanced quality of standard PL products on consumers' perceptions and behaviours.

#### **Design/methodology/approach:**

A between-subjects experiment, set in a store laboratory, was used to study consumers' perceptions and behaviours. The impact of six non-nutrition claims - linked, according to the self-other trade-off, either to concern for consumers' health (internal to the self) or for the environment (external to the self) - on consumers' reactions has been studied. Then, the data collected were analysed with partial least squares structural equation modelling (PLS-SEM).

#### **Findings:**

This research indicates that health claims retailers make to echo consumers' own concerns have positive impacts at three basic levels: the brand, the retail chain, and the store. It also highlights the central role of trust in standard PLs, which, once activated by the non-nutrition claims made by retailers and the increase in the quality of standard PLs thus inferred by consumers, can improve consumers' attitude toward the food retailers' stores and reinforce their intentions to visit again and recommend them.

#### **Research limitations/implications:**

From a theoretical perspective, this research supplements cue utilization theory as it applies this framework to standard PLs and establishes that consumers use extrinsic cues (i.e., communications on non-nutrition claims) to infer the quality of standard PL brand products. It also complements scant studies on retailers' corporate social responsibility (CSR) with quality aspects of their own labels as it specifies the levers (i.e., the claims) to use to improve retailers' CSR image and consumers' behaviours.

#### **Practical implications:**

From a managerial perspective, this research highlights the superiority of retailers' claims related to consumer health and, more specifically, of claims highlighting the natural origin of ingredients. For this specific assertion, trust in the standard PL and the CSR image of the brand have direct and indirect impacts, via attitude toward the stores, on consumers' intentions to return to and to recommend these stores.

#### **Originality/value:**

Despite the increasing importance of products as effective tools for communicating companies' CSR policies, scant research has been conducted on consumers' reactions to non-nutrition claims, which are increasingly prominent in the marketplace.

#### **Key words**

Private label; claim; CSR

**Paper type: Research paper**

## Introduction

Consumers' demand for private labels (PLs) has increased significantly over the past decade and will continue to grow (Gielens *et al.*, 2023). PLs are brands that are fully owned, controlled, and sold exclusively by one retailer. Although their power is widely acknowledged, most retailers aim to increase their private label (PL) market share even more aggressively. More precisely, retailers decide between different levels of price and quality and offer three tiers of price and quality of PL brands—economy or generic, standard or classic, and premium (ter Braak *et al.*, 2014)—which allows them to connect with different consumer segments.

Recently, PLs have undergone a profound transformation (Loebnitz *et al.*, 2020). They have spread across different product categories and are now considered relevant choices by consumers. Rather than simply being acceptable alternatives, they are increasingly considered desirable options. Furthermore, innovation is no longer restricted to national brands (NBs), allowing PLs to gain the status and market power that was once only associated with NBs (Gielens *et al.*, 2021). One of the strategies retailers commonly used to enhance the performance of their PLs is to close the quality gap with NBs (Gielens *et al.*, 2023), and demonstrate a commitment to quality (Wu *et al.*, 2021). In recent years, retailers have improved the product quality of their standard and premium PL brands (Swaen *et al.*, 2021).

However, according to Wu *et al.* (2021), more research is needed to determine the levers that can improve consumers' perceptions of the quality of PL brands' products and to understand the consequences of these changes. Moreover, despite the increasing importance of products as effective tools for communicating companies' corporate social responsibility (CSR) policies, scant research has been conducted on consumers' reactions to non-nutrition claims, which are increasingly prominent in the marketplace (Wei *et al.*, 2018). Given the importance of CSR commitments and actions in the retailing field (Swaen *et al.*, 2021) and the use of PL products to communicate CSR initiatives (Swaen *et al.*, 2021), it is important for scholars and practitioners to understand consumers' perceptions and behaviours regarding non-nutrition claims conveyed using PL products.

To fill the abovementioned research gaps, this study will consider different non-nutrition claims used to highlight the enhanced quality of retailers' standard PL brand products and its impacts on consumers' perceptions and behaviours related to the brand, the retail chain, and the store (Lacoeuilhe *et al.*, 2018). Integrating the self-other trade-off (Wei *et al.*, 2018), this research will consider three claims linked to concern for consumers' health as well as three claims linked to concern for the environment, and it will investigate consumers' reactions to a retailer's communications related to these claims in a store laboratory. From a theoretical perspective, this research complements scant studies on retailers' CSR with quality aspects of their own labels as it specifies the levers (i.e., the claims) to use to improve retailers' CSR image and consumer's behaviours. From a managerial standpoint, this research indicates that retailers should favour claims related to consumer health and, more specifically, claims highlighting the natural origin of ingredients. These specific claims have a positive influence on retailers' CSR image as well as on consumers' trust in standard PLs, their attitude toward the retail stores and their behavioural intentions toward these stores (i.e., intents to visit and to recommend).

## Retailers' PLs and CSR image

Consumers do not perceive retailing as a leading sector in terms of CSR (Lavorata, 2016; Swaen *et al.*, 2021), even if they recognize that retailers are taking CSR initiatives (Elg and Welinder,

2022) and communicate on these initiatives (Kumar and Utkars, 2023). CSR represents an organization's context-specific initiatives aimed at enhancing stakeholders' well-being by accounting for the bottom lines of economic, social, and environmental performance (El Akremi *et al.*, 2018). Retailing has been criticized for the harmful consequences of its activities, particularly related to: (1) the transport of distributed goods, customer travel, waste generated (such as excessive packaging and overpackaging, plastic bags, and non-recyclable or products that perish too quickly); (2) production methods stemming from suppliers' choices and management methods (such as deforestation and reduction of biodiversity); and (3) employees' working conditions (such as low pay, difficult and sometimes dangerous working conditions, and insecurity or poor social protection). However, retailers are taking CSR initiatives that may be ranked along five axes: (1) the development of quality PLs; (2) communication campaigns directed at employees and consumers; (3) social actions, such as support for humanitarian associations; (4) reducing the environmental impact of the offering and of commercial facilities; and (5) favouring shorter circuits (Lavorata, 2016).

This research will focus on the first axis, the development of quality standard PLs, as, in recent times, retailers have improved the product quality of these PLs (Swaen *et al.*, 2021). Therefore, they propose to consumers, within different product categories, several private-brand products that claim to be healthy or to be good for the environment (Cuneo *et al.*, 2019), to improve their social responsibility image (Bezençon and Etemad-Sajadi, 2015; Swaen *et al.*, 2021). Retailers communicate on this kind of CSR initiative because they await that consumers will have a higher opinion of socially responsible retailers (Kim *et al.*, 2014). However, there are scant studies focusing on retailers' CSR with quality aspects of their own labels and on how consumers react to retailers' communications on the enhanced quality of standard PL brand products. If previous literature investigated the extent to which a retailer is responsible for the sustainability of its suppliers and the products proposed to consumers (Elg and Hultman, 2011; Elg and Welinder, 2022), we do not know how consumers perceive a retailer's initiatives for its own labels and how it impacts its CSR image and consumers' behaviours.

## **Theoretical framework**

The cue utilization theory (Olson and Jacoby, 1972) will guide our research on the quality of standard PL brand products. Cue utilization is the most frequently used theory in PL consumer studies (Riboldazzi *et al.*, 2021) as it is a useful framework to understand and explain consumers' perceptions and purchase intentions toward products. According to this theory, products offer intrinsic cues and extrinsic cues that consumers use in their product evaluations, which in turn may determine consumers' decision-making process. In this research, based on cue utilization theory, we will show that consumers use a retailer's communications on non-nutrition claims (i.e., extrinsic cues), linked either to concern for consumers' health or for the environment, to infer the quality of standard PL brand products. This evaluation will then determine their levels of trust in a standard PL and, lastly, the retailer's CSR image and their attitude and behavioural intentions toward its retail stores.

Price and quality are the primary motivators that influence consumers' behaviour regarding PLs (Castelo *et al.*, 2016; Mao *et al.*, 2023). Thus, retailers have invested heavily in improving their products, marketing activities, and product lines. Indeed, quality-oriented PLs offer retailers the opportunity to concomitantly differentiate their stores and increase loyalty and profitability (Riboldazzi *et al.*, 2021). Retailers have realized that creating many quality-oriented PLs not only allows them to reach quality-conscious consumers, but it also improves the overall image of their store and their retail chain (Keller *et al.*, 2020). Standard PLs have

now achieved levels of product quality similar to or better than NB products and at competitive prices. Moreover, the extensive use of preservatives, additives, and natural resources in the food industry has increased consumers' awareness of the impact of their purchasing and consumption activities (Hosta and Zabkar, 2021) on themselves and others (Wei *et al.*, 2018). Sustainability-oriented consumers are willing to satisfy personal needs in terms of health, for example, while adopting behaviours that are external to the self and that reinforce positive environmental impacts. Given the growing number of health-conscious or environmentally conscious consumers, NBs and PLs are trying to tap into these market opportunities. Self-other orientation can play a major role in predicting consumers' choices (Ross and Milne, 2021). Retailers are paying increasing attention to health and environmental issues and are switching to products that are healthier for consumers or are less harmful to the environment (Wei *et al.*, 2018). They have grasped these complex needs and desires of consumers, and have understood that providing healthy and eco-friendly products may constitute a CSR initiative (Swaen *et al.*, 2021) that can offer a competitive advantage (De Temmerman *et al.*, 2021), can originate from sustainable marketing (Dargahi *et al.*, 2020), and has a positive impact on consumers' perceptions of the PL's quality (Mejri and Bhatli, 2014) and on their intentions to purchase PL products (Wang, 2017).

In this research, the constructs of perceived healthiness and perceived environmental friendliness (Bauer *et al.*, 2013) will first be considered cues that capture perceived quality or the consumer's judgement of the quality of PL products. Based on the founding work of Bauer *et al.* (2013), standard PLs' perceived healthiness will be conceptualised as consumers' perceptions that consuming standard PL brand products is harmless to their health or positively impacts their health (i.e., products without preservatives, without additives, with organic or natural ingredients). In the same vein, standard PLs' perceived environmental friendliness will be conceptualised as consumers' perceptions that consuming standard PL brand products does not negatively impact the environment or helps to preserve the environment (i.e., the manufacturing processes respects the environment and natural resources). Indeed, the environment and human health are two areas that are deeply affected by the production, sale, and consumption of consumer goods. However, few studies have focused both on consumers' perceived healthiness and the perceived environmental friendliness of consumer goods (Lazzarini *et al.*, 2016), even though these values often coexist in the field. Previous studies have focused on either health-related perceptions (Konuk, 2018) or environment-related perceptions of products (Tobler *et al.*, 2011).

The impacts of these perceptions on trust in PLs and a retailer's CSR will be investigated. Consumers' trust in PLs is based on their beliefs concerning brands' actions. This is reflected by a set of cumulative presumptions on the credibility, integrity, and benevolence attributed to brands (Calvo Porral and Levy-Mangin, 2016). Thus, this research conducts analyses at two different managerial levels, namely, that of the brand (i.e., PLs) and the retail chain (Lacoeuilhe *et al.*, 2018). It also highlights the link between these levels. Finally, the corresponding influence of these two variables on a retailer's stores will be investigated through the concepts of attitude and behavioural intentions. In this research, based on the founding work of Zeithaml *et al.* (1996), we conceptualised consumers' behavioural intentions toward a retailer's stores as consumers' propensity to recommend its stores and to visit its stores again.

## **Research model**

Product healthfulness has increased in importance in consumers' minds (Pinto *et al.*, 2020) and is a relevant predictor of consumers' choices and food intake (Steinhauser *et al.*, 2019).

However, most research has investigated the determinants of perceived healthiness (e.g., Plasek *et al.*, 2020; Petrescu *et al.*, 2020). Few studies have looked at the direct or indirect impacts of health cues on consumers' perceptions and intentions, even if some recent research deserves mention. Grandi *et al.* (2019) found that healthy food products placed at checkouts with communications concerning their nutritional information can directly impact a retailer's CSR and indirectly impact consumers' loyalty to this retailer through CSR. Kim *et al.* (2013) showed that the perceived healthiness of restaurant food directly impacts value and consumers' satisfaction and indirectly impacts consumers' intention to revisit the restaurant through value and/or satisfaction. Similarly, Yoo *et al.* (2020) demonstrated that perceived food healthiness has an indirect impact, through hedonic value and utilitarian value, on consumers' intention to revisit a grocerant. Lassoued and Hobbs (2015) demonstrated that the impact of brand trust on consumers' confidence in brand attributes is mediated by trust in the food system, which encompasses brands and manufacturers. Even though nutrition and health information impact how individuals make health inferences (Aschemann-Witzel and Grunert, 2015), few investigations have investigated the effect of non-nutrition health claims (Wei *et al.*, 2018). For instance, safe products that are free from dangerous undesirable additives and are made with high-quality ingredients are preferred and are evaluated more positively by consumers (André *et al.*, 2019; Ikonen *et al.*, 2020). Safe alternatives are also likely to create a spill over effect from their health claims on the retailer's CSR (Wei *et al.*, 2018). Lastly, Konuk (2019) pointed out that perceived healthiness has a direct impact on store prestige and trust, which in turn have partial mediating effects on the link between perceived healthiness and consumers' loyalty to the store.

Hence, we propose the following hypothesis:

H1: Standard PLs' perceived healthiness has a positive effect on consumers' trust in standard PLs (a) and on a retailer's CSR (b).

Perceived environmental friendliness refers to how a brand is linked to environmental commitments and concerns in consumers' mind (Punyatoya, 2014). It should have impacts on consumers' decision-making (Sokolova *et al.*, 2023). However, research on environmental friendliness is still scarce (Prakash *et al.*, 2019). Nonetheless, some studies, that focused on how consumer trust positively impacts attitude toward PL products with eco-friendly claims (Ricci *et al.*, 2018), deserve attention. First, Perez *et al.* (2020) showed that when consumers see a product's eco-friendly attributes as central (vs. peripheral), they are likelier to attribute sincere environmental intentions to the company, which improves their attitude toward the product. Sincerity is the extent to which a person or brand is perceived to be honest. Similarly, Sundar and Kellaris (2017) showed that a retailer's inferred eco-friendliness, due to the colour of its logo (green being more eco-friendly than blue, for example), has a positive impact on perceived ethicality. Punyatoya (2014) found that perceived brand eco-friendliness has a direct impact on consumers' trust in the brand and an indirect impact on consumers' intention to purchase the eco-friendly brand through brand trust. Similarly, previous studies have pointed out that perceived green quality has a direct impact on green satisfaction and green trust (Konuk, 2018; Pahlevi and Suhartanto, 2020)—an indirect impact on purchase intention mediated by perceived quality and perceived value (Wu and Chen, 2014), and an indirect impact on consumers' loyalty to eco-friendly plastic products through consumer trust or satisfaction (Pahlevi and Suhartanto, 2020). Adopting the use of eco-packaging is a common strategy used to adapt to consumers' needs in terms of environmental concerns, and it serves as a differentiation cue for PLs that positively influences consumer preference (Jiménez-Guerrero *et al.*, 2015).

Hence, we propose the following hypothesis:

H2: Standard PLs' perceived environmental friendliness has a positive effect on consumers' trust in standard PLs (a) and on retailer's CSR (b).

Consumers currently have a strong interest in sustainable consumption (Hosta and Zabkar, 2021; Yadav et al., 2022). Manufacturers and retailers have responded to this trend by integrating sustainability initiatives, such as the development and launch of new products and brands with positive health, social, and environmental attributes (Swaen *et al.*, 2021). The development of quality oriented PLs should have a favourable impact on consumers' perceptions of retailers' CSR. Adopting this viewpoint, Bezençon and Etemad-Sajadi (2015) showed that consumers' perceived scope of the portfolios of collective sustainable labels and retailer-owned sustainable labels contribute to the development of retailers' positive perceived ethicality, which in turn significantly influences consumers' perceptions and behaviours. Quality-oriented PLs indeed improve store differentiation and consumer loyalty to retail stores that offer these brands (Keller *et al.*, 2020). As consumers' perceptions of PLs' value increase, their perceptions of the retailers also improve, resulting in higher loyalty towards these retailers (Girard *et al.*, 2017). Konuk (2022) indicated an indirect link between consumers' trust in premium PLs and their loyalty towards these brands. Indeed, this author showed that trust in standard and premium PLs positively influence price fairness which, in turn, prompts higher perceived value. Then, perceived value has a positive impact on private label brand loyalty. But Konuk (2018) also demonstrated a direct link between consumers' trust in premium PLs (which are considered to be of higher quality through various inferences) and their purchase intentions. Lastly, Wang and He (2022) showed that consumers' trust in retailers has a positive and significant impact on their advocacy behaviour.

Hence, we propose the following hypothesis:

H3: Consumers' trust in standard PLs has a positive effect on a retailer's CSR (a), and on the consumers' attitude (b) and behavioural intentions (c) toward the retail stores.

Retailers often communicate on their CSR activities to highlight their empathy (i.e., how CSR concerns them and how they want to be supportive, sympathetic, and reassuring) and their courage (i.e., how they are ambitious, achievement-oriented, and exercise exemplary CSR) (Chun, 2019). CSR affects brand image by providing information about the retailer's values (Bianchi *et al.*, 2019). In sum, retailers communicate their CSR activities to be considered responsible retailers by consumers (Kim *et al.*, 2014). They expect that consumers will develop favourable attitudes toward them (Lombart and Louis, 2014) and their stores (Godefroit-Winkel *et al.*, 2022). These favourable attitudes should heighten consumers' intentions to repeat their visits to retail stores (Godefroit-Winkel *et al.*, 2022), to rebuy PL products (Lee *et al.*, 2012; Lombart and Louis, 2014), and to recommend the retailer, its stores, and PL products (Louis *et al.*, 2019), thus bolstering the retailers' profits (Schramm-Klein *et al.*, 2015).

Hence, we propose the following hypotheses:

H4: Retailer's CSR has a positive effect on consumers' attitude (a) and behavioural intentions (b) toward retail stores.

H5: Consumers' attitude toward retail stores has a positive effect on their behavioural intentions toward these stores.

Previous research has analysed retailers' societal claims and their impacts on specific variables. First, Tascioglu *et al.* (2019) found that retailers that support environmental and social sustainability could expect increases in consumer purchase intentions, commitment,



satisfaction, and loyalty, and that social sustainability exerts a slightly greater impact than does environmental sustainability. Then, Yusof *et al.* (2015) showed that while different CSR initiatives, including customer-centric and green environment, have a significant positive influence on customer loyalty in the banking industry, customer-centric has the strongest effect on consumer loyalty. These results corroborate those obtained by other researchers. McDonald and Lai (2011) showed that customer centricity had a stronger impact on individuals' attitude and behaviour than green environment did. Similarly, Chang *et al.* (2015) stated that purchase intentions for a product are higher when an advertisement is negative and provides information about personal health than when it is positive and provides information about the environment. Concern for consumers' personal health usually influences attitude and purchase intention more clearly than environmental concern (Kim and Chung, 2011). Thus, it seems that initiatives or discourses that focus on concern for consumers and their health are more effective than those that focus on protecting the environment.

Hence, we propose the following hypothesis:

H6: The relationships posited above are stronger for claims linked to concern for consumers' health than for claims linked to concern for the environment.

Figure 1 presents the proposed research model.

[insert Figure 1]

## **Methodology**

### *Experimental design*

Consumers' reactions to claims concerning standard PLs were investigated via an experiment set up in a store laboratory, located in a business school in France, and conducted in 2019. More specifically, we conducted a between-subjects design to study consumers' reactions to the three claims on standard PLs linked to consumers' health (PL products that lack preservatives, that contain ingredients of natural origin, that are additive-free, or to the three claims linked to concern for the environment (PL products that preserve natural resources, PL products that limit the use of pesticides in production, PL products that reduce packaging).

Participants were recruited by a market research agency. Data were collected following a random sampling procedure. Participants received an email inviting them to participate to an experiment. The response rate was 42%. The 504 final recruited participants (sampling error: 3.3% for a confidence level of 95%) received monetary compensation in the form of a gift card. Women comprised 65.2% of this sample. Of the sample, 27.4% were aged 18–24, 24.8% were aged 25–34, 22.6% were aged 35–49, and 25.2% were aged 50–64. In terms of civil status, 54.5% were single, 44% were common-law partners or married, and 1.5% were widowed. In terms of employment, 38.5% were white-collar workers, 29% were blue-collar workers, and 32.5% were unemployed.

The 504 participants were randomly assigned to either one of our six manipulation groups or to a control group ( $n = 74$ ). Thus, each participant had the same opportunity to be assigned to any given group and their assignment to a group depended on the random numbers given to them. The control group did not receive any manipulation and thus any communication. The store laboratory integrates the classical elements of a store: shelves; products of NBs; products of PLs in three tiers of price and quality; point of purchase displays; a sense of

circulation; and baskets. The participants in the experiment undertook a shopping trip in this store laboratory during which they were exposed to advertisements for one of the six claims studied, whereas the control group was not exposed to any advertisements. After shopping, participants paid for their purchases at a cash register, and they completed a questionnaire.

### *Measurement scales*

Standard PLs' perceived healthiness and environmental friendliness were each measured using three items (Bauer *et al.*, 2013). Consumers' trust in standard PLs was measured using eight items (Charton-Vachet and Lombart, 2018). The retailer's CSR was measured using six items (Louis *et al.*, 2019). Consumers' attitude toward retail stores was measured using four items (Charton-Vachet *et al.*, 2020). Lastly, consumers' behavioural intentions toward retail stores were measured by two items (Zeithaml *et al.*, 1996).

### *Data analysis*

In this research, we used partial least squares structural equation modelling (PLS-SEM) and a bootstrap procedure with 5,000 replications (Tenenhaus *et al.*, 2005), to analyse our data. We used PLS-SEM, for three main reasons stressed by Hair *et al.* (2012, 2014) in their meta-analyses on the use of PLS-SEM in marketing research. PLS-SEM does not require the variables to follow a multivariate normal distribution. Computed Mardia's coefficient is superior to  $|3|$  in this research. PLS-SEM allows working with small samples. The sample sizes are below 100 for the different subgroups considered in this research with a mean of 211.29 in the marketing field. PLS-SEM also allows working with models that include a large number of latent variables. Our research model contains 9 variables with an average number of 7.94 in the marketing field. Reflective measurement and structural models were tested with PLS-SEM for the subgroups distinguished (Henseler and Fassott, 2010). Multi-group analyses and permutation tests were performed. For each loading and path coefficient, it provided a test of significance on the difference between the values obtained for each subgroup (Chin *et al.*, 2016).

## **Results**

### *Test of the reflective measurement model*

Confirmatory factor analysis affirmed the unidimensional (for perceived healthiness, environmental friendliness, attitude, and behavioural intentions) or multidimensional factor (for trust and CSR) structures of the measurement scales. The loadings were satisfactory ( $> 0.708$ ; Table 1) (Hair *et al.*, 2019). The Jöreskog's rho coefficients (Jöreskog, 1971) were also satisfactory ( $CR > 0.7$ ; Table 2). The approach proposed by Fornell and Larcker (1981) established the convergent validity ( $AVE > 0.5$ ; Table 2). The discriminant validity of the measurement scales was established through the approach proposed by Fornell and Larcker (1981) ( $AVE > \text{square of the correlations}$  in Table 2) and the heterotrait–monotrait (HTMT) method, recommended by Henseler *et al.* (2015) for variance-based SEM (values in Table 2 are below the thresholds of 0.90).

[insert Tables 1 and 2]

### *Test of the structural models*

Following the test of the reflective measurement model, the hypothesized links (see Figure 1) of the research model were tested, with multigroup analyses, for the seven experimental groups that were considered (the six manipulation groups plus the control group). Note that confirmatory factor analysis first showed the partial invariance of the measurement scales for these groups (of the differences computed, 16% were significant at the 5% level). Examination of the parameters' values and significance clearly indicates that the two types of studied claims (concern for consumer health vs. concern for the environment) affect consumer perceptions and behaviours differently (Table 3). The differences highlighted hereafter are statistically significant.

[insert Table 3]

For the three claims related to concern for consumers' health, perceived healthiness and perceived environmental friendliness (except for the preservative-free claim) had a positive and significant impact on trust in standard PL. Hypotheses 1a and 2a are therefore supported by our data. Our results extend to Konuk's (2019) findings on PLs that perceived healthiness has a direct impact on store trust. In contrast, the impact of perceived healthiness on trust in standard PL is slightly higher than that of perceived environmental friendliness. Perceived healthiness alone also had a positive and significant impact on the perceived CSR of the brand for all three claims. Therefore, hypothesis 1b is supported by our data. Our results are consistent with those of Grandi *et al.* (2019), who demonstrated that communications on nutritional information about healthy food products have a direct impact on a retailer's CSR.

Trust in a standard PL generated by perceived healthiness and perceived environmental friendliness (except for the preservative-free claim) has a positive and significant impact on the perceived CSR of the brand, as well as on consumers' attitude toward its stores, regardless of the health-related claim made. Therefore, hypothesis 3a is affirmed. Our results empirically establish that consumer trust in standard PL was indeed a determinant of a brand's perceived CSR, as suggested by Lavorata (2016). Hypothesis 3b was also supported by our data. As Jin and Suh (2005) stated, trust in PL has a positive influence on consumers' attitude.

For all three claims related to consumer health concerns, consumers' attitude toward the brand's stores positively influences their intentions to revisit and recommend them. This supports hypothesis 5 and confirms previous work on the relationship between attitude toward stores (Godefroit-Winkel *et al.*, 2022) and consumers' behavioural loyalty to them (Louis *et al.*, 2019; Godefroit-Winkel *et al.*, 2022). We also note a direct influence of trust in standard PL on consumers' behavioural intentions toward stores (except for the preservative-free claim). Thus, hypothesis 3c is supported, confirming previous works on the link between trust in a retailer or its PLs and purchase intentions (Konuk, 2018, 2022) and advocacy behaviour (Wang and He, 2022).

The perceived CSR of the store does not influence consumers' attitude towards the stores (except for the claim of the natural origin of the ingredients). Thus, hypothesis 4a is refuted by our data. Similarly, the perceived CSR of the store had no significant impact on consumers' behavioural intentions (for the additive-free claim). It either has a small positive impact (significant at 10% for the natural origin ingredients claim) or a significant negative impact (for the preservative-free claim). Thus, hypothesis 4b is refuted by our data.

These two results seem to confirm that consumers do not spontaneously associate retailing with CSR (Lavorata, 2016; Swaen *et al.*, 2021) and that not all retailers' CSR initiatives have a positive and significant impact on consumers' thoughts and intentions regarding their retail outlets. Another reason could be that consumers based their evaluation of the retailer's CSR on the sole advertisement (for one of the six claims studied) they were exposed to during their visit to the store laboratory. However, sole communication could be insufficient for evaluating a retailer's CSR.

The final models for the three claims related to concern for consumers' health (PL products that lack preservatives, that contain ingredients of natural origin, that are additive-free) explain respectively 0.746, 0.701 and 0.722 of behavioural intentions toward the retail stores. These  $R^2$  values may be considered as substantial (Hair *et al.*, 2019)

For the three environmental concern claims, perceived environmental friendliness and perceived healthiness (except for the packaging reduction claim) had a positive and significant impact on trust in PLs. Hypotheses 1a and 2a are therefore supported by our data. Our results extend to PL products and Punyatoya's (2014) finding that perceived brand eco-friendliness has a direct impact on consumers' trust in the brand.

In contrast, the impact of perceived environmental friendliness on trust in PLs was slightly higher than that of perceived healthiness. Perceived environmental friendliness alone also had a positive and significant impact on the perceived CSR of the brand (except for the claim related to the reduction of pesticide use). Therefore, hypothesis 2b is supported by our data. Our results empirically establish a link between perceived environmental friendliness and CSR, inferred from the work of Sundar and Kellaris (2017), which shows a link between perceived environmental friendliness and retailers' ethicality.

For all three claims studied, trust in standard PL had a positive and significant impact on the perceived CSR of the store (H3a affirmed). Trust in standard PL also has a positive and significant influence on consumers' attitude toward the retailer's stores (H3b affirmed), which in turn has a positive and significant influence on consumers' behavioural intentions toward those stores (H5 supported). In contrast, consumers' trust in standard PL had no direct impact on their behavioural intentions toward the chain's stores (H3c refuted). Finally, except for the packaging reduction claim, whose influence is negative and significant, perceived CSR does not have a significant impact on consumers' attitude toward the retailer's stores (H4a refuted) or their behavioural intentions toward those stores (H4b refuted).

The final models for the three claims related to concern for the environment (PL products that preserve natural resources, PL products that limit the use of pesticides in production, PL products that reduce packaging) explain respectively 0.630, 0.560 and 0.627 of behavioural intentions toward the retail stores. These  $R^2$  values may be considered as moderate (Hair *et al.*, 2019)

Thus, the claims related to concern for consumers' health seem to have a greater impact on behavioural intentions toward the retailer's stores, either via the trust they generate in the standard PL or via the attitude toward the stores (for the three claims studied). Claims also have an impact via the perceived CSR of the brand or via the attitude toward the stores (for the claim related to the presence of ingredients of natural origin). Hypothesis 6 is therefore validated by our data, confirming previous work showing that consumer-centric claims had a greater impact

on attitudinal and behavioural variables than environmental-centric claims (McDonald and Lai; 2011; Yusof *et al.*, 2015).

In the control group, who were not exposed to any advertising during their visit to the store, perceived healthiness and perceived environmental friendliness had a positive influence on consumers' trust in standard PL, suggesting that even without any in-store communication highlighting concern for consumer health or the environment, the perceived quality of this retailer's PLs was already good. However, in this specific case, trust in standard PLs had no influence on consumers' attitude toward the retailer's stores. Without adequate communication about standard PL quality, trust in standard PL does not appear to suffice to exert a significant impact on attitude (especially for the three claims related to consumer health).

The control group perceived that CSR of the brand (constructed prior to the experiment) had a positive and significant impact on attitude and subsequently on behavioural intentions. The retailer's perceived CSR also has a direct impact on behavioural intentions, corroborating previous findings on this link (Lee *et al.*, 2012; Lombart and Louis, 2014; Louis *et al.*, 2019; Godefroit-Winkel *et al.*, 2022). For the control group, the perceived CSR of the brand could have been based on communications other than the ones considered in this research (i.e., six different claims in this total). Indeed, companies generally participate in and communicate with several CSR activities.

## **Discussion**

The objective of this research was to investigate the impacts of different non-nutrition claims, linked either to concern for health or for the environment with regards to consumers' perceptions and behaviours related to the brand, the retail chain, and the store.

First, this research suggests that the two types of claims studied (consumer concern for health vs. the environment) have different impacts on consumer perceptions and behaviours, as do the three specific claims studied for each type of claim related to concern for consumer health (PL products that lack preservatives, contain ingredients of natural origin, and are additive-free), and PL products that preserve natural resources, limit the use of pesticides in production, and reduce packaging, to exemplify concern for the environment. Thus, the paths that were identified to ultimately influence consumers' behavioural intentions toward the retailer's stores (via trust in the PL, perceived CSR of the brand, and consumer attitude toward the stores) vary for each claim.

Second, the results indicate that emphasis on the different claims can enhance the perceived quality of standard PLs (captured via perceived healthiness and perceived environmental friendliness) and that these two variables have, jointly or separately, an impact on consumer trust in standard PLs. Therefore, the six claims studied are all conducive (via perceived healthiness and/or perceived environmental friendliness) to the development of consumer trust in standard PLs. Indeed, trust consistently influences brands' perceived CSR.

The impact of the perceived CSR of PL brands on consumers' attitude toward the retailer's stores is inconsistent (positive only for the claim linked to the natural origin of the products), and it can even be negative (for the claim linked to reduced packaging), perhaps indicating higher consumer scepticism about certain claims. Consumers would therefore expect more proof and arguments for this type of claim than those indicated in the communications

shown in the store laboratory, which simply stated the claims without concretely demonstrating them, by citing figures, for example.

Finally, consumers' attitude toward stores has a consistently positive impact on their behavioural intentions toward those stores. Note that the postulated direct impacts between consumer trust in PLs and behavioural intentions, and between retailer CSR and behavioural intentions, are mostly non-significant. Consumers' attitude toward stores are generally a full mediating variable in these relationships.

However, the study found a positive and significant influence of trust in PLs and in the brand's CSR on behavioural intentions for the claim linked to the natural origin of ingredients. Conversely, this influence is negative for the claim about the absence of preservatives. Once again, consumers' scepticism toward this specific claim may have influenced the results. Consumers might expect more extensive demonstrations than a simple stated claim.

### *Theoretical and managerial contributions*

From a theoretical perspective, this research complements cue utilization theory (Olson and Jacoby, 1972) as it applies this framework to standard PLs and establishes that consumers use extrinsic cues (i.e., communications on non-nutrition claims) to infer the quality of standard PL brand products. This research also indicates that this evaluation goes beyond consumers' decision-making process related to the brand (i.e., a PL), as it has an impact on a retailer's CSR image and consumers' behavioural intentions toward its stores. Then, this research contributes to the literature on retailers' CSR with quality aspects of their own labels (Lavorata, 2016) as it highlights the importance of in-store communication to build retailers' perceived CSR. This research specifies the claims that retailers need to emphasize based on the products over which they have the most control, i.e., their PLs. Finally, this research complements previous work on perceived healthiness and perceived environmental friendliness. Recent research in these areas has focused on the determinants of these constructs (Prakash *et al.*, 2019; Plasek *et al.*, 2020; Petrescu *et al.*, 2020). Our study adds to this research by highlighting important direct consequences of products' perceived healthiness and perceived environmental friendliness, such as trust in PLs and perceived retailer CSR, as well as indirect consequences, such as intentions to purchase and recommend products.

From a managerial standpoint, this research indicates that retailers should favour claims related to consumer health. Indeed, this research underlines the superiority of retailers' claims related to consumer health over those related to concern for the environment. More specifically, retailers should favour claims highlighting the natural origin of ingredients. For this specific assertion, trust in the standard PL and the CSR image of the brand have direct and indirect impacts, via attitude toward the stores, on consumers' intentions to return to and to recommend these stores. Thus, trust in standard PLs has a central role. Once trust in standard PLs has been activated by health claims made by retailers, it improves consumers' attitude toward the food retailers' stores and reinforces their intentions to visit again and recommend them through word of mouth. Trust in standard PLs also contributes to retailers' perceived CSR. Selling standard PL brand products with significant health claims gives retailers of trustworthy products an opportunity to be perceived as responsible retailers who are sensitive to current societal problems. This research is consistent with seminal work in the PL field that clearly demonstrated how PLs enable retailers to differentiate themselves from other retailers and to increase both consumer attachment to their PL products (Massaraa *et al.*, 2018) and consumer loyalty to their stores (Keller *et al.*, 2020). Lastly, this research suggests that a single CSR action

would not suffice to establish a link between a retailer's perceived CSR and consumers' attitude and behavioural intentions toward its stores. When consumers are exposed to only one claim in-store, these relationships tend to be nonsignificant. In contrast, for the control group (comprising consumers who do not view any advertisements in-store), these links are significant and positive. These results could be explained by the fact that the consumers in the control group were able to recall the different actions carried out by the studied store, which visibly invested in the field of CSR. This prior knowledge may have influenced the consumers' attitude and behavioural intentions toward the retailer's stores.

### *Limitations and research avenues*

This research, despite its several limitations, opens up new avenues for future research. The study's experimental design could be expanded to include other consumer claims that reflect their concern for their health (e.g., GMO-free products) and the environment (e.g., recycled or recyclable packaging). It would also be intriguing to test the effect of the presence of several messages simultaneously, given that they often coexist in the field. Similarly, we considered only one retailer in this study. Consequently, this experiment could be reproduced to include other retailers and the differences in reactions between PLs and national brands could be highlighted. Finally, consumers' relationship to PLs could be further explored by considering their attachment and commitment to these specific brands.

### **References**

- André, Q., Chandon, P. and Haws, K. (2019), "Healthy through presence or absence, nature or science? A framework for understanding front-of-package food claims", *Journal of Public Policy & Marketing*, Vol. 38 No. 2, pp. 172-191.
- Bauer, H.H., Heinrich, D. and Schafer, D.B. (2013), "The effects of organic labels on global, local, and private brands: More hype than substance?", *Journal of Business Research*, Vol. 66 No. 8, pp. 1035-1043.
- Bianchi, E., Bruno, J.M. and Sarabia-Sanchez, F.J. (2019), "The impact of perceived CSR on corporate reputation and purchase intention", *European Journal of Management and Business Economics*, Vol. 28 No. 3, pp. 206-221.
- Castelo, J.S.F., de Oliveira Cabral, J.E. and Coelho, A.F.M. (2016), "Comparative analysis of the antecedents and dimensions of brand equity between food processors' brands and supermarket's private labels", *Brazilian Business Review*, Vol. 13 No. 1, pp.69-91.
- Charton-Vachet, F. and Lombart, C. (2018), "Impact of the link between individuals and their region on the customer-regional brand relationship", *Journal of Retailing and Consumer Services*, Vol. 43, pp. 170-187.
- Charton-Vachet, F., Lombart, C. and Louis, D. (2020), "Impact of attitude towards a region on purchase intention of regional products: the mediating effects of perceived value and preference", *International Journal of Retail and Distribution Management*, Vol. 48, No. 7, pp. 707-725.
- Chin, W.W., Mills, A.M., Steel, D.J. and Schwarz, A. (2016), "Multi-group invariance testing: An illustrative comparison of PLS permutation and covariance-based SEM invariance analysis". in *The multiple facets of partial least squares and related methods: PLS*, Paris, France, 2014 8 (pp. 267-284).
- Chun, R. (2019), "How virtuous global firms say they are: A content analysis of ethical values", *Journal of Business Ethics*, Vol. 155, 57-73.

- De Temmerman J., Heeremans E., Slabbinck H., Vermeir, I. (2021), “The impact of the Nutri-Score nutrition label on perceived healthiness and purchase intentions”, *Appetite*, Vol. 157, 104995.
- Elg, U. and Welinder, A., (2022), “Sustainability and retail marketing: Corporate, product and store perspectives”, *Journal of Retailing Consumer Services*, Vol. 64: 102810.
- Fornell, C. and Larcker, D.F. (1981), “Evaluating structural equation models with unobservable variables and measurement error”, *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.
- Gielens, K., Ma, Y., Namin, A., Sethuraman, R., Smith, R.J., Bachtel, R.C. and Jervis, S. (2021), “The future of private labels: towards a smart private label strategy”, *Journal of Retailing*, Vol. 97 No. 1, pp. 99-115.
- Gielens, K., Dekimpe, M.G., Mukherjee, A. and Tuli, K. (2023), “The future of private-label markets: A global convergence approach”, *International Journal of Research in Marketing*, Vol. 40 No. 1, pp. 248-267.
- Godefroit-Winkel, D., Schill, M. and Diop-Sall, F. (2022), “Does environmental corporate social responsibility increase consumer loyalty?”, *International Journal of Retail & Distribution Management*, Vol. 50 No. 4, pp. 417-436.
- Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M. (2019), “When to use and how to report the results of PLS-SEM”, *European Business Review*, Vol. 33 No. 1, pp. 2-24.
- Hair, J.F., Sarstedt, M., Hopkins, L. and Kuppelwieser, V.G. (2014), “Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research”. *European Business Review*, Vol. 26 No. 2, pp. 106-121.
- Hair, J.F., Sarstedt, M., Ringle, C.M. and Mena, J.A. (2012), “An assessment of the use of partial least squares structural equation modeling in marketing research”, *Journal of the Academy of Marketing Science*, Vol. 40 No. 3, pp. 414-433.
- Henseler, J. and Fassott, G. (2010), Testing moderating effects in PLS path models: An illustration of available procedures. in Vinzi V.E., Chin W.W., Henseler J. and Wang H. (Eds.), *Handbook of partial least squares concepts: Concepts, methods and applications*, Springer Handbooks of Computational Statistics, New York, pp. 713-734
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), “A new criterion for assessing discriminant validity in variance-based structural equation modeling”, *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135.
- Ikonen, I., Sotgiu, F., Aydinli, A. and Verlegh, P.W.J. (2020), “Consumer effects of front-of-package nutrition labeling: An interdisciplinary meta-analysis”, *Journal of the Academy of Marketing Science*, Vol. 48 No. 3, pp. 360-383.
- Jöreskog, K. (1971), “Statistical analysis of sets of congeneric tests”, *Psychometrika*, Vol. 36 No. 2, pp. 109-133.
- Keller, K.O., Geyskens, I., Dekimpe, M.G. (2020), “Opening the umbrella: The effects of rebranding multiple category-specific private-label brands to one umbrella brand”, *Journal of Marketing Research*, Vol. 57 No. 4, pp. 677-694.
- Kim, J., Ha, S. and Fong, C. (2014), “Retailers’ CSR: The effects of legitimacy and social capital”, *International Journal of Retail & Distribution Management*, Vol. 42 No. 2, pp. 131-150.
- Konuk, F.A. (2018), “The role of store image, perceived quality, trust and perceived value in predicting consumers’ purchase intentions toward organic private label food”, *Journal of Retailing and Consumer Services*, Vol. 43, pp. 304-310.
- 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, pp. 724-730.



- Konuk, F.A. (2022), "Trust transfer, price fairness and brand loyalty: The moderating influence of private label product type", *International Journal of Retail & Distribution Management*, Vol. 50 No. 5, pp. 658-674.
- Kumar, P. and Utkars (2023), "Effects of in-store information quality and store credibility on consumer engagement in green retailing", *Journal of Retailing and Consumer Services*, Vol. 71: 103195.
- Lacœuilhe, J., Louis, D. and Lombart, C. (2018). Contribution of terroir store brands to retailers' legitimacy and CSR and price images. *Research and Applications in Marketing*, Vol. 33, No. 4, pp. 74-91.
- Lazzarini, G.A., Zimmermann, J., Visschers, V. and Siegrist, M. (2016), "Does environmental friendliness equal healthiness? Swiss consumers' perception of protein products", *Appetite*, Vol. 105, pp. 663-673.
- Lombart, C., and Louis, D. (2014), "A study of the impact of corporate social responsibility and price image on retailer personality and consumers' reactions (satisfaction, trust and loyalty to the retailer)", *Journal of Retailing and Consumer Services*, Vol. 21, pp. 630-642.
- Louis, D., Lombart, C., and Durif, F. (2019), "Impact of a retailer's CSR activities on consumers' loyalty", *International Journal of Retail & Distribution Management*, Vol. 47 No. 8, pp. 793-816.
- Massaraa, F., Scarpi, D., Melara, R.D., Porcheddu, D. (2018), "Affect transfer from national brands to store brands in multi-brand stores", *Journal of Retailing and Consumer Services*, Vol. 45, pp. 103-110.
- Mejri, C.A. and Bhatli, D. (2014), "CSR: Consumer responses to the social quality of private labels", *Journal of Retailing and Consumer Services*, Vol. 21, pp. 357-363.
- Olson, J.C. and Jacoby, J. (1972), Cue utilization in the quality perception process. in Venkatesan, M. (Ed.), *Proceedings of the association for consumer research*, Iowa City, IA, p. 167-179.
- Pahlevi, M.R. and Suhartanto, D. (2020), "The integrated model of green loyalty: Evidence from eco-friendly plastic products", *Journal of Cleaner Production*, Vol. 257, 120844.
- Perez, D., Stockheim, I., Tevet, D. and Rubin, M.M. (2020), "Consumers value manufacturer sincerity: The effect of central eco-friendly attributes on luxury product evaluations", *Journal of Cleaner Production*, Vol. 267, 122132.
- Petrescu, D.C., Vermeir, I., Petrescu-Mag, R.M. (2020), "Consumer understanding of food quality, healthiness, and environmental impact: A cross-national perspective", *International Journal of Environmental Research and Public Health*, Vol. 17 No. 1, 169.
- Plasek, B., Lakner Z. and Temesi, A. (2020), "Factors that influence the perceived healthiness of food-review", *Nutrients*, Vol. 12 No. 6, 1881.
- Prakash, G., Choudhary, S., Kumar, A., Garza-Reyes, J.A., Khan, S.A.R. and Panda T.P. (2019), "Do altruistic and egoistic values influence consumers' attitudes and purchase intentions towards eco-friendly packaged products? An empirical investigation", *Journal of Retailing and Consumer Services*, Vol. 50, pp. 163-169.
- Riboldazzi, S., Capriello, A. and Martin, D. (2021), "Private-label consumer studies: A review and future research agenda", *International Journal of Consumer Studies*, Vol. 45 No. 4, pp. 844-866.
- Ricci, E. C., Banterle, A. and Stranieri, S. (2018), "Trust to go green: an exploration of consumer intentions for eco-friendly convenience food", *Ecological Economics*, Vol. 148, pp. 54-65.

- Ross, S.M. and Milne, G.R. (2021), "Price? Quality? Or sustainability? Segmenting by disposition toward self-other tradeoffs predicts consumers' sustainable decision-making", *Journal of Business Ethics*, Vol. 172 No. 2, pp. 361-378.
- Schramm-Klein, H., Morschett, D. and Swoboda, B. (2015), "Retailer corporate social responsibility: Shedding light on CSR's impact on profit of intermediaries in marketing channels", *International Journal of Retail & Distribution Management*, Vol. 43 No. 4/5, pp. 403-431.
- Sokolova, T., Krishna A. and Döring, T. (2023), "Paper meets plastic: The perceived environmental friendliness of product packaging", *Journal of Consumer Research*, ucad008, <https://doi.org/10.1093/jcr/ucad008> .
- Sundar, A. and Kellaris, J.J. (2017), "How logo colors influence shoppers' judgments of retailer ethicality: The mediating role of perceived eco-friendliness", *Journal of Business Ethics*, Vol. 146, pp. 685-701.
- Swaen, V., Demoulin, N., Pauwels-Delassus, V. (2021), "Impact of customers' perceptions regarding corporate social responsibility and irresponsibility in the grocery retailing industry: The role of corporate reputation", *Journal of Business Research*, Vol. 131, pp. 709-721.
- ter Braak, A., Geyskens, I. and Dekimpe, M.G. (2014), "Taking private labels upmarket: Empirical generalizations on category drivers of premium private label introductions", *Journal of Retailing*, Vol. 90 No. 2, pp.125-140.
- Tenenhaus, M., Esposito Vinzi, V., Chatelin, Y.M. and Lauro, C. (2005), "PLS path modelling", *Computational Statistics Data Analysis*, Vol. 48 No. 1, pp. 159-205.
- Tobler, C., Visschers, V.H., Siegrist, M. (2011), "Eating green: Consumers' willingness to adopt ecological food consumption behaviors", *Appetite*, Vol. 57 No. 3, pp. 674-682.
- Wang, X.-X. and He, A.-Z. (2022), "The impact of retailers' sustainable development on consumer advocacy: A chain mediation model investigation", *Journal of Retailing and Consumer Services*, Vol. 64: 102818.
- Wei, W., Kim, G., Miao, L., Behnke, C. and Almanza, B. (2018), "Consumer inferences of corporate social responsibility (CSR) claims on packaged foods", *Journal of Business Research*, Vol. 83, pp. 186-201.
- Wu, S. I. and Chen, Y. J. (2014), "The impact of green marketing and perceived innovation on purchase intention for green products", *International Journal of Marketing Studies*, Vol. 6 No. 5, pp. 81.
- Wu, L., Yang, W., and Wu, J. (2021), "Private label management: A literature review", *Journal of Business Research*, Vol. 125, pp. 368-384.
- Yoo, S.R., Lee S.W. and Jeon H.M. (2020), "The role of customer experience, food healthiness, and value for revisit intention in GROCERANT", *Sustainability*, Vol. 12 No. 6, 2359.
- Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1996), "The behavioral consequences of service quality", *Journal of Marketing*, Vol. 60 No. 2, pp. 31-46.

**Figure 1: The research model**

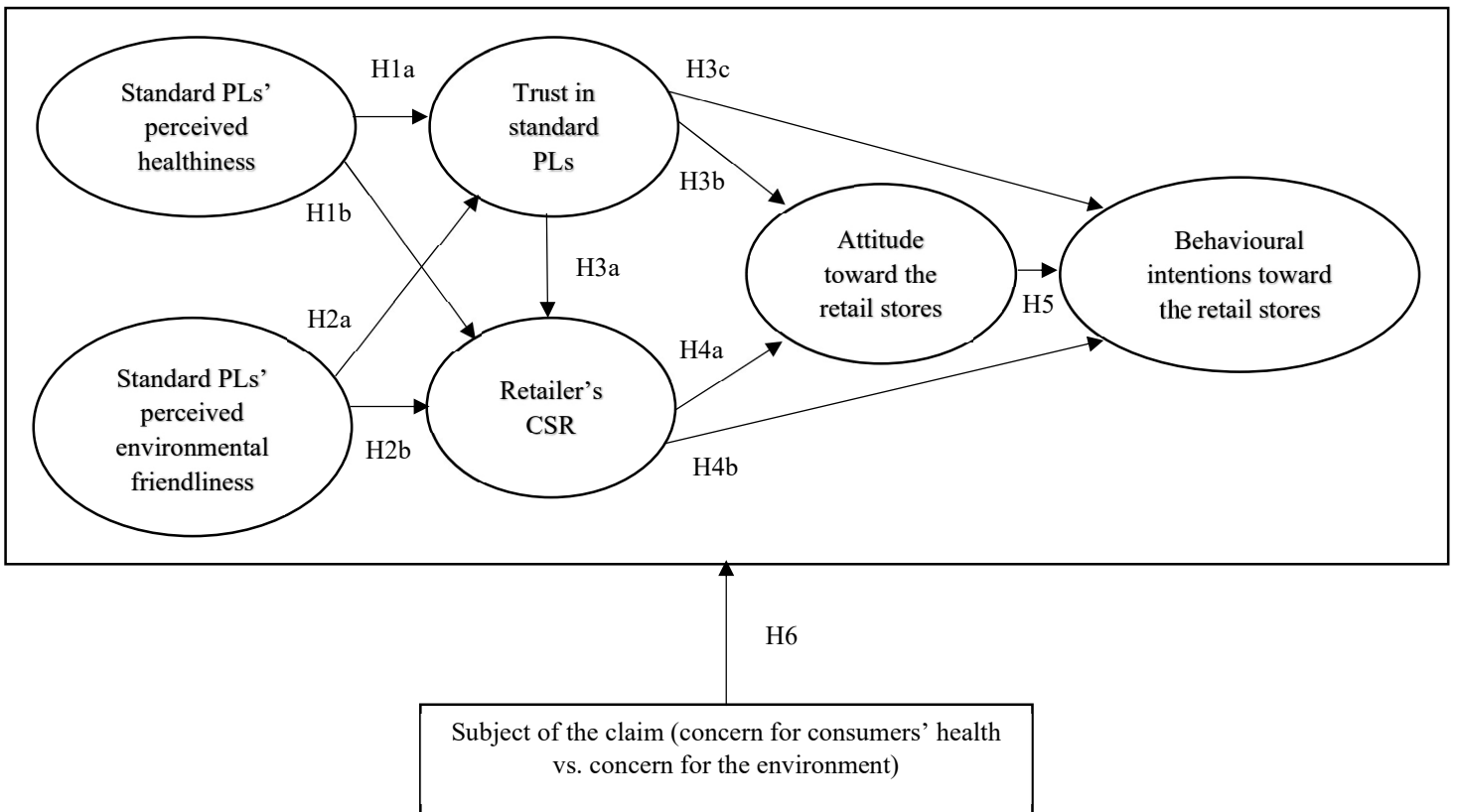


Figure by authors

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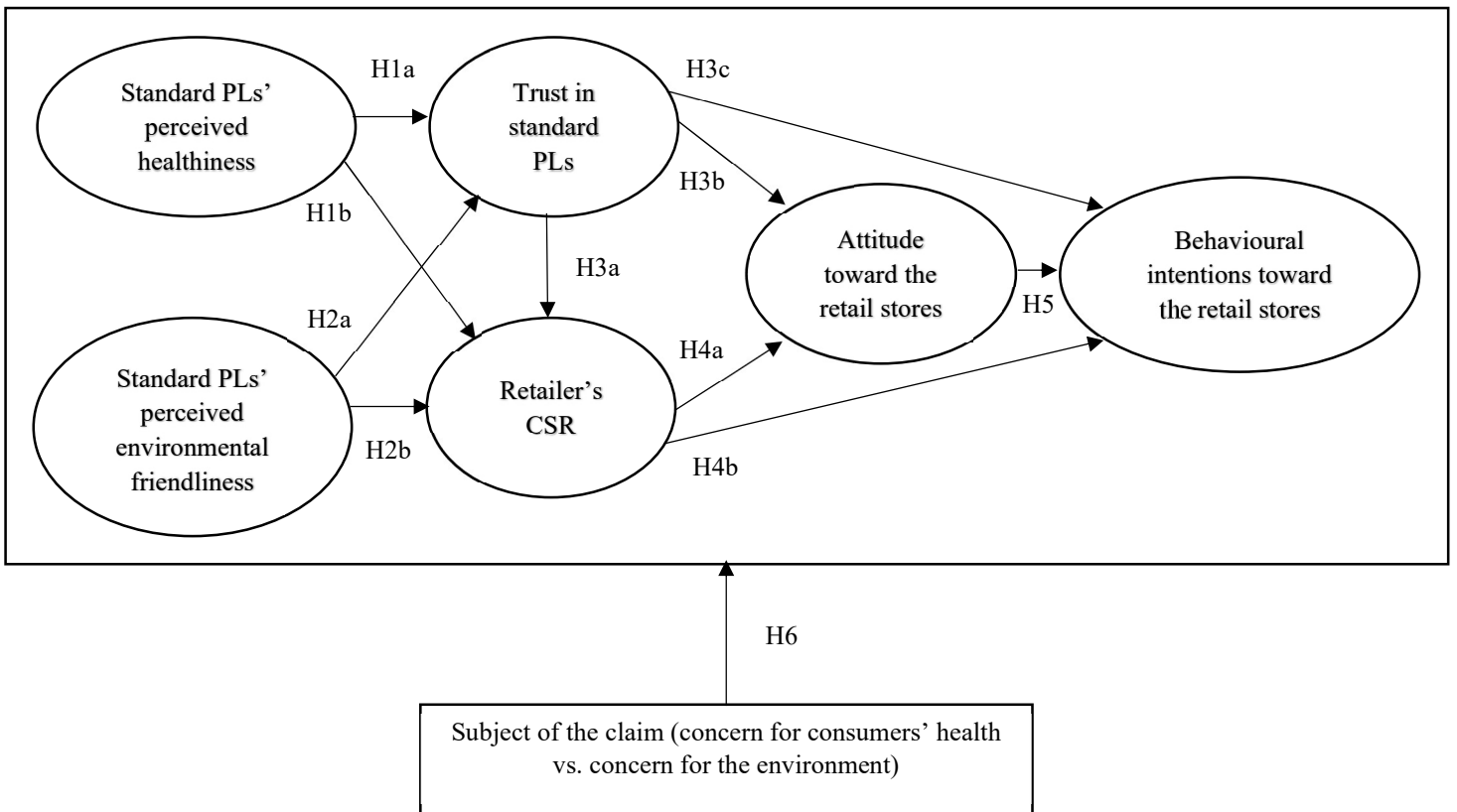


Figure by authors

**Table 1: Results of confirmatory factor analysis**

<b>Constructs</b>	<b>Codes</b>	<b>Loadings</b>	<b>t</b>
PLs' perceived healthiness	HEALTH1	0.729	33.710***
	HEALTH2	0.792	36.229***
	HEALTH3	0.844	48.377***
PLs' perceived environmental friendliness	ENV1	0.864	69.384***
	ENV2	0.871	68.281***
	ENV3	0.874	84.729***
Trust in PLs - Credibility dimension	CRED1	0.909	61.559***
	CRED2	0.871	50.174***
	CRED3	0.875	55.904***
Trust in PLs - Integrity dimension	INT1	0.895	51.232***
	INT2	0.898	44.782***
	INT3	0.802	39.290***
Trust in PLs - Benevolence dimension	BEN1	0.892	45.654***
	BEN1	0.891	49.711***
Retailer's CSR- Environment-oriented dimension	CSR1	0.874	49.252***
	CSR2	0.894	50.982***
	CSR3	0.790	50.110***
Retailer's CSR - Customer-oriented dimension	CSR4	0.849	50.795***
	CSR5	0.842	49.037***
	CSR6	0.864	51.880***
Attitude toward the retail stores	ATT1	0.902	54.936***
	ATT2	0.781	49.979***
	ATT3	0.921	54.847***
	ATT4	0.892	55.936***
Behavioural intentions toward the retail stores	BI1	0.934	141.814***
	BI2	0.934	141.814***

Note: Student's t test values greater than |2.575| indicate loadings significant at the 1% level (\*\*\*).

Table by authors

**Table 2: Tests of reliability, convergent and discriminant validity**

	CR	AVE	Fornell and Larcker (1981)									Henseler <i>et al.</i> (2015)								
			1.	2.	3.	4.	5.	6.	7.	8.	9.	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. PLs' healthiness	0.832	0.624																		
2. PLs' environmental friendliness	0.903	0.756	0.603																	
3. Trust in PLs - Credibility	0.916	0.783	0.425	0.365																
4. Trust in PLs - Integrity	0.900	0.750	0.318	0.305	0.442															
5. Trust in PLs - Benevolence	0.886	0.795	0.271	0.259	0.417	0.379														
6. Retailer's CSR - Environment-oriented	0.889	0.729	0.343	0.407	0.327	0.288	0.369													
7. Retailer's CSR - Customer-oriented	0.888	0.725	0.344	0.311	0.405	0.300	0.340	0.675												
8. Attitude	0.929	0.872	0.121	0.079	0.227	0.182	0.123	0.114	0.138											
9. Behavioural intentions	0.932	0.767	0.166	0.127	0.260	0.238	0.204	0.169	0.206	0.663										

Notes: AVE = Average variance extracted; CR = Composite reliability  
Table by authors

**Table 3: Results of structural equation model**

	PL products that lack preservatives (n = 68)			PL products that contain ingredients of natural origin (n = 68)			PL products that are additive-free (n = 74)		
	PC	t	R <sup>2</sup>	PC	t	R <sup>2</sup>	PC	t	R <sup>2</sup>
Healthiness → Trust	0.425	2.815***	0.487	0.435	3.367***	0.495	0.501	3.262***	0.500
Environmental friendliness → Trust	0.307	2.034**		0.320	2.482**		ns	ns	
Healthiness → CSR	0.343	2.202**	0.520	0.209	1.813*	0.662	0.327	2.708***	0.706
Environmental friendliness → CSR	ns	ns		ns	ns		0.471	5.135***	
Trust → CSR	0.443	3.664***	0.403	0.600	5.868***	0.386	0.504	3.406***	0.383
Trust → Attitude	0.544	4.190***		0.377	2.377**		ns	ns	
CSR → Attitude	ns	ns		0.279	1.761*		0.213	1.978**	
Trust → BI	ns	ns	0.746	0.184	1.980**	0.701	ns	ns	0.722
CSR → BI	-0.286	-3.325***		0.159	1.671*		0.767	9.556***	
Attitude → BI	0.742	11.548***		0.776	12.299***				
	PL products that preserve natural resources (n = 74)			PL products that limit the use of pesticides in production (n = 76)			PL products that reduce packaging (n = 70)		
	PC	t	R <sup>2</sup>	PC	t	R <sup>2</sup>	PC	t	R <sup>2</sup>
Healthiness → Trust	0.584	5.223***	0.668	0.331	2.539**	0.531	ns	ns	0.513
Environmental friendliness → Trust	0.273	2.437**		0.438	3.356***		0.481	2.919***	
Healthiness → CSR	ns	ns	0.645	ns	ns	0.436	ns	ns	0.566
Environmental friendliness → CSR	0.473	3.898***		ns	ns		0.330	2.066**	
Trust → CSR	0.270	2.184**	0.309	0.664	5.134***	0.266	0.429	3.693***	0.636
Trust → Attitude	0.611	4.318***		0.376	2.825***		0.970	9.430***	
CSR → Attitude	ns	ns		ns	ns		-0.286	-2.775***	
Trust → BI	ns	ns	0.630	ns	ns	0.560	ns	ns	0.627
CSR → BI	ns	ns		ns	ns		ns	ns	
Attitude → BI	0.788	10.537***		0.770	8.432***		0.739	6.726***	
	Control group (n = 74)								
	PC	t	R <sup>2</sup>						
Healthiness → Trust	0.335	2.614***	0.317						
Environmental friendliness → Trust	0.286	2.232**							
Healthiness → CSR	ns	ns	0.477						
Environmental friendliness → CSR	ns	ns							
Trust → CSR	0.497	4.753***	0.265						
Trust → Attitude	ns	ns							
CSR → Attitude	0.355	2.642***							
Trust → BI	ns	ns	0.777						
CSR → BI	0.212	2.716***							
Attitude → BI	0.786	11.932***							

Notes: PC = path coefficient. ns = non-significant. \*\*\* p-value < 1%, \*\* p-value < 5%, \* p-value < 10%. Tested two-tailed. 90% confidence interval (5,000 bootstrap samples).

Table by authors