Definition, conceptualization and measurement of consumer-based retailer brand equity

Julien Troiville, Joseph Franklin Hair, Gérard Cliquet

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Julien Troiville [a] *

Joe F. Hair [b]

Gérard Cliquet [c]

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[a] Center for Research in Economics and Management (CREM UMR CNRS 6211), University of Rennes1. IUT GEA de Rennes, 263 av. du Général Leclerc, 35 042 RENNES, FRANCE.

julien.troiville@univ-rennes1.fr

[b] Distinguished Professor of Marketing, Cleverdon Chair of Business, Mitchell College of Business, University of South Alabama, USA.

jhair@southalabama.edu

[c] Center for Research in Economics and Management (CREM UMR CNRS 6211), University of Rennes1. IGR-IAE Rennes, 11 rue Jean Macé, CS 70803, 35708 RENNES Cedex 7, FRANCE.

gerard.cliquet@univ-rennes1.fr

* Corresponding author

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Abstract

The objective of this research is to develop a measure of consumer-based retailer brand equity. The research process starts with the definition and the conceptualization of the construct and leads to the evaluation of the measure using confirmatory composite analysis. Results suggest retailer brand equity is a second-order reflective-formative construct with eight sub-dimensions that retailers can leverage to enhance the value offered to consumers and consequently to build brand equity. Relevant theoretical and methodological considerations are proposed for academics, and implications for practitioners are summarized to facilitate multiple comparisons and benchmarking strategies across outlets.

Keywords

Consumers' experiences; retailer brand equity (RBE); RBE dimensions; retailer's strategy, store branding.

1. Introduction

Along with promoting specific products and services, major brands now spend millions of dollars and massive effort to promote the brand itself as a global brand (Steenkamp 2014). Their aim is to develop valuable experiences and build a strong relationship with customers. In this regard, they are focusing on increasing brand equity, which is the "added value" a given brand endows a product (Farquhar 1989), including "the enhancement in the perceived utility and desirability a brand name confers on a product" (Lassar et al. 1995) or more basically, "the power of the brand name" (Stahl et al. 2012).

This objective is also worth pursuing for firms that develop brands in the retail industry. Hence, retailers should build brand equity to enhance the power of their name. Measuring retailer brand equity (RBE) is a challenging issue for academics because "the rise of the retailer as not just a retail outlet but also as a brand provides perhaps one of the most critical trends in the retailing field" (Grewal and Levy 2009). Retailer brand equity is a valuable and intangible asset that affects consumer behavior and retailer performance (Grewal et al. 2009; Keller and Lehmann 2006). A clear example of the importance of retailer brand equity is evidenced by the conclusion in the *Global Powers of Retailing* annual report (Deloitte 2012): "retailers will have to find ways to distinguish themselves from competitors in order to succeed. That means having strong brand equity, offering consumers superior shopping experiences, and being clearly differentiated from competitors. The latter can entail unique merchandise offerings including private brands, unique store formats and designs, and unusual customer experiences". That means that in fierce competition markets (Kahn et al. 2018) brands should differentiate from contenders to increase their market share. The digital evolution with the internet of things technologies, mobile commerce and social media clearly enhance this development (Verhoef et al. 2015; Grewal et al. 2017). Low prices are no longer enough for retailers to prosper; they must develop branding strategies to bring more value to consumers.

Brand equity research has frequently focused on products and services, but not so much on retailer brand equity. Consequently, a conceptualization and measure of brand equity adapted specifically to retailers is relevant in spite of the unique challenges involved (Ailawadi and Keller 2004). The recent debate between Londoño et al. (2016, 2017) and Pappu and Quester (2017) clearly demonstrates that a measure of RBE is still of high interest in retailing nowadays. Table 1 summarizes the studies that have investigated the concept of retailer brand equity in the past 15 years.

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Most research works considered retailer brand equity as an outcome construct striving to understand the influence of various marketing variables. None of them focused on the early stages of definition and conceptualization (Dubin 1978; Kozlowski and Klein 2000) in order to adequately adapt the brand equity concept in a retailing context, questioning existing scales to develop a measure of retailer brand equity (MacKenzie et al. 2011). For example, Arnett et al. (2003, p. 161) state that "because retailer equity is a form of brand equity its structure parallels that of general brand equity" and consequently uses a product-based brand equity model. Applying general brand equity frameworks, such as those of Aaker (1991, 1996) (e.g., Arnett et al. 2003) and Keller (1993) (e.g., Hartman and Spiro 2005), to measure retailer brand equity may lead researchers into the downward spiral of a poor and inadequate conceptualization (MacKenzie 2003). Ailawadi and Keller (2004) state that retailers are "sufficiently different from product brands" to escape from classic product brand principles. These authors argue that retailer image dimensions from consumer perceptions and consumer experiences are retailer brand equity bases, but with no empirical validation.

As current retailer brand equity measures are incomplete and/or inadequate, this article strives to fill this gap by developing an adapted and accurate measure based on a proper conceptualization. From an academic standpoint, building a new measure implies providing a contemporary definition of retailer brand equity (Mackenzie 2003), respecting construct validation procedures (MacKenzie et al. 2011) and selecting and properly using the appropriate methods (Hair et al. 2012).

This objective should also lead to conceptualize retailer brand equity in an understandable and relevant manner for managers by developing a brand equity metric (Ailawadi et al. 2003; Datta et al. 2017) even though this concept appears complex and difficult to assess the retailer brand value (Ailawadi and Keller 2004; Buil et al. 2013). This study focuses on large retailers with well-known companies such as Walmart (US), Tesco (UK) and Carrefour (France). This area of research is important because these retailers represent powerful firms and major brands consumers frequently patronize.

This research follows a consumer-based perspective to define, conceptualize and measure the retailer brand equity (RBE) construct and hence contributes to the retailing and the branding literature. Results identify eight RBE dimensions and three of them are determinant: store atmosphere, product quality and product value whereas store access is considered weak.

The paper begins with a brief overview of the relevant literature and the definition of focal concepts. The next section introduces the new conceptualization and presents the hypotheses. Then, the methodology and the results are presented and discussed. The last section reports important implications for both academics and managers and outlines limitations and future research perspectives.

2. Conceptual framework and hypotheses

2.1. Theoretical background

In the following sections, we shall address definitional foundations that further serve to develop the RBE conceptualization.

Since Ailawadi and Keller's (2004) call for a specific measure of retailer brand equity, much research has described the relevance of both store attributes (e.g., Burt and Davies 2010; Hartman and Spiro 2005; Pappu and Quester 2006a) and the value of consumers' experiences (e.g., Puccinelli et al. 2009; Verhoef et al. 2009). A specific conceptual definition adapted to retailers remains to be developed and validated. Indeed, retailers typically build brand equity by enhancing the product value (Monroe and Krishnan 1985; Zeithaml 1988) and the experiential value (Arnould et al. 2002; Hirschman and Holbrook 1986; Holbrook and Hirschman 1982), but still have no effective means to operationalize and measure it (Hartman and Spiro 2005).

Considering that the store should be viewed as the product in the retail area (Dicke 1992; Floor 2006), this study considers retailer brand equity as the added value with which the retailer endows its stores, and the combination of products, services and experiences that are delivered through these outlets. This definition is inherently adapted to the definition of the retailer as a brand instead of a classic product brand, as outlined in Fig. 1.

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Brand equity appears as a major construct and retailers should take advantage of such a metric to impact customer behavior and therefore product-market performance, accounting performance and financial-market performance (Katsikeas et al. 2016). This seems especially worthwhile because the equity of the retailer should serve to increase the retailers:

i) share of wallet (by increasing the money spent in its owned stores);

ii) market share (by adding up the current and new customers due to its attraction)

iii) power against competitors within the marketplace;

iv) bargaining power against manufacturers and suppliers in the vertical channel;

v) efficiency (by a cost reduction); and

vi) revenue and profits.

2.2. Conceptualization of the retailer brand equity construct

Brand equity theories have been developed especially for product brands (Aaker 1991; Keller 1993). These product-based brand equity frameworks are consequently not appropriate and should not be used when it comes to conceptualizing the brand equity of retailers. Ailawadi and Keller (2004) explicitly address this issue and acknowledge that Keller's former theory (1993) is not relevant when assessing retailer brand equity. Since a theory is defined by the boundaries within which it is expected to hold (Dubin 1978) and the entity to which it applies (MacKenzie et al. 2011), the application and the relevance of Aaker's (1991) or Keller's (1993) brand equity conceptualizations should be strongly justified (Cook et al. 1979; MacKenzie 2003; Nunnally and Bernstein 1994). In this respect, results from previous RBE empirical research (Arnett et al. 2003, DeCarlo et al. 2007; Jinfeng and Zhilong 2009; Pappu and Quester 2006a, 2006b), which did not provide arguments for transposing brand equity theories to another distinct entity, should be considered with caution. Retailer specific attributes and the rich in-store experiences offered to consumers involve an equity conceptualization adapted to retailers (Ailawadi and Keller 2004; Anselmsson et al. 2017; Grewal and Levy 2009; Swoboda et al. 2016). The aforementioned definition of retailer brand equity is the first step to evolving toward a precise retailer conceptual framework.

2.2.1. Conceptual definition

An initial step in the conceptualization is to identify dimensions by which a retailer can manage to build brand equity. These dimensions should validate several assertions. First, they must be clearly perceived by consumers since it refers to a consumer-based retail brand equity measure. Second, these dimensions may be concrete and easily evaluated by consumers who are the beneficiaries of retail offers (Drucker 1985) and therefore relevant to proceed to evaluation. Last, retailers may leverage these dimensions in their operational marketing strategies to increase the delivered value to consumers and to build brand equity.

The value corresponds to general property (MacKenzie et al. 2011) and is established by evaluations of consumers – the beneficiaries of the service. So what should be the sources of this value? Retailers would say customer benefits come from both the acquisition of products and the interactions with the brand; that is, the consumers' experiences.

A complete inventory of all attributes that relate to products, services, stores and interactions is unlikely to be possible. Much research has searched for an exhaustive list of retailer attributes and stimuli (Kunkel and Berry 1968) like in the store image paradigm. The previous definition of retailer brand equity does not imply the description of every characteristic of the retailer's offer, but rather focuses on dimensions that contribute to value creation. Image is a concept that is distinct from brand equity (Ailawadi et al. 2003, Swoboda et al. 2016). Therefore, the store image paradigm is a necessary but insufficient construct to understand retailer performance and customer behavior (Hartman and Spiro 2005).

It should be noted that brick-and-mortar stores are clearly not the only retailing channel. Indeed, other retailing channels such as online purchasing are growing rapidly but are still only about ten percent of US retail sales (Melis et al. 2016). From an academic perspective, brick-and-mortar stores and online channels are too different to be merged in a consistent retailer brand equity definition without serious internal validity issues (Dubin 1978; MacKenzie 2003). Combining customers' evaluations that come from distinct purchase behaviors may lead to a failure when operationalizing and measuring constructs. Consequently, we chose to focus on customers' in-store experiences and rely upon direct and repeated observations and evaluations of retailers' stores (Keaveney and Hunt 1992) to measure retailer brand equity. In other words, RBE is measured at the store level. Recent results confirm the centrality of retail stores by noting that they act as billboards for brands in an omni-channel strategy and are fruitful in the long-term retail strategy, since the store increases sales in other channels (Avery et al. 2012).

2.2.2. Operationalization of the RBE construct

These dimensions are unique aspects – or facets – of RBE, which is consequently a multidimensional construct (MacKenzie et al. 2011). More precisely, we argue that RBE is a reflective-formative second-order construct (Hair et al. 2017). This hierarchical component model (HCM) is theoretically appropriate because the RBE construct evolves at a higher level of abstraction as long as it has multiple inter-related sub-dimensions (Law et al. 1998), each of which represents a facet of the construct (Bollen and Lennox 1991). Indeed, these dimensions collectively "constitute" (Edwards 2001) or "produce" (Law et al. 1998) the retailer brand equity construct. In other words, RBE sub-dimensions are not antecedents that cause the construct but rather contributors of this construct in a composite measurement model (Bollen 2011, Bollen and Bauldry 2011; Henseler 2017; Sarstedt et al. 2016).

To determine what dimensions should be retained, an extended literature review has served to select the most common dimensions. Then, a qualitative study was undertaken to explore consumers' shopping goals and experiences in the retail sector and identify dimensions that consumers care about when they patronize. Eighteen face-to-face semi-structured interviews were conducted with consumers (nine females and nine males, ages 26-77) and interviews were recorded[1]. With this process, eight dimensions, or variables of the retailer's marketing mix, emerge and serve the retailer in order to create value and build its equity. The next section summarizes these dimensions.

2.2.3. RBE dimensions

Access

Retailer access refers to the location of the store and the relative shopping costs associated with the consumer shopping there, including, for example, money, time or effort (Zeithaml 1988).

[1] The methodology as well as respondent verbatim for each dimension and the node classifications are available upon request.

In this study, the access dimension denotes the access convenience (Seiders et al. 2005). Retailers should build their strategies in facilitating consumers' shopping trips with accessible stores so that consumers can minimize devoted resources. In summary, this dimension assesses if it is easy and quick to get into the store. We therefore hypothesize:

H1. Access is positively associated with retailer brand equity.

Assortment

Assortment refers to the number of different items in a product category (Levy and Weitz 2011). More specifically, it includes the variety of goods and services simultaneously offered in the store (Gómez et al. 2004). In a branding perspective, this crucial dimension for retailers (Ailawadi and Keller 2004; Hoch et al. 1999; Pan and Zinkhan 2006) is sometimes considered the first determinant of the store choice (Briesch et al. 2009), especially because it modifies store perceptions and the in-store experience (Verhoef et al. 2009). Consequently, retailers should manage the assortment of their stores to satisfy consumers' needs, create value and enhance loyalty. The best assortment for a retailer is the one that satisfies the expectations and preferences of consumers and consecutively enhances their satisfaction and loyalty. Consumers' evaluations of the assortment should be based on its global suitability, that is, how the latter can satisfy consumers' individual expectations. In sum, if the selection of products and services offered by the retailer are perceived as relevant by consumers. Formally,

H2. Assortment is positively associated with retailer brand equity.

Atmosphere

In-store atmosphere refers to the enjoyable and pleasant properties of the shopping trip (Grewal et al. 2003). The atmosphere contributes to the hedonic value (Babin et al. 1994) with the aesthetic (Holbrook 1994) or the visual appeal of the store (Mathwick et al. 2001). This dimension represents how the retailer can operate within its stores to make the shopping trip either pleasant and even enjoyable or distractive for consumers. In sum, if the store is judged attractive and a nice place for shopping, then it is favorably perceived on the appeal dimension. Thus, we propose:

H3. Atmosphere is positively associated with retailer brand equity.

Convenience

The dimension convenience refers to the extent to which retailers make shopping easy for customers. To do so, retailers must assist customers and make their shopping trip easier and more convenient. Retail stores will be convenient if goods and brands that consumers are looking for can be easily and quickly found. Following Dabholkar and colleagues (1996), convenience is associated with efficiency (Mathwick et al. 2001) and is related to the utilitarian dimension (Babin et al. 1994). More specifically, convenience in this research means usefulness and easiness of the in-store layout and its propensity to make the shopping trip more efficient. In sum, convenience is achieved if the interior of the outlet is well designed and facilitates the customers' shopping trip. Thus, we hypothesize:

H4. Convenience is positively associated with retailer brand equity.

Employees

This dimension refers to the competence of retailer employees as perceived and evaluated by customers. Interactions with staff members often relate to a part of a more global dimension called service. However, the conceptualization and operationalization in a service perspective (Dabholkar et al. 1996; Parasuraman et al. 1988) raises several limits relative to the nature of the retailer's activities and characteristics. A distinction between the value added by the employees from other distinct service aspects should be made. Consumers' evaluations concerning employees can be neutral, especially in the FMCG sector where interactions are less frequent than in different sectors (e.g., fashion, furniture). As we learned in our qualitative study, consumers' interactions with the staff frequently lead to strong opinions, either positive or negative, that contribute to either the creation or destruction of value. Instead of gathering evaluations of different facets of employee behavior, it is more logical to rely on a global and holistic evaluation of retail employees as perceived by customers insofar as a staff member can be respectful but not helpful or vice and versa. The employee dimension refers, therefore, to how retailers can create value with the interactions between employees and customers and satisfy their expectations. In sum, are the retail employees effective in delivering the service. Formally,

H5. Employees are positively associated with retailer brand equity.

Product Quality

The product quality dimension refers to customer evaluations of the level of quality of merchandise sold in retail stores. In the grocery sector, product quality evaluation concomitantly relates to experiences with the product (Szymanowski and Gijsbrechts 2012), for example, with previous consumption and to subjective perceptions linked to extrinsic product attributes (Richardson et al. 1994). The selection of a range of brands and the level of quality associated with these brands influences the global perception of merchandise quality and consequently the perception of the store (Ailawadi and Keller 2004; Baker et al. 1994). In sum, the product quality dimension is directly related to the perception of the merchandise quality. In accordance with these findings, we propose the following hypothesis:

H6. Product quality is positively associated with retailer brand equity.

Product Value

The product value dimension refers to customer evaluations of the level of value of merchandise sold in retail stores. Value means what is received and what is given (Zeithaml 1988) and is activated at the same time as perceptions of price and quality (Hallowell 1996). Price only reflects the monetary aspect without consideration of other resources, such as time or effort (Baker et al. 2002). This study posits that product value is a dimension that is distinct from price or quality taken separately. The value of the product is crucial, as consumers look for a retailer able to provide items with a good level of quality at competitive prices. This especially holds in the FMCG context where trips are frequent and imply price sensitivity. In summary, the product value dimension is directly related to the perception of the price of the merchandise. Thus, we hypothesize:

H7. Product value is positively associated with retailer brand equity.

Private Brands

Private brands are "owned and branded by organizations whose primary economic commitment is distribution rather than production" (Schutte 1969). These brands are also referred to as retail brands, private label or store brands (Kumar and Steenkamp 2007), as opposed to manufacturer's brands (or national brands) that are owned by organizations whose primary economic commitment is production. Retailers frequently develop their private brand portfolio to achieve various objectives, with a price-based segmentation strategy ranging from "cheap and nasty" to premium and other strategies providing specific benefits for consumers with various ranges of products (e.g., organic, fair trade, etc.). These brands enable retailers to satisfy different kind of consumers, to differentiate them from competitors (Sudhir and Talukdar 2004), to enhance loyalty (Ailawadi and Harlam 2004; Koschate-Fischer et al. 2014) and to increase revenue (Corstjens and Lal 2000). Differentiating private brand strategies can consequently help retailers to reap the benefits of a virtuous cycle in developing these brands (Ailawadi et al. 2008) that should be viewed as a competitive resource (Barney 1991). Moreover, customer evaluations of private brands should be holistic in order to materialize the value added by these brands and how the various aspects satisfy consumers (e.g., choice, quality and size). In summary, private brands are effective if the selection of branded products sold by the retailer is relevant in any way. In accordance with these findings, we propose the following hypothesis:

H8. Private brands are positively associated with retailer brand equity.

Fig. 2 displays the conceptualization of retailer brand equity. The model summarizes the eight sub-dimensions that together form the RBE construct and three other latent variables included in the nomological network proposed as consequences of the focal construct. We hypothesize that the eight dimensions of retailer brand equity have a positive influence on retailer brand equity, which is also expected to predict attitudes, loyalty and word-of-mouth communications. The idea that brand equity influences consumer attitudes toward the retailer and affects loyalty and word-of-mouth communications strongly emerges in the marketing literature.

Attitudes toward the retailer as a brand is a psychological construct that is part of brand associations (Keller 1993). Generally speaking, brand attitude is defined as “consumers' overall evaluations of a brand” (Wilkie 1986) and involve a judgment about the brand and a cold affect (Cohen and Areni 1991). Brand attitude is a critical brand equity driver (Park et al. 2010) that predicts major variables of interests in retailing like intention to purchase, purchase behavior, and brand choice (Park et al. 2010; Priester et al. 2004). Therefore, attitudes toward the retailer - the brand - form the basis of consumer behavior and retailer choice.

Following Yoo et al. (2000) or Arnett et al. (2003), retailer loyalty is defined as “a deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver 1997). This construct is crucial in retailing (e.g., Jones and Kim 2011; Ou et al. 2017; Reinartz and Kumar 2002), more especially when studying brand equity. For example, Swoboda et al. (2016) underline a strong and stable link between retail brand equity and intentional loyalty across various retail sectors. The present study follows the seminal definition of Oliver (1997) as well as many retailing studies in branding (e.g., Arnett et al. 2003; Chebat et al. 2009; Jinfeng and Zhilong 2009, Ou et al. 2017) and regard loyalty as a consequence of brand equity.

Word-of-mouth communications is defined as "informal, person-to-person communication between a perceived noncommercial communicator and a receiver regarding a brand, a product, an organization, or a service" (Harrison-Walker 2001). WOM impacts consumer judgments and behavior and is an important source of consumer expectations (Brown et al. 2005: Zeithaml et al. 1993). When these communications are favorable, WOM is even consider as the ultimate product success factor (for a review, see Harrison-Walker 2001). WOM is also a crucial variable in the diffusion of innovation or novelty (Arndt 1967; Bass 1969) and in the success of a firm in the marketplace (Aaker 1991).

Therefore, positive evaluations of the eight retailer brand equity dimensions lead to strong brand equity for the retailer and consequently to positive attitudes, higher loyalty and positive word-of-mouth communications. Hence, we formulate the following hypotheses:

H9. Retailer brand equity is positively associated with attitudes toward the retailer.

H10. Retailer brand equity is positively associated with loyalty.

H11. Retailer brand equity is positively associated with word-of-mouth communications.

-------------------- *Fig. 2. here* --------------------

3. Model evaluation and results

To test the proposed model, we administered an online questionnaire to European grocery consumers who agreed to respond; 313 usable responses were obtained. Respondents were asked to identify and focus on their principal store; that is, the one where they buy most of their grocery products. Previous research articles provided scales that have previously been used and validated in a retail context (see appendix A).

Two pretests were conducted in developing the questionnaire to ensure a good understanding level. First, following Anderson and Gerbing's (1991) approach, substantive validity (item validity) assessment ensured that concepts were clearly distinct from one another. Second, two different groups of respondents (academics and consumers) received the questionnaire to assess face validity and evaluate each item for relevance and clarity; this led to minor modifications.

Requirements to achieve a statistical power of 80 percent assuming a one percent significance level when the minimum R^2 value in the model is .10 (Cohen 1992) led to a sample size of 238. Thus, the sample size met the recommended criteria. Indicators used seven-point Likert-type scales, with anchors of 1 = strongly disagree and 7 = strongly agree. The sample consisted of 102 males and 211 females, and the average age was 36.4 (standard deviation = 12.68) (see appendix B). Covariance-based SEM and component-based PLS-SEM (Chin et al. 2008; Hair et al. 2017) are two appropriate methods to assess the theoretical model (Hair et al. 2019). Partial least squares structural equation modeling (PLS-SEM) is widely used in business research (Sarstedt et al. 2016) and was suitable for the present study. Moreover, this method is particularly relevant in a prediction-oriented perspective (i.e., predictions of attitudes, loyalty and word-of-mouth communications) (Shmueli et al. 2016). The path model estimation uses the statistical software SmartPLS 3 (Ringle et al. 2015). Guidelines of Hair et al. (2012, 2017) and Becker et al. (2012) enabled measurement model evaluation with the repeated indicators approach to develop the hierarchical component model (HCM).

3.1. Model evaluations

Since an unequal number of items leads to weaker statistical results (Becker et al. 2012; Chin 2010), we conducted preliminary analysis in order to retain the same number of items for each RBE dimensions. The assessment of the composite reliability (Hair et al. 2017), as well as a principal component analysis, served to reduce the number of items and confirm unidimensionality of the RBE dimensions (Churchill and Iacobucci 2006; DeVellis 2003). This preliminary analysis led to a final scale with 24 items (3*8 dimensions) with all outer loadings upon the cutoff of .70 (Nunnally and Bernstein 1994) and allowed for evaluation of the model (see appendix C). Model assessment followed Hair et al. (2011, 2019) guidelines by systematically evaluating composite reliability, indicator reliability, convergent validity and discriminant validity for the eight first-order dimensions and for the three outcome constructs, because they were measured reflectively (see Table 2 for details). Absolute and relative fit indices (e.g., goodness-of-fit, RMSEA, GFI) are not included since PLS algorithm differs from the commonly used covariance-based algorithm (e.g., Lisrel) and does not produce such indices. Moreover, goodness-of-fit measures for PLS are not suitable for model validation (Henseler and Sarstedt 2013). Composite reliability ranged from .86 to .95 for the eleven constructs, exceeding the minimum requirement of .70 (Hair et al. 2019). Indicator loadings for all indicators were above .708, confirming individual item reliability (Hair et al. 2019). The average variance extracted for the constructs ranged from .61 to .91, thus demonstrating convergent validity for all constructs by exceeding the minimum standard of .50 (Hair et al. 2017). All calculated AVEs exceeded the squared correlations between the constructs (Fornell and Larcker 1981), indicating discriminant validity (see Table 3).

Since discriminant validity issues (e.g., dimension overlap) are an important consideration when using SEM, the $HTMT_{.85}$ criterion was employed in addition to the Fornell-Larcker test (Henseler et al. 2015). All of the stakeholder constructs exhibited ratios of less than .85 showing discriminant validity for the RBE dimensions and the nomological net endogenous constructs (see Appendix D).

-------------------- *Table 2 here* --------------------

-------------------- *Table 3 here* --------------------

The next step was the structural model evaluation of the relationship between the RBE construct and endogenous constructs embedded in its nomological network (Bagozzi 1980; Cronbach and Meehl 1955; Diamantopoulos and Winklhofer 2001). This allowed us to bring out the coefficient of determination (R^2), the size and significance of the path coefficients and the Stone-Geisser criterion (Q^2).

Since unobserved heterogeneity can cause estimation problems and bias the results (Becker et al. 2013), this study applied the FIMIX procedure (FInite MIXture) to examine this (Hair et al. 2016; Matthews et al. 2016). Results suggested there is no meaningful level of heterogeneity in the data, further strengthening the validity of the PLS-SEM results.

3.2. Results

This paper describes the development of a new model of retailer brand equity. Fig. 3 shows the standardized path coefficients, the related t-value (in brackets) and the R^2 value. Taken together, these results suggest that retailer brand equity is an important and relevant predictor of Loyalty, WoM and Attitude. All relationships are meaningful and significant. Finally, the Stone-Geisser criterion yielded meaningful Q^2 values outlining the model's predictive relevance (respectively .13; .33 and .455 for Loyalty, WoM and Attitude).

-------------------- *Fig. 3. here* --------------------

The statistical results confirm the relevance of a second-order reflective-formative model with eight sub-dimensions related to products and services, to stores and to consumers' experiences.

Within all these significant dimensions, the analysis reveals that the in-store atmosphere (path coefficient: .23) and the quality (.22) and value of the products (.20) offer the greatest potential for marketing activities. In other words, it means that consumers are very demanding regarding these dimensions. In contrast with the lowest dimension access (.12), these three major dimensions underline that consumers may sacrifice time to reach and patronize a pleasant store with quality products. Retailers have to deliver a high performance on these dimensions in order to reap the benefits of a virtuous circle by building a strong brand equity, which in turns increases loyalty and commitment towards the retailer and provides a positive and favorable opinion over the retailer.

4. Discussion

Academic and managerial contributions will first be presented, followed by the limitations of the study and perspectives for further research.

4.1. Research implications

Brand equity is an important concept in marketing (Ailawadi and Keller 2004; Keller and Lehmann 2006). Based on a contemporary definition of retailer brand equity, this research is the first to provide a retailer brand equity conceptualization that more effectively considers specificities and their relationship with customers. This study minimizes the limitations described in several previous studies:

- by implementing their recommendations for investigating retailer brand equity (Ailawadi and Keller 2004; Hartman and Spiro 2005; Pappu and Quester 2006a);
- by considering store attributes (Ailawadi and Keller 2004; Grewal and Levy 2009; Hartman and Spiro 2005) and consumers’ experiences (Ailawadi and Keller 2004; Puccinelli et al. 2009; Verhoef et al. 2009);

- by considering several specific and essential retail dimensions like access (Ailawadi and Keller 2004; Pappu and Quester 2006a), employees (Dabholkar et al. 1996; Haelsig et al. 2007);
- by integrating the key role of private brands into a brand equity measure (Burt and Davies 2010; Grewal and Levy 2009; Pappu and Quester 2006a).

This research fills the gap in the literature by integrating these varied results in a specific RBE framework, and by quantifying the importance of these dimensions for the retailer when attempting to build brand equity.

The findings clearly demonstrate that product attributes and in-store interactions are crucial for consumers. Retailer brand equity is, therefore, the result of different sources of value that are derived from products and services and at the same time from customer experiences. Our research also specifies which dimensions are determinants for consumers when they are looking for a store to patronize. In fact, product quality and a pleasant place to shop are both key elements in the grocery sector. The belief in consumer behavior research that consumers often attempt to minimize total shopping costs does not hold. Customers are able to devote time and money to patronize their preferred retailer even if its stores are not as easy to reach as those of competitors. Indeed, access is the weakest predictor, while quality and value are two of the three main predictors and in-store atmosphere is the most important.

Last, but not least, the comparison of the evaluations of customers loyal to a specific retailer serves to empirically assess the conceptual validity (MacKenzie et al. 2011).

4.2. Implications for managers

Low margins and intense competition characterize the retail industry where customers shop frequently. Retailers must develop relevant strategies in order to attract and retain consumers.

To do so, they must build their brand equity to provide more value to consumers and create and sustain market awareness. Our findings assist retail managers in four distinct ways.

First, by identifying the dimensions retailers can better manage their brand. All the dimensions significantly relate to RBE, confirming that the more positive consumers' evaluations of these dimensions are the more a retailer will be able to create added value with its offerings. In this regard, it is critical for retail firms to provide a better understanding of these dimensions and leverage them to enhance both consumers' experiences and perceptions of goods and services.

Second, this research provides valuable insights with a weighted ranking in order to compare RBE dimensions according to their own contribution to retailer brand equity. Global analysis underlines significant variations from one dimension to another. For example, with a weight of .23, atmosphere is almost twice as important as access (.12) in terms of building brand equity. This is a crucial operational insight from the findings, since this hierarchy facilitates identification of the main dimensions that determine brand equity and the degree to which each dimension is determinant. For example, three dimensions (atmosphere, product quality and product value) are strong drivers of brand equity and identify key factors of success within the grocery sector that retailers should understand and master. The non-significant level of heterogeneity strengthens the consistency of the results, as it outlines the influence of these three variables for various retail firms in different contexts. These are major areas of development that can be addressed by marketing activities.

Third, analysis of a single dimension could also be fruitful for retail firms through the weight of the contribution associated with the score obtained for the dimension. This score reflects consumers' evaluations of the dimension and provides a useful estimate of the retailer's ability to deliver the right performance on the dimension. Retailers have the capacity to determine whether one dimension should be prioritized above others according to the contribution and the score of each dimension. They can subsequently monitor and track these two values and use them in benchmarking analyses (e.g., across time periods or stores).

The performance of the access dimension, for example, is crucial for retailers owning convenient stores where consumers should be able to get to the stores quickly and easily. Even if this dimension does not appear crucial because of its relatively small contribution, it is relevant to track this score and allocate resources to develop strategies for specific retailers.

Retail firms must also understand that all dimensions contribute to the equity of their brand. Resources are sparse and must be well oriented according to strategic priorities. It seems risky, however, to radically reduce investments of one specific dimension to invest in another. In fact, using a similar reasoning as the two-factor theory (Herzberg et al. 1959), one dimension cannot directly create value, but a failure on this dimension can destroy value. For example, in-store convenience is a basic dimension that may not differentiate a retailer upward but can lead to serious issues if customers judge this dimension to be poorly achieved. Consequently, weighting allocations of resources among RBE drivers is critical and neglecting one dimension can lead to other important drawbacks. We recommend maintaining the right balance between these dimensions when developing brand equity.

Fourth, the conceptual definition of RBE outlines the importance of the value creation within the relationship between retailers and consumers. Retail firms should remember that it is possible to analyze these drivers at a lower level, for example, by dividing consumers according to different criteria that can relate to their characteristics, but also by revising the retail marketing strategy. In this regard, splitting consumers according to the store they patronize may lead to more precise analyses and accurate results and enable firms to adapt specific strategies and objectives at the local level.

5. Limitations and directions for further studies

Overall, we find support for this new measure and statistical results validate the conceptual model, even though there is a need for several improvements and further research. From a theoretical perspective, this new conceptualization involves eight crucial dimensions as drivers for the retailer in order to build its brand equity. A primary finding is to consider brand equity as a second-order construct with multiple dimensions as first-order variables. Several dimensions can probably be added – or removed – to fit other retailers or distinct customers (in a B to B relationship for example). However, following recommendations of previous research on RBE (e.g., Swoboda et al. 2016), two pretests and a qualitative study helped to identify relevant dimensions in the specific FMCG context and may strengthen the first order dimension selection. Nonetheless, parsimony in dimension selection is also essential because the more dimensions included in the model the higher the likelihood to obtain non-significant results for some dimensions due to statistical constraints (Cenfetelli and Bassellier 2009).

These limitations also suggest grounds for further research. Regarding the stability of the concept, the replication of the model is desirable in various other retail sectors (e.g., hard discounters, DIY retailers) in order to determine if these eight dimensions are equally relevant and to assess their respective contributions to brand equity. Cross-sector differences may appear according to both different retailer's strategies and consumers' goals. As FMCG sector and retailing in general are also highly culturally specific (de Mooij and Hofstede 2002), there is need for research across various countries to better understand potential variations in the way a retailer can build its brand equity.

Customer goals (Puccinelli et al. 2009) and motives (Morschett et al. 2005) vary not only from one to another, but also for the same consumer according to his/her shopping plans. In this respect, customers should weight RBE dimensions differently from time to time and investigating that could be of great interest since consumers' segments may not even be relevant. Clustering shopping patronage according to these goals and motives could lead to a better segmentation that can be very relevant in both academic and managerial contexts.

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Appendix A. Measurement scales.

	Measurement scales
RBE Dimensions	
Access	Seiders et al. (2005); Chowdhury, Reardon, and Srivastava (1998)
Assortment	Chowdhury, Reardon, and Srivastava (1998)*
Atmosphere	Grewal, Baker, Levy, and Voss (2003)
Convenience	Dabholkar, Thorpe, and Rentz (1996); Mathwick, Malhotra, and Rigdon (2001)
Employees	Dabholkar, Thorpe, and Rentz (1996)
Product Quality	Arnett, Laverie, and Meiers (2003)
Product Value	Sweeney and Soutar (2001)
Private Brands	Dodds, Monroe, and Grewal (1991); Arnett, Laverie, and Meiers (2003)
Nomological Network	
Attitude	Chebat, Sirgy, and Grzeskowiak (2010)
Loyalty	Yoo, Donthu, and Lee (2000)
Word-of-Mouth Communication	Chebat, Sirgy, and Grzeskowiak (2010)

Notes. * adapted with the results of the qualitative study.

Appendix B. Demographic statistics.

	Value	Share (%)
Gender		
Male	102	32.59
Female	211	67.41
Age		
18-24	34	10.86
25-34	144	46.01
35-44	51	16.29
45-54	43	13.74
55-64	36	11.50
Over 64	5	1.60
Household size		
1	74	23.64
2	119	38.02
3	36	11.50
4	53	16.93
5	29	9.27
6	2	0.64
Household Income per month (€)		
-1000	30	9.58
1000-2000	71	22.68
2000-3000	78	24.92
3000-4000	76	24.28
4000-5000	32	10.22
5000 +	26	8.31
Number of store visits		
One every month	12	3.83
Twice every month	62	19.81
One every week	148	47.28
Twice every week	62	19.81
3 every week	18	5.75
More	11	3.51

Appendix C. Measurement of latent constructs.

Latent constructs	Items		Adapted from:
RBE dimensions			
Access	ACC1	It is easy to get into this store.	Chowdhury et al. (1998)
	ACC2	This store is not easily accessible. (r-c)	Chowdhury et al. (1998)
	ACC3	This store offers convenient locations.	Seiders et al. (2005)
Assortment	AST1	This store never seems to lack the type of product I buy.	Chowdhury et al. (1998)
	AST2	This store has a large variety of products.	Chowdhury et al. (1998)
	AST3	Everything I need is at this store.	Chowdhury et al. (1998)
Atmosphere	ATM1	This store is a pleasant place to shop.	Grewal et al. (2003)
	ATM2	This store is attractive.	Grewal et al. (2003)
	ATM3	This store is not a pleasant place to shop. (r-c)	Grewal et al. (2003)
Convenience	CON1	The store layout at this store makes it easy for customers to find what they need.	Dabholkar et al. (1996)
	CON2	The store layout at this store makes it easy for customers to move around in the store.	Dabholkar et al. (1996)
	CON3	Shopping from this store is an efficient way to manage my time.	Mathwick et al. (2001)
Employees	EMP1	Employees in this store give prompt service to customers.	Dabholkar et al. (1996)
	EMP2	This store gives customers individual attention.	Dabholkar et al. (1996)
	EMP3	This store’s employees are very friendly.	Chowdhury et al. (1998)
Product Quality	PQ1	There is a high likelihood that products bought at this store will be of extremely high quality.	Arnett et al. (2003)
	PQ2	This store’s merchandise is of low quality. (r-c)	Arnett et al. (2003)
	PQ3	Overall, this store sells high quality merchandise.	Arnett et al. (2003)
Product Value	PV1	This store is reasonably priced.	Sweeney and Soutar (2001)
	PV2	This store is a good product for the price.	Sweeney and Soutar (2001)
	PV3	This store doesn't offer value for money. (r-c)	Sweeney and Soutar (2001)

Appendix C. Measurement of latent constructs (continued).

Latent constructs	Items		Adapted from:
Private Brands	PB1	Products from the brand of this store don’t match my expectations. (r-c)	Dodds et al. (1991)
	PB2	I would consider the products from the brand of this store to be a good buy.	Dodds et al. (1991)
	PB3	Products from the brand of this store match my requirements.	Arnett et al. (2003)
Nomological network			
Attitude	ATT1	How do you feel about this store? I am not particularly fond of it/ I am very fond of it.	Chebat et al. (2010)
	ATT2	How do you feel about this store? I don't like it at all/ I like it a lot.	Chebat et al. (2010)
Loyalty	LOY1	I consider myself to be loyal to this store.	Yoo et al. (2000)
	LOY2	This store would be my first choice.	Yoo et al. (2000)
	LOY3	I will not patronize another store if products are available at this store.	Yoo et al. (2000)
	LOY4	Even if products are available in other stores, I would prefer to buy them at this store.	Yoo et al. (2000)
Word-of-Mouth Communication	WOM1	How do you refer to this store when you talk to your friends, relatives and associates? I never recommend shopping at this store/ I strongly recommend shopping at this store.	Chebat et al. (2010)
	WOM2	How do you refer to this store when you talk to your friends, relatives and associates? I don't hesitate to say bad things about this store/ I don't hesitate to say good things about this store.	Chebat et al. (2010)

Appendix D. Discriminant validity (HTMT$_{.85}$ criterion)

	Constructs	1	2	3	4	5	6	7	8
1	Access	–							
2	Assortment	.283	–						
3	Atmosphere	.447	.634	–					
4	Convenience	.417	.433	.482	–				
5	Employees	.341	.449	.592	.437	–			
6	P Quality	.331	.678	.783	.423	.578	–		
7	P Value	.322	.520	.557	.453	.334	.705	–	
8	Private Brands	.158	.651	.467	.409	.314	.562	.429	–

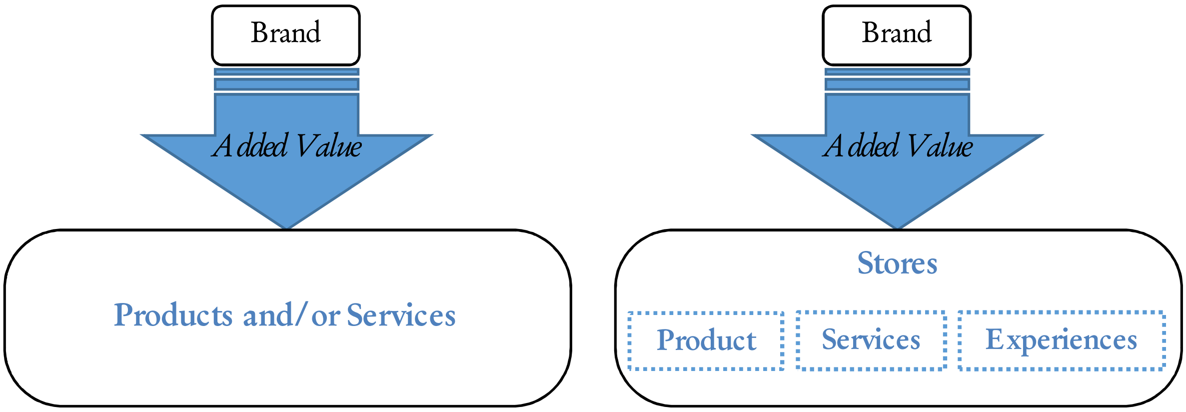
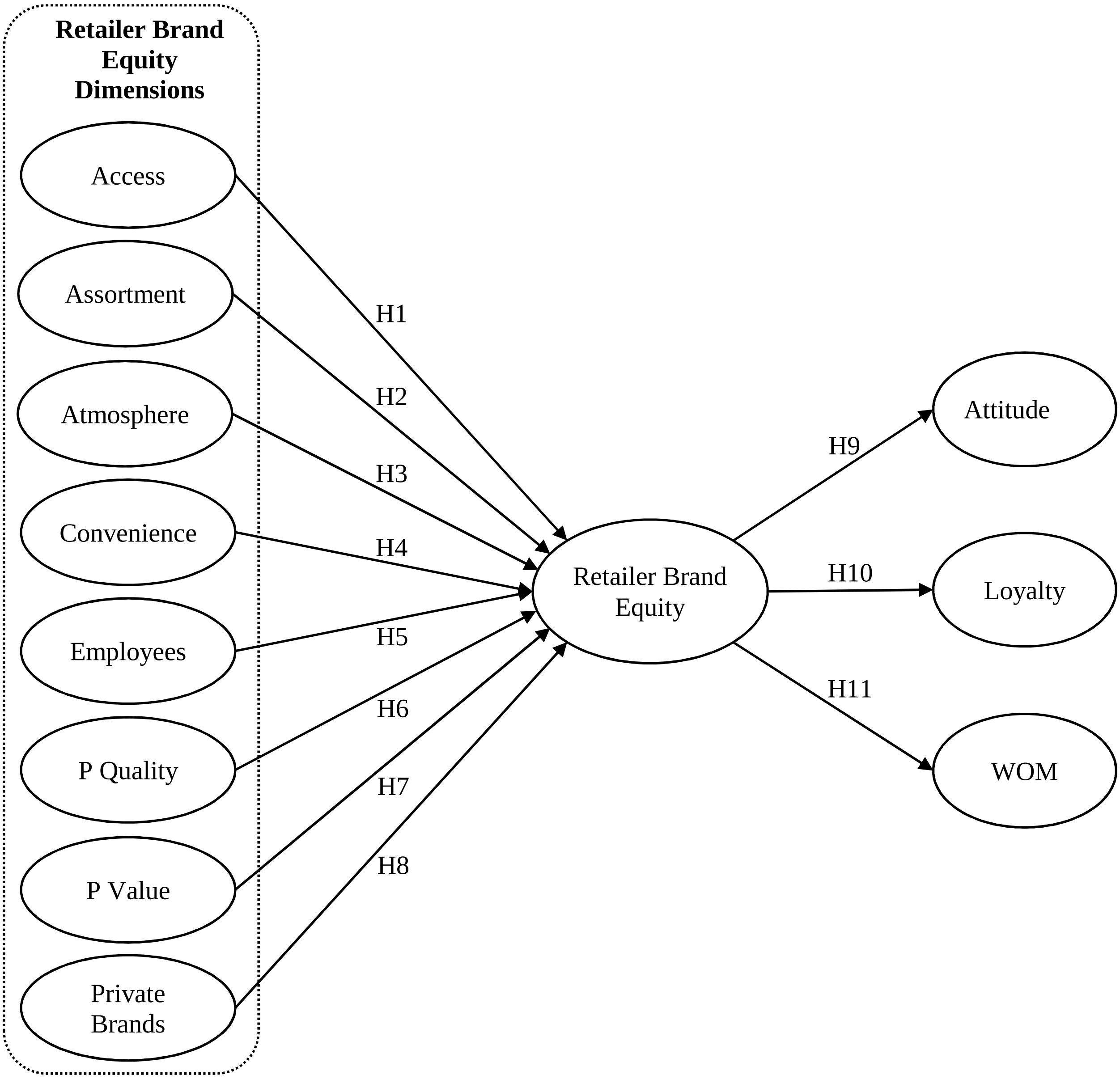
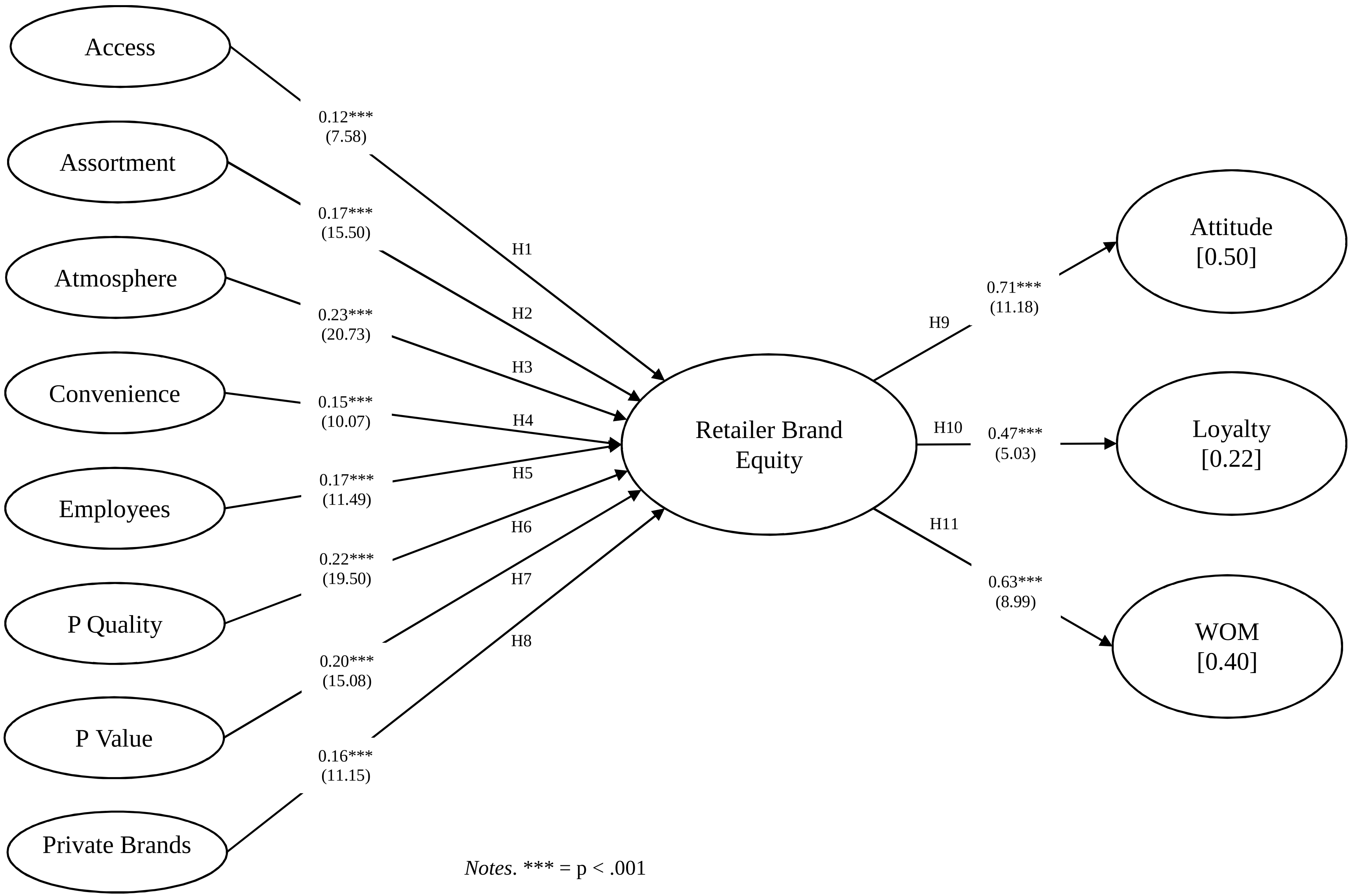


Fig. 1. Conceptualization of retailer brand equity mapped to brand equity.



Notes. Measurement items are omitted for convenience purposes.

Fig. 2. Retailer Brand Equity Model.



Notes. *** = p < .001

Fig. 3. PLS estimates for Retailer Brand Equity Model.

Table 1
Concepts typical in the retailer brand equity literature.

Authors	Name of the concept	Empirical Study	Conceptualization
Arnett et al. (2003)	Retailer Equity	Yes	Aaker (1991) (strongly modified with 5 dimensions)
Ailawadi and Keller (2004)	Retailer Brand Equity	No	Conceptual insights only
Hartman and Spiro (2005)	Store Equity	No	Keller (1993) (direct and indirect approach)
Pappu and Quester (2006a)	Retailer Equity	Yes	Aaker (1991) (4 dimensions)
Pappu and Quester (2006b)	CB Retailer Equity and Retail Brand Equity	Yes	Aaker (1991) (4 dimensions)
DeCarlo et al. (2007)	Retail Store Name Equity and Retailer Equity	Yes	Keller (2003) ("Familiarity" added)
Haelsig et al. (2007)	CB Retail Brand Equity	Yes	Keller (1993)
Jinfeng and Zhilong (2009)	Retailer Equity	Yes	Aaker (1991) (3 dimensions*)
Swoboda et al. (2009)	CB Retail Brand Equity	Yes	Attitudinal brand equity with 5 dimensions
El-Amir and Burt (2010)	Retailer as a Brand	No	Theoretical paper
Burt and Davies (2010)	Retailer as a Brand	No	Theoretical paper
Allaway et al. (2011)	CB Brand Equity for Supermarkets	Yes	Indeterminate**
Gil-Saura et al. (2013)	Retailer Equity	Yes	New model with 4 dimensions: Store Image, Perceived Value, Trust and Store Awareness
Swoboda et al. (2013a)	Retail Store Equity	Yes	Verhoef et al. (2007)
Swoboda et al. (2013b)	Retail Brand Equity	Yes	Verhoef et al. (2007)
Choi and Huddleston (2014)	Retailer Equity	Yes	Aaker (1991) (4 dimensions)
Swoboda et al. (2016)	CB Retail Brand Equity	Yes	Verhoef et al. (2007)
Londoño et al. (2016)	CB Brand–Retailer–Channel Equity	Yes	Aaker (1991)
Anselmsson et al. (2017)	Retailer Brand Equity	Yes	Mix of Aaker (1991) and Keller (2001) with 4 attributes from store image

Notes. * Brand awareness and brand associations have been merged; CB: Consumer-Based

Table 2
Results Summary for First-Order Reflective Measurement Models.

	Item	Outer loading	Item reliability	Composite reliability	AVE
RBE dimensions					
Access	ACC1	.872	.761	.893	.736
	ACC2	.865	.748		
	ACC3	.835	.698		
Assortment	AST1	.793	.629	.873	.697
	AST2	.828	.686		
	AST3	.881	.777		
Atmosphere	ATM1	.888	.788	.912	.776
	ATM2	.877	.769		
	ATM3	.878	.771		
Convenience	CON1	.840	.705	.880	.710
	CON2	.808	.653		
	CON3	.879	.773		
Employees	EMP1	.852	.727	.897	.744
	EMP2	.875	.765		
	EMP3	.860	.740		
P Quality	PQ1	.848	.719	.888	.725
	PQ2	.831	.691		
	PQ3	.874	.764		
P Value	PV1	.829	.687	.897	.743
	PV2	.908	.825		
	PV3	.847	.718		
Private Brands	PB1	.754	.568	.887	.725
	PB2	.889	.791		
	PB3	.904	.817		
Nomological network					
Attitude	ATT1	.957	.916	.956	.917
	ATT2	.958	.917		
Loyalty	LOY1	.778	.606	.864	.615
	LOY2	.784	.614		
	LOY3	.750	.563		
	LOY4	.822	.675		
WOM	WOM1	.913	.833	.920	.851
	WOM2	.932	.869		

Table 3
Discriminant validity (Fornell-Larcker criterion).

	Constructs	1	2	3	4	5	6	7	8
1	Access	**.858**							
2	Assortment	.231	**.835**						
3	Atmosphere	.374	.530	**.881**					
4	Convenience	.339	.352	.400	**.843**				
5	Employees	.283	.367	.501	.357	**.863**			
6	P Quality	.269	.553	.653	.342	.476	**.851**		
7	P Value	.269	.439	.487	.375	.289	.593	**.862**	
8	Private Brands	.129	.532	.389	.335	.260	.456	.363	**.852**