ISCTE Business School
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The role of Loyalty in Private label Consumer based Brand Equity

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Abstract

Private label products have become so appealing that not even big retail chains can dismiss them. Initially seen as cheap alternatives, they now compete with premium national brand products, since consumers perceive them as legitimate and trustworthy brands. It's imperative that brand equity dimensions are seen through the light of private labels. The main focus of this thesis is to better understand the relationship between private label loyalty and consumer based brand equity, improving and applying previous scales and frameworks to a new universe. This framework relates the different dimensions of brand equity with brand equity itself, also looking at the hierarchical relationship between them. It takes into account the brand equity dimensions derived from private label brand research and their influence on the brand equity based dimensions. Regarding conclusions, in order to increase brand awareness, retailers should invest in strategies such as store taste tests, comparisons with other brands, samples or coupons, or invest in extrinsic cues like package design, labeling and branding strategies. Low product risk is essential to foster product quality, reliability and consistency. Only a risk-free product will be able to grow, allowing it to become a familiar item in the consumer's basket. The most relevant factors in influencing the purchase of private label goods are brand familiarity, perceived value and perceived risk of goods. In the end, it's seen the influence that perceived value has on the whole process, impacting private label antecedents, CBBE antecedents and brand loyalty itself.

Keywords: retail, private labels, brand equity, brand loyalty.

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Resumo

Produtos de marca branca tornaram-se tão apelativos que nem mesmo as grandes cadeias de retalhistas os podem ignorar. Inicialmente vistos como alternativas baratas, agora competem com produtos de marca de fabricante, dado que são vistos pelo consumidor como marcas legítimas e de confiança. É imperativo que as dimensões de *brand equity* sejam vistas através da posição das marcas brancas. O principal foco desta tese é compreender melhor a relação entre produtos de marca branca e *brand equity*, melhorando e aplicando as escalas e *frameworks* existentes a um novo universo. Este *framework* relaciona as diferentes dimensões de *brand equity* consigo mesma, olhando também para a sua relação hierárquica. Tem em conta as dimensões de *brand equity* de produtos de marca branca e a sua influência em dimensões de *brand equity*. Relativamente a conclusões, para aumentar *brand awareness*, os retalhistas devem investirr em estratégias como provas em loja, comparação com outras marcas, amostras e cupões, ou investiver em sinais extrinsicos como embalagem, rótulo, estratégias de gestão de marca. Produtos de baixo risco são essenciais para fomentar qualidade, confiança e consistência. Apenas um produto de baixo risco poderá crescer e tornar-se familiar para o consumidor. Os factores mais relevantes para influenciar a compra de produtos de marca branca são a familiaridade da marca, o "valor" e o risco desses produtos. No final, é vista a influência que o "valor" do produto tem em todo o processo, tendo impacto nos antecedentes de marca branca, nos antecedentes de brand equity e na lealdade em si.

Palavras-chave: retalho, marcas brancas, brand equity, lealdade.

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1. Introduction

The main focus of this thesis will be to better understand the relationship between loyalty and consumer based brand equity (CBBE). Special attention will be given to private label products, picking up where previous studies left, and applying, as well as improving, previous scales and materials to a new and different universe.

1.1. Theme

The modern day consumer is constantly bombarded with an avalanche of products, options and alternatives. While having a vast portfolio from where to shop from might appeal to some, there is an increasing wave of consumers that want the exact opposite, a reduced portfolio focused on the most essential of products (Vroegrijk, Gijsbrechts & Campo, 2016). Enter the hard discounters; retail outlets with a vastly reduced portfolio, which offer mostly private label products and are, generally, cheaper than the competition.

While initially one might think that these outlets are merely inferior alternatives to normal supermarkets, being associated with cheaper knock offs of branded products, the truth is that consumers are adapting and warming up to this type of store, trusting more and more in these entities and the private label products they offer, as seen by the superior growth of private label brands (Grande Consumo, 2019).

Private label products became so appealing that not even big retail chains could dismiss them. What initially started as cheap alternatives and basic copies, now competes with premium national brand products. While previously, regular supermarkets competed against each other mostly on a price level, including daily and weekly sales and promotions, and competed against hard discounters by taunting higher quality products; they now compete on a product differentiation and quality level against both normal competitors and hard discounters, based on the portfolio of private label delivered (Hipersuper, 2019).

1.2. Research problematic

Supermarkets have been around for almost 100 years now, and are an integral part of day to day modern life. While initially focused around brands and national label, the playing field would show itself as not being welcoming to different types of products. It would take until late 80s for private labels to ditch their “not so appealing” past, changing from nasty cheap items, to solid cheap alternatives (Kumar & Steenkamp, 2007). A new type of private label product also saw an increase in sales, this new product would still be affordable, but instead of positioning itself as the “poor man’s alternative” it positioned itself as a standard equivalent to the regular national brands. Recently, another new type of private label product has been having success, the premium private label. This type of product no longer competes at a price level, instead focusing on defining characteristic and differentiation (Kumar & Steenkamp, 2007).

When talking about private label products one mustn’t miss to speak about the giant sized elephant in the room: hard discounters like Aldi and Lidl. These retail giants compete on a different category of their own, since they are different enough from regular super and hypermarkets. The main difference comes in the limited variety of products they carry, 1,000 to 1,500 stock keeping units (SKU) (a U.S. supermarket sells 30,000, on average), and the fact that most of these products are private label. The combination of below average prices, as well as mostly offering “unknown” brands, may lead to the consumers associating these retail players with cheap and poor quality products and services (Baltas & Argouslidis, 2007).

However, when asking shoppers why they haven’t tried hard discounters yet, the main reasons received where mostly unawareness and lack of presence (Knudson & Vu, 2017).

It’s foolish to assume and relegate private label products as mere cheap knockoffs of popular known brands, bought only by cash constrained customers. On average, shoppers of all types have a favorable perception of private labels. It was found that 85% of all shoppers are open to private-label products—with more than half of them saying private labels are as good as, or have even better quality than, national brands (Knudson & Vu, 2017). Customers these days aren’t “won” on price positioning alone, with many often citing quality as a major moving force.

The combination of these topics and with private label on the rise, with more and more robust and dynamic product portfolios, sets the stage and opens discussion for the analysis of the relationship between private brands and loyalty, seeing as the latter is a major component of brand equity. The answers to this question pose a great advantage when competing with other retailers, seeing as they allow for better customization to customer needs.

1.3. Objectives

The main objective of this dissertation is to delve further into how private label products are able to create consumer based brand equity, particularly, into how loyalty, both to the product itself and to the retailer that sells it, affects the creation of said brand equity. While there is ample literature focused on how brands create brand equity, as well as their antecedents and their role both as influencers and mediators, seeing as this is already a hot discussion topic of much interest, of relevance to both companies and researchers alike, there is still much to unveil when it comes to dealing with private labels specifically.

Following recent breakthroughs in academia, namely the proposal and consequential discovery that not all of CBBE antecedents have the same weight and influence, as well as the creation and application of a new set of antecedents rooted specifically in private label brand theory, paired with the recent growth in attention and relevancy of private label products, and the retailers that sell them, sets the stage for an in-depth dive into the world of private label goods, where they started and where they are headed, and into how different antecedents and components influence them.

1.4. Structure

This work starts with a general introduction on the topics that will be covered, providing some explanations on where the latest research developed stands, as well as shedding some light into the theme at hand, private label and brand equity, and how it will be approached.

The following chapters, Inside the brand and the store, Private label relationships and Consumer based brand equity, together form the literature review section, which focuses on providing a basis for theory to be built upon. These sections are essential to the current work, seeing as they provide crucial information necessary for familiarization with the topic at hands. They will cover all of the concepts related to loyalty, private labels and brand equity; starting with some nuances over the concept of brand and its evolution, different types of private labels and how retail and physical spaces have changed and adapted over the years. Greater focus is then spent on private label and its relationships, with a section on consumer based brand equity and how it unfolds itself over its different antecedents and product labels.

Having explored the world of retail and private labels, the Framework section further develops the topics previously touched upon, developing the mechanical structure on which this investigation will be based on, and which will allow for hypothesis testing.

The Hypothesis section states and explains the questions this dissertation will try to answer, providing evidence of both their relevancy and the role they fulfill.

In the Methodology section the survey and the questionnaire are detailed and given a thorough look. Here, in preparation for the analytical section, the characteristics of the study to be applied are discussed, starting with the data collection techniques, the origin and validity of the questionnaire items and new additions to the survey.

The analytical part of this work is found on the Statistical analysis section, which encompasses all of the statistical and numerical tests and approaches required. This section covers all of the tests employed to check the validity of the previously presented hypothesis, while also guaranteeing their validity and usefulness. An in-depth analysis is delivered of the demographics and descriptives collected.

The final section, the Conclusion, wraps up this dissertation and presents the major findings by reporting on the major, academic and managerial, implications. The limitations of the study are also developed, along with suggestions for further research.

2. Inside the brand and the store

2.1. The brand

While initially used to differentiate cow breeders and clay pots, the core concept of brand is still the same today as it was in the beginning of civilization, to create a unique difference and to stand out among the competition, hopefully leading to increased satisfaction value, credibility and loyalty. The brand is a complex symbol that represents various attributes and ideas, often being associated with certain causes and emotional feelings. These attributes are fairly important, seeing as sometimes, the functional characteristics of the product aren't enough to surpass the competition. Through his works, Aaker (1991) claims that brands aren't simply used to identify different companies, they are also fundamental in transmitting information regarding the technical components of the product or service, and differentiating them even further, by creating functional relationships and building connections, either practical and emotive, or even self or social based expressions.

According to Clifton and Simmons (2003), the brand's name is its most important element, based on the fact that it's the most memorable of elements, guaranteeing a universal point of reference. It's also, according to these authors, the only element that must not be changed, with other elements being allowed to permutate to better fit current trends and tastes. In his work, Keller (2013) stated that companies use brand names as an easy and practical way to share and transmit product quality. Following a brand equity perspective, brand names are a very powerful extrinsic suggestion, often causing positive and favorable reactions on consumers, thus leading to increased sales. Strong brand names are essential in creating truly positive associations, being one the main influencers of both brand image and motivating purchase decisions, as well as, store selection and brand loyalty.

A catchy name alone is nowhere near enough for a unique, distinct place in the market and the consumer's head. It is though, a major part of the brand positioning strategy. Positioning is directly related to concepts of image and association, and requires that there is an "adversary" reference point, a competitor that allows for relative positioning. Positioning is useful, not only to see how the brand is perceived by consumers, but also, to reflect how a brand wants to be perceived (Aaker,1991).

2.2. The private label

Retailers own and selectively distribute private labels or store brands (referred to as PLs or SBs) in their stores (Kumar & Steenkamp, 2007).

Currently, there are two main brand types sold at most of the retailers: national brand (NB), which is a brand that is sponsored or owned by a company whose primary business is production; and a private label (PL) sponsored or owned by retailers, wholesalers, or distributors that is sold exclusively in their stores (Schutte, 1969, Bushman, 1993 in Nenycz-Thiel & Romaniuk, 2016).

Private labels currently account for up to 40% of grocery sales at specific retailers and most predictions expect continual, global growth (Gielens, 2012 in Schnittka, 2015). Almost every household purchases some private label products nowadays, which means private labels are now present in almost every category in grocery stores, be it in the U.S. or Europe.

PL brands are present in more than 90% of consumer packaged goods categories. Market shares across Europe have reached 23%, on average, with shares being higher in countries such as the United Kingdom (46%), Switzerland (45%), Germany (37%), and Spain (33%) (Europanel 2009). Moreover, their growth significantly exceeds that experienced by manufacturer brands (18% vs. 4.5%, respectively) (Cuneo, Milberg, Benavente & Palacios-Fenech, 2015).

Store brands are products that are owned or licensed exclusively by retailers and wholesalers, for distribution in their respective segments of the marketplace. Unlike national brands, which may be found and purchased at practically any supermarket store, private-label brands are owned by the supermarket chains themselves. Although just about every supermarket chain offers a private-label line of products, the image and brand associations pertaining to a private-label line are unique and cannot be substituted by another competitor. Their brand names are also owned by specific organizations, and cannot be duplicated by competitors (Pepe, Abratt & Dion, 2012). According to Brazauskaitė, Auruškevičienė and Gerbutavičienė (2014), national brands and store brands differ substantially in terms of management, strategy and tactics. Both of these brands differentiate strongly from each other in many of the central elements of the marketing mix, including branding and extrinsic cues like packaging, price, distribution networks and how they are publicized, with national brands being present on a lot of different media platforms and store brands mostly operating at a store level.

The development and main objective of private label brands is quite straightforward, being mostly focused on increasing retailer’s profits, by increasing marginal revenue as well as a more competitive positioning, often due to being a more attractive option (K. L. Ailawadi & Keller, 2004).

For both Ailawadi and Keller (2004) and Amrouche and Yan (2012), store brands bring numerous advantages and possibilities, allowing for more negotiation power with suppliers and manufacturers, more products and more store activity, which may lead to higher store loyalty. Following Brazauskaitė *et al*. (2014) work the major outcomes that come from investing in private labels are: strategical benefits like the improvement of store image, store differentiation and store support; strengthening of positioning values, making it so the company stands out from its competitors; bigger negotiation power with suppliers and manufacturers, which leads to higher margins when compared to national brands; more agility to answer price changes and promotions from national brands; more freedom to foster or kill certain product categories, by investing in newer products or deleting those who are performing worse. At the same time, the retailer’s capacity to increase their own equity, by creating powerful and influential brands, may isolate them above their competitors, turning the store into a desirable destiny, thus increasing their sales values, which in conjunction with better supplier relationships, and lower costs, leads to an increase in profitability (K. L. Ailawadi & Keller, 2004).

This investment in private label brands is not without its flaws though; as seen in Pepe *et al* (2012) and Ipek, Aşkin and Ilter (2016) who both advocate and show that consumers who are very loyal to private labels are, in fact, more loyal to cheap alternatives than to the brand or the retailer themselves; often prowling different chains in search for the cheapest price. One can’t expect suppliers and manufacturers to just sit and watch as they lose market share to private labels. These are perceived as a very serious threat, seeing as they occupy prime spots in the supermarket shelves and mimic national brand appearance and characteristics, fostering impulse buying and pushing national brands out of the product category space (Brazauskaitė *et al*., 2014).

According to Pepe *et al*. (2012), retailers publicize national brands as a way to pull people to visit their store and, once there, try to win them over with their private label product offerings, which appeal to customers due to their lower prices, while allowing for greater margins for the retailer. This way, retailers' strategy has mostly focused on investing and developing new brands, so as to further evolve their offers portfolio, by curating and creating new product categories as well as increasing the width of products offered on said new and existing categories (Amrouche *et al*., 2012).

2.3. Standard private label, Economy private label and Premium private label

In the beginning, private labels were not as successful as national brands because of their poorer product qualities; however nowadays, the situation has changed and transformed the private labels into proper challenging competitors by strengthening both their quality and performance sides, while still hanging on to their price advantage. These days, private label products are available in almost all retail stores, offering enormous product varieties, less expensive prices, and medium to high quality standards (Chakraborty, 2013 in Ipek, Aşkin & Ilter, 2016). In the recent decade, research on private label has received an increased attention among scholars all around the world, due to their curious set of characteristics, and over the years PLs' offer developed across the price-quality spectrum – economy (initially referred to as generics),standard(initially referred to as "copycat") and premium. This would then be called the three tier pricing system (good, better, best).

Generics, especially in the US, were cheap and grossly inferior versions of manufacturer owned brands (Fitzell, 1982 in Nenycz-Thiel & Romaniuk, 2016). They were white labelled product ranges with significantly lower prices, very poor packaging and no marketing support, which did not typically carry the name of the store. These inferior products occupied categories associated with low risk (dog food, toilet tissue, plastic bags etc.) and were introduced only when the production process and technology were very uncomplicated and efficient. Later on, economy PLs lost some of their generics past, and were primarily re-introduced to fight hard discounters, offering no-frills, bottom-of-the-market, lowest possible cost PLs (Dekimpe *et al*., 2011 in Ter Braak, Geyskens & Dekimpe, 2014).

In the late 1980s generics started to lose their share to PLs that carried the name of the retailer. These new, completely different, PLs were simply “copycats” of leading NBs (Kumar & Steenkamp, 2007), to the point that the packaging of a leading NB and a PL “copycat” was so similar that many manufacturers had to sue retailers for unfair competition. The “copycats” benefited from the quality assurance held by NBs, and delivered decent margins to the retailers. Their prices were well below those of NBs. The risk of introducing a “copycat” was very low, as the retailers simply imitated the NB leaders and mostly followed the biggest trends. The main reason for selling “copycats” was to compete directly with NBs, by advertising similar quality for a lower price. Within such a strategy, the original SPL (standard private label) is typically marketed as “quality similar to national brands at a lower price”, geared toward competition with these national brands and other traditional supermarkets (Kumar & Steenkamp 2007; Corstjens & Lal 2000 in Vroegrijk, Gijsbrechts & Campo, 2016).

As of the late 1990s, every major grocery retailer had developed a credible private-label offering. Western Europe is the most developed PL region, with PL goods accounting for up to 43% of total consumer packaged goods consumption in the United Kingdom, 39% in Germany, and 34% in France. In the United States, consumers allocate upwards of 20% in their total spending to PLs (Planet Retail 2008 in Geyskens, Gielens & Gijsbrechts, 2010). These three-tiered PL programs follow a "good, better, best" approach and by 1999, private label products accounted for over 20 percent of supermarket unit sales and 15.7 percent of dollar sales in the US (Williams 2000 in Chan Choi & Coughlan, 2006).

These PLs are now a major competitor for national brands, particularly at the medium and value end of the spectrum. This growth and competition is particularly evident in the grocery sector, where packaged goods are at the forefront of PL innovation.

Even though the majority of packaged goods PLs are the traditional ‘value’ type, the fastest growing PL type is actually the premium PL (referred to as PPL), such as Sam's Choice (US), Tesco Finest (UK) and LIDL Deluxe. PPLs are classified as top tier in quality and other attributes, rather than value products, seeing as they differ from value PLs across several dimensions that can impact consumers' perceptions of these brands; using a variety of features like exotic or high-end materials and components (Geyskens *et al*., 2010; Martos Partal & Gonzalez- Benito, 2011 in Nenycz-Thiel & Romaniuk, 2016).

While the role of “copycats” was to increase the competition between NBs and PLs, PPLs were , instead, invented in the late 90’s to differentiate stores from each other (Corstjens & Lal, 2000 in Nenycz-Thiel & Romaniuk, 2016). A common rationale for PPL introduction is to create point of differentiation from other retailers.

PPLs are exclusive to the particular retailers that produce/sell them, and are not intended to substitute NBs; but rather to complement and widen the store offering. Under PPLs, retailers offer unique versions of products that can be found selectively in their particular chain.

Premium PLs are positioned at the top end of the market, and their unique features in terms of taste, origin, and ingredients enable retailers to compete with the highest-quality national brands, something not possible with both economy PL and standard PL. In their work, Kumar and Steenkamp (2007) describe retailers' move to PPLs as “escaping commoditization”, to overcome the equivalence of EPLs offered by every retailer. Premium private labels offer the retailer the opportunity for responding to the national brand's ability to cater to heterogeneous preferences. This appears more likely in categories where private labels already offer high quality products, comparable to the national brands’ (Dhar & Hoch, 1997).

Premium PLs should now also take their standard PLs offering in that category into account. While standard PLs were introduced first (and were most successful) in high-penetration categories and premium PLs are more likely to be found in low purchase-frequency categories, companies should still take cannibalization into account (Ter Braak *et al*., 2014).

However, private labels, especially premium private labels, differ from other brands in the core elements of the marketing mix (Kumar & Steenkamp, 2007). Research shows that private labels’ in-store communication, its distribution (availability in number of stores) and the perceived price are essential in building and fostering private label brand equity. There is a focus on in-store communication, seeing as advertising had very little impact on the PL equity. When retailers enhance private labels exposure in the store, which they control, it is possible that the effect of this tactics and exposure is stronger in consumers than the exposure of a normal advertising commercial. Retailers also tend to invest less on advertising in general, instead leveraging the advertising efforts of lead manufacturers to grow their private labels (Abril & Rodriguez-Cánovas, 2016). Research has found that the presence of an in-store event does have an impact on store choice decisions; however, findings from further analysis suggested that this is only the case for specialist stores. Thus, the results suggest that specialist retailers have more to gain from hosting these discrete and temporary in-store events (Sands, Oppewal & Beverland, 2009).

In this context, price is an important tool to offer a value proposal to the market and an alternative to manufacturer brand positioning (Nenycz-Thiel & Romaniuk, 2012). These premium private labels engage in more advertising, have higher prices and more attractive packaging when compared to other alternative private labels. This additional investment in the marketing mix means that premium private labels, almost as a necessity due to higher costs, also compete less on price differentials, and more on other attributes, such as quality and novelty. These private labels rely less on value-for money perception, and more on other qualities, coming from advertising and the sub-brand name. Therefore, when encountering premium private labels, consumers would be more likely to think of product qualities and new experiences other than value-for-money.

Not all store brands are the same though, and the distinction between high-quality and low-quality store brands is vital for understanding their contribution to a retailer's strategy. It is the high-quality store brand that paves the way for differentiation, store loyalty, and profitability. In contrast, low-quality store brands tend to lead towards price wars by emphasizing and intensifying consumer price sensitivity. There has been provided evidence from empirical analyses at both the retail and household level that demonstrates the significant, positive impact of store brand penetration on store profitability as measured by market share (Corstjens & Lal, 2000). Some of the advantages referred to explain this phenomenon is that private labels offer retailers a way to differentiate in the consumers' market by providing a set of distinctive products to its customers thus helping retailers strengthen consumer loyalty (Sayman *et al.*, 2002 in do Vale, Verga Matos & Caiado, 2016).

Co-branding can also be used as a strategy to increase penetration in foreign markets. The marketing literature points out an increasing popularity of co-branding in the introduction of new consumer products in new markets in recent years. In particular, according to Choi and Jeon

(2007), this perspective is useful to understand the role that brands of multinational firms play in the era of globalization, and to measure their impact. As the study illustrates, one can distinguish two types of leverage when reputation leverage occurs through co-branding between a global brand and a local one. Either the co-branding leverages the latter's reputation to the former (if the local brand enjoys high recognition and the global brand is relatively unknown in the local context) and thereby helps the global brand, to penetrate local markets; or it leverages the latter's reputation to the former. Through the second type of leverage, globalization can bring important benefit to a local economy which is poor in reputation, since it will be seen at a larger scale. However, a multinational would be reluctant to leverage its reputation to a local firm if it has an ambition to be a global player; in this case, it might prefer outsourcing to co-branding.

2.4. Retail

While initially focused on fulfilling basic needs like hunger, thirst or warmth, production and consumption steadily evolved into two different concepts. Production stopped focusing on just fulfilling these essential self needs and instead turned to fulfilling the needs of others, thus giving birth to the concept of strategic production and economic specialization, paving the way for a market economy and trade based society.

Retail revolutions are a common sight in literature pertaining to evolution of the concepts of buying and selling. Originally the term referred to the transformation of retailing from traditionally organized, local and primitive, to large-scale, nationally integrated and modern systems. However, these revolutions have been identified all across history, in a vast array of different years and locations, from medieval shops and their narrow offerings, passing by the advent of the supermarket and their broader array of shiny new products, to the infinite possibilities of modern internet shopping.

According to Stobart (2010) and following Jefferys (1954), revolutions are seen as comprising a range of new retail formats and practices, with multiple outlets and department stores pioneering the use of advertising, fixed prices, window displays and other innovative strategies. Retail modernity was a variable phenomenon. In the early modern period of the eighteenth century, a time of consumer revolution, much of the changing demand was met through innovative modes of selling. By looking at the literature, many examples can be found, of a close relationship between the advent of new goods and new modes of selling (Stobart, 2010).

Following Miotto and Parente (2015), who based their work on Reynolds *et al*. (2007), the diversification and variety in the different retail formats is due to the ever changing business models developed by retailers, who constantly adapt to the never ceasing changes in the competitive environment. Innovation is mandatory in order to attract more customers, serve their needs better, overcome the competition, and take advantage of the newest technology.

The strategy designed by the retailer is implemented via the configuration of different variables which determine the end result store format. These following six controllable variables of the retailing marketing mix have been identified to characterize and define store format: product, price, presentation, promotion, personnel/service and location (Miotto & Parente, 2015). The product variable strategy can be moved according to decisions on width, the quantity of categories of products offered, and depth, the variety of products in the same category. Pricing decisions are also extremely important and very sensitive, as they directly affect not only the store image, but also sales and profitability, as well as influence the store strategy and positioning (Miotto & Parente, 2015). To better understand the forces behind these retail revolutions, and how the retail formats change and develop, attention must be paid to the four major theories of retailer structural change.

The wheel of retailing, developed by Malcolm P. McNair in 1958, is a theory that states that new retail entrants start out as low status, low level of services, low margin, and low price stores. Once established, they gradually acquire more elaborate establishments and facilities and begin to trade up by increasing their service quality. These higher investments and higher operating costs ultimately lead to higher prices, with stores maturing into high cost, high price merchants. The previous positioning, low status and low price, is now ripe for taking, and an increase in competitors focused on lower quality and prices is to be expected. The new competitors will end up following the same path, leading to a closed circle (Levy, Grewal, Peterson & Connolly, 2005; Oren, 2007; Miotto & Parente, 2015).

The retail accordion theory, initially developed by Hollander in 1966, uses only one variable as a basis of analyzing retail changes, product category width and depth. This theory claims that product assortment is the key driver of format innovation, stating that it follows a continuum of expansion and contraction phases, thus leading to a cyclical conclusion. The expansion phase is characterized by a growth in category width with an accompanying decline in category depth; the opposite holds true in the contraction phases, with a decrease in width and an increase in depth. American history is useful as a practical example. In the early days small general stores were the norm, as they offered a variety of mostly essential products (expansion). As cities grew, so did the number of retail specialist stores, which focused on a narrower, but more developed, array of categories (contraction). The next expansion lead to the rise of giant general stores, which saw massively increased the array of categories offered, as well as a tangible growth in category depth (Levy, Grewal, Peterson & Connolly, 2005; Oren, 2007; Miotto & Parente, 2015).

The dialectic process, researched by Maronick and Walker in 1974, offers another explanation for the evolution of retail institutions, one sustained on the process of thesis, antithesis and synthesis. This theory proposes that two opposing and drastically different competitors, like established department stores and newcomer discount stores (the thesis and antithesis), face against each other, culminating in a new format, a blend (the synthesis) of the former’s strongest characteristics (Levy, Grewal, Peterson & Connolly, 2005; Miotto & Parente, 2015).

The “Environmental Theory” or natural selection theory, developed by Dreesmann in 1968 and Forester, in 1995, is based on the concept of the survival of the fittest in Darwin’s theory. Organisms evolve and change on the basis of adapting to new environments. In retailing, those institutions best able to adapt to changes in their customers, technology, competition, and legal environments have the greatest chance of success (Levy *et al*., 2005; Miotto & Parente, 2015).

For the most part, existing hypotheses regarding the structure and evolution of retailing institutions are lacking, in that they fail to offer comprehensive explanations of how and why retail institutions develop. It would take until the new century, for a more thorough and in depth theory to be created.

The Big Middle model, developed by Levy *et al*. (2005), is a theory that aims to describe and explain how the retailing formats and institutions develop and evolve. The concept of the Big Middle is defined as the market space where the bulk of retailers compete to serve the mass market segments, with a focus on the long run, since it’s where the largest number of potential customers reside, often requiring an expansion into both broader and deeper product lines.

Retailers typically exist in one of four segments: innovative, Big Middle, low price, and in trouble. Retailers that occupy the innovative segment direct their strategies towards quality-conscious markets who seek premium offerings; low-price retailers appeal to price-conscious markets, Big Middle retailers thrive because of their competitive advantage and high value offerings, and in trouble retailers are unable to deliver high levels of value relative to their competitors. According to the concept of the Big Middle, retail institutions tend to originate as either innovative or low-price retailers, and the successful ones eventually transition or migrate to the Big Middle, a hybrid of the two that appeals to a much larger customer base and provides great value for a broader array of merchandise, both in width and depth, leveraging their respective strengths and thereby transforming their niche appeal into mass market or large segment appeal.

However, after they move into the Big Middle positioning, retailers cannot expect to simply rest on their golden throne, seeing as merely being in the Big Middle is not sufficient for long-term viability. Even though the Big Middle is desirable because of its revenue and profit potentials, it is also the most dangerous and competitive marketspace. To maintain their leadership positions, Big Middle retailers must continue to focus their efforts on maintaining and sustaining their value proposition, if they are to remain viable. Big Middle retailers that fail to maintain their value proposition will transition to the in trouble segment (Levy *et al*., 2005; Miotto & Parente, 2015).

2.5. Hard discount

Hard-discounters (HDs) like Aldi and Lidl, are minimally decorated outlets that sell a small assortment of food products and household goods, typically 1,000 to 1,500 stock keeping units (SKU), and mostly focus on PL (Kumar & Steenkamp, 2009). For reference sake, a U.S. supermarket sells 30,000 SKU on average, which helps to put in perspective just how different these two concepts are. Hard-discounters have seen a dramatic increase on the number of retail sales, about 60 billion dollars each, with both giants having acquired a top spot in the Western European grocery market. Market share levels have reached 35 percent in some countries, and are expected to further increase in the following years (Vroegrijk *et al*., 2016).

Being a HD isn't just a trendy way of running the show, it takes specific behaviors like streamlining their operations and economizing on assortment size and in-store service. This way, HD chains can offer grocery merchandise at rock-bottom prices and gain advantage over their standard retail alternatives (Kumar & Steenkamp, 2009). While their low price levels were initially associated with subpar product quality, the perceived quality of their products has vastly improved over the last decade, to the point that consumers are no longer apprehensive about them, with some even preferring them over the national brand (Nauwelaers, Renders & Vandenbroucke 2012; Van Rompaey 2014 in Vroegrijk, Gijsbrechts & Campo, 2016).

Hard discounters are not only for the poor. In fact, brand manufacturers and traditional retailers often believe that hard discounters attract only the bottom percent of the market. And while that assumption isn't necessarily wrong, it's important to reemphasize that the low-income segment constitutes an important part of the market, and that the relationship between hard discount buying and income is weaker than one might think. In proper terms, in Germany, for example, hard discounters own 43% of the market in the lowest income quartile and 34% in the highest. These wealthy consumers shop at hard-discount stores not because they have to, but because they want to (Baltas & Argouslidis, 2007; Steenkamp & Kumar, 2009).

While some consumers prefer private label and hard discounters in many categories, they still love store brand products in other categories. Hard discounters now understand that an overwhelmingly private-label format can win only so much market share.

As seen in Kumar and Steenkamp (2007), Lidl's managing director for the UK explains: *"Own-brands are Lidl's future, but we believe branded products complement our range. If a customer comes to us for the first time, they will be more comfortable seeing some brands they know. At some point…customers will swap to our own-brands."*

2.6. Pricing strategies

Private label brands have traditionally acted as a low cost alternative to national brands. While national brand managers tend to invest significant marketing resources to develop brand equity and brand familiarity, private label brands instead, rely on lowered investment costs to provide goods at lower final prices, and on store familiarity to foster interest. The strategy of many retailers, traditional and hard discounters alike, has been to keep costs of production, packaging, and manufacturing as low as possible, so as to maintain a significant price gap between the private label and national brand offerings. Such a strategy allows retailers to offer value to customers through the private label product offerings (Hoskins, 2016).

According to Jacoby, Olson and Haddock (1971), and Fisher, Burton and Garretson (2002), price applies an effect upon the perception of product quality when it is the only antecedent permitted to vary. At the same time, price does not operate as an antecedent of product quality when a part of a multiple variable setting.

If a consumer believes a supermarket to offer value for money, they will also be more likely to realize that a private label within the supermarket offers value for money. This difficult to achieve positioning is essential, seeing as how the perception that private labels offer value for money is one of the strongest links in consumer memory about private labels and their relationship (Nenycz-Thiel & Romaniuk, 2012).

According to Richardson, Jain and Dick (1996), framework, it was found that promotional strategies and activities focusing on value for money may have a positive and significant effect on private brand consumption proneness. However, results clearly show that such a promotional strategy may not be very effective if consumers perceive there being quality variation or risk associated with store brand purchases. This is consistent with the findings of Hoch and Banerji (1993), who found that high quality and consistency are much more important than price in claiming and maintaining market share for private label products (Richardson *et al*., 1996).

Perceived product quality and relative price have a significant positive relationships with perceived product value, while perceived risk has a significant negative correlation with perceived product value (Beneke, Flynn, Greig & Mukaiwa, 2013). Price differentiation between national and private label brands needs to be significant, so as to justify the savings and risk in opting for a “lesser” brand.

It would be advisable for retailers to make it clear to consumers that the lower prices of their brands are not due to inferior quality but instead, a result from great cost savings in marketing activities and publicity, as well as logistical and production advantages (Mieres, Martín & Gutiérrez, 2006).

While traditional views state that private labels fare better in price sensitive markets, Jagmohan, Sethuraman and Sanjay (1995), bring attention to the importance of distinguishing between two types of price competition: price competition among national brands and price competition between national brands and the store brand. Higher price competition among national brands makes private label introduction less appealing and decreases store brand share. On the other hand, higher price competition between national brands and the store brand favors private label introduction and increases store brand share. Retailers may want to take both factors into account when deciding on their private label programs.

This proliferation of private labels invokes strong price competition. A retailer has two major price positioning strategies to choose. The retailer that adopts a high-low (HiLo) promotion strategy tries to stimulate customer demand and attention through time limited price promotions. Price based special offers aim to attract consumers to the store while also signaling price competency for the assortment. The other strategy, has a retailer employ an everyday low price (EDLP) strategy, which largely eliminates price promotions and offers products for a consistently low, non-varying price (Pechtl, 2004 in Olbrich, Jansen & Hundt, 2017). This type of positioning strategy benefits the store brand but, only in lower quality categories where the value positioning of the store may be better aligned with the price advantage of the store brand (Dhar & Hoch, 1997).

It was found, by Van Heerde, Gijsbrechts and Pauwels (2008), that a price war induced consumers to shop around more, leading to a temporary increase in store visits. However, although the price war initially created a windfall effect, spending levels fell in the long run, with consumers having redistributed their purchases across the stores they visit, meaning the price war enhanced consumers' price sensitivity. One should avoid the price cutting trap that originates from fiery price based wars. Several retailers have shown a renewed interest in price competition as a primary tool to increase market share and cement positioning, and have started to introduce budget store brands at significantly reduced prices. Findings from Steenkamp and Dekimpe (1997) indicate that the price discount variable is not a major driving factor of market power, which further corroborates the importance of quality. Vicious price competition between budget PL brands and national brands may not benefit either party. In the end, if a store must engage in a price war, it’s desirable to make the first move, seeing as there is evidence of a first mover advantage between stores (van Heerde *et al*., 2008).

A retailer's price strategy, which can fluctuate between Every Day Low Price (EDLP) and High-Low Promotional Pricing (HILO), also influences consumers' store choice and shopping behavior. A study from Bell and Lattin (1998), in K. L. Ailawadi and Keller (2004), shows that "large basket shoppers" prefer EDLP stores whereas "small basket shoppers" prefer HILO stores. The intuition behind this logic is that large basket shoppers are more time constrained and prefer to satisfy all their shopping needs in the minimum number of different stores possible; as such, they interact with a large set of product categories at a time, without the flexibility to take advantage of occasional price deals on individual products, but still end up having a lower expected basket price. Small basket shoppers, who can take advantage of variations in prices of individual products and visit an increased number of stores, by taking advantage of different deals, can lower their basket price, even if average prices in the store are higher (K. L. Ailawadi & Keller, 2004).

2.7. The buyer decision process

While the consumer is seen as a rational decision maker in the literature, at the same time, consumption experience is ignored and regarded as not important by previous research. The notion and concept of experience, marketing related, in the buyer decision process was firstly presented by Holbrook and Hirschman (1982), in Andajani (2015). Both state that elements of pleasure, beauty, symbolic meaning, creativity and emotion can enrich and broaden the understanding of consumer behavior, which contrasts with the simplistic view of yore. In present times, this concept of customer experience plays an important role in understanding said behavior, paying special attention to emotion, and how different ones play a role in product and brand selection. It's now believed there is a strong relation between emotion and experience, seeing as an experience is unique to each individual and remembered by each in different ways. It involves emotional, physical and intellectual aspects of the self and the individual. Good experiences reduce customer uncertainty and lead to an increase in trust, often leading to an increase in loyalty. Accepting the existence of consumption experience leads to the idea that it's not limited to a before or after purchase. In fact, consumption is divided into four stages: pre-consumption experience, purchase experience, core consumption experience and remembered consumption experience (Andajani, 2015).

According to Kotler and Armstrong (2018) buying behavior is affected by four different types of factors: cultural, social, personal and psychological. Cultural factors are the most important ones and the most impactful. Country of origin is responsible for the different tastes and quirks of the individual, with narrower groupings like subculture (religion or geography) or social class (wealth or academic background) affecting more precise characteristics. Social factors encompass mostly the consumer's bonds, be them family bonds or work related bonds, which have an impact on attitudes and behaviors, as well as self-perception. Personal factors are related to the characteristics of each specific consumer, and mostly focus on age, life style, and personality; all of which affect product segmentation. Lastly, psychological factors are related to different areas of the consumer's mind, like motivations, past experiences and personal beliefs.

While emotional and intangible factors have a big impact on the buying process, one mustn't forget about the tangible role of different players who are responsible for, and an influence to the final purchasing decisions. These can be, the initiator, who first presents the buying opportunity, the influencer, who sells and recommends the product, the decision maker, who decides what and how to buy, and finally the user, the one who will enjoy the product or service (Kotler & Armstrong 2018).

The biggest issue though, is not in how you analyze and extract tangible progress from these processes and factors, but instead on actually getting in touch with them. According to Kotler and Armstrong (2018) there is a big difference between saying and doing something, in particular, the consumer might not even be aware of his motivations or to how he reacts to different influences, which can lead to indecision and proneness to change his mind.

Even though the buyer decision process may look like a gigantic beast to tame, it's still possible to take a more operational approach to its analysis. According to Kotler and Armstrong (2018) this process is divided into different steps and stages. It starts with need recognition, where the consumer first faces a problem or need, then comes information search, where the consumer will look into different possibilities to solve said problem or need. Before actually buying something, the consumer will first evaluate the different alternatives collected in the previous step, rationally judging each one of them according to his personal standards. After the purchase decision, the consumer now moves into the post purchase behavior phase, which is where he will feel either satisfaction or dissatisfaction, depending on whether the performance of said purchase is in line with his expectations or not.

3.Private label relationships

3.1. PL and loyalty

Due to the recent increased competition in retailing industry, retailers are required to develop new strategies and be at the top of their game, in order to keep existing customers and gain new customers, further cementing their position. Creating loyal customers generates the main aim of most of the retailers.

Even though it's a fairly hot research topic, there is still no agreement on the definition of store loyalty, with customer loyalty also remaining a topic of great interest for both companies and scholars alike. While some authors propose it can be measured by focusing on consumers' intentions to keep purchasing (Sirohi *et al*., 1998; Meyer-Waarden, 2015 in do Vale, Verga Matos & Caiado, 2016), others suggest it can also be measured focusing on consumers' behavioral characteristics, such as frequency of store visits or relative volume spent (Ailawadi *et al*., 2008; Bustos-Reyes & González-Benito, 2008; Seenivasan *et al*., 2015 in do Vale *et al*., 2016). Moreover, loyalty is also often defined as a pattern of repeated purchase behavior of a specific brand that can lead to the development of a relationship with it, generating purchase routines (Blut *et al*., 2007 in do Vale *et al*., 2016). These results are aligned with findings from previous research which indicated store convenience, the level of service offered, and pricing policies adopted, as critical loyalty factors (Pan & Zinkhan, 2006; Maruyama & Wu, 2014 in do Vale *et al*., 2016).

Based on the loyalty definition of Oliver (1999), in Ipek *et al*. (2016), store loyalty can be defined as the commitment that is held deeply to a particular retailer. In order to purchase these private brands, consumers may be willing to go to that specific store regularly, which thus transforms into store loyalty. Also, many scholars have reported that consumers who prefer to buy private label brands are more loyal to the specific retail stores and usage of private labels directly increases the store loyalty and sales of the retailers (Baltas et al., 1997; Cotterill & Putsis, 2000; Liu & Wang, 2008; do Vale et al., 2016 in Ipek et al., 2016).

Even though the market share of private label products has increased, consumers may still perceive private label products to be of lower quality than other well-known brands, with respect to private label positioning strategies of store chains leading to worse the loyalty towards the store *(*Ipek *et al*., 2016).

The most important element for a private label brand in establishing loyalty is the brand's capacity to fulfill promises to its consumer base. The continued fulfillment of promises eventually leads to a long-term profitable relationship between the retailer and consumer and is related to the utilitarian benefits offered by the brand (Carpenter, 2003 in Pepe, Abratt & Dion, 2011; Pepe, Abratt & Dion, 2011).

According to Sethuraman and Gielens (2014), consumers will purchase PLs if they perceive the quality is higher and quality variation is lower, if they have a positive image of PLs, and if they think PLs are not risky. Price, perceived quality and value for money all interact to influence the degree of perceived shopping risk (Omar, 1996).

A thorough look at the importance of different factors influencing private brand proneness reveals that familiarity with retailer's private label brands is essential. The large relative importance of familiarity suggests that consumers who are familiar with private label products are prone to view them as high quality, low risk products that generate good value for money. Lack of familiarity may lead to increased reliance on extrinsic parameters such as brand name, packaging, and price, areas in which retailers' private brands are rated lower when compared to their national brand counterparts. Familiarity with retailers' private label brands could be increased through different strategies, such as store taste tests, blind comparisons with national brands, distribution of free samples, or issuing store brand coupons (Richardson *et al*., 1996).

During blind testing, in which consumers weren't aware of brand names, results indicated better taste and higher purchase intentions for private labels. At the same time though, the opposite held true when the tests weren't blind. This study suggests that the "quality gap" that once existed between premium private labels and national brands is fading, but retailers must still deal with the "brand gap" (Rossi, Borges & Bakpayev, 2015).

Consumers by and large seem to be more interested in quality than value for the money, even for store brands. They tend to rely more on extrinsic, rather than intrinsic, cues to judge a brand's quality. Prior literature focuses on three common tangible extrinsic cues: package design, price and brand name (Bao, Bao & Sheng, 2011).

National brand producers, understand that success depends on not only maintaining a high level of tangible product quality, but also developing a strong brand image. National brands that are not backed by an effective communication strategy may have little to no advantages when compared to store brands. In essence, development of a strong brand image without delivering a correspondingly high level of tangible product quality may lead to a disagreement between these two realities, diminishing the perceived quality of said brand (Richardson, Dick & Jain, 1994). These findings indicate that the future of PLs and NBs will continue to depend on how retailers and NB marketers manage brand and product perceptions, potentially signaling the growing role of PL advertising in coming years (Sethuraman & Gielens, 2014). Consistency in quality over time will lead to lower levels of perceived risk and lower uncertainty. At the same time, consistent quality levels and positioning, as well as a reduction of the gap between the perceived quality levels of national and store brands, would go a long way in helping store brands (Valenzuela, Zhao & Erdem, 2004).

Findings suggest that consumers' loyalty towards private labels is mostly driven by its quality, in line with recent results. This discovery is interesting because the initial positioning strategy of private labels was based on low price, while results provide empirical evidence that the adoption of private labels is no longer attributed to its initial pricing strategy, but has turned towards quality, as suggested by Kumar and Steenkamp (2007) and Richardson *et al*. (1994). Taking into consideration the results from Steenkamp and Dekimpe (1997) study, it can be seen that quality improvement is the key to success. In particular, focusing on Albert Heijn as a retailer, perceived quality emerged as a prime factor underlying their growing power. The higher the perceived quality of their store brand, both absolute and relative to its competitors, the greater its conquesting power. Further, Albert growth was found to be strongly correlated with its market share. Hence, the implication that improving product quality is a prime way to build market share.

According to Hansen and Singh (2008), households' natural inclinations to buy store brands are driven by some underlying value trait that is not captured in its entirety by a simple measure of their price sensitivity, with previous studies showing that store brand buyers are still more price sensitive than their national brand counterpart. This finding could make them more vulnerable to competitors' moves and less store loyal overall, even when taking into account that store brands have the ability to foster store loyalty. The logic behind this argument is that since store brands are available exclusively at the retailer, they create a point of differentiation, and foster a strong preference for store brands, which in turn can translate into store loyalty. Their results show that store brand buying behavior is driven by households' underlying value trait over and beyond what is captured by price sensitivity alone, and that these value-oriented households are more susceptible to new competitors.

Results indicate that store image perceptions, PL price-image, value consciousness, and PL attitude have significant and positive influence on PL purchase behavior. None of the socio-demographic variables (age, gender, household income and family size) included as control variables in the tests ran by Fall Diallo, Chandon, Cliquet and Philippe (2013), had an effect on SB choice. Socio-demographic variables are undoubtedly the most studied variables in relation to SB purchase influences. This study evaluated a partial mediation model including four socio-demographic variables (age, gender, household income, and family size) as influencers, or antecedent of SB choice. The results showed that none of these socio-demographic variables had an effect on SB choice. However, previous results dealing with the effects of socio-demographics on SB store purchase behavior have been rather inconsistent, and as such, must be taken with extra care.

Previous research has identified factors that have a positive influence on the acceptance of private labels, such as private label quality and the introduction of premium private labels (Dhar & Hoch, 1997; Geyskens *et al.*, 2010; Koschate-Fischer, Cramer & Hoyer, 2014; De & Singh, 2017). Research from González-Benito and Martos-Partal (2012), proposes that the relationship between a customer's private label share and the customer's store loyalty differs between product categories in terms of perceived risk. The study of Koschate-Fischer *et al*. (2014), extends this work by delving into two important product category characteristics that influence the private label share–store loyalty link: degree of commoditization and product involvement. Private label share is defined as being the value share of private labels in the shopping basket of a customer (Koschate-Fischer *et al*., 2014).

Regarding degree of commoditization, it was found that the variable has a negative moderating impact, which implies the lower the degree of commoditization, the stronger the link between private label share and store loyalty. Customers risk more when switching to other brands if commoditization is low, since there are more perceived differences between brands. Consistent with this notion, the data indicates that customers are more likely to be store loyal in this situation. In contrast, when commoditization is high, there is little risk of switching to different brands, seeing as they are fairly similar, and therefore private label share should play a lesser role in developing store loyalty.

A positive moderating effect was found, in the case of product category involvement, meaning the private label share–store loyalty link was stronger in relatively high involvement product categories. Findings suggest that driving store loyalty through private label brand share is more likely to be successful in relatively higher-involvement product categories. In categories where involvement is lower, consumers are less likely to develop strong attitudes toward private labels, and switching costs are lower (Koschate-Fischer *et al*., 2014).

It was found that private labels have better results in product categories that are less commoditized and with relatively high in involvement. Examples would include coffee, chocolate, ice cream, facial lotion, and deodorant. As such it’s best to invest in these categories if retailers want to increase customers’ loyalty toward the store through the use of private label brands.

Private labels in categories with lower purchase frequency, with a larger price ratio relative to national brands, and with lower levels of NB marketing activities and promotions, tend to have higher potential to differentiate the store from competitors. It was found, by Hoch and Banerji (1993), that private labels tend to perform better in larger categories, with high gross margins, and where quality levels are high. Private labels tend to have a worse performance in categories with higher competition and where more intense branding activity is present (national brand advertising).

Following this logic, retailers who want to use PLs as a way to increase their store loyalty should invest in good quality, higher priced PLs, in less frequently bought categories, like laundry detergent or shampoo (Dawes & Nenycz-Thiel, 2013).

Note that following this strategy represents a significant challenge for the companies, seeing as these categories are the very ones in which customers are more willing to pay higher prices for national brands to avoid the "riskiness" of buying private labels (Steenkamp, Van Heerde & Geyskens 2010). However, the payoff in terms of greater store loyalty would suggest that this strategy is worth the investment. This is an essential implication because many retailers tend to focus their private label activities on highly commoditized, low-involvement product categories, leading to worse results. This study would suggest that retailers are less effective in developing store loyalty under this previous strategy. PLs that are much cheaper than NBs, especially in frequently bought categories, tend to attract value-driven consumers who will buy a cheap PL anywhere they can find it, and that aren't likely to become store loyal (Dawes & Nenycz-Thiel, 2013).

Another study shows PL buying increases as the possibility of purchasing a poorer product declines. In practical terms, the national brand should find every legitimate way to create fear, uncertainty and doubt in the consumer's mind regarding the quality equivalence between the national brand and the PL, in the hope that the resulting anxiety pushes the consumer to prefer the traditional national brand that he his familiarized with, over the cheaper PLB (Batra, 2000).

3.2. PL against HD

The ever increasing rise of the discounter format is a key driver of structural change within the consumer goods sector. Their market shares range from about 10% to an astonishing 43% in Germany (Global Retail Mag, 2014 in Hökelekli, Lamey & Verboven, 2017) and they are estimated to grow by 82.2% until 2020 (Food Manufacture UK, 2015 in Hökelekli *et al*., 2017).

This retail approach competes mainly on price, quality, consistency and simplicity. Discounters apply their no-frills strategy: products are often presented on the floor on retail ready pallets, with half-sized pallets being used to further optimize floor space. Their sales rely primarily on private labels (PLs) and, recently, they started to offer a limited number of select national brands (NBs), leading to an overall improved shopping experience.

Discounters not only affect traditional retailers' market share, they also put pressure on them to increase operational efficiency and decrease prices, turning the retail battlefield into a way more competitive market.

The study of Geyskens *et al*. (2010), in Hökelekli *et al*. (2017), shows that, based on a brand-choice model, the introduction of an economy PL cannibalizes the store's standard PL but benefits the more popular NBs. Similarly, an introduction of a premium PL cannibalizes the store's PLs (i.e. economy and standard) and sometimes benefits premium-quality NBs.

Another conclusion is that since PLs compete more intensely between each other than with NBs, in some categories, PL growth may sometimes hinder other PLs more so than NBs. This result highlights the importance of stores to start looking at competition between the two types of store brands across stores, and seeing PLs from other retail outlets as close competitors.

Following the same steps, for the manager of a NB worried about the growth of a competitor PL, the results indicate those category characteristics of other PLs that could deal with the particular PL's growth, rather than NBs. A further implication for NB owners concerns the finding that many consumers limit their purchases to PL brands in categories where there are frequent NB promotions. As such, frequent promotions may not be a good way for NBs to recover market share from PLs (Dawes & Nenycz-Thiel, 2013).

According to Sayman and Raju (2004),retailers are more prone to offer store brands in categories where the price sensitivity between the national brands is low, and price sensitivity between the store brand and national brands is high. Analysis suggests that retailers are more prone to offer two different store brand alternatives in categories where the national brands are similar in strength and the price disparity between the national brands is low. Introducing multiple store brands that are positioned to fight different national brands is a very legitimate strategic path for retailers. This positioning strategy may benefit the retailer in two ways. First, when store brands target different national brands, it is more likely to extend the demand for store brands, which is required for profitable multiple store brands. Secondly, targeting may exert pressure on to the national brand manufacturers to offer better trade terms.

In most cases, it can be seen that retailers earn higher percentage gross margins on private labels than on national brands. This is mostly due to the fact that private label suppliers have little market power, in contrast with national brands. These suppliers operate in a cutthroat competitive market with little to no product differentiation and thus sell to retailers at a price that is close to their marginal cost. These retailers have somewhat of a local monopoly on their store brand, seeing as competing retailers can’t carry the same store brand, even if they carry the same national brands. On average, it is found that percentage margins on store brands are significantly higher than on national brands; as such, all else being equal, individual category percentage margins increase with store-brand share (K. L. Ailawadi & Harlam, 2004). National brand manufacturers build their power through customer loyalty. Loyal consumers are the ones most likely to pay full price for their favorite brands, instead of waiting for price discounts. They look for them in any store they shop and, if not found, may simply shop elsewhere. If enough consumers threaten to act in this manner, retailers will be compelled to carry the national brands and be vulnerable to worse negotiation terms. At the same time though, retailers may employ their private labels strategically to decrease the space available for competing national brands. They may also use private labels to pressure manufacturers into competing more aggressively on price (Fisher et al., 2002). For retailers, selling private labels, besides the increase in category and overall profits, store differentiation, access to higher product margins and stronger negotiation power with national brand manufacturers, private label brands also provide a positive impact of private label share on store loyalty (Pepe et al., 2012).

Most studies in this area have spent the most of their focus on the direct relationship between private label share and store loyalty. The key finding of this research is that the relationship between these two variables has an inverted U shape; meaning private label share increases store loyalty up to a point, after which there is an incremental negative effect (Ailawadi, Pauwels & Steenkamp 2008 and González-Benito & Martos-Partal 2012 in Koschate-Fischer, Cramer & Hoyer, 2014).

Studies suggest that pushing private labels could increase the share of wallet that consumers devote to a specific store. Share of wallet, at the beginning, increases strongly with PL share, but after a PL share of about 40%, it begins to fall (Ailawadi, 2008). The inverted-U effect of PL share on share of wallet can be explained by the concept that consumers who buy moderate amounts of PL from a chain are likely to build chain loyalty, those who don't buy PL at all have no loyalty, and those who buy a lot of PL are drawn more towards savings and lower prices than to a particular PL, prowling different shops for the best prices and deals (Ipek *et al*., 2016).

Following the previous logic, high store brand purchase rates point towards customers not differentiating or selecting store brands in specific categories; instead, choosing solely on the basis of price. These customers may not differentiate across retailers, because they pursue the best price, regardless of who sells it.

This theory is further cemented by Ailawadi, Pauwels and Steenkamp (2008) suggesting that increased private-label share in risky categories (e.g., desserts, beauty products) is more critical than the share in other, less risky, categories (e.g., dry goods, household paper products); thus predicting that perceived risk creates a more favorable relationship between private-label share and store loyalty.

With a price oriented positioning, instead of a quality focused one, the relationship between store brand consumption and store loyalty is more favorable, to such a degree that the store brand share at which the relationship begins to be negative occurs later, instead of at the previously mentioned 40%, and the negative relationship is weaker.

At the same time however, studies have concluded that when a brand's positioning prioritizes quality rather than price (i.e., copycat), it has a more favorable effect on store loyalty, compared to when the positioning prioritizes price over quality (generic store brands). Specifically, the store brand loyalty level at which the store brand loyalty effect begins to have a negative influence on store loyalty occurs earlier when the store brand positioning stresses price instead of quality (Martos-Partal & González-Benito, 2011).

These findings are not exactly conclusive, seeing as some studies find direct relationships, others find inverse relationships, and still others do not find any relationship whatsoever (González-Benito & Martos-Partal, 2012).

Additionally, significant differences are found across categories in this relationship between in store private label consumption and store loyalty. It appears more favorable for categories related to personal care products than for household products and for household products relative to food products. More favorable still means that the negative relationship occurs, only that it will be later and less significant. As such, it's concluded that the relationship between store brand share and store loyalty is more favorable for risky product categories. In any case, retailers should combine the role of quality oriented store brands to differentiate the store and the role of price-oriented store brands to attract price-conscious consumers, since this complicated balance will yield more positive results.

In line with previous reasoning, it was found that when the share of the PLs in the product assortment increases, consumers tend to switch from the national brand to the store brand alternatives (Ngobo, 2011). This switch occurs mainly among the consumers who are currently spending a smaller share of their grocery expenditures on store brands. Consumers who are already making a substantial proportion of their purchases on store brands tend not to buy more private label products. Instead, they tend to move to competing stores, thus reducing their share of wallet to the focal store.

However, when the relative share of PLs increases above a certain limit, all the consumers increase the size of their consideration set, and this reduces their loyalty and expenditure to the focal store.

The most likely to switch to other stores are consumers who spend a smaller proportion of their grocery expenditures to store brands, reflecting the fact they are relatively more sensitive to product quality than the other customer groups.

The results indicate that there is a significant non-monotonic negative relationship between department private label sales penetration and overall department sales, which corroborates the previous "40% theory" (Pepe *et al*., 2011).

The results of this research indicate that as private label sales penetration increased for the grocery department, overall department sales decreased. These results indicate that national brands are still key for enhancing overall sales, by taking into account and focusing on the fact that increasing private label sales beyond a certain level may result in less overall sales.

The finding that there is a positive relationship between private label share and store loyalty is an important one. There is a stronger relationship between private label share and store loyalty for customers who display a more price oriented behavior. Thus, when retailers have a large, price-oriented customer base, it is crucial that these segments are targeted with private label brands. Product characteristics also moderate this important relationship; as concluded earlier, the private label share and store loyalty link is stronger in product categories where there is a low degree of commoditization and high product category involvement. It was also found that the private label brand share drives store loyalty more for retailers with a low price positioning (Koschate-Fischer *et al*., 2014).

It was found that premium PLs do not seem an effective strategy in the fight between traditional retailers and hard discounters, seeing as they mainly cannibalize the traditional retailers' standard PLs and steal market share from their NBs in both categories. At the same time, even if economy PLs manage to steal some market share from discounters, they mainly cannibalize standard Pls. Standard PLs seem the most effective strategy to fight discounters since they are the ones who steal most market share from discounters.

Looking at real world scenarios, in the oats category, it was found that national brand preferences do not change, but consumers become more price sensitive after the launch of the PL. In fact, after the retailer introduces the PL, the national brand manufacturer behaves in a more "accommodating" fashion towards the retailer in terms of the its pricing decisions.(Chintagunta, Bonfrer & Song, 2002) If traditional retailers want to mitigate the loss that is incurred due to discounter entry, they should mostly focus on their standard PL portfolio and its pricing strategies (Hökelekli *et al*., 2017) .

Private label strategy has begun to transform from simply selling on a cost advantage/ price based strategy, to actually establishing the private label as a brand itself (Kumar & Steenkamp, 2007). Many retailers have determined that simply positioning the private label brand as cheap may be a suboptimal strategy that sells short the true potential of the private label brand for overall retail business, which follows the proof that promoting product quality is the superior way of raising store loyalty (Hoskins, 2016).

The work of Richardson *et al.* (1996) suggests that simple improvements in the extrinsic cues associated with store brands may be a powerful, yet obvious way to increasing consumer acceptance of private label brands. European retailers are aware of this and have been successful in increasing store brand market share by investing in dramatic improvements in package design, labeling, advertising, and branding strategies. Despite these strategies, it may not be enough to have good quality; what may be needed is comparable quality which matches or even exceeds that of leading national brands.

Results from Hansen, Singh and Chintagunta (2006) regarding 10 studied product categories, points to households displaying similarities in their preference for store brands and marketing mix activities across categories. This study suggests that store brands are better positioned in certain categories, seeing as they attract buyers primarily due to their preferences rather than price concerns. In such scenarios, retailers could consider narrowing the price difference with national brands.

Moreover, different PL positioning strategies can often be seen across product categories in the same store. For example, one supermarket can offer a PL jam as the most expensive item in the category, but position its PL beef jerky as a cheaper brand than leading national brands. Other categories can have PLs priced higher than some NBs but lower than top-tier NBs, a strategy observed in multiple retailers. All of these point to the conclusion that there is no “one-size-fits-all” PL positioning strategy that is optimal in all situations. Instead, it’s concluded that the relative proportions of quality conscious consumers and price sensitive consumers have a major influence on optimal SB positioning strategy (Chung & Lee, 2017).

Findings from the analysis conducted by Rao (2006) suggest that in certain segments of the private brand market, consumers are likely to differentiate less between different store brands of the same product. A curious aspect of this analysis is that, unlike what is seen in national brands, the success of one private brand seems to be positively related with the success of other stores' private brands.

In fact, one of the major objectives of EPLs is to offer a viable alternative to the HDs’ bottom priced private brands, and allow traditional retailers to compete with HD retailers in these segments.

However, findings corroborate that EPLs are not a good way to combat the hard discounter threat (Vroegrijk *et al*., 2016).Offering an EPL does not heighten the traditional retailer’s category sales when faced against a HD; if anything, the budget line falls and leads to even bigger category losses following HD entry. A likely explanation is that PL products increase price sensitivity and thus, rather than binding consumers to the traditional retailer, drives them toward the low-priced HD, which is in accordance to previously stated findings (Chintagunta, Bonfrer & Song 2002; Hansen & Singh 2008 in Vroegrijk *et al*., 2016).

Managers of premium quality NBs should focus on making the most out of the attraction effect by emphasizing their quality superiority. In these highly price volatile environments, managers must resist the temptation to cut prices or offer promotions to combat premium PL introductions, possibly injuring their quality perception. Instead, they should invest in product innovations and in communicating to consumers that their brands are superior option, by sustaining a high level of advertising and investment in the marketing mix (Geyskens *et al*., 2010).

4. Consumer based brand equity

Brand equity can be regarded as a managerial concept, as a financial intangible asset, as a relationship concept or as a customer-based concept from the perspective of the individual consumer. There is, currently, no consensus in the marketing literature on what exactly brand equity means or encompasses, though most researchers agree that, at its most basic level, brand equity is the value given by the brand name to a particular product (Yoo & Donthu, 2001; Abril & Rodriguez-Cánovas, 2016; Girard, Trapp, Pinar, Gulsoy & Boyt, 2017).

It can be deduced that, if consumers perceive a particular brand favorably, then the firm may have a competitive advantage over its competitors, possibly leading to greater profits and long term cash-flows. As such, it’s vital that brand managers have access to valid and reliable consumer-based brand equity instruments. Some definitions are based on the financial-perspective and stress the monetary value of a brand to the firm; while others are based on the consumer-perspective, which defines brand equity as the value of a brand to the consumer (Pappu, Quester & Cooksey, 2009).

The following table presents some of the different brand equity definitions adopted over the years by different authors.

Farquhar (1990)	The added value that a brand endows a product with.
Aaker, (1991)	The added value endowed to a product or a service as a result of past investments in the marketing for the brand.
Rangaswamy (1993)	The different response between a branded and an unbranded product when both have the same level of marketing stimuli and product attributes.
Barwise (1993)	A utility not explained by measured attributes.
Keller (1993)	The differential effect that brand knowledge has on consumer response to the marketing of that brand.
Moore (1993)	The combination of brand awareness, liking and perceptions.
Broniarczyk and Alba (1994)	The value a brand name adds to a product.
Park and Srinivasan (1994)	The added value endowed by the brand to the product as perceived by a consumer.
Keegan, Moriarty and Duncan (1995)	The incremental price that a customer will pay for a brand versus the price for a comparable product without a brand name on it.
Moriarty and Duncan (1998)	A product of the total brand support of customers and other stakeholders that is determined by all interactions with the company.
Pappu, Quester and Cooksey (2009)	The value attached to a brand because of the powerful relationship that has been developed between the brand and customers.
Abril and Rodriguez-Cánovas (2016)	Incremental utility or value added to a product by its brand name.
Girard, Trapp, Pinar, Gulsoy & Boyt (2017)	A set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product to a firm and to that firm's customer.

Source: Author's elaboration
Table 1: Brand equity definitions

At its core, customer-based brand equity is defined as the power of a brand that lies in the minds of consumers and what they have experienced and learned about over time (Tuominen, 1999).

The work of Aaker (1991), provides the most comprehensive definition of brand equity from a customer perspective available in the literature, defining brand equity as a set of brand assets and liabilities linked to a brand, that impact and alter the value provided by a product or service to a firm and to that firm's customers. Brand equity is defined by Keller (1993) from a different view, stating it to be the differential effect of brand knowledge on consumer response to the marketing of the brand, which differs slightly from Aaker's definition (Çifci *et al*., 2016; Girard, Trapp, Pinar, Gulsoy & Boyt, 2017).

To hold a strong brand equity requires that consumers recognize brands, have favorable brand identification, and show increased degrees of brand loyalty.

In summary, high brand equity implies that customers have a lot of positive and strong associations related to the brand, perceive the brand is of high quality, and are loyal to the brand (Boonghee, Naveen & Sungho, 2000).

4.1 Antecedents of CBBE

When laying the first bricks of consumer based brand equity, Aaker (1991), and later Keller (1993) initially theorized it as a multidimensional concept, with its antecedents consisting of brand awareness, brand association, perceived quality, and brand loyalty, all of which are essential, from a customer perspective.

Perceived quality is described as the consumer's judgment about a product's overall quality or superiority. Personal product experiences, unique needs, and consumption situations may influence the consumer's subjective judgement of quality. A principal positioning characteristic of a brand is its location within the dimension of perceived quality. High perceived quality means that, through the long-term experience related to the brand, consumers recognize the differentiation and superiority of the brand. Such a perceived quality advantage provides the option of charging a premium price for these products (Tuominen, 1999).

Brand awareness refers to the consumer's ability to recall brands or recognize a brand as a member of a specific category (Aaker, 1991). Recognition provides the brand with a sense of familiarity, which Brand awareness encompasses. Brand awareness also plays an important role in consumer decision making, seeing as it is very important that consumers think of a specific brand when they think about the product category it is part of. As such, it's deduced that it can affect decisions about a brand in the consideration set. Brand awareness affects consumer decision making by influencing the formation and strength of brand associations and brand image (Keller 1993; Tuominen, 1999; Choi & Huddleston, 2014).

Brand association is the brand knowledge stored in the consumer's mind, any meaning that is linked to a brand in the consumer's memory, and anything linked in memory to a brand and brand image; with the latter being described as a set of brand associations, usually in some meaningful way. Brand associations are complicated and connected to one another, and consist of multiple ideas, episodes, instances, and facts that establish a solid network of brand knowledge.

Brand loyalty, as seen previously, has been a difficult concept to narrow and define, with different authors each claiming it to be seen by alternative viewpoints. Initially, Aaker (1991) defined brand loyalty as simply being the attachment that a customer has to a brand. Later on, Yoo and Donthu (2001**)** instead, defined brand loyalty as being demonstrated by the intention to buy the brand as a primary choice. Looking at the loyalty definition of Oliver (1999), in Ipek *et al*. (2016), loyalty can be defined as the commitment that is held deeply to a particular retailer or brand and the wish to patronize a preferred product in the future, which is also in line with Arnett, Laverie and Meiers (2003). Sometimes seen as consistent purchasing of one brand over time, as an indication of brand loyalty, or by the sequence and the proportion of purchases, repeated purchasing is assumed to reflect loyalty, but this behavior may lack commitment to the brand and reflect repeat buying based on inertia. Loyalty implies a commitment to a brand that may not be reflected by just measuring continuous behavior, with loyal consumers showing more favorable responses to a brand than non-loyal or switching consumers. The findings of prior studies concerning the relationship between private-label share and store loyalty are not conclusive, thus suggesting the complexity of the relationship and the nonexistence of a simple unidirectional relationship.

4.2. CBBE scales and loyalty

Much of the initial study of CBBE scales is due to Yoo and Donthu (2001), who were among the first researchers to come up with a rigorous and precise scale to measure consumer based brand equity, making use of the antecedents and findings present in Aaker (1991) and Keller (1993). A questionnaire was run, presenting three different product categories and being delivered to three different market segments. These results were then processed and perfected, dropping items with poor correlations and relationships. Brand awareness, brand association, perceived quality and brand loyalty were the subjects of this in-depth research, pooling together different items to define and measure them. Though Yoo and Donthu (2001) wrote brand awareness and brand association as being effectively the same, following the concept of brand knowledge, which is made of both brand awareness and brand association, and was coined by Keller (1993), this is not an unanimous decision, since Aaker (1991) defined them as being conceptually different. This claim was further investigated by Arnett *et al*. (2003), with results cementing the idea that awareness and association are, in fact, distinct dimensions of retailer equity.

The study of Pappu and Quester (2006) extends Aaker's (1991) initial framework of brand equity and Yoo and Donthu's (2001) framework of consumer-based brand equity to the domain of retailer equity; successfully being able to prove that the structure of retailer equity mirrors that of brand equity. The definition of retailer equity follows Aaker (1991) initial definition of brand equity and can be interpreted as the value associated by the consumer with the name of a retailer. As with brand equity, it's measured by the following dimensions, retailer awareness, retailer associations, retailer perceived quality and retailer loyalty. For this study, Pappu and Quester (2006), in order to create a valid scale to measure retailer equity, based most of its items on the works of Aaker (1991), Keller (1993), Boonghee *et al*. (2000)and Yoo and Donthu (2001).

While the four dimensions of consumer based brand equity and retailer equity are often seen as parallel and equally related in terms of weight, some researchers, namely Choi and Huddleston (2014) and Jinfeng and Zhilong (2009), argue that, instead, retailer loyalty can be seen as the dependent variable.

The study of Jinfeng and Zhilong (2009) focuses on the impact of different store image dimensions on retailer equity, and provides some very relevant results, both confirming previous hypothesis and presenting new conclusions. As a basis to build upon, the results from Pappu and Quester (2006) are utilized, meaning, it's accepted that retailer equity mirrors brand equity and is also a multidimensional concept made up of retailer awareness, retailer associations, retailer perceived quality and retailer loyalty, with Arnet *et al* (2003) providing similar results. The work of Jinfeng and Zhilong (2009) follows the proposal that the dimensions of brand equity affect brand equity by influencing brand loyalty first, since they found loyalty to be a more holistic construct that is closer to brand equity.

Their framework model of brand equity is also based on Boonghee *et al*. (2000) model, extended and adapted with a few twists. Both brand equity and its dimensions were replaced with retailer equity and dimensions of retailer equity. Retailer equity dimensions were then divided into two constructs, retailer loyalty and other dimensions of retailer equity, as a means to see how these constructs are related. Lastly, marketing mix elements were added to the store image dimensions, since store image attributes are equated to different elements of the marketing mix. Research also suggests that store image and its attributes have an effect on store buying behavior, with both of these elements influencing store loyalty. The relationships between store image dimensions and retailer equity dimensions were investigated; with results showing retailer awareness, retailer association and retailer perceived quality as being positively related to retailer loyalty. In fact, these results prove that there is a hierarchy among retailer equity dimensions, further confirming that the proposal of loyalty being a more holistic construct that is closer to brand equity is true. The other three retailer equity dimensions are also affected by the store image dimensions, which positively influence retailer equity thanks to the mediating effect of these three retailer equity dimensions.

While Choi and Huddleston (2014) work is a bit more specific, focusing on the effect of retailer owned private brands on retailer equity, and narrowing down to comparing how retailer named or non-named brands fare; it still provides conclusions in line with Jinfeng and Zhilong (2009) work, by proving that retailer loyalty is a direct core dimension of retailer equity, and it has a positive relationship with retailer awareness, retailer association, and perceived quality, which corroborates the idea that there is a hierarchical structure between the retailer equity dimensions, with retailer loyalty being more holistic and closer to brand equity.

According to Girard, Trapp, Pinar, Gulsoy and Boyt (2017), and taking into account the objective changes happening both inside, and outside, the retail sphere, researching and developing brand equity measures for private-label brands is a fundamental issue to be addressed, seeing as private-label brands have been building brand equity and an actual place in consumer's minds, as they no longer represent just a price alternative to consumers.

While being among the first to tackle private label consumer based brand equity, Girard, Trapp, Pinar, Gulsoy and Boyt (2017) based some of their work on the previous findings of Richardson, Jain and Dick (1996), who, despite not being directly related to brand equity, present a framework of factors that might influence private label proneness. Their results show that the most relevant factors found to influence the purchase of private label goods are familiarity with the brand, perceived value and perceived risk of the goods, and also extrinsic cues. This same study also showed that familiarity/ awareness with private-label brands is critical for influencing private-label brand proneness.

Based on existing brand equity research and private-label brand knowledge, private-label brand equity is conceptualized as multiple constructs and measured with eight different brand equity dimensions. The four brand-equity dimensions compiled from CBBE theory are brand awareness, perceived quality, brand association, and brand loyalty. Based on existing research on private-label brands the four other brand equity dimensions are perceived value, perceived risk, retailer/store brand loyalty, and private label brand equity.

Consumers who are familiar with private-label products are likely to view them as having perceived high quality and, as being low risk products that represent good value for money.

Higher levels of brand awareness, perceived quality, perceived value, brand association, brand loyalty for store, and lower levels of perceived risks contribute to higher levels of loyalty for the private-label brand and ultimately to the increase of the brand's overall brand equity.

Their results thus showed that store loyalty increased brand loyalty for Private Label, and ultimately the brand loyalty for Private Label increased the brand equity for the Private Label brand.

5. Framework

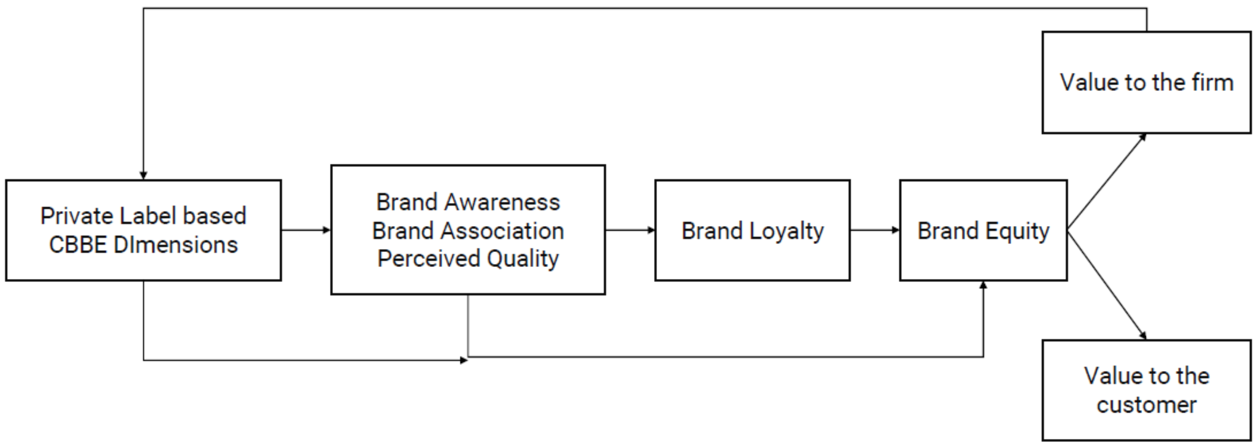
The main purpose of this study is to investigate the relationships between brand loyalty and brand equity. As was previously stated, and according to Girard, Trapp, Pinar, Gulsoy and Boyt (2017), private labels are no longer only a price alternative to consumers who currently perceive them, instead, as legitimate and trustworthy brands. As such, it's imperative that brand equity measures are seen through the light of these said private labels, researching and developing brand equity measures just like for their national brand counterparts.

To sum up the concepts and findings presented in the literature review a conceptual framework will be developed. Based on the work of Jinfeng and Zhilong (2009), who built their model aligned with Boonghee *et al*. (2000) proposed framework and theory, this model relates the different dimensions of brand equity with brand equity itself, while also looking at the hierarchical relationship between themselves. It also takes into account the brand equity dimensions derived from private label brand research and their influence on the CBBE based dimensions, as well as their influence on brand equity.

As with both Boonghee *et al*. (2000) and Jinfeng and Zhilong (2009) models, this proposed framework takes into account original propositions from Aaker (1991), namely the idea that brand equity creates value for the costumer and the firm, and that this same brand equity consists of multiple dimensions. Setting brand equity as a separate construct allows for a better understanding on how the different dimensions influence brand equity. Antecedents are also added, to further examine their influence role on both brand equity dimensions and brand equity itself.

Since this framework will be based on the study of Jinfeng and Zhilong (2009) it makes sense to delve deeper on how their work was structured. Also based on Boonghee *et al*. (2000), it’s proposed that brand equity dimensions contribute to brand equity and that, perceived quality, brand associations and brand awareness might affect brand equity by influencing brand loyalty first. Cemented on the study of Pappu and Quester (2006), that states that brand management principles can be applied to retail bands, the original model is extended by replacing the dimensions of brand equity with dimensions of retailer equity and brand equity with retailer equity, respectively. Further, in order to show how retailer loyalty is related to the rest of retailer equity dimensions, these are divided into two constructs, that is, retailer loyalty and other dimensions of retailer equity.

Having stated the logical inspirations of this adapted model, the dimensions of retailer equity, and retailer equity itself are thus reverted back to their original state of brand equity, including retailer loyalty. Store image dimensions, the antecedents, are also adapted into Private label based CBBE dimensions, following the findings of Girard, Trapp, Pinar, Gulsoy and Boyt (2017).



Source: Author's elaboration
Figure 1: Antecedents of Brand Equity

6. Hypothesis

After describing, in the presented literature review, the theories and works used as a basis for the previous proposed framework, it's time to delve further into the hypothesis to be tested in this thesis.

Customer based brand equity can be defined, in a more succinct and simplistic way, as the power a brand has on the mind and choices of a consumer (Aaker, 1991). At its core, brand equity is composed of various dimensions, seeing as it's made up of different assets and liabilities, with brand awareness, brand association, perceived quality and brand loyalty as the main antecedents, based on existing brand equity research. Understanding the brand equity phenomenon properly requires tapping the full scope of brand equity, including awareness, perceived quality, loyalty, and associations. While initially assumed that these dimensions all had the same importance and weight when related with brand equity, it was proven by Jinfeng and Zhilong (2009), that this wasn't always the truth. Instead, thanks to their research, it can be seen that brand loyalty is actually the dependent variable, being at the top of the hierarchy, supported by brand awareness, brand association and perceived quality.

Considering this, H1 was proposed to test if these findings still apply in a multi-brand environment:

H1. CBBE based dimensions positively influence brand loyalty.

H1a. Brand association positively influences brand loyalty.

H1b. Brand awareness positively influences brand loyalty.

H1c. Perceived quality positively influences brand loyalty.

When starting to look at brand equity and its dimensions through different prisms, it can be seen that it’s a more complex topic than initially thought, with brand equity dimensions unfolding into different layers and aspects. In particular, when focusing on private label based brand equity and taking into account existing research on the topic, a new array of dimensions can be found. Thanks to the work of Girard, Trapp, Pinar, Gulsoy and Boyt (2017) it can be seen that brand equity is also influenced by perceived value, perceived risk, store brand loyalty and private label brand equity, which are all based on existing research on private label brands. The other three brand equity based brand equity dimensions are also affected by the private label dimensions, which influence brand equity thanks to the mediating effect of these three brand equity dimensions.

To better understand how private label based CBBE affect CBBE dimensions in a multi brand environment, H2 is proposed:

H2. Private label based CBBE positively influence CBBE based dimensions.

H2a. Perceived value positively influences brand association.

H2b. Perceived value positively influences brand awareness.

H2c. Perceived value positively influences perceived quality.

H2d. Perceived risk positively influences brand association.

H2e. Perceived risk positively influences brand awareness.

H2f. Perceived risk positively influences perceived quality.

H2g. Store brand loyalty positively influences brand association.

H2h. Store brand loyalty positively influences brand awareness.

H2i. Store brand loyalty positively influences perceived quality.

H2j. Private label brand equity positively influences brand association.

H2l. Private label brand equity positively influences brand awareness.

H2m. Private label brand equity positively influences perceived quality.

Taking into account the two previously proposed hypothesis, and with the goal of better understanding private label CBBE impact on brand equity, the role of these dimensions is further scrutinized. In particular, to see if private label based CBBE have an impact on brand loyalty, and consequently brand equity, without requiring the mediating effect of the consumer based CBBE dimensions. As such, it follows that H3 asks:

H3. Private label based CBBE positively influence brand loyalty.

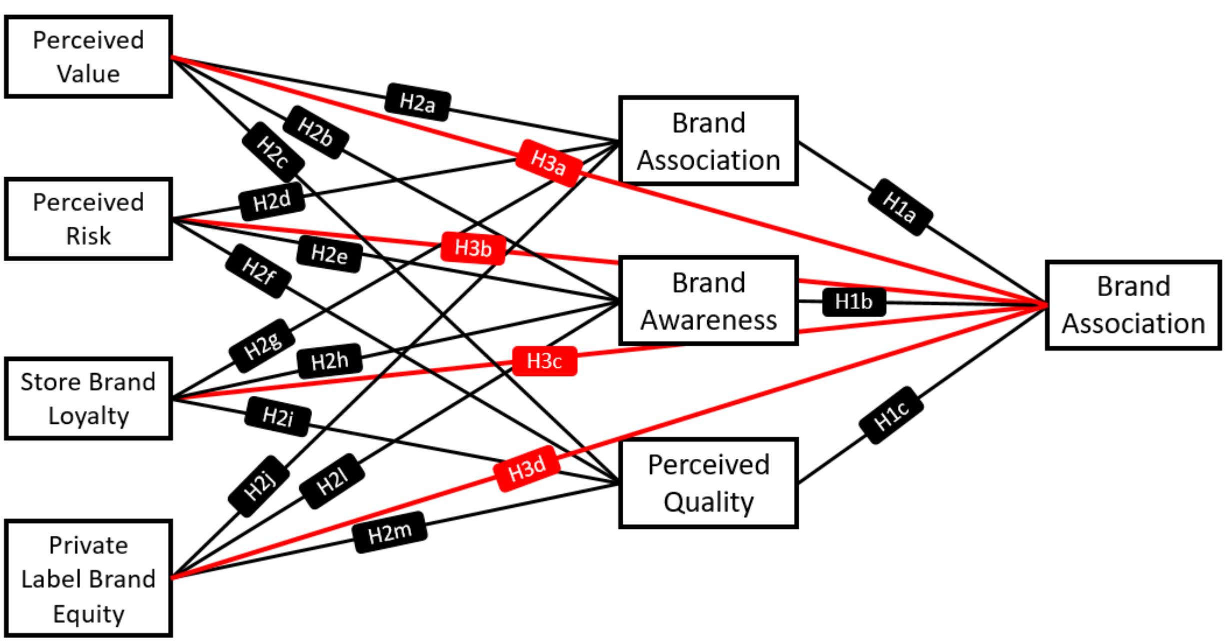
H3a. Perceived value positively influences brand loyalty.

H3b. Perceived risk positively influences brand loyalty.

H3c. Store brand loyalty positively influences brand loyalty.

H3d. Private label brand equity positively influences brand loyalty.

The following image delineates and helps visualize the proposed hypothesis.



Source: Author's elaboration
Figure 2: Proposed Hypothesis

7. Methodology

Having stated this thesis' main objective, the role of loyalty in creating brand equity, with a special focus on private label brand equity, and presented the hypothesis to be tested, it's now time to further expand on how these will be proven as true or false.

Via Qualtrics, an online survey tool, an online questionnaire was run. This type of data gathering technique was seen as the best option to provide factual and precise conclusions, and can be described as a quantitative research method. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon, by using methods that emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected.

While secondary data, as well as previous information and theory, will work as the pillar for this study, strengthening its core goals and allowing for further questioning and theory crafting; primary data will allow for the brunt of the work yet to be written, in the sense that only new and fresh data, collected under new specifications and situations, will help sustain innovative points of view, thus guaranteeing that all the conclusions will come from the analysis of data collected through experimentation and observation.

The sampling method used, snowball sampling, is a non-random one, and was chosen mostly due the difficulty of finding and gathering such a large mass of respondents. While this method may be accused of producing biased results, given the fact that it relies on the researcher's social circles, its practicality and ease of use must not be underestimated. The biasing issue will be mostly null, by sharing the questionnaire with fairly different social circles, be it in their occupation, age and background, which will then branch into even more diverse circles.

The questionnaire (Appendix 1 & 2) used in this thesis is heavily influenced by the previous literature review. Following Girard, Trapp, Pinar, Gulsoy and Boyt (2017) work, and focusing on the limitations and suggestions for further research, a need to apply their model to a broader experience can be seen; specifically, the wish to use their scale on more than one single retailer, a multiple retail brand environment. This will serve as the path-setter of this research and, as such, their presented scale will be used as the main tool in the survey.

This scale is among the first to tackle the topic of private label based brand equity, from the perspective of the consumer. The survey includes a total of eight brand equity antecedents and dimensions, with the initial four focusing on traditional CBBE theory, and the other four focused on private label studies. The scales used to measure the traditional CBBE are fairly stock, and don't deviate much from what other researchers have been employing in their works, being mostly based on the accepted and widely used works of Aaker and Yoo and Donthu. The private label scales required a much deeper study, seeing as they are still fairly untrodden. Multiple questionnaires were analyzed by Girard, Trapp, Pinar, Gulsoy and Boyt (2017), often requiring adaptation and rearrangement to be usable in their survey. This innovative work was the subject of heavy testing, constantly reshaped to better fit the goals of the researchers, who pushed it to higher purity levels via numerous rigorous pretests. Several tests were conducted in order to fine tune the scales, both in terms of meaning and clarity and relevance of the different items.

In this thesis, a set of demographic questions were added to the survey, which allows for the creation of more detailed consumer profiles and trends. The survey was afterwards translated from English to Portuguese, by both the author and other fluent colleagues, seeing as the population will be composed of Portuguese speaking citizens, and the questionnaire will be focused on the Portuguese reality and retail brand market structure. The different translations were compared and utilized to prepare a more precise result, still loyal and with the same meaning as the original one. The survey was also "translated backwards" from the final Portuguese version back into English, with results showing that the end results were still very much aligned with the original's goal and meaning, with little to nothing having been lost in translation. Some pretests were also run before releasing the survey into the wild, further confirming its original purpose had not been lost, and reassuring that it was easily understood and answered by the population. The survey is composed of three different sections: demographic questions, first batch of antecedents and second batch of antecedents. Besides providing more detailed information on the person answering the survey, the demographic section also filters respondents, by asking if they are the primary responsible for buying household goods and foods, while at the same time sorting respondents by their most loyal retailer, on which the following sections will focus on. The antecedents sections are made up of the translated questionnaire of Girard, Trapp, Pinar, Gulsoy and Boyt (2017) divided in two batches of four antecedents. This way, besides providing a more appealing and easier to answer survey, the author is able to thematically separate the questions, which first focus on the familiarity to the chosen retailer, and then on the loyalty the respondent feels. Both of these sections will be measured with a seven point Likert scale, with 1 being equal to “Strongly disagree” and 7 being equal to “Strongly agree”.

8. Statistical analysis

8.1. Demographics and descriptives

A total of 304 questionnaire responses were collected through the Qualtrics platform, and later treated and analyzed via the SPSS software. Of these, only 202 were deemed valid and fit for analysis, seeing as the ones left behind were severely incomplete.

The sample being studied, the 202 valid responses, is made up of 143 females and 77 males, thus showing a 65% share of women versus a 35% share of men. Age groups show a fairly even distribution of respondents, with all of them hovering around the 25% value mark. The 25-34 years group comes out slightly ahead, boasting a respondent number of 63 and representing 28% of the total sample.

The education levels of the respondents paint a picture of a generally educated individual, seeing as 45% of the sample holds an undergraduate degree, closely followed by respondents with an high school or master’s education level, showing values of 26% and 21% respectively. Looking at the Education*Age cross tabulation table (Appendix 3) it can be seen that there is a fairly even distribution of respondents across all education levels, with only the 25-34 group standing out from among the other groups when analyzing those with Masters level education. The Education*Gender table (Appendix 4) also presents values in line with the previous findings, following the same distribution trend seen in the Gender analysis, with women having around double the amount of respondents in each education category.

The percentage of respondents who live alone, or in other words, those with no extra family members, meaning they have a family size of 0, represent only 11% of the total sample. The most common composition is that of one respondent plus three other family members, which accounts for 28%. The number of individuals who live with either one more, or two more family members is strikingly similar, seeing as they account for 48 and 49 individuals respectively. Bigger families, those with four or more additional members, sit right in the middle, with a percent of 15.9.

In regards to the monthly wage earned, which takes into account all of the family members' earnings, sees one group, the over 2000€ one, almost making up half of the sample size, coming very close with a 40.9% value. Right behind is the group with between 1500€ and 2000€ total pooled earnings, which translates into 53 respondents or 24%. Those with earnings below 1500 make up 35% of the total of answers.

Of the 220 valid responses, over half of the answers come from the person who is directly responsible for the buying of the products, with results showing a division of 61.4% main buyers, 135 respondents, against 38.6%, 85, of the total respondents which are not the main buyer for their family. No relevant differences were found between these two groups, when researching and comparing results.

When it comes to the retailers that the respondents feel a bigger connection with, and higher loyalty towards, there are two that quickly stand out from the rest. Continente is easily the one which holds higher loyalty from buyers, with a total of 95 answers, 43%, stating it as the one they are more loyal towards. Pingo Doce is a close second, being the choice of 66 individuals, 30% of the total answers. Both of these retailers are the ones with the higher number of stores in Portugal, and the main players in the regular hypermarkets and supermarkets field. In third place, with 10% of respondents, is Lidl, the main brand and player in the discount and no frills supermarket category. Jumbo comes up very close to Lidl, with a total of 9.5% of respondents, 21 individuals, to the 22 Lidl holds. Jumbo, a retailer owned by Auchan, mostly focuses on big hypermarkets, though it also sports some regular smaller supermarkets under the name Pão de Açúcar, though most of them are being reconverted and rebranded into smaller, convenience style, proximity supermarkets. When looking at the Retailer*Family cross tabulation table (Appendix 5), the results are very much in line with the stated distributions, with the different Family size groupings showing fairly even allocations. Namely, when looking at Continente, each grouping shows, on average, values very close to the 43% loyalty; Pingo Doce is also evenly preferred by around 30% of the different family size ranges. These same results are also seen in both Lidl and Jumbo, though these two have higher variation and value dispersion than Continente and Pingo Doce. Attention must be paid to the

Family size=0 group, which shows some more polarizing numbers, mostly due to its relative small size. The Retailer*Wage table (Appendix 6) also holds some interesting results which, like those just seen, also follow the expected trend. The poorest group, those whose monthly wage is lower than 700€, shows some bigger signs of volatility, often deviating further from the norm followed by the other categories. Continente is evenly preferred by all of the wage groups, with each showing around 45% of its members as more loyal towards this retailer. The other retailers, Pingo Doce, Lidl and Jumbo also behave in a similar fashion, with their average group member percentage hovering around 30%, 10% and 10% respectively. While the analysis of these two tables might seem redundant, it is actually quite helpful in understanding how the different respondents behave in their preferences. As seen, no group, of either family size or wage, stands out as an outlier from the other groups. For example, there is no one group who monopolizes a specific relation, meaning, there are no situations where a retailer is vastly preferred by one specific family size or wage group while the others show no interest. Instead, the distributions seen are very healthy, and paint a picture of valid, theory building data.

Appendixes 7 and 8 summarize this information, thanks to a descriptives table, which covers common and relevant statistical outputs; and thanks to frequency tables which provide a precise composition of the demographic variables. By looking at them, it can be seen that the sample shows, with the exception of the Gender and Main Buyer variables, a moderate amount of variance, meaning the data isn't too close to the mean, instead being more spread out around this value.

8.2. Reliability and Validity

Besides the demographics, the questionnaire features several questions (items) which are related to a total of eight different antecedents (constructs). These questions were presented as a Likert type based item, featuring a 1-7 range. The items were then compiled, taking into account which construct they were related to, creating a total of eight new scales, which reflected their specific construct, thus allowing for in depth statistical analysis.

In order to ascertain the quality and usefulness of the data collected, as well as guaranteeing their usability in statistical tests, Cronbach's alpha tests were run, providing information on their reliability and validity, by measuring the internal consistency among constructs and thus guaranteeing if their corresponding scale is reliable. This test's result varies from 0 to 1, being that the generally accepted lower limit is 0,7. All of the constructs, with the exception of Perceived quality, show values above 0,7 (Appendix 9), meaning that most of the item groupings are fairly closely related.

It's important to bear in mind that a Cronbach value bigger than 0,7 does not imply unidimensionality of the measures. Unidimensionality is relevant for statistical exercises, seeing as being unidimensional guarantees that a scale is measuring only one construct. As such, and in order to prove unidimensionality, an explanatory factor analysis was performed, using principal component analysis (PCA) to test the validity of the scales used.

In order to run a PCA analysis, the variables must pass two different tests. The first one, KMO test, checks whether the sample under analysis is appropriate to perform PCA, requiring that the test result values are higher than 0.6. The second test, Bartlett's test, is an hypothesis test that checks whether the variables show any signs of correlation. Thanks to the Appendix 10, it can be seen that all constructs pass both tests, presenting both KMO values over 0.6 and rejecting Bartlett's null hypothesis.

With the exception of Perceived risk, and using Kaiser's criterion, which checks for Eigen values bigger than one, all constructs presented a single component result (Appendix 11). Though the end result is a positive one, and further strengthens each construct's claim of unidimensionality, besides Perceived value and Overall brand equity, which boast 83% and 76% explained variance respectively, all of the other constructs have very poor variance explained values, presenting very contrasting criteria end results, when taking into account the variance explained criteria.

The only construct to suggest the use of two components, Perceived risk, ends up having a fairly intuitive and easy to grasp conclusion. When looking at the rotated component matrix a very clear division of the items can be seen: pr1, pr2 and pr3 are clearly more related with the physical and monetary risk associated with a purchase, while pr4, pr5 and pr6 focuses on what type of image the use of said product gives, and on how that product reflects on the consumer's relations with other individuals (Appendix 12).

Even with the contrasting results given by the different measurement criteria, and taking into account that the Perceived risk construct could be divided into two different scales, when looking at the component matrix of each scale it can be seen that there is a fairly high correlation between the initial variables and the extracted principal components (Appendix 13), which further validates the idea that, while not perfect and with ample room for improvement, each scale is good to be used in various statistical exercises, and their results are of statistical validity and relevance, cementing the unidimensionality of these outputs.

8.3. Hypothesis testing

Having previously presented the hypothesis under analysis in this work, and having run an extensive questionnaire, it's now time to proceed with their statistical testing, in order to understand if they are proven true or false, and allowing for the development of in depth conclusions and theory crafting.

As a reminder, they are as follows:

H1. CBBE based dimensions positively influence brand loyalty.

H2. Private label based CBBE positively influence CBBE based dimensions.

H3. Private label based CBBE positively influence brand loyalty.

All of the hypothesis under testing are similar, in the sense that they all share the same purpose of measuring how much the constructs and antecedents impact each other, in line with the previously developed theory and framework.

The testing method chosen to answer these questions was the development of multiple linear regressions models by Ordinary Least Squares (OLS). Estimating these linear regressions allows for the understanding and discovery of how these variables are related and how much they influence each other, testing for the existence of a linear relationship between them. While other more complex and advanced statistical testing could be stated as a better fit for the hypothesis in question, the usefulness and versatility of the multiple linear regression models must not be underestimated. These models allow for a very intuitive understanding of the results, and are fairly adaptable and malleable when it comes to actually being worked with, allowing for the comparison of the importance of the different variables, as well as checking how much they actually explain of the dependent variable's variation and movement.

Initially, the scales chosen were the ones built with the help of a PCA. Before proceeding with the actual linear regressions testing it's useful, and common, to look at some correlation tables, in order to understand the magnitude of how much the different dependent and independent variables are related. Initial correlation results ended up not being very satisfactory, with the brunt of results being below 0.6 and 0.5 Pearson Correlation values. A fair share of the correlations also ended up not being statistically significant, which could, in a certain way, end up as proof that the different variables had no relevant impact on each other. Multiple linear regression models followed these correlation tables, with R squared values sitting between 0.2 and 0.6, for different regressions. Coefficient significance results also showed that many of them were unable to reject the null hypothesis, thus stating that they had no impact on the dependent variable, $\beta=0$. These slightly disappointing results, together with the fact that many of the correlations showed no statistical significance, without forgetting that previous PCA tests, while able to prove unidimensionality, still showed very poor results when it came to the variance explained, made it obvious that it was necessary to try different alternatives.

As such, new scales were computed, this time choosing the summated scales method over the PCA one. The major difference between them is that, while PCA creates components which assign different weights and relevance to the different items, the summated scale instead adds the values of said items together to create the new scales. While this method is a bit simpler than PCA, when taking into account the issues encountered, it still holds relevancy as a method and validity when it comes to results.

Correlation tables were once again run, this time with slightly bigger Pearson Correlation values. Most importantly, no correlation value was deemed not statistically significant. When looking at the new multiple regressions created for the summated scales, it can be seen that the R squared values are extremely similar, almost the same even, but this time a bigger number of the β coefficients were deemed as statistically significant, which means they had an impact on the dependent variable. All of the regressions run were subject to an ANOVA test, with all of them being able to reject the null, thus proving all of the regressions under analysis are valid.

8.3.1. H1. CBBE based dimensions positively influence brand loyalty.

In line with what was developed in the literature review and hypothesis development parts, as well as considering the limitations presented in Girard, Trapp, Pinar, Gulsoy and Boyt (2017) work, it makes sense to test whether their findings, namely the fact that brand loyalty is supported by brand awareness, brand association and perceived quality, its antecedents, still holds in a multi retailer scenario.

The sub questions are:

H1a. Brand association positively influences brand loyalty.

H1b. Brand awareness positively influences brand loyalty.

H1c. Perceived quality positively influences brand loyalty.

When analyzing the correlation values (Appendix 14), it can be seen that all of the independent variables have a positive correlation with the dependent variable, Brand loyalty. Though causality can’t be implied from these values, they are still valuable and useful, in the sense that they show a relevant relationship between the variables.

The multiple linear regression model computed (Appendix 14) shows an Adjusted R square value of 0.42, meaning the independent variables, the antecedents, explain 42% of Brand loyalty’s variation.

Looking at the coefficients’ values and significance, it can be seen that all of the antecedents have statistical significance, meaning they are relevant and helpful in explaining Brand Loyalty. Perceived quality is the variable with higher coefficient, 0.395, meaning it’s the most important in explaining Brand loyalty. Brand awareness follows with a 0.25 coefficient, with Brand association being the least important, with a coefficient of 0.168.

After this analysis, all of the three sub hypothesis are confirmed as true, thus H1 is also confirmed true, meaning that even in a multi brand environment Brand loyalty, the hierarchically higher variable, is still supported and influenced by its antecedents, Brand association, Brand Awareness and Perceived quality.

8.3.2. H2. Private label based CBBE positively influence CBBE based dimensions.

Following Girard, Trapp, Pinar, Gulsoy and Boyt (2017) work, as well as the developed and explored literature review, it's proposed that the private label based brand items have an impact on Brand loyalty, and subsequently Brand equity, via the mediating effect of the original Brand loyalty antecedents.

The sub hypothesis are thus divided by the relationship between each private label variable and one of the three consumer based brand equity scales.

H2a. Perceived value positively influences brand association.

H2d. Perceived risk positively influences brand association.

H2g. Store brand loyalty positively influences brand association.

H2j. Private label brand equity positively influences brand association.

By looking at the correlation table (Appendix 15), Perceived risk jumps out from the others, due to the fact that it has a negative correlation value of -0.212. With the exception of Perceived value, which holds a correlation of 0.56, the other three variables hold significantly lower values, when related with Brand association.

The regression ran shows an Adjusted R square value of 0.308, meaning the independent variables explain 30.8% of the brand association variation (Appendix 15).

When looking at the coefficients, it's quickly noted that of the four independent variables, only Perceived value holds any relevance in explaining Brand association, also showing a coefficient value of 0.509.

With this analysis in mind, only Perceived value, H2a, is considered true, meaning, it's the only private label based scale which affects Brand association. The other three variables, which fail to reject the null hypothesis, Perceived risk, Store brand loyalty and Private label brand equity, H2d, H2g and H2j respectively, are false, meaning they have no influence, positive or negative, on the dependent variable Brand association.

H2b. Perceived value positively influences brand awareness.

H2e. Perceived risk positively influences brand awareness.

H2h. Store brand loyalty positively influences brand awareness.

H2l. Private label brand equity positively influences brand awareness.

Starting with the correlations (Appendix 16), Perceived risk, once again, shows a negative correlation value of -0.302. When compared with Brand association, the relationships with Brand Awareness are, on average, of a slightly higher numerical value.

The Adjusted R square of this new regression is equal to 0.255, thus showing that these independent variables only explain 25.5% of Brand awareness variation.

This time, when analyzing the coefficient's values and significance (Appendix 16), only Private label brand equity fails to reject the null and, as such, has no impact on Brand awareness. Perceived risk holds a negative value of -0.14, which means that a unitary increase in the perceived risk scale will lead to a decrease in Brand awareness. The other two variables, Perceived value and Store brand loyalty have positive coefficients, 0.371 and 0.158 respectively.

Taking these results into consideration, H2l is thus proven as false, with H2b and H2h being true, cementing the idea that they both have an impact on Brand awareness. H2e, Perceived risk, is also deemed false, though it's important to note that this is not due to a lack of impact, but instead, a negative impact, which contrasts with the results of the other variables.

H2c. Perceived value positively influences perceived quality.

H2f. Perceived risk positively influences perceived quality.

H2i. Store brand loyalty positively influences perceived quality.

H2m. Private label brand equity positively influences perceived quality.

As with the previous regressions and their specific correlations table (Appendix 17), Perceived Risk shows a negative correlation value with Perceived quality, -0.412. Of all the H2 regressions, this is the one in which the correlation values are strikingly higher, with Perceived value carrying 0.696.

In the same spirit, of all the H2 related regressions, this one holds the highest Adjusted R square value (Appendix 17), sitting at the top with 0.515, meaning these independent variables explain 51.5% of Perceived quality variation.

Private label brand equity, as well as Store brand loyalty, both fail to have any impact on the dependent variable. As expected, Perceived value holds the highest coefficient, impacting Perceived quality with a value of 0.577; and Perceived risk once again holds a negative value of -0.185.

Regarding this regression, both Store brand loyalty, H2i, and Private label brand equity, H2m, are false, meaning that, and in line with the previous finding, they both have no impact on Perceived quality. Perceived value, H2c, is seen as true, thus impacting positively Perceived quality. As with the previous regression, Perceived risk, H2f, is false again. This variable holds no positive relation with the dependent variable, but it is still relevant for the study, seeing as it has a quantifiable negative impact.

Due to the fact that not all sub hypothesis are seen as true, H2 can't be globally seen as a true hypothesis, in contrast with H1. As a summary, and for simplicity's sake, the findings are thus shown, covering both the true sub hypothesis, as well as the ones which, albeit false, are still relevant for analysis.

All of the following are true, meaning they have a positive impact on the specific CBBE antecedent.

H2a. Perceived value positively influences brand association.

H2b. Perceived value positively influences brand awareness.

H2c. Perceived value positively influences perceived quality.

H2h. Store brand loyalty positively influences brand awareness.

The following, albeit false, still represent private label variables which impact the respective CBBE antecedent, only with a negative impact.

H2e. Perceived risk positively influences brand awareness.

H2f. Perceived risk positively influences perceived quality.

8.3.3. H3. Private label based CBBE positively influence brand loyalty.

After testing whether the private label based variables were able to impact Brand loyalty through the mediating effect of the CBBE variables, with results showing that that isn't always the case. If a private label dimension affects some of the three Brand equity dimensions, it's expected to lead to an impact on Brand loyalty. It was deemed relevant to test if those same private label variables could, instead, impact Brand loyalty directly, this time without the need of the CBBE variables.

The sub hypothesis are as follows.

H3a. Perceived value positively influences brand loyalty.

H3b. Perceived risk positively influences brand loyalty.

H3c. Store brand loyalty positively influences brand loyalty.

H3d. Private label brand equity positively influences brand loyalty.

Initial findings from the correlation table (Appendix 18), show fairly promising results, given the high correlation values of the independent variables to Brand loyalty, with Perceived value, Store brand loyalty and Private label brand equity holding 0.696, 0.567 and 0.661 respectively. Following previous trends, Perceived risk, once more, shows a relevant negative relation to the dependent variable, -0.275, even if it's a smaller impact than the other variables.

Looking at the regression model (Appendix 18), and in line with the positive correlation results, the Adjusted R square value holds a value of 0.66, the biggest of all the regressions analyzed thus far. This means that the private label variables are able to explain 66% of the Brand loyalty variation.

Looking at the coefficient values and validity, Perceived risk stands out from among the other variables, seeing as it is the only one that is deemed not relevant, meaning it has no impact on the dependent variable. The other variables are all seen as relevant, with Perceived value being the one with the biggest impact, at a coefficient value of 0.444.

In the end, only Perceived risk, H3b, is considered false, meaning it has no direct impact, positive or negative, on Brand loyalty. The other three private label independent variables are thus true, meaning they have a positive impact on Brand loyalty, and are able to impact it without the mediation effects of the original CBBE variables.

8.4. Summary

As a conclusion of the hypothesis testing, the following table aims to illustrate and summarize the outcomes of all tests that were performed for each hypothesis

H1a. Brand association positively influences brand loyalty.	Validated
H1b. Brand awareness positively influences brand loyalty.	Validated
H1c. Perceived quality positively influences brand loyalty.	Validated
H2a. Perceived value positively influences brand association.	Validated
H2b. Perceived value positively influences brand awareness.	Validated
H2c. Perceived value positively influences perceived quality.	Validated
H2d. Perceived risk positively influences brand association.	Rejected
H2e. Perceived risk positively influences brand awareness.	Rejected
H2f. Perceived risk positively influences perceived quality.	Rejected
H2g. Store brand loyalty positively influences brand association.	Rejected
H2h. Store brand loyalty positively influences brand awareness.	Validated
H2i. Store brand loyalty positively influences perceived quality.	Rejected
H2j. Private label brand equity positively influences brand association.	Rejected
H2l. Private label brand equity positively influences brand awareness.	Rejected
H2m. Private label brand equity positively influences perceived quality.	Rejected
H3a. Perceived value positively influences brand loyalty.	Validated

H3b. Perceived risk positively influences brand loyalty.	Rejected
H3c. Store brand loyalty positively influences brand loyalty.	Validated
H3d. Private label brand equity positively influences brand loyalty.	Validated

Source: Author's elaboration
Table 2: Hypothesis outcomes

Once again, special attention must be paid to H2e and H2f, seeing as both of these hypothesis, despite not having been validated, still hold relevancy to the topic in question. While the other rejected hypothesis are deemed not impactful, positive or negative, these specific two hypothesis are the only ones that hold a negative influence on their respective dependent variable.

9. Conclusion

The current section will focus on covering the results of the analysis run, relating those values with the proposed hypothesis, always taking into account the previously developed literature review, in order to shed new light into the role of loyalty, and its antecedents, in creating brand equity for private labels. Neither brand equity or product/store loyalty are new nor fresh topics in the academic world or even in the company management sphere, with both topics having been deeply and thoroughly discussed. Despite this, they are still a fairly hot topic that still holds the focus of many a curious mind, with researchers still not agreeing on a specific definition, which still leads to heavy debate and scrutiny from differing points of view. With the growth and development of the supermarket, especially the increasing consumer trust that is placed on discounters, whose major differentiating point is their overall low product price, and the consolidation of private label brands as legitimate and safe purchases, which are no longer seen as mere cheap alternatives, but as valuable and conscious choices, a rising interest from the academic world has been noticed. Nowadays, a new spin is put on the topics already under investigation, brand equity and loyalty, putting these same topics on the forefront of academic and managerial analysis. Thinking about these concepts from a private label point of view requires a whole new batch of investigation and theory building to be developed and to create solid foolproof conclusions, relevant to both the academic and business world alike.

This work follows the research developed by Girard, Trapp, Pinar, Gulsoy and Boyt (2017), who were among the first to relate and propose the analysis of brand equity and loyalty from a private label point of view. The framework used follows the analysis developed by Boonghee *et al*. (2000), that was further enhanced by Jinfeng and Zhilong (2009). This framework (Figure 1) will serve as the guide for the conclusions reached, based on the previously tested hypothesis and previously researched literature review.

9.1. Brand equity antecedents and loyalty

As was previously seen, brand equity as a concept is made out of different dimensions and components. Most scholars agree that brand awareness, brand association, perceived quality and brand loyalty are the most relevant antecedents, based on existing brand equity research. Initially, it was believed that all of these four dimensions had the same weight and carried the same importance in explaining brand equity; it was only after the advancements brought forth by Jinfeng and Zhilong (2009) that the academic world started to question these previous assumptions as dogmatic statements. In their research, it could be seen that brand loyalty was actually the dependent variable and at the top of the dimension hierarchy, held in place thanks to the support and influence of brand awareness, brand association and perceived quality. Brand loyalty was thus found to be a more holistic construct, one that is closer to brand equity, thanks to the positive relation of the other three dimensions with brand loyalty itself.

In the work of Girard, Trapp, Pinar, Gulsoy and Boyt (2017), the results defended by Jinfeng and Zhilong (2009) are taken as true and are an essential part of the framework developed for analyzing brand equity and private label. Following their studies and seeing as the scale used in this dissertation is largely influenced by their work, it makes sense to look at their recommendations for future research, namely, the wish to apply their research to other retailers and to run tests in a multi-retailer environment. This extension of their study would serve as a means to provide validation to the scale developed, further extending its reliability and validity and providing an increase in overall usefulness, as well as solidifying the theory that there is a hierarchy among brand equity antecedents.

A multiple linear regression was run, with brand loyalty in the place of the dependent variable, and with the other dimensions, brand association, brand awareness and perceived quality as the independent variables. The results, which can be checked in the Statistical Analysis section, show that all of the dimensions are relevant and meaningful in regard to explaining the variation of brand loyalty, with all of them also having a positive correlation. This result alone proves that the findings of Jinfeng and Zhilong (2009), that there is a hierarchy between the antecedents and that loyalty is a more holistic construct, still hold in a multi-retailer environment, further cementing the work of Girard, Trapp, Pinar, Gulsoy and Boyt (2017). Perceived quality is the most important variable in regard to explain brand loyalty, followed by brand awareness and brand association.

Besides confirming and validating previous theory, these results, namely the order in which the different dimensions influence brand loyalty, lead to some new discussion and spark conversation on how to most efficiently and smartly approach leverage of an increase in brand loyalty. As was previously seen, and thanks to the work of Knudson and Vu (2017), quality is one of the major reasons that lead to repeated purchasing behaviors. This finding bodes well for private labels, which continue to see an increase in their popularity and public acceptance, thanks to increased efforts in both diversifying their offer and increasing their quality and quality ranges, as seen by the creation of economy and premium private label products; which has led to some consumer actually preferring private label products over their national brand counterparts. This is consistent with the findings of Hoch and Banerji (1993), who found that high quality and consistency are much more important than price in claiming and maintaining market share for private label products (Richardson *et al*., 1996). Brand awareness reflects the consumer’s ability to recognize a specific product, as well as their familiarity with said product (Aaker, 1991). If there is a lack of familiarity, not even high levels of product quality will be enough to foster customer consumption of private label products, which usually leads to customers relying more on extrinsic cues. According to the work of Bao, Bao and Sheng (2011), the most relevant extrinsic cues are price as well as brand name and package design, areas in which private labels tend to be rated lower than national brands. In order to increase familiarity, and consequently brand awareness, retailers should look towards investing in strategies such as store taste test, comparisons with other brands or even distributing samples or coupons. At the same time, a simple, yet obvious way of increasing familiarity would be to invest in improving extrinsic cues like package design, labeling and branding strategies (Richardson *et al*., 1996). Brand association, the more ethereal and less tangible component out of the three, is seen as the one which has less impact on brand loyalty. This result doesn’t really come as a big surprise, seeing as this dimension is made out of all the links in the consumer's memory, and is completely dependent on previously experienced episodes, instances and ideas and the complicated connections between all of them.

9.2. Private label antecedents and Brand equity antecedents

The work of Girard, Trapp, Pinar, Gulsoy and Boyt (2017), stands out from the other works focused on consumer-based brand equity, due to the fact that it chooses to analyze private label products specifically. It makes use of the four previously studied brand equity dimensions, brand loyalty, brand awareness, perceived quality and brand association, while at the same time adding four new dimensions based on private label literature, perceived value, perceived risk, store brand loyalty and private label brand equity. Following the logic and idea of the constructed framework, the relationship between these new private label antecedents and brand equity was measured, through the use of multiple linear regressions; though initially through the mediating role of the already established brand equity antecedents. Each of the new antecedents will thus be analyzed individually, checking whether they are relevant in explaining variations in brand loyalty, through the mediation role of the brand equity dimensions.

Perceived value is positively related to brand loyalty through the mediating role of brand association, brand awareness and perceived quality.

Perceived risk is negatively related to brand loyalty through the mediating role of brand awareness and perceived quality.

Store brand loyalty is positively related to brand loyalty through the mediating role of brand awareness.

Private label brand equity is not related to brand loyalty through the mediating role of the brand equity antecedents.

As a construct, Private label brand equity ends up having no tangible impact on brand loyalty through the mediating role of the brand equity antecedents. While initially this might seem like a cause for alarm, it's actually a fairly reasonable outcome; seeing as this private label antecedent may initially be seen as more "broad" or "less focused" than the other three private label antecedents, similar to how brand association may be seen as more "ethereal", covering issues and positioning itself more towards the end of the consumer buying journey. Instead, and despite its "broader" appearance, this construct is directly focused and tied to the act of buying the private label product itself, and as such, doesn't really require any sort of mediation to be relevant, as will be shown in the following section.

Brand association, which was already described as less tangible than the other CBBE antecedents, is only relevant as a brand loyalty mediator for the perceived value antecedent. Perceived value can also be described as the less tangible of the private label antecedents, ignoring private label brand equity which has just been detailed, when comparing with perceived risk and store brand loyalty, which are much more direct and practical, relying on a more "hands-on" approach, with store brand loyalty being directly related to the retailer itself and not to the private label product. Of the four private label antecedents, only perceived value is related to brand loyalty through the mediating role of all three CBBE antecedents, which cements its role as an essential and crucial component to measuring and increasing brand equity.

Perhaps the most expected, or obvious relationship, is perceived risk being mediated by both brand awareness and perceived quality. Perceived risk directly covers expectations of both the tangible attributes of the product, being highly related to product quality, as well as how it reflects outwards and how the user of said products will be seen by the rest of society, both close and distant.

9.3. Private label antecedents and loyalty

While this dissertation is heavily grounded on Girard, Trapp, Pinar, Gulsoy and Boyt (2017) work, it still took a big slice of inspiration from other works, most notably Jinfeng and Zhilong (2009). In their work, which focused on retailer equity, they investigated if antecedents that were mediated by CBBE antecedents influenced loyalty without the need for these mediators, seeing as brand association, brand awareness and perceived quality all were related, positively, with brand equity. A multiple linear regression was run, to check if the private label antecedents had any significant impact on brand loyalty.

Private label brand equity, the construct which saw no influence in brand loyalty through the mediating role of the CBBE antecedents, is now seen as a significant variable in explaining and influencing brand loyalty. Overall brand equity, one of the names by which this construct has often been referred to throughout the different studies, encapsulates perfectly what it sets out to do: focusing on and measuring the essence of brand equity for different products; being composed by different questionnaire items that are positioned right at the core of these essential situations. Taking its focus into account, and following previously stated findings, it can be seen that this antecedent has no need for any sort of mediation, being instead in a position where it influences brand loyalty directly. Even though there is statistical proof of the relevancy of this construct, it could still be argued that this is too narrow of a construct, or that the outputs obtained are so focused that they end up not being that interesting or relevant. Instead, the better way to approach this construct is to see it as a sort of "barometer" of the quality and health of private label brand loyalty, alongside its role as an antecedent.

Of all the private label antecedents, only perceived risk ends up showing no significant impact on brand loyalty. While one could rush to conclusions, therefore stating it has thus no importance for the thesis at hands, this would be a grossly incorrect inference. It would make sense that, seeing as perceived risk was mediated by brand awareness and perceived quality, it would also impact brand loyalty, though it's not such a case. This antecedent is still instrumental in helping explain brand loyalty and equity though; what makes it unique is the fact that it is a private label antecedent, not a CBBE antecedent, meaning perceived risk is related to, and heavily influences both brand awareness and perceived quality. Taking into account the scales used to gather this information, as well as the statistical analysis conducted, it can be seen that perceived risk focuses on the quality and safety of the private label product, and on the way using said product will be seen by others. Low product risk is an essential part of maintaining and guaranteeing product quality, reliability and consistency. At the same time, only a risk free product will be able to grow and expand, allowing it to become a familiar item in the consumer's basket. This creates a sort of three way relationship between perceived risk, perceived quality and brand awareness, in the sense that all three are connected and related to each other, with perceived risk adopting a more "support role" position, which heavily influences and dictates both brand awareness and perceived quality.

Brand awareness was also responsible for mediating perceived value and store brand loyalty, with both of them directly impacting brand loyalty. As developed in the literature review section, it can be seen that there is a two way relationship between store brand loyalty and private label product consumption, in the sense that consuming higher amounts of private label products leads to an increase in loyalty towards its specific store, while ate the same time, an increase in loyalty towards the store will lead to higher levels of private label product consumption. The relationship between brand awareness and store brand loyalty is an interesting one, mostly due to the fact that one is focused on products and the other is focused on the store itself. There is though some overlap, in the sense that they both care about the brand and how it influences them and their constructs. As such, their relationship is justified and provides relevant insights. At the same time, statistical analysis has proven that store brand loyalty is directly related to brand loyalty and does not need the mediating effects of brand awareness. This situation is logically simple to understand, seeing as the two-way relationship between product consumption and store loyalty already foreshadowed the consequential impact on brand loyalty and brand equity.

Following the statistical analysis conducted, and thanks to the multiple linear regression created, it can be seen that perceived value is the construct that has higher impact and influence on brand loyalty. Considering that perceived value was also the only private label antecedent to be mediated by all three CBBE antecedents, one can see just how important and relevant perceived value is. The relationships based on, and around perceived value are complex and intertwined, whether they are CBBE based or private label based. As a scale construct, in the questionnaire, perceived value is centered on getting a good purchase or getting “more than the money’s worth”. When looking into its relationship with the CBBE antecedents, one can quickly see why it has a positive relation with each one of them, as it is a crucial requirement for producing familiarity while also expanding the depth of perceived quality, tying it all together due to its influence on brand association and the connections and experiences it contains. Perceived value may just be the most “multifaceted” construct of all, being able to directly influence brand loyalty and the CBBE antecedents at the same time, while also maintaining a close connection with the other private label constructs. Using an example from the previously developed literature, it can be seen that believing a supermarket to offer value for money leads to believing that its private label also offers value for money. Consumers who are familiar with private-label products are likely to view them as having perceived high quality and, as being low risk products that represent good value for money. Currently, consumers actually want to buy private labels; they aren’t doing it just because they are cash constrained. Thanks to the results of Richardson, Jain and Dick (1996), we know that the most relevant factors found to influence the purchase of private label goods are familiarity with the brand, perceived value and perceived risk of the goods. This example is great at showing the influence perceived value has on the whole process, impacting private label antecedents, CBBE antecedents and finally brand loyalty itself, by leading to an increase in the product purchase.

9.4. Academic and managerial implications

This section will cover the major takeaways that can be extracted from this thesis, being based on the developed literature review, proposed framework and hypothesis, the questionnaire and statistical analysis ran, as well as the conclusions reached in the previous section.

As far as academic impact goes, this dissertation is among the first to cover the topic of private label-based brand equity creation. The works of Girard, Trapp, Pinar, Gulsoy and Boyt (2017) and Jinfeng and Zhilong (2009) are of crucial importance to this dissertation, seeing as the antecedents and questionnaire were heavily influenced by the first, with the framework and hypothesis creation having drawn majorly from the second. Following Girard, Trapp, Pinar, Gulsoy and Boyt (2017) suggestions for future research, this thesis analyzed how their scales fared in a multi retailer environment, taking into consideration if the results collected were still valid and if assumptions still held. While the demographic questions presented were similar to theirs, this study tried to go a bit farther in terms of collected information by adding an item which asked the respondents to which retailer they felt increased loyalty and asking to answer subsequent items based on the retailer chosen. Though the limitations of this choice will be covered in the following section, it’s still relevant to take this first step into account, seeing as it allows for better understanding of both the consumers and the retailers, as well as creating more detailed consumer profiles, even if it can only be used in multi retailer scenarios. While this dissertation didn’t wander too far off its initial roots, it still provides valuable inputs on the topic at hands namely, an extensive literature review focused on private label products, their past and their trends; that the previously developed theoretical work still holds in more realistic and complex scenarios and that this more advanced and robust framework is able to validate old assumptions while still allowing for new experimentation.

Regarding managerial implications, the antecedents and their roles and position have already been subject to a detailed analysis in this conclusion section. The major implications are as follows. Investing into increasing store brand loyalty leads to an increase in private label product consumption, which in turn leads to an increase in private label loyalty. It’s important to remember the two way relationship present in these situations, in the sense that an increase in store brand loyalty and private label product consumption both lead to an increase in its counterpart. The most relevant factors found to influence the purchase of private label goods are familiarity with the brand, perceived value and perceived risk of the goods. This three-way relationship, which has been detailed before, shows that consumers who have high levels of brand awareness, see private-label products as having high perceived quality and, as being low risk products that represent good value for money. High quality is much more important than price in claiming and maintaining market share for private label products, seeing as it also influences repeated purchasing behaviors. The foundation for building and increasing private label brand loyalty and equity is brand awareness and familiarity. If a lack of familiarity is present, not even high levels of product quality will be enough to increase private label product consumption, which usually leads to customers relying more on extrinsic cues. Thus, retailers must ensure that their private labels have engaging packaging and prominent display in the store environment, increasing exposure and the probability that customers will notice and inspect the products. In order to increase familiarity, and consequently brand awareness, retailers should look towards investing in strategies such as store taste test, comparisons with other brands or even distributing samples or coupons in the storefield.

9.5. Limitations and future research

Even though researchers tend to get very attached to their investigation works, seeing as they require extensive work hours and a religious devotion, a critical mindset must be kept until the very end, since being able to discuss the new milestones reached is as important as providing an honest review and criticism of the work developed. The ones that stand out the most in this dissertation are as follows.

First of all, the number of questionnaire respondents, while serviceable, is still lower than one would like. The 202 valid responses, which ended up as the total population for this study, allowed for a proper statistical analysis, but are just barely enough. A higher number of responses should be assured in the future, in order to lower any possible bias and non-randomness the population may show.

In the same vein, a total of 304 responses were collected. Truthfully though, the total amount of non-valid answers is drastically higher than this, but is, unfortunately, impossible to determine. This situation is caused by Qualtrics, the software used to create and measure the questionnaire, which automatically deletes non valid answers after a short time frame. While it’s true that these would still not increase the pool of valid answers, it would have still provided useful information, in the sense that it would allow for more investigation on the creation of consumer profiles, as well as, allowing for improvements in the questionnaire itself, since one would be able to see where those respondents stopped answering the items.

Having run the questionnaire, and after interviewing some of the respondents, it can be said that the questionnaire was mostly well received, though comments of some answers being too similar were often received. It is thus relevant to investigate further on the scales, analyzing both the possibility of taking some superfluous items out and the possibility of changing or adding some more distinct items, which would broaden the questionnaires range.

Running the test on a multiple retailer scenario opens up the possibility of new demographic questions, like the one proposed: asking which retailer the respondent is more loyal towards. While in theory this would allow for the segmentation and possibility of more in-depth consumer profiles, the reality is that this is a much more complex situation. Retailer loyalty is a very hard concept to define, with many different legitimate points of view, however, in the questionnaire, and due to logistical issues, it’s impossible to explain this concept in detail, which thus requires that this item be oversimplified, possibly leading to some confusion. At the same time, concepts such as retailer, wholesaler, private label and national brand are not completely known or understood by a large part of the population, which requires either an explanation, or, once more, an oversimplified approach.

The statistical analysis ran, while practical and able to deliver relevant results, is a bit too simplified, in the sense that linear regressions are only able to report on fairly basic relationships. Summated scales, the method used to create the questionnaire scales, are also a bit too basic of a tool, and as such, the overall project would benefit from the application and use of more complex statistical tools.

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11. Appendixes

Appendix 1. Original questionnaire

Brand Awareness – Great Value

baw1 I can recognize *Great Value* products among other competing products.
baw3 I know what *Great Value* products look like.
baw4 I am familiar with *Great Value* products.
baw2 I can quickly recognize the symbol or logo of *Great Value* products.
baw5 When I think of *Great Value* products, some of their characteristics come to my mind quickly.

Perceived Quality – Great Value

pv1 *Great Value* products are very reliable.
pv2 Great Value products are of poor quality (Reversed).
pv3 The quality of *Great Value* products is consistent.

Brand Association— Great Value

bas1 *Great Value* products have a positive image compared to competing brand of products.
bas3 Great Value products are an established brand.
bas4 I respect people who use *Great Value* products.
bas5 I like the image of *Great Value* products.

Perceived Value— Great Value

pv1 I believe that *Great Value* products offer good value for their price.
pv2 Compared to other brands, I consider *Great Value products* are a good buy.
pv3 Considering what I pay for *Great Value* products, I get more than my money's worth.

Brand Loyalty— Great Value

bl1 I consider myself to be loyal to *Great Value* products.
bl2 *Great Value* products would be my first choice when shopping for similar products.
bl3 I would not buy other products of equal quality if *Great Value* products are available.
bl4 I would recommend *Great Value* products to family.
bl5 I regularly buy *Great Value* products for most of my grocery or household needs.

Perceived Risk— Great Value

pr1 I am concerned that purchasing *Great Value* products would be a poor use of my money.
pr2 When I purchase *Great Value* products, I am concerned that they will not be as good quality as other brands.
pr3 When I purchase *Great Value* products, I am concerned that they are not as safe as other brands.
pr4 When I purchase *Great Value* products, I am concerned about what my family might think of me.
pr5 When I purchase *Great Value* products, I am concerned about what my friends might think of me.
pr6 When I buy *Great Value* products, I worry that these products might not be consistent with my self-image.

Wal-Mart Store Brand Loyalty

blw1 I consider myself to be loyal to Wal-Mart.
blw2 Wal-Mart is my first choice of where to shop for groceries or household products.
blw3 I would not shop at other retail stores if Wal-Mart is available.
blw4 I would recommend Wal-Mart to family members.
blw5 I regularly shop at Wal-Mart for most of my needs.

Brand Equity Great Value

obe1 It makes sense to buy *Great Value* brand instead of any other brand, even if they are the same.
obe2 Even if another brand has the same features as *Great Value* brand of products, I would prefer to buy *Great Value* brand.
obe3 If there is another brand as good as *Great Value* brand, I prefer to buy *Great Value* brand
obe4 If another brand is not different from *Great Value* brand in any way, it seems smarter to purchase *Great Value* brand.

Appendix 2. Portuguese questionnaire

Género: Masculino/ Feminino
Idade: 18-24/ 25-34/ 35-44/ +45
Escolaridade: Ensino Básico/ Ensino Secundário/ Licenciatura/ Mestrado/ Doutoramento/ Outro
Agregado Familiar: 0/ 1/ 2/ 3/ +4
Rendimentos mensais do agregado: -700/ 700-1000/ 1000-1500/ 1500-2000/ +2000
É o principal responsável por efetuar compras para o seu agregado familiar: Sim/ Não
Qual o supermercado com que sente uma maior relação e lealdade: Continente/ Pingo Doce/ Lidl/ Ald / Intermarché /Jumbo/ Minipreço/ Outro
Baw1: Consigo reconhecer os produtos dessa marca no meio de produtos concorrentes.
Baw3: Conheço o aspecto dos produtos dessa marca.
Baw4: Estou familiarizado com os produtos dessa marca.
Baw2: Consigo reconhecer rapidamente o símbolo ou logotipo dos produtos dessa marca.
Baw5: Quando penso em produtos dessa marca, lembro-me rapidamente das suas características.
Pv1: Os produtos dessa marca são de confiança.
Pv2: Os produtos dessa marca são de pouca qualidade.
Pv3: A qualidade dos produtos dessa marca é consistente
Bas1: Os produtos dessa marca têm uma imagem positiva quando comparados com os competido res de outras marcas.
Bas3: Os produtos dessa marca são já uma marca estabelecida.
Bas4: Respeito pessoas que usam produtos dessa marca.
Bas5: Gosto da imagem dos produtos dessa marca.
Pv1: Acredito que os produtos dessa marca oferecem uma boa relação qualidade-preço.
Pv2: Comparando com outras marcas, considero os produtos dessa marca uma boa compra.
Pv3: Considerando o que pago pelos produtos dessa marca, estou satisfeito com a sua relação qualidade-preço.
Bl1: Considero-me leal aos produtos dessa marca.
Bl2: Os produtos dessa marca seriam a minha primeira escolha quanto estivesse a fazer compras de produtos semelhantes.
Bl3: Não compraria produtos de outras marcas com qualidade semelhante, se os produtos dessa marca estiverem disponíveis.
Bl4: Recomendaria produtos dessa marca à minha família.
Bl5: Compro regularmente produtos dessa marca para as minhas necessidades domésticas e de mercearia.
Pr1: Fico preocupado que a compra de produtos dessa marca seja uma má aplicação do meu dinheiro.
Pr2: Quando compro produtos dessa marca, fico preocupado que não sejam de tão boa qualidade como os das outras marcas.
Pr3: Quando compro produtos dessa marca, fico preocupado que não sejam tão seguros como os das outras marcas.
Pr4: Quando compro produtos dessa marca, fico preocupado com o que a minha família poderá pensar de mim.
Pr5: Quando compro produtos dessa marca, fico preocupado com o que os meus amigos poderão pensar de mim.
Pr6: Quando compro produtos dessa marca, fico preocupado que estes produtos não sejam consistentes com a minha imagem.

Blw1: Considero-me leal ao retalhista (supermercado) dessa marca.
Blw2: O retalhista (supermercado) dessa marca é a minha primeira escolha para compras domésticas e de mercearia.
Blw3: Não faria compras noutras lojas se o retalhista (supermercado) dessa marca estivesse disponível.
Blw4: Recomendaria o retalhista (supermercado) dessa marca aos meus familiares.
Blw5: Faço compras regularmente, para a maioria das minhas necessidades, no retalhista (supermercado) dessa marca.
Obe1: Faz sentido comprar produtos dessa marca em vez de outras, mesmo que sejam idênticos.
Obe2: Mesmo que outro produto tenha as mesmas características que o dessa marca, prefiro comprar produtos dessa marca.
Obe3: Mesmo que haja outra alternativa igualmente boa, prefiro comprar produtos dessa marca.
Obe4: Mesmo que outra alternativa não seja diferente dessa marca, faz mais sentido comprar produtos dessa marca.

Appendix 3. Education*Age crosstabulation

			18-24	25-34	35-44	over 45	
Education	Middle School	Count	0	1	0	1	2
		% within Education	0.0%	50.0%	0.0%	50.0%	100.0%
		% within Age	0.0%	1.6%	0.0%	1.8%	0.9%
		% of Total	0.0%	0.5%	0.0%	0.5%	0.9%
	High School	Count	11	14	13	20	58
		% within Education	19.0%	24.1%	22.4%	34.5%	100.0%
		% within Age	22.9%	22.2%	25.0%	35.1%	26.4%
		% of Total	5.0%	6.4%	5.9%	9.1%	26.4%
	Undergraduate	Count	24	25	27	23	99
		% within Education	24.2%	25.3%	27.3%	23.2%	100.0%
		% within Age	50.0%	39.7%	51.9%	40.4%	45.0%
		% of Total	10.9%	11.4%	12.3%	10.5%	45.0%
	Masters	Count	10	21	8	7	46
		% within Education	21.7%	45.7%	17.4%	15.2%	100.0%
		% within Age	20.8%	33.3%	15.4%	12.3%	20.9%
		% of Total	4.5%	9.5%	3.6%	3.2%	20.9%
	PHD	Count	0	1	2	4	7
		% within Education	0.0%	14.3%	28.6%	57.1%	100.0%
		% within Age	0.0%	1.6%	3.8%	7.0%	3.2%
		% of Total	0.0%	0.5%	0.9%	1.8%	3.2%
	Other	Count	3	1	2	2	8
		% within Education	37.5%	12.5%	25.0%	25.0%	100.0%
		% within Age	6.3%	1.6%	3.8%	3.5%	3.6%
		% of Total	1.4%	0.5%	0.9%	0.9%	3.6%
Total		Count	48	63	52	57	220
		% within Education	21.8%	28.6%	23.6%	25.9%	100.0%
		% within Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	21.8%	28.6%	23.6%	25.9%	100.0%

Appendix 4. Education*Gender crosstabulation

			Gender		
			Male	Female	Total
Education	Middle School	Count	0	2	2
		% within Education	0.0%	100.0%	100.0%
		% within Gender	0.0%	1.4%	0.9%
		% of Total	0.0%	0.9%	0.9%
	High School	Count	21	37	58
		% within Education	36.2%	63.8%	100.0%
		% within Gender	27.3%	25.9%	26.4%
		% of Total	9.5%	16.8%	26.4%
	Undergraduate	Count	35	64	99
		% within Education	35.4%	64.6%	100.0%
		% within Gender	45.5%	44.8%	45.0%
		% of Total	15.9%	29.1%	45.0%
	Masters	Count	19	27	46
		% within Education	41.3%	58.7%	100.0%
		% within Gender	24.7%	18.9%	20.9%
		% of Total	8.6%	12.3%	20.9%
	PHD	Count	0	7	7
		% within Education	0.0%	100.0%	100.0%
		% within Gender	0.0%	4.9%	3.2%
		% of Total	0.0%	3.2%	3.2%
	Other	Count	2	6	8
		% within Education	25.0%	75.0%	100.0%
		% within Gender	2.6%	4.2%	3.6%
		% of Total	0.9%	2.7%	3.6%
Total		Count	77	143	220
		% within Education	35.0%	65.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	35.0%	65.0%	100.0%

Appendix 5. Retailer*Family crosstabulation

			Family size					
			0	1	2	3	4+	Total
Retailer	Continente	Count	11	17	21	30	16	95
		% within Retailer	11.6%	17.9%	22.1%	31.6%	16.8%	100.0%
		% within Family size	44.0%	35.4%	42.9%	47.6%	45.7%	43.2%
		% of Total	5.0%	7.7%	9.5%	13.6%	7.3%	43.2%
	Pingo Doce	Count	2	19	14	18	13	66
		% within Retailer	3.0%	28.8%	21.2%	27.3%	19.7%	100.0%
		% within Family size	8.0%	39.6%	28.6%	28.6%	37.1%	30.0%
		% of Total	0.9%	8.6%	6.4%	8.2%	5.9%	30.0%
	Lidl	Count	6	3	5	7	1	22
		% within Retailer	27.3%	13.6%	22.7%	31.8%	4.5%	100.0%
		% within Family size	24.0%	6.3%	10.2%	11.1%	2.9%	10.0%
		% of Total	2.7%	1.4%	2.3%	3.2%	0.5%	10.0%
	Aldi	Count	0	0	1	1	0	2
		% within Retailer	0.0%	0.0%	50.0%	50.0%	0.0%	100.0%
		% within Family size	0.0%	0.0%	2.0%	1.6%	0.0%	0.9%
		% of Total	0.0%	0.0%	0.5%	0.5%	0.0%	0.9%
	Intermarché	Count	3	1	1	3	2	10
		% within Retailer	30.0%	10.0%	10.0%	30.0%	20.0%	100.0%
		% within Family size	12.0%	2.1%	2.0%	4.8%	5.7%	4.5%
		% of Total	1.4%	0.5%	0.5%	1.4%	0.9%	4.5%
	Jumbo	Count	1	7	6	4	3	21
		% within Retailer	4.8%	33.3%	28.6%	19.0%	14.3%	100.0%
		% within Family size	4.0%	14.6%	12.2%	6.3%	8.6%	9.5%
		% of Total	0.5%	3.2%	2.7%	1.8%	1.4%	9.5%
	Minipreço	Count	2	1	1	0	0	4
		% within Retailer	50.0%	25.0%	25.0%	0.0%	0.0%	100.0%
		% within Family size	8.0%	2.1%	2.0%	0.0%	0.0%	1.8%
		% of Total	0.9%	0.5%	0.5%	0.0%	0.0%	1.8%
Total		Count	25	48	49	63	35	220
		% within Retailer	11.4%	21.8%	22.3%	28.6%	15.9%	100.0%
		% within Family size	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	11.4%	21.8%	22.3%	28.6%	15.9%	100.0%

Appendix 6. Retailer*Wage crosstabulation

		less than 700€	between 700€ and 1000€	between 1000€ and 1500€	between 1500€ and 2000€	over 2000€	Total
Continente	Count	4	13	21	21	36	95
	% within Retailer	4.2%	13.7%	22.1%	22.1%	37.9%	100.0%
	% within Monthly wage	28.6%	56.5%	52.5%	39.6%	40.0%	43.2%
		1.8%	5.9%	9.5%	9.5%	16.4%	43.2%
Pingo Doce	Count	5	6	10	18	27	66
	% within Retailer	7.6%	9.1%	15.2%	27.3%	40.9%	100.0%
	% within Monthly wage	35.7%	26.1%	25.0%	34.0%	30.0%	30.0%
		2.3%	2.7%	4.5%	8.2%	12.3%	30.0%
Lidl	Count	2	2	4	7	7	22
	% within Retailer	9.1%	9.1%	18.2%	31.8%	31.8%	100.0%
	% within Monthly wage	14.3%	8.7%	10.0%	13.2%	7.8%	10.0%
		0.9%	0.9%	1.8%	3.2%	3.2%	10.0%
Aldi	Count	0	0	1	1	0	2
	% within Retailer	0.0%	0.0%	50.0%	50.0%	0.0%	100.0%
	% within Monthly wage	0.0%	0.0%	2.5%	1.9%	0.0%	0.9%
		0.0%	0.0%	0.5%	0.5%	0.0%	0.9%
Intermarché	Count	0	0	1	1	8	10
	% within Retailer	0.0%	0.0%	10.0%	10.0%	80.0%	100.0%
	% within Monthly wage	0.0%	0.0%	2.5%	1.9%	8.9%	4.5%
		0.0%	0.0%	0.5%	0.5%	3.6%	4.5%
Jumbo	Count	1	2	3	5	10	21
	% within Retailer	4.8%	9.5%	14.3%	23.8%	47.6%	100.0%
	% within Monthly wage	7.1%	8.7%	7.5%	9.4%	11.1%	9.5%
		0.5%	0.9%	1.4%	2.3%	4.5%	9.5%
Minipreço	Count	2	0	0	0	2	4
	% within Retailer	50.0%	0.0%	0.0%	0.0%	50.0%	100.0%
	% within Monthly wage	14.3%	0.0%	0.0%	0.0%	2.2%	1.8%
		0.9%	0.0%	0.0%	0.0%	0.9%	1.8%
	Count	14	23	40	53	90	220
	% within Retailer	6.4%	10.5%	18.2%	24.1%	40.9%	100.0%
	% within Monthly wage	100.0%	100.0%	100.0%	100.0%	100%	100.0%

Appendix 7. Descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
Gender	220	1	2	1.65	.478	.229	-.633	-1.614
Age	220	1	4	2.54	1.099	1.209	.000	-1.318
Education	220	1	6	3.10	.979	.958	.889	1.106
Family size	220	1	5	3.16	1.256	1.577	-.165	-1.036
Monthly wage	220	1	5	3.83	1.249	1.559	-.790	-.454
Main buyer	220	1	2	1.39	.488	.238	.470	-1.796
Retailer	220	1	7	2.30	1.699	2.885	1.402	.759

Appendix 8. Frequency tables

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	77	35.0	35.0	35.0
	Female	143	65.0	65.0	100.0
	Total	220	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	48	21.8	21.8	21.8
	25-34	63	28.6	28.6	50.5
	35-44	52	23.6	23.6	74.1
	over 45	57	25.9	25.9	100.0
	Total	220	100.0	100.0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Middle School	2	.9	.9	.9
	High School	58	26.4	26.4	27.3
	Undergraduate	99	45.0	45.0	72.3
	Masters	46	20.9	20.9	93.2
	PHD	7	3.2	3.2	96.4
	Other	8	3.6	3.6	100.0
	Total	220	100.0	100.0	

Family size

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	25	11.4	11.4	11.4
	1	48	21.8	21.8	33.2
	2	49	22.3	22.3	55.5
	3	63	28.6	28.6	84.1
	4+	35	15.9	15.9	100.0
	Total	220	100.0	100.0	

Monthly wage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 700€	14	6.4	6.4	6.4
	between 700€ and 1000€	23	10.5	10.5	16.8
	between 1000€ and 1500€	40	18.2	18.2	35.0
	between 1500€ and 2000€	53	24.1	24.1	59.1
	over 2000€	90	40.9	40.9	100.0
	Total	220	100.0	100.0	

Main buyer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	135	61.4	61.4	61.4
	No	85	38.6	38.6	100.0
	Total	220	100.0	100.0	

Retailer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Continente	95	43.2	43.2	43.2
	Pingo Doce	66	30.0	30.0	73.2
	Lidl	22	10.0	10.0	83.2
	Aldi	2	.9	.9	84.1
	Intermarché	10	4.5	4.5	88.6
	Jumbo	21	9.5	9.5	98.2
	Minipreço	4	1.8	1.8	100.0
	Total	220	100.0	100.0	

Appendix 9. Cronbach's Alpha

Scale: Brand Awareness

Reliability Statistics

Cronbach's Alpha	N of Items
.861	5

Scale: Perceived quality

Reliability Statistics

Cronbach's Alpha	N of Items
.676	3

Scale: Brand association

Reliability Statistics

Cronbach's Alpha	N of Items
.726	4

Scale: Brand loyalty

Reliability Statistics

Cronbach's Alpha	N of Items
.886	5

Scale: Perceived value

Reliability Statistics

Cronbach's Alpha	N of Items
.902	3

Scale: Perceived risk

Reliability Statistics

Cronbach's Alpha	N of Items
.827	6

Scale: Brand loyalty store

Reliability Statistics

Cronbach's Alpha	N of Items
.796	5

Scale: Overall brand equity

Reliability Statistics

Cronbach's Alpha	N of Items
.899	4

Appendix 10. KMO and Bartlett's test

Brand Awareness

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.823
Bartlett's Test of Sphericity	Approx. Chi-Square	524.028
	df	10
	Sig.	.000

Perceived Quality

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.620
Bartlett's Test of Sphericity	Approx. Chi-Square	132.210
	df	3
	Sig.	.000

Brand Association

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.661
Bartlett's Test of Sphericity	Approx. Chi-Square	224.107
	df	6
	Sig.	.000

Perceived Value

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.755
Bartlett's Test of Sphericity	Approx. Chi-Square	413.854
	df	3
	Sig.	.000

Brand Loyalty

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.860
Bartlett's Test of Sphericity	Approx. Chi-Square	619.809
	df	10
	Sig.	.000

Perceived Risk

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.771
Bartlett's Test of Sphericity	Approx. Chi-Square	977.756
	df	15
	Sig.	.000

Store Brand Loyalty

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.745
Bartlett's Test of Sphericity	Approx. Chi-Square	360.239
	df	10
	Sig.	.000

Private Label Brand Equity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.790
Bartlett's Test of Sphericity	Approx. Chi-Square	570.798
	df	6
	Sig.	.000

Appendix 11. PCA Total variance explained

Brand AwarenessTotal Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.256	65.119	65.119	3.256	65.119	65.119
2	.696	13.928	79.048			
3	.463	9.263	88.311			
4	.320	6.399	94.709			
5	.265	5.291	100.000			

Extraction Method: Principal Component Analysis.

Perceived Quality Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.883	62.783	62.783	1.883	62.783	62.783
2	.709	23.645	86.427			
3	.407	13.573	100.000			

Extraction Method: Principal Component Analysis.

Brand Association Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.247	56.177	56.177	2.247	56.177	56.177
2	.857	21.418	77.595			
3	.575	14.364	91.960			
4	.322	8.040	100.000			

Extraction Method: Principal Component Analysis.

Perceived Value Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.513	83.777	83.777	2.513	83.777	83.777
2	.250	8.341	92.117			
3	.236	7.883	100.000			

Extraction Method: Principal Component Analysis.

Brand Loyalty Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.472	69.441	69.441	3.472	69.441	69.441
2	.573	11.455	80.896			
3	.433	8.660	89.557			
4	.304	6.081	95.638			
5	.218	4.362	100.000			

Extraction Method: Principal Component Analysis.

Perceived Risk Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Tota
1	3.379	56.316	56.316	3.379	56.316	56.316	
2	1.697	28.291	84.607	1.697	28.291	84.607	
3	.374	6.238	90.845				
4	.247	4.108	94.953				
5	.201	3.342	98.295				
6	.102	1.705	100.000				

Extraction Method: Principal Component Analysis.

Store Brand Loyalty Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.800	55.993	55.993	2.800	55.993	55.993
2	.874	17.483	73.476			
3	.574	11.473	84.950			
4	.458	9.158	94.108			
5	.295	5.892	100.000			

Extraction Method: Principal Component Analysis.

Private Label Brand Equity Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.069	76.715	76.715	3.069	76.715	76.715
2	.477	11.931	88.646			
3	.277	6.918	95.565			
4	.177	4.435	100.000			

Extraction Method: Principal Component Analysis.

Appendix 12. Perceived risk rotated component matrix

Rotated Component Matrix[a]

	Component 1	Component 2
pr1 I am concerned that purchasing this retailer's products would be a poor use of my money.	.163	.848
pr2 When I purchase this retailer's products, I am concerned that they will not be as good quality as other brands.	.081	.900
pr3 When I purchase this retailer's products, I am concerned that they are not as safe as other brands.	.203	.886
pr4 When I purchase this retailer's products, I am concerned about what my family might think of me.	.914	.184
pr5 When I purchase this retailer's products, I am concerned about what my friends might think of me.	.953	.149
pr6 When I buy this retailer's products, I worry that these products might not be consistent with my self-image.	.933	.135

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]
a. Rotation converged in 3 iterations.

Appendix 13. Component matrix

Component Matrix[a]

	Component 1
baw1 I can recognize this retailer's products among other competing products.	.799
baw2 I know what this retailer's products look like.	.862
baw3 I am familiar with this retailer's products.	.846
baw4 I can quickly recognize the symbol or logo of this retailer's products.	.791
baw5 When I think of this retailer's products, some of their characteristics come to my mind quickly.	.730

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Component Matrix[a]

	Component 1
pq1 This retailer's products are very reliable.	.862
pq2 This retailer's products are of poor quality (Reversed).	.699
pq3 The quality of this retailer's products is consistent.	.808

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Component Matrix[a]

	Component
	1
bas1 This retailer's products have a positive image compared to competing brand of products.	.828
bas2 This retailer's products are an established brand.	.774
bas3 I respect people who use this retailer's products.	.538
bas4 I like the image of this retailer's products.	.820

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Component Matrix[a]

	Component
	1
pv1 I believe that this retailer's products offer good value for their price.	.913
pv2 Compared to other brands, I consider this retailer's products are a good buy.	.918
pv3 Considering what I pay for this retailer's products, I get more than my money's worth.	.915

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Component Matrix[a]

	Component
	1
bl1 I consider myself to be loyal to this retailer's products.	.844
bl2 This retailer's products would be my first choice when shopping for similar products.	.905
bl3 I would not buy other products of equal quality if this retailer's products are available.	.745
bl4 I would recommend this retailer's products to family.	.803
bl5 I regularly buy this retailer's products for most of my grocery or household needs.	.862

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Component Matrix[a]

	Component	
	1	2
pr1 I am concerned that purchasing this retailer's products would be a poor use of my money.	.668	.546
pr2 When I purchase this retailer's products, I am concerned that they will not be as good quality as other brands.	.638	.639

pr3 When I purchase this retailer's products, I am concerned that they are not as safe as other brands.	.723	.550
pr4 When I purchase this retailer's products, I am concerned about what my family might think of me.	.819	-.444
pr5 When I purchase this retailer's products, I am concerned about what my friends might think of me.	.828	-.496
pr6 When I buy this retailer's products, I worry that these products might not be consistent with my self-image.	.803	-.494

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Component Matrix[a]

	Component
	1
bls1 I consider myself to be loyal to this retailer.	.791
bls2 This retailer's is my first choice of where to shop for groceries or household products.	.822
bls3 I would not shop at other retail stores if this retailer is available.	.647
bls4 I would recommend this retailer to family members.	.752
bls5 I regularly shop at this retailer for most of my needs.	.716

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Component Matrix[a]

	Component
	1
obe1 It makes sense to buy this retailer's brand instead of any other brand, even if they are the same.	.832
obe2 Even if another brand has the same features as this retailer's brand of products, I would prefer to buy this retailer's brand.	.900
obe3 If there is another brand as good as this retailer's brand, I prefer to buy this retailer's brand	.910
obe4 If another brand is not different from this retailer's brand in any way, it seems smarter to purchase this retailer's brand.	.859

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Appendix 14. H1 Brand loyalty regression

Correlations

		bl_SS	baw_SS	pq_SS	bas_SS
bl_SS	Pearson Correlation	1	.488**	.576**	.478**
baw_SS	Pearson Correlation	.488**	1	.400**	.478**
pq_SS	Pearson Correlation	.576**	.400**	1	.482**
bas_SS	Pearson Correlation	.478**	.478**	.482**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.655[a]	.430	.422	5.07917	1.991

a. Predictors: (Constant), bas_SS, baw_SS, pq_SS

b. Dependent Variable: bl_SS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-6.619	2.428		-2.726	.007
	baw_SS	.347	.083	.250	4.166	.000
	pq_SS	.871	.132	.395	6.573	.000
	bas_SS	.308	.115	.168	2.670	.008

a. Dependent Variable: bl_SS

Appendix 15. H2 Brand associations regression

Correlations

		bas_SS	pv_SS	pr_SS	bls_SS	obe_SS
bas_SS	Pearson Correlation	1	.560**	-.212**	.260**	.336**
pv_SS	Pearson Correlation	.560**	1	-.351**	.375**	.482**
pr_SS	Pearson Correlation	-.212**	-.351**	1	-.212**	-.198**
bls_SS	Pearson Correlation	.260**	.375**	-.212**	1	.475**
obe_SS	Pearson Correlation	.336**	.482**	-.198**	.475**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.566[a]	.321	.308	3.02633	1.807

a. Predictors: (Constant), obe_SS, pr_SS, bls_SS, pv_SS

b. Dependent Variable: bas_SS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.144	1.439		7.049	.000
	pv_SS	.538	.072	.509	7.484	.000
	pr_SS	-.007	.034	-.011	-.189	.850
	bls_SS	.021	.043	.033	.503	.616
	obe_SS	.050	.048	.072	1.050	.295

a. Dependent Variable: bas_SS

Appendix 16. H2 Brand awareness regression

Correlations

		baw_SS	pv_SS	pr_SS	bls_SS	obe_SS
baw_SS	Pearson Correlation	1	.477**	-.302**	.324**	.277**
pv_SS	Pearson Correlation	.477**	1	-.351**	.375**	.482**
pr_SS	Pearson Correlation	-.302**	-.351**	1	-.212**	-.198**
bls_SS	Pearson Correlation	.324**	.375**	-.212**	1	.475**
obe_SS	Pearson Correlation	.277**	.482**	-.198**	.475**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.519[a]	.269	.255	4.14857	1.926

a. Predictors: (Constant), obe_SS, pr_SS, bls_SS, pv_SS

b. Dependent Variable: baw_SS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	18.160	1.973		9.206	.000
	pv_SS	.518	.099	.371	5.255	.000
	pr_SS	-.105	.047	-.140	-2.232	.027
	bls_SS	.136	.059	.158	2.330	.021
	obe_SS	-.004	.066	-.005	-.068	.946

a. Dependent Variable: baw_SS

Appendix 17. H2 Perceived quality regression

Correlations

		pq_SS	pv_SS	pr_SS	bls_SS	obe_SS
pq_SS	Pearson Correlation	1	.696**	-.412**	.336**	.412**
pv_SS	Pearson Correlation	.696**	1	-.351**	.375**	.482**
pr_SS	Pearson Correlation	-.412**	-.351**	1	-.212**	-.198**
bls_SS	Pearson Correlation	.336**	.375**	-.212**	1	.475**
obe_SS	Pearson Correlation	.412**	.482**	-.198**	.475**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.724[a]	.524	.515	2.11100	1.304

a. Predictors: (Constant), obe_SS, pr_SS, bls_SS, pv_SS

b. Dependent Variable: pq_SS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.067	1.004		7.041	.000
	pv_SS	.509	.050	.577	10.136	.000
	pr_SS	-.088	.024	-.185	-3.665	.000
	bls_SS	.025	.030	.045	.823	.411
	obe_SS	.044	.033	.075	1.307	.192

a. Dependent Variable: pq_SS

Appendix 18. H3 Brand loyalty regression

Correlations

		bl_SS	pv_SS	pr_SS	bls_SS	obe_SS
bl_SS	Pearson Correlation	1	.696**	-.275**	.567**	.661**
pv_SS	Pearson Correlation	.696**	1	-.351**	.375**	.482**
pr_SS	Pearson Correlation	-.275**	-.351**	1	-.212**	-.198**
bls_SS	Pearson Correlation	.567**	.375**	-.212**	1	.475**
obe_SS	Pearson Correlation	.661**	.482**	-.198**	.475**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.816[a]	.666	.660	3.89610	1.963

a. Predictors: (Constant), obe_SS, pr_SS, bls_SS, pv_SS

b. Dependent Variable: bl_SS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.943	1.853		-2.668	.008
	pv_SS	.862	.093	.444	9.311	.000
	pr_SS	-.002	.044	-.002	-.056	.956
	bls_SS	.291	.055	.243	5.299	.000
	obe_SS	.422	.062	.331	6.852	.000

a. Dependent Variable: bl_SS