



Private Label Branding Strategies:

The Impact on Perceived Quality and the Hedonic and  
Utilitarian Dimensions of Consumer Attitudes

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## ABSTRACT

**Title:** “Private Label Branding Strategies: The Impact on Perceived Quality and the Hedonic and Utilitarian Dimensions of Consumer Attitudes”

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Most major grocery retailers have developed multi-tier private label offerings in almost every single product category. There might be benefits to associating with some of the tiers and disassociating from others.

This study asks how consumers’ perception of quality and product attitudes are affected by branding strategies that either associate with or disassociate with the retail brand across different private label tiers. To this end, the research questions ask which quality-cues that separate a standard private label from a premium private label and, if there are any differences in perceptions of quality and product attitudes between the store-branded strategy and the stand-alone branded strategy for the two tiers.

To answer the research questions, the two private label tiers are defined based on prior research. Secondly, an online experimental survey divides respondent into two conditions: standard private label and premium private label, each with two levels: store-branding and stand-alone branding. The results show that the premium private label is perceived both higher in quality and product attitudes than the standard private label. However, there is no significant difference between store-branding and stand-alone branding for either tier.

On this basis, the paper recommends that retail managers focus on creating strong brands through investments in packaging, advertising, and ingredients regardless of the branding strategy. Further research should investigate if results apply to other product categories.

## SUMÁRIO

**Título:** “Estratégias da marca própria: O impacto na percepção de qualidade e as dimensões hedônicas e utilitárias da atitude dos consumidores.”

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A maior parte dos grandes retalhistas alimentares têm desenvolvido ofertas de marca própria em praticamente todas as categorias de produtos. Poderão haver benefícios em associar a marca à algumas das gamas, e desassociar de outras.

O presente estudo tem por âmbito compreender a percepção do consumidor em relação à qualidade de um produto e atitudes que são influenciadas pelas estratégias de marca. A pesquisa relaciona-se com a investigação da percepção de qualidade que separa uma marca própria de uma premium, e se há ou não diferenças entre elas.

Primeiramente as duas gamas da marca própria foram definidas com base em investigação prévia. Um questionário experimental online dividiu os participantes do inquérito em dois cenários: um com perguntas relacionadas com a gama regular e outro sobre a gama de qualidade superior, com cada cenário a ter dois níveis: estratégia com marca visível, e estratégias sem a marca estar visível. Os resultados mostram que a marca própria de gama premium é melhor percebida, tanto a nível de qualidade como de atitudes relativas ao produto. Contudo, não há diferenças significativas entre as estratégias com e sem marca visível, em nenhuma das gamas da marca própria.

Segundo os resultados, é recomendado que os gestores de retalho se foquem em criar marcas fortes através de investimentos em embalagens, em promoção e nos próprios ingredientes dos produtos, independentemente do tipo de estratégia de marca. Em termos de futura pesquisa, a mesma deve investigar se os resultados obtidos são aplicáveis a outras categorias de produtos.

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the area between the brain and the soul  
is divided many times apart by  
experience--  
some lose all mind and become soul:  
insane.  
some lose all soul and become mind:  
intellectual.  
some lose both and become:  
accepted.

- Charles Bukowski, Lifedance

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## GLOSSARY

Private Label – PL

Store-branded – SB

Stand-alone-branded – SAB

National Brand - NB

Consumer-packaged-goods – CPG

Research Question - RQ

Confidence Value – CV

Predictive Value – PV

Multivariate Analysis of (Co)variance – MAN(C)OVA

Analysis of (Co)variance – AN(C)OVA

Kaiser-Meyer-Olkin Measure – KMO

Independent Variable – IV

Dependent Variable - DV

# CHAPTER 1: INTRODUCTION

## 1.1 Background

As the private label (PL) market share across the world continues to rise, and PL branding strategies become more complex and sophisticated, academic research on the topic of PLs has never been more critical (Ailawadi, Pauwels, & Steenkamp, 2008; Kumar & Steenkamp, 2007; Lamey, Deleersnyder, Dekimpe, & Steenkamp, 2007). In Europe, the most developed region for PL products for consumer-packaged-goods (CPG), consumers spend more than 1 out of 3 euros on PL products (Nielsen, 2014). Recent predictions have also estimated that the total PL share worldwide will reach 50% by 2025 (Nenycz-Thiel & Romaniuk, 2016).

Today, every major grocery retailer has developed a PL offering in almost every product category (Geyskens, Gielens, & Gijsbrechts, 2010). Within many of the product categories, grocery retailers are also offering multiple PL tiers that target different consumer segments (Kumar & Steenkamp, 2007). The different PL tiers are distinguished between based on the level of quality: the economy PL (i.e., value or budget) has the lowest quality-level; the standard PL (i.e., regular PL) has a mid-quality level; and the premium PL has the highest quality-level (Geyskens et al., 2010; Kumar & Steenkamp, 2007).

Historically, PL products started as being generic products of low-quality and copycat products that plagiarized innovations and features of national brands (NBs) (Kumar & Steenkamp, 2007). Today, PLs are evolving into strong, successful brands in and of themselves such as the British retailer Tesco's "Tesco's Finest," or Dutch retailer Albert Heijn's "AH Excellent" (Braak, Geyskens, & Dekimpe, 2014; Nenycz-Thiel & Romaniuk, 2016).

As the PL landscape is becoming more complex, it has become a top priority for retail managers to understand the impact of different retail branding strategies on consumers' perceptions of PL products (Ailawadi & Keller, 2004). As an example, retailer managers must decide how closely their PL products should associate with their retail brand (Conn, 2005). Generally, retailers have two options: 1) associating with their PL products through a store-branded (SB) strategy (i.e. store brands, sub-brands, or own name brands); or 2) disassociating with their PL products through a stand-alone branded (SAB) strategy (i.e., pseudo-branding or non-endorsed branding) (Ailawadi & Keller, 2004; K. O. Keller, Dekimpe, & Geyskens, 2016; Kumar & Steenkamp, 2007). As more retailers are moving towards offering PL products in several tiers, retailers might benefit from associating with some of their PL products and disassociating from others (Conn, 2005). Whether retailers should associate with some tiers and not others is potentially dependent on the positioning of the retailer, since consumers prefer economy PLs at low-priced grocery stores and premium PLs at high-priced grocery stores (Schnittka, 2015).

Although previous research has found that an SB strategy positively associates with a retailer's PL share, almost no research has investigated how grocery retailers' different branding strategies affect consumers' perceptions of the products differently (Ailawadi & Keller, 2004; S. K. Dhar & Hoch, 1997). This lack in research is a problem since the propensity for retailers to use either an SB strategy or a SAB strategy is driven primarily by decisions made in the past or what competing retailers do and not on consumer-insights (K. O. Keller et al., 2016).

Since the PL tiers differentiate between based on their quality-levels, retailers could benefit from understanding if/how consumers' perception of quality varies depending on which branding strategy they use (Geyskens et al., 2010; K. O. Keller et al., 2016). Moreover, an extensive body of literature has emphasized the importance of increasing consumers' perceived

quality for the success of PL products (Bao, Bao, & Sheng, 2011; Hoskins, 2016; Steenkamp, Van Heerde, & Geyskens, 2010). Increasing the perceived quality of PL products has been associated with larger market share, higher willingness to pay, more satisfaction, and increased store loyalty (Corstjens & Lal, 2000; Pauwels & Srinivasan, 2004; Richardson, Dick, & Jain, 1994; Richardson, Jain, & Dick, 1996). In fact, the most important driver for PL share is its perceived quality (Ailawadi & Keller, 2004). Thus, understanding how consumers' perceived quality is affected by PL branding decisions should be an objective in and of itself.

Besides understanding how consumers' perceived quality is affected by their branding decisions, retailers might also have an interest in understanding how the utilitarian and hedonic dimensions of consumers' product attitudes (hereafter just referred to as 'product attitudes') are affected (Batra & Ahtola, 1991). Measuring consumers' product attitudes on a two-dimensional scale is more comprehensive than a single-dimensional and could help explain a more significant proportion of the variance of how consumers perceive products (Voss, Spangenberg, & Grohmann, 2003).

Ultimately, this research aims to provide recommendations to European retail managers, regarding which type of PL branding strategy they should adopt for their new PL product introductions. Recommendations are based on the answer to this study's research problem: "How do consumers' perception of quality and product attitudes differ based on the type of PL branding strategy (store-branding and stand-alone branding) and type of PL (standard PL and premium PL), in a European context?"

## 1.2 Purpose Statement and Research Questions

The purpose of this dissertation is to compare the effects of store-branding and stand-alone branding on consumers' perceived quality and product attitudes, for a standard PL tier and a premium PL tier. The purpose statement substantiates itself in the following research questions:

**RQ1:** Based on literature related to cue utilization theory, how do grocery retailers' standard PLs differ from their premium PLs?

*The purpose of this RQ is two-fold: 1) to obtain a thorough understanding of the standard PL and premium PL tiers, 2) to understand the process through which consumers perceive products and make inferences about product quality.*

**RQ2:** Are there differences on perceived quality by the type of branding (SB and SAB) and the type of PL (standard PL and premium PL) after controlling for store image perceptions?

*The purpose of this RQ is to analyze how consumers' quality perceptions are affected by the type of PL branding strategy and by the type of PL tier while controlling for consumers' store image perceptions. The control variable, store image perception, is chosen because of its known effect on consumers' perception of quality (Bao et al., 2011; Collins-dodd & Lindley, 2003; Grewal, Krishnan, Baker, & Borin, 1998). The purpose is to partial out the effect of store image perception on perceived quality to determine if the effects strictly are due to consumers' store image perceptions or if the differences are independent of that covariate.*

**RQ3:** Are there differences on product attitudes (utilitarian and hedonic) by the type of branding (SB and SAB) and the type of PL (standard PL and premium PL) after controlling for store attitudes (utilitarian and hedonic)?

*The purpose of this RQ is to analyze how consumers' product attitudes are affected by the type of PL branding strategy and by the type of PL tier while controlling for their attitude towards the store. The control variable, store attitudes, is chosen because of its known effect on consumers' product attitudes (Corstjens & Lal, 2000; Inman, Shankar, & Ferraro, 2004; Lee & Hyman, 2008). The purpose is to partial out the effect of store attitudes on product attitudes to determine if the effects strictly are due to consumers' store attitudes or if the differences are independent of that covariate.*

### 1.3 Relevance

Academically, this dissertation addresses the topic of PL branding strategies, a very under-researched topic, which academics repeatedly have recommended for future research (Ailawadi & Keller, 2004; Geyskens et al., 2010; Nenycz-Thiel & Romaniuk, 2016). More specifically, it addresses the retailers' branding choice between stand-alone branding and store-branding: "retailers may have an interest in adopting stand-alone branding strategies for either upscale or downscale introductions, an issue that has yet to be explored in academic studies" (Geyskens et al., 2010, p. 805). Theoretically, this research is relevant as it expands upon the research carried out within the cross-field of cue utilization theory and PLs (Richardson et al., 1994). Managerially, this research is important as the retail landscape practices are undergoing much change which requires new insights:

"PLs have changed drastically over the last decade and are making the transition to brands in their own rights. In light of this development, retailers have to decide how closely their store brands should be associated with their retail banners" (K. O. Keller et al., 2016, p. 1).

#### 1.4 Research methods

This research uses secondary data, primarily journal articles but also some market research reports, conference proceedings as well as relevant books to answer RQ1. Moreover, this research uses primary data obtained through an online survey questionnaire to answer RQ2 and RQ3. The primary statistical analyses which are used to answer the RQs are Analysis of Covariance (ANCOVA) and Multivariate Analysis of Covariance (MANCOVA). The study's population of interest is European grocery retail consumers.

#### 1.5 Dissertation Outline

The following chapter reviews the literature related to the research problem and RQs. Afterward, the methodology chapter explains the rationale behind the research approach and research design. The following chapter, the results, and discussion, presents the results of the survey questionnaire and hypotheses testing and discusses them. Finally, the conclusion sums up the main findings and outlines the managerial and academic implications as well as the limitations of this research and suggestions for further research.

## CHAPTER 2: LITERATURE REVIEW

This chapter presents a literature review of the topics which relate to the RQs and research topic. The first part of the literature review focuses primarily on the theory of cue utilization theory which provides a theoretical understanding of how consumers perceive and evaluate products. After a short review of the essential aspects of cue utilization theory, this chapter discusses the differences between a standard PL and a premium PL in relation to their cues. Next, this chapter presents the concepts of perceived quality and product attitudes. The following part discusses the concepts of store-branding and stand-alone branding. Finally, the literature review presents the concept of store image perception. Based on the literature review, this chapter concludes by presenting several hypotheses that the subsequent chapter tests.

### 2.1 Cue Utilization Theory

Cue utilization theory has often been used as a framework to assess consumers' perception of products in marketing and consumer behavior research and to understand the quality perception process of retailers' PL products (Bao et al., 2011; Dodds, Monroe, & Grewal, 1991; Nenycz-Thiel & Romaniuk, 2016; Olson & Jacoby, 1972; Richardson et al., 1994). According to the theory, products and brands consist of cues such as price and packaging that form the basis for consumers' impressions of the products (Cox, 1967; Jacoby, Olson, & Haddock, 1971).

The following sections outlines the main ideas from the theory and then discusses four cues that previously have been found to significantly affect consumers' perception of quality.

#### 2.1.1 Predictive Value & Confidence Value

Olson & Jacoby (1972), argue that any cue can be described in terms of its predictive value (PV), confidence value (CV) and whether or not the cue is intrinsic/extrinsic to the product. A cue's PV relates to the degree to which it is associated with product quality – if the PV is high,

the cue is very indicative of product quality (Richardson et al., 1994). A cue's CV is "the degree to which a consumer is confident in his ability to accurately perceive and judge that cue" (Olson & Jacoby, 1972). Thus, if a consumer believes, and is self-confident, in his/her ability to make accurate assessments and judgements about a cue, the CV would be high. Generally, only when cues have a high PV as well as a high CV, are they used in the quality-judgment of a product (Olson & Jacoby, 1972).

### 2.1.2 Intrinsicness & Extrinsicness

The distinction between intrinsicness and extrinsicness of a cue has no effect on the cue utilization process but is useful in describing the nature of the cues. Intrinsic cues include the physical composition of products and cannot be altered without changing the nature of the product itself (Zeithaml, 1988). Extrinsic cues, on the other hand, are outside the product but product-related and can for example be the price or the packaging (Zeithaml, 1988). Intrinsic cues are for most product more indicative of product quality than extrinsic cues. However, when intrinsic information is scarce, not considered to be useful, or there is not an opportunity to use it, then extrinsic cues are more likely to be used to infer the quality of a product (Olson & Jacoby, 1972; Zeithaml, 1988).

### 2.1.3 Price

The extrinsic cue of price and its effect on perceived quality has been studied extensively (Dodds et al., 1991; Jacoby et al., 1971; Rao & Monroe, 1989; Teas & Agarwal, 2000). The majority of the research supports that an increased price also leads to an increased perception of quality (Rao & Monroe, 1989). The logic behind the positive price-quality relationship is that through the forces of supply and demand a natural ordering of products on a price scale is created, so the products with the highest prices also are the ones with the highest quality (Rao & Monroe, 1989).

#### 2.1.4 Packaging

Packaging characteristics have also previously been associated with higher perceptions of quality for consumers as an extrinsic cue (McDaniel & Baker, 1977; Rigaux-Bricmont, 1982; Steenkamp, 1989). By investing in the quality of the packaging design and materials used, retailers can increase the perceptions of quality for their PL products (Richardson et al., 1994, 1996). Packaging characteristics are therefore used by consumers as an indicator of product quality and plays an important role in how consumers perceive of products (Steenkamp et al., 2010).

#### 2.1.5 Advertising

The advertisement of a product is also an extrinsic cue which is used by consumers. When a product is advertised, it signals to the consumers that the retailer believes the product is worth advertising and therefore must be of higher quality (Gotlieb & Sarel, 1992; Rao, 2005; Zeithaml, 1988). Additionally, the amount spend on the advertising of a product also positively relates to consumers' perceptions of product quality (Kirmani & Wright, 1989; Moorthy & Zhao, 2000).

#### 2.1.6 Ingredients

Although extrinsic cues are used more often than intrinsic cues in the context of CPG, product ingredients are still used by consumers to evaluate the quality of products they are unfamiliar with (Gielens, 2012; Richardson et al., 1994). To differentiate products, unique and high-quality ingredients or flavors that are not found elsewhere can be used to signal innovativeness and product quality (Kumar & Steenkamp, 2007).

## 2.2 Standard PLs and Premium PLs

This section describes and compares the main characteristics of standard PLs and premium PLs in relation to their cues. The characterization is based on the four cues from Section 2.1: price, packaging, advertising, and ingredients.

### 2.2.1. Price

Traditionally, standard PLs are priced between 20-50% lower than NBs, whereas premium PLs are priced similar to or even sometimes slightly higher than NBs (Ailawadi & Harlam, 2004; Dawes & Nenycz-Thiel, 2013; Kumar & Steenkamp, 2007). There are several reasons which explain why premium PLs are priced higher than standard PLs. From the retailers' perspective, there are increased marketing and production costs of producing premium PLs due to investments in innovation and product-quality which forces the retailers to increase the prices to cover the costs (Geyskens et al., 2010; ter Braak, Dekimpe, & Geyskens, 2013). Furthermore, pricing the premium PLs higher gives the retailers the opportunity to increase revenue and profit-margins substantially (Hökelekli, Lamey, & Verboven, 2017).

### 2.2.2 Packaging

One of the distinct features of premium PLs is the packaging. The packaging of premium PLs is used to differentiate the products and signal to the consumers that the products are of high quality (Kumar & Steenkamp, 2007). The retailers do that by investing more in the packaging design itself as well as by investing in quality materials for the packaging (Kumar & Steenkamp, 2007). The packaging of premium PLs is usually unique and distinct, so one retailers' premium PL range's packaging cannot be found elsewhere (Braak et al., 2014). Standard PLs, on the other hand, imitate and often copy the packaging of the leading NB (Kumar & Steenkamp, 2007).

### 2.2.3 Advertising

Another distinct feature of premium PLs is that they sometimes are featured in the retailers' advertisements and that they receive increased advertising support (Kumar & Steenkamp, 2007; Nenycz-Thiel & Romaniuk, 2016). For instance, Albert Heijn, a Dutch retailer promotes their premium PLs in their advertisements (Semeijn, Riel, & Ambrosini, 2004). Premium PLs are also sometimes receiving celebrity endorsements, such as Jamie Oliver for Sainsbury (Nenycz-Thiel & Romaniuk, 2016). Standard PLs, on the other hand, are not featured in the retailers' advertisements (Kumar & Steenkamp, 2007).

### 2.2.4 Ingredients

Besides offering ingredients with quality similar to NBs', premium PLs also tend to contain ingredients that are somewhat unique or even offer flavors that cannot be found elsewhere (Geyskens et al., 2010; Kumar & Steenkamp, 2007). Standard PLs, on the other hand, imitate and offer the same quality and ingredients as mid-quality NBs (Geyskens et al., 2010).

### 2.2.5 Overview of Standard PLs and Premium PLs

Based on the characterization above, standard PLs and premium PLs differ significantly in terms of their cues. Table 1 below summarizes the main features of each of the PL tiers.

<b>Cues:</b>	<b>PL Type:</b>	
	<b>Standard PLs</b>	<b>Premium PLs</b>
<b>Price</b>	20-50% lower than NBs	Similar to NBs
<b>Packaging</b>	Imitate and copy NBs	Means of differentiation, unique, good-quality materials
<b>Advertising</b>	Not featured in advertisements	Advertising support and featured in advertisements
<b>Ingredients</b>	Imitate and offer similar quality as NBs	High-quality, unique, and distinct ingredients

*Table 1 – Overview of Difference Between Standard PLs and Premium PLs by Cues*

## 2.3 Perceived Quality and Product Attitudes

The following section presents the two concepts of perceived quality and product attitudes which are used in the subsequent chapter as the DVs.

### 2.3.1 Perceived Quality

Zeithaml (1988, p. 3) has defined perceived quality as “the consumer’s judgment about a product’s overall excellence or superiority” and stresses that perceived quality is different from objective and absolute quality. Perceived quality is, therefore, a subjective evaluation which is contingent on the individual consumer’s needs, perceptions and own goals (Steenkamp, 1989). This view on quality is widely adopted in marketing and consumer behavior research as it stresses that quality *lies in the eyes of the consumers* (Steenkamp, 1989). Elsewhere, perceived quality has been defined as “fitness for use” which relates more to the functional abilities based on the needs of the consumers (Steenkamp, 1989, p. 58). Generally, though, perceived quality is considered as a higher-level abstraction which can be compared across various product categories (Zeithaml, 1988).

### 2.3.2 Product Attitudes

Many researchers have argued that consumers’ attitudes towards products inherently are two-dimensional (Batra & Ahtola, 1991; R. Dhar & Wertenbroch, 2000; Voss et al., 2003). The first, the hedonic dimension, is derived from the sensations of the experience with the product, whereas the utilitarian dimension is derived from the functions performed by the product (Voss et al., 2003). The utilitarian dimension mostly relates to the usefulness and instrumental value of a product, whereas the hedonic dimension mostly relates to the pleasantness associated with the product purchase (Batra & Ahtola, 1991). The two dimensions both contribute to the *goodness* of a product and are not mutually exclusive (Batra & Ahtola, 1991). Generally, product categories are distinguished between based on their hedonic and utilitarian nature but brands within a product category can also vary on their hedonic and utilitarian dimensions (R.

Dhar & Wertenbroch, 2000; Okada, 2005; Voss et al., 2003). The latter point is important because previous research has suggested that brands that are highly valued on the hedonic dimension are better able to charge a higher price and can increase purchase intention of consumers (R. Dhar & Wertenbroch, 2000; Voss et al., 2003). Leclerc et al (1994) also showed this by manipulating the brand name to sounding French, consumers' hedonic perceptions of the product increased which positively influenced their attitudes towards the product. Additionally, both retail stores and products may be described, classified, and compared on their utilitarian and hedonic dimensions (Lee & Hyman, 2008). This means that not only are consumers' attitudes towards products two-dimensional but so are their attitudes towards retail stores (Lee & Hyman, 2008).

## 2.4 Store-branding & Stand-alone Branding

The following section describes and defines the two PL branding strategies of store-branding and stand-alone branding and discusses theoretical implications.

### 2.4.1 SB Strategy and SAB Strategy

According to Keller et al. (2016), retailers can choose between two different types of branding strategies for their PL tiers: 1) Store branding and 2) Stand-alone branding. Store branding is a strategy where the retailer clearly associates with the PL products by displaying the logo/the retailer-name on the packaging. Stand-alone branding, on the other hand, is when the retailer delinks itself from the PL, by not making its logo nor its retail-name clearly visible on the packaging but instead gives it a separate brand-name (K. O. Keller et al., 2016).

#### *Prior Research*

When introducing a new PL product, should a retailer identify with the product through a SB strategy or should it detach itself through a SAB strategy? Previous research which has

investigated this question has concluded that the use of the retailer's own name on its PL products enhances the retailer's performance (S. K. Dhar & Hoch, 1997). Previous research has also found that a SB strategy could lead to favorable attitudes towards a retailer's PLs, because of familiarity with the brand image (Semeijn et al., 2004).

#### *SB Strategy as a Brand Extension*

Because retailers can be considered as brands, their PLs can also be considered as brand extensions (Bao et al., 2011; Collins-dodd & Lindley, 2003; Lee & Hyman, 2008). Brand extensions are traditionally defined as the "use of established brand names to launch new products" (Völckner & Sattler, 2006, p. 18). Therefore, only a SB strategy and not a SAB strategy is considered a true brand extension (Collins-dodd & Lindley, 2003). Brand extensions are generally considered successful when the brand equity of the parent brand is transferred to the brand extension (Bao et al., 2011; K. L. Keller & Aaker, 1990). A SB strategy can thus be perceived as an attempt for the retailer to increase the equity of the PL (Beristain & Zorrilla, 2011). Here, brand equity is considered as being evident by the *differential effect* that retail brand knowledge has on consumers' responses to the marketing of a SB PL strategy compared with a SAB PL strategy (Ailawadi & Keller, 2004; Leclerc et al., 1994).

#### *SB Strategy as an Extrinsic Cue*

In relation to cue utilization theory, brand name has repeatedly been found to be an extrinsic cue that positively affects consumers' perceptions (Dodds et al., 1991; Rigaux-Bricmont, 1982; Teas & Agarwal, 2000). Brand name in this research context would translate into the SB strategy since that is where the retailer displays its store brand name to signal that they are associated. Such inferences are consistent with recent literature which argue that a retailer can be considered a brand (Ailawadi & Keller, 2004; Bao et al., 2011; Beristain & Zorrilla, 2011). Naturally, SAB PLs can also develop into strong brands over time, such as the Canadian retailer,

Loblaw's "President Choice", but that requires substantial and consistent investments and marketing support and would not apply for new product introductions (Sayman, Hoch, & Raju, 2002).

#### *Cue Consistency and Perceived Fit*

In brand extension literature, the fit between the parent brand and the product extension, i.e. *perceived fit*, is one of the most important factors for success and positive attitudes toward the product (K. L. Keller & Aaker, 1990; Völckner & Sattler, 2006). The reason is simply that "consumers should prefer good-fitting brand extensions to bad-fitting brand extensions" (Lee & Hyman, 2008, p. 219). Similar to the concept of *perceived fit*, cue consistency theory holds that "multiple sources of information are more useful when they provide corroborating information than when they offer disparate conclusions" (Miyazaki, Grewal, & Goodstein, 2005, p. 147). This entails that when cues are inconsistent, it could lead to negative product perceptions (Bao et al., 2011; Miyazaki et al., 2005). For example, for a discount retailer, consumers might perceive a premium PL with a SB strategy to be more inconsistent with each other than if the same retailer carried a premium PL with a SAB strategy (K. O. Keller et al., 2016; Schnittka, 2015). Hence, SB PLs should be more successful when they support the positioning and brand of the retailer, and SAB PLs should be more successful when they fall outside of the vision, mission and general brand positioning of the retailer (Conn, 2005).

#### 2.5 Store Image Perception and Store Attitudes

Consumers have different perceptions of retailers (Bao et al., 2011), which is often conceptualized as retailers' store image, and defined as: "the way a store is defined in a shopper's mind" (Levy & Weitz, 2004, p. 721). The retailers' store image is a result of their different attributes: 1) the location and distance a consumer must travel, 2) the in-store

environment, 3) the prices & promotions 4) the breadth of products, and 5) the depth of the assortment (Ailawadi & Keller, 2004; K. L. Keller, 2008). Overall, a favorable store image is important, because it affects the perceived quality of the products sold (Teas & Agarwal, 2000). Furthermore, grocery retailers position themselves differently in the market based primarily on their pricing format (Ailawadi & Keller, 2004). Ultimately, consumers' attitudes towards the retailers' PL products are affected by the retailers' positioning (Ailawadi & Keller, 2004; K. O. Keller et al., 2016).

## 2.6 Hypotheses

Based on the literature review, the following hypotheses, which aim to answer the RQs, are proposed.

### 2.6.1 Hypothesis 1

H<sub>0</sub> – There are no differences on perceived quality by the type of PL after controlling for store image perceptions

H<sub>a</sub> – Consumers perceive premium PLs to be of higher quality than standard PLs

### 2.6.2 Hypothesis 2

H<sub>0</sub> – There are no differences on perceived quality by the type of branding after controlling for store image perceptions

H<sub>a</sub> – Consumers perceive a store-branded product to be of higher quality than a stand-alone branded product

### 2.6.3 Hypothesis 3

H<sub>0</sub> – The effect of branding type on consumers' perception of quality is the same for a standard PL and a premium PL after controlling for store image perceptions

$H_a$  – The effect of branding type on consumers' perception of quality will differ for a standard PL and a premium PL

#### 2.6.4 Hypothesis 4

$H_0$  – There are no differences on product attitudes by the type of PL after controlling for store attitudes

$H_a$  – Consumers' product attitudes towards premium PLs are significantly different from their attitudes towards standard PLs

#### 2.6.5 Hypothesis 5

$H_0$  – There are no differences on product attitudes by the type of branding after controlling for store attitudes

$H_a$  – Consumers' product attitudes towards a store-branded product are significantly different from their attitudes towards a stand-alone branded product

#### 2.6.6 Hypothesis 6

$H_0$  – The effect of branding type on consumers' product attitudes is the same for a standard PL and a premium PL after controlling for store attitudes

$H_a$  – The effect of branding type on consumers' product attitudes will differ for a standard PL and a premium PL

## 2.7 Conceptual Framework

The conceptual framework below summarizes the expected relationships between the IVs and the DVs as well as the relationships between the control variables and the DVs.

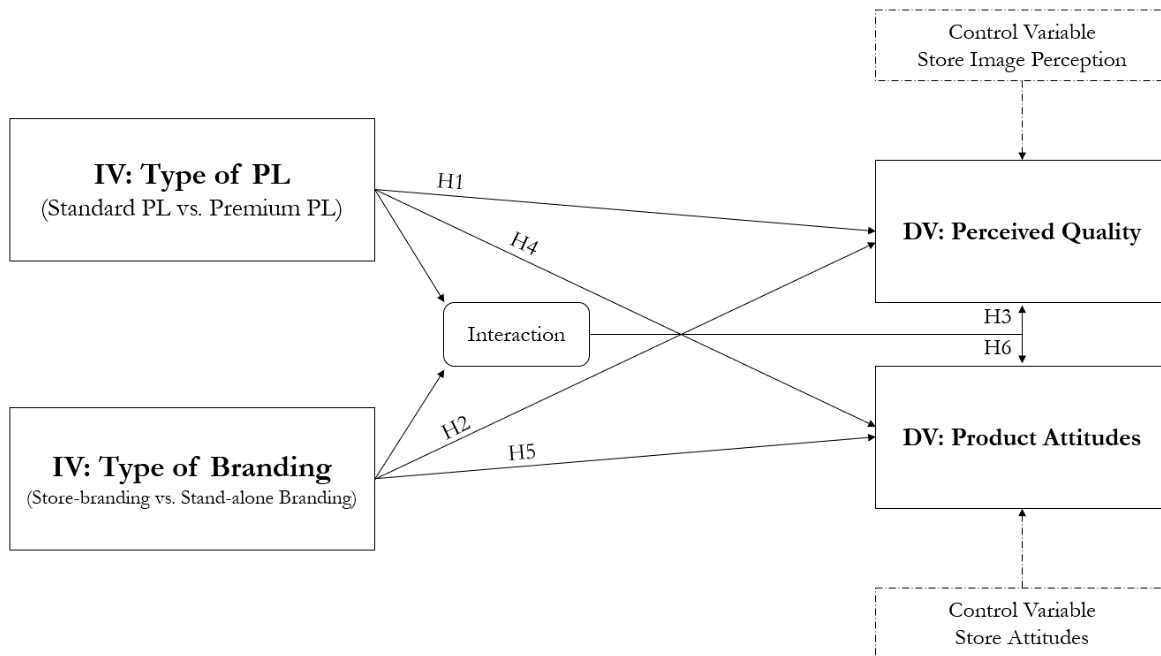


Figure 1 - Conceptual Framework – The IVs Type of PL and Type of Branding are hypothesized to affect the DVs Perceived Quality and Product Attitudes. Additionally, it is hypothesized that the interaction between the two IVs affect the DVs. The study controls for the effects of store image perception and store attitudes.

## CHAPTER 3: METHODOLOGY

This chapter presents the methodology which has been used to study the research problem and RQs. The first part of the chapter discusses the general approach which has been used to formulate the hypotheses and how the research applies secondary data. The second part of the chapter discusses in more detail the methodology of the survey design which includes an account of the rationale for survey research, the population characteristics, sampling methods, and operationalization of the constructs as well as a brief overview of the statistical tests used for the following hypotheses testing.

### 3.1 Research Approach and Secondary Data

As mentioned in Chapter 1, the purpose of this dissertation is to compare the effects of store-branding and stand-alone branding on consumers' perceived quality and product attitudes for a standard PL tier and a premium PL tier. This research has used secondary data such as journal articles, market research reports, conference proceedings as well as relevant books to obtain a thorough understanding of the subject matter and to answer RQ1. The secondary sources thus provided foundational knowledge on the topic and are the basis for the development of the hypotheses and constructs.

Because the research set out to test the proposed hypotheses, it made use of a theory-testing approach as it a priori predicted what would happen in the real world and then tested it to detect statistically significant associations (De Vaus, 2002). With this approach, a postpositivist worldview is applied, which assumes that research can identify and assess the factors that influence the outcome by reducing ideas into smaller testable items (Creswell, 2009). Within this worldview, the scientific method starts with a theoretical understanding of the relationship and then collects data to either support or disprove the theory, typically through surveys and

experiments with close-ended questions and statistical procedures that include numeric data (Creswell, 2009).

Some of the central assumptions of this position are that evidence in research always is fallible, that research aims to create statements that are true, and that can describe causal relationships, and that objectivity is established by accounting for bias, i.e., reports of validity and reliability (Creswell, 2009). Therefore, the research deducted what was going to happen in the empirically observable data and analyzed the outcomes to infer implications for the theories used (De Vaus, 2002).

### 3.2 Survey Research Design

The research set up a statistical experimental survey design with two conditions: standard PL and premium PL, each with two levels: store-branding and stand-alone branding to test the proposed hypotheses quantitatively. The table below illustrates the 2 X 2 between-subjects factorial design. The survey randomly and even assigned the respondents to one of the four groups.

Branding Type:	PL Type:	
	Standard PL	Premium PL
Store-branded	SB Standard PL	SB Premium PL
Stand-alone branded	SAB Standard PL	SAB Premium PL

*Table 2, Survey Research Design: 2 X 2 Between-subjects Factorial Design, the two levels are standard PL, and Premium PL and the two conditions are store-branded and stand-alone branded.*

The survey questionnaire (see Appendix 1) initiated by introducing the respondents to the survey, assuring them of the confidentiality and anonymity of the results and informing them about the approximate 2-3-minute duration. Secondly, three filter questions ensured that only respondents who were qualified to answer could participate in the survey. All respondents

answered questions regarding their self-familiarity with the chosen grocery retailer as well as questions regarding their store image perception and store attitudes. Next, the respondents saw one of the four PL products and were asked to indicate their quality-perceptions and product attitudes. In the last part of the survey, the respondents were asked to fill in demographic information about themselves. The survey was active from April 10, 2018, until April 25, 2018. The following sections detail the specifics of the survey research.

### 3.2.1 Population

Typically, the purpose of survey research is to generalize from a sample to a population, to make general inferences about the population of interest (Creswell, 2009; Saunders, Lewis, & Thornhill, 2008). In this research, the target population is European grocery retail consumers. The total size of the target population is difficult to narrow down but considered quite significant. In total, the survey yielded 304 recorded responses of which 236 finished the survey. Of the 236 respondents, only 187 were considered valid. The number of respondents is considered satisfactory and alike other studies with a similar research design (Grewal et al., 1998; Richardson et al., 1994; Schnittka, 2015).

### 3.2.2 Sampling Methods

An online-based survey questionnaire, through the survey-software Qualtrics, collected the data. It is the preferred type of data collection for this research as it enabled the collection of large amounts of data economically compared to other strategies (Saunders et al., 2008). Additionally, it had practical benefits as it enabled the collection of quantitative data in a structured way which was time-effective.

Individuals were selected based on the non-probability sample method of convenience sampling. This type of sampling method relies on respondents' convenience and availability (Creswell, 2009). The research used this method because of the lack of sample frame, limited time and resources, and for its ability to obtain information quickly and inexpensively (Babbie,

1973). The sampling technique of convenience sampling causes severe limitations to the generalizability to the general population but can be considered reasonable when the researcher faces time constraints (Saunders et al., 2008). The results are ultimately biased and cannot be generalized to the total population (Aaker, Kumar, & Day, 1995)

### 3.2.3 Measurements

The following section describes the measurements for the constructs and the rationale for the design of the two IVs: PL type and branding type.

Throughout the survey, the order of the questions was randomized to prevent order bias and pictures were provided to aid the respondents.

#### *Perceived Quality*

To measure the respondents' perceived quality, they were asked to rate four 7-point semantic differential scales, a construct developed by Bao et al. (2011) based on previous quality perception research (Grewal et al., 1998; K. L. Keller & Aaker, 1992).

#### *Product Attitudes and Store Attitudes*

The study used two identical sets of seven 7-point bipolar to measure product attitudes and store attitudes. The items were adapted from 5-point bipolar items to be consistent with the rest of the survey. The construct measure is taken from Lee & Hyman (2008) as they successfully have used the measurement for both product attitudes and store attitudes. It is an adapted version of Batra & Ahtola's (1991) measure of hedonic and utilitarian sources of consumer attitudes. Three items represented the functional dimension, and four items represented the hedonic dimension.

#### *Perceived Store Image*

To measure the respondents' perception of store image, they were exposed to 7 statements, developed by Bao et al. (2011). The measure originates from the perceived store image

construct by Grewal, Krishnan, Baker & Borin (1998). The items were measured on a Likert scale anchoring from 1 (“strongly disagree”) to 7 (“strongly agree”).

### *PL Type*

Based on the characterization of standard PLs and premium PLs described in Section 2.2 and summarized in Table 1, two fictional PLs were created – the standard PL, and the premium PL.

Due to limitations of this study, the study tested only one product category. The primary requirement for the product category was that other grocery retailers successfully had created both a standard PL and a premium PL within this product category. Additionally, it was a requirement for the product category that it had one well-known brand that the PLs could be compared against. By having one product that respondents could compare against, they were all anchored by the same product and had similar anchoring bias. The product category that met the two criteria was mayonnaise. The leading mayonnaise brand in Europe is Hellmann’s<sup>1</sup>, which is owned by Unilever. In designing the products, three retailers with successful standard PLs and premium PL were considered: Sainsbury’s; Tesco; and Albert Heijn.

The price of the standard PL was set to €2 which was 35% lower than the €3 of the leading NB, Hellmann’s. Tesco’s standard-tier mayonnaise inspired the design of the packaging of the standard PL. This packaging design was chosen because it resembled the category-leader Hellman’s packaging.

The price of the premium PL was set to €3, matching the leading NB, Hellmann’s. Albert Heijn’s premium-tier mayonnaise inspired the packaging of the premium PL because it was the one considered to be the most unique and premium-looking of the three premium-tiers. The label on the packaging additionally wrote: “cold-pressed olive oil” to add a ‘unique’ ingredient

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<sup>1</sup> <https://www.statista.com/statistics/301878/leading-salad-cream-and-mayonnaise-brands-in-the-uk/> - based on available data from the UK

to the premium PL. The study also provided information for the respondents who saw the premium PL, that the retailer was advertising the product.

Both the standard PL and premium PL said they were made with 100% free range eggs on the labelling of the packages as that appeared to be an industry standard. To make sure respondents perceived the packaging as intended, they were asked to indicate their level of agreement on a 7-point Likert scale to the following two statements: “The packaging of the product is unique” and “I consider the packaging to be premium.” Colors and fonts were adjusted to fit the packaging.

#### *Branding Type*

Due to inherent limitations, this study only tested one grocery retailer. The main criteria for the retailer was that it was well-known across Europe. Based on Interbrand’s categorization of the best retail brands in Europe, the German retailer Lidl was picked as it was the grocery retailer with one of the highest brand equities and one of the most widely spread in Europe (Interbrand, 2014). The method of using Interbrand’s classification to determine if it is one of the most well-known retailers is commonly used (K. O. Keller et al., 2016).

The store-branded PLs displayed the Lidl logo next to a made-up brand-name “Excellent”. The stand-alone branded PLs only displayed the made-up brand-name “Excellent” (see Table 4).

Overview

The table below summarizes the measurements:

Construct	Scale	# of Items	Source
Perceived Quality	7-Point Semantic Differential Scale	4	(Bao et al., 2011)
Product and Store Attitudes	7-Point Semantic Differential Scale	7 (x2)	(Lee & Hyman, 2008)
Perceived Store Image	7-Point Likert Scale	7	(Bao et al., 2011)

Table 3 – Construct Measurement Overview – the measurements of the four constructs: perceived quality, product attitudes, store attitudes, as well as perceived store image

The table below shows the four PL products:





Branding Type:	PL Type:	
	Standard PL	Premium PL
Store-branded		
Stand-alone branded		

Table 4 – Overview of the Four PL Products – the products are SB PPL, SAB PPL, SB PL, and SAB PL

### 3.2.4 Data Analysis

All quantitative data was analyzed with the statistical software SPSS. Before the hypothesis testing, the raw data was prepared for the data analysis by checking for obvious lack of cooperation (Aaker et al., 1995). Some variables were re-specified and transformed to prepare the variables for the hypothesis testing. All constructs were subject to reliability analysis of Cronbach Alpha, and the constructs of store attitudes and product attitudes were subject to a validity analysis through Factor Analysis. The following section reports frequency distributions and descriptive statistics of the data. Multiple statistical tests were carried out to test the hypotheses but the primary statistical tests to answer the RQs were ANCOVA and MANCOVA.

## CHAPTER 4: RESULTS AND DISCUSSION

The following chapter presents the results of the survey and discusses the results. The first section presents a characterization of the sample, followed by descriptions of the reliability and validity analyses as well as an overview of the variables that were used in the hypotheses testing. The last part presents and discusses the results of the hypotheses testing.

### 4.1 Results

This section describes the sample, reliability and validity analyses, descriptive statistics, and the results of the hypotheses testing.

#### 4.1.1 Sample Characterization

From a total of 236 respondents, 12 were excluded from participating in the survey because they had never lived in a European country. Additionally, five respondents were excluded because they answered that they did not do grocery shopping minimum once per month, and 32 respondents because they had never purchased mayonnaise. The table below presents the characteristics of the 187 valid respondents. The sample is grouped into fewer groups for age, income, and education. There is almost an equal distribution of respondents in each group for each of the demographic variables, making the groups homogenous. Because of the non-probability sampling, most respondents were Danish, between 25-34 years and relatively well-educated. “SB PPL” indicates the store-branded premium PL, “SAB PPL” indicates the stand-alone branded premium PL, “SB PL” indicates the store-branded standard PL, and “SAB PL” indicates the stand-alone branded standard PL.

Variable	Description	SB PPL	SAB PPL	SB PL	SAB PL	Total
<b>Respondents</b>	<b>Total #</b>	46	46	49	46	187
<b>Gender</b>	<b>Female</b>	48%	48%	47%	54%	49%
	<b>Male</b>	52%	52%	53%	46%	51%
<b>Age</b>	<b>18-24</b>	30%	26%	31%	28%	29%
	<b>25-34</b>	48%	46%	49%	41%	46%
	<b>35+</b>	22%	28%	20%	30%	25%
<b>Nationality</b>	<b>Portuguese</b>	17%	17%	10%	15%	15%
	<b>Danish</b>	46%	33%	51%	54%	46%
	<b>German</b>	15%	24%	14%	13%	17%
	<b>Italian</b>	7%	13%	8%	7%	8%
	<b>British</b>	2%	2%	4%	0%	2%
	<b>Spanish</b>	0%	2%	2%	4%	2%
	<b>Other</b>	13%	9%	10%	7%	10%
<b>Income</b>	<b>Less than €10,000/year</b>	37%	28%	35%	22%	30%
	<b>€10,000 - €29,999/year</b>	28%	28%	18%	30%	26%
	<b>€30,000+/year</b>	28%	33%	39%	37%	35%
	<b>Prefer Not to Answer</b>	7%	11%	8%	11%	9%
<b>Education</b>	<b>High School or Less</b>	11%	11%	18%	24%	16%
	<b>Bachelor Degree</b>	43%	50%	39%	39%	43%
	<b>Master Degree or Higher</b>	46%	39%	43%	37%	41%
<b>Familiarity</b>	<b>Mean Familiarity (1-7)</b>	4,07	4,07	4,24	3,43	3,96

Table 5 – Sample Characterization by Group

#### 4.1.2 Reliability Analysis and Validity Analysis

Because consumers' attitudes towards products and stores by nature are two-dimensional, the research initiated by carrying out a factor analysis of the measures of store attitudes and product attitudes for each of the groups (Batra & Ahtola, 1991). The purpose of the factor analysis was to validate with a principal component analysis (varimax rotation) and two fixed factors extracted, that each of the items would load on their corresponding factor (Aaker et al., 1995). In other words, that all hedonic items loaded on one factor and all utilitarian items loaded on another separate factor. This validation measure is similar to the methods of Lee & Hyman (2008) and can validate that the items measure what they are supposed to (Aaker et al., 1995). The table below shows the main results and the rotated component matrixes, presented in Appendix 2, show that all the items loaded on their corresponding factor. In all cases, Bartlett's

Test of Sphericity was significant at  $p < 0,001$ , Kaiser-Meyer-Olkin Measure (KMO) was above 0,8 (Malhotra & Birks, 2003).

Variable Description	KMO	Bartlett's Test, Sig.	Total Variance Explained	Loaded Items Right
Store Attitudes	0,89	0,000	82,89%	Yes
SB PPL Attitudes	0,80	0,000	76,26%	Yes
SAB PPL Attitudes	0,87	0,000	83,29%	Yes
SB PL Attitudes	0,83	0,000	79,57%	Yes
SAB PL Attitudes	0,87	0,000	84,75%	Yes

Table 6 – Factor Analysis Results – all hedonic items loaded on one factor and all utilitarian items loaded on a separate factor

Several analyses of internal consistency reliability were carried out to establish the reliability of the constructs. Below, the Cronbach alpha of all the constructs, split by the group, are reported. The constructs' internal consistency reliability is considered satisfactory when the Cronbach alpha coefficient is  $> 0,6$ , good when  $> 0,8$ , and excellent when  $> 0,9$  (Gliem & Gliem, 2003; Malhotra & Birks, 2003). The results in the table below show that all the constructs have good internal reliability, and most have excellent.

Variable Description	# of Items	Cronbach's Alpha
Store Image (All)	7	0,90
Store Attitude (Utilitarian) (All)	3	0,91
Store Attitude (Hedonic) (All)	4	0,92
SB PPL - Perceived Quality	4	0,90
SB PPL - Attitude (Utilitarian)	3	0,82
SB PPL - Attitude (Hedonic)	4	0,90
SAB PPL - Perceived Quality	4	0,93
SAB PPL - Attitude (Utilitarian)	3	0,89
SAB PPL - Attitude (Hedonic)	4	0,94
SB PL - Perceived Quality	4	0,86
SB PL - Attitude (Utilitarian)	3	0,85
SB PL - Attitude (Hedonic)	4	0,91
SAB PL - Perceived Quality	4	0,92
SAB PL - Attitude (Utilitarian)	3	0,93
SAB PL - Attitude (Hedonic)	4	0,92

Table 7 – Reliability Analysis – Cronbach Alpha for all the constructs are considered satisfactory

#### 4.1.3 Descriptive Statistics

The table below summarizes the data split by the groups. Three variables have skewness values higher than two standard errors of skewness ( $\pm 0,68 - 0,7$ ) and are considered significantly skewed (Brown, 1997). One variable has a kurtosis value higher than two standard errors of kurtosis (1,38) and is considered to differ from mesokurtic to a significant degree (Brown, 1997). The skewness and kurtosis values imply that there is not a normal distribution for all measurements which might cause implications for the hypotheses testing.

Group	Variable Description	Mean	Std. Deviation	Skewness	Kurtosis
<b>SB PPL</b> N = 46	Store Image	4,04	1,14	0,14	-0,69
	Store Attitude (Utilitarian)	4,51	1,37	-0,25	-0,36
	Store Attitude (Hedonic)	3,37	1,24	0,40	-0,19
	Perceived Quality	5,07	1,05	-0,09	-0,57
	Product Attitude (Utilitarian)	4,07	1,06	-0,01	0,81
	Product Attitude (Hedonic)	4,63	1,10	-0,27	-0,43
<b>SAB PPL</b> N = 46	Store Image	4,12	1,03	-0,37	0,18
	Store Attitude (Utilitarian)	4,46	1,30	-0,55	-0,49
	Store Attitude (Hedonic)	3,74	1,31	-0,07	-0,36
	Perceived Quality	5,04	1,21	-0,74	-0,19
	Product Attitude (Utilitarian)	3,85	1,30	-0,24	-0,97
	Product Attitude (Hedonic)	4,80	1,29	-1,09	1,02
<b>SB PL</b> N = 49	Store Image	3,93	1,16	0,27	-0,51
	Store Attitude (Utilitarian)	4,17	1,22	-0,26	-0,48
	Store Attitude (Hedonic)	3,55	1,28	0,16	-0,76
	Perceived Quality	3,88	0,96	-0,06	-0,19
	Product Attitude (Utilitarian)	3,50	1,14	0,28	-0,97
	Product Attitude (Hedonic)	3,21	1,18	0,38	-0,41
<b>SAB PL</b> N = 46	Store Image	3,93	1,01	0,07	-0,10
	Store Attitude (Utilitarian)	3,89	1,45	-0,31	-0,69

	<b>Store Attitude (Hedonic)</b>	3,49	1,32	-0,11	-0,55
	<b>Perceived Quality</b>	3,76	1,01	0,71	2,46
	<b>Product Attitude (Utilitarian)</b>	3,20	1,11	-0,54	-0,50
	<b>Product Attitude (Hedonic)</b>	2,92	1,03	-0,23	-0,05

*Table 8 – Overview of Variables by Group – almost all variables are considered normally distributed*

#### 4.1.4 Manipulation Check

Before the hypotheses testing, a manipulation check verified that the packaging of the premium PL was perceived significantly different than the packaging of the standard PL. The respondents were asked to indicate their level of agreement with the statements: “The packaging of the product is unique,” and “I consider the packaging to be premium.” These two questions were picked because the level of uniqueness and level of premium-perception are the two characteristics that separate the packaging of standard PLs from premium PLs (Kumar & Steenkamp, 2007).

Two independent samples t-test were conducted to compare the respondents’ agreement with the statements above for the premium PL and the standard PL. The results show that there is a significant difference in the scores for the premium PL (M=4,82, SD=1,54) and the standard PL (M=2,53, SD=1,00) conditions;  $t(185) = -12,17, p = 0,000$  for the statement “The packaging of the product is unique”. Additionally, there is a significant difference in the scores for the premium PL (M=5,03, SD=1,49) and the standard PL (M=2,68, SD=1,18) conditions;  $t(173) = -11,95, p = 0,000$  for the statement “I consider the packaging to be premium”. The results suggest that the manipulation was successful and that the packaging of the premium PL was considered both more unique and premium than the packaging of the standard PL.

#### 4.1.5 Hypotheses Testing

The following section tests the proposed hypotheses. First, the research examines the relationship between store image and perceived quality to make sure it is appropriate to include

store image as a covariate. Secondly, to see if there are differences in the means of the IVs: PL type and branding type on perceived quality, two independent samples t-test were run. Third, a 2-way ANCOVA was conducted with PL type and branding type as IVs and perceived quality as DV as well as store image as a covariate. Based on the results of the tests, H1, H2, and H3 are either accepted or rejected.

Afterward, multiple regressions tested the relationship between store attitudes and product attitudes to make sure it was appropriate to include store attitudes as a covariate. Then, to see if there were differences in the means of the IVs: PL type and branding type on product attitudes, two one-way MANOVAs were run. Finally, the section concludes with a 2-way MANCOVA with PL type and branding type as IVs and product attitudes as DVs, as well as store attitudes as a covariate. Based on the results of the tests, H4, H5, and H6 are either accepted or rejected.

#### *Store Image and Perceived Quality*

A Pearson's r examined the relationship between store image and perceived quality to evaluate the appropriateness of using store image as a covariate (see Appendix 3). It is an appropriate statistical test to assess the relationship between two metric variables (Malhotra & Birks, 2003). The results show that there is a positive correlation between the two variables [ $r = 0,389$ ,  $n = 187$ ,  $p = 0,000$ ]. The scatterplot below summarizes the results. Overall, there is a moderate, positive correlation between store image and perceived quality. Increases in store image correlate with increases in perceived quality. The results suggest that store image explains variation in the DV and that the study can include store image as a covariate.

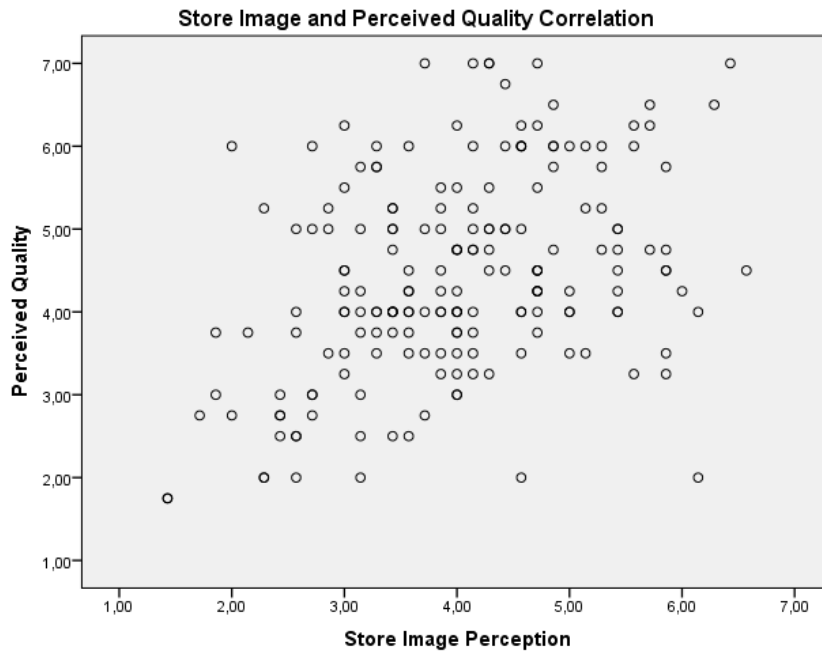


Figure 2 - Store Image and Perceived Quality Correlation – there is a significant and moderate correlation between the two variables

#### Perceived Quality by PL Type

To examine if there were differences in the mean of the IV: PL type, an independent samples t-test compared perceived quality for the PL types (see Appendix 4). It is the appropriate statistical test to assess if differences exist on a continuous DV by a dichotomous IV (Malhotra & Birks, 2003). The results show that there is a significant difference in the scores for the premium PL (M=5,05, SD=1,13) and the standard PL (M=3,82, SD=0,98) conditions;  $t(185) = -7,99, p = 0,000$ . These results suggest that the premium PL is perceived higher in quality than the standard PL. The table and figure below summarize the results

Perceived Quality by PL Type				
DV	PL Type	N	Mean	Std. Deviation
Perceived Quality	Standard PLs	95	3,82	0,98
	Premium PLs	92	5,05	1,13

Notes: Tests for Assumptions in Appendix 4.

Table 9 – Perceived Quality by PL Type



Figure 3 - Perceived Quality by PL Type - Premium PL is significantly higher than standard PL

#### Perceived Quality by Branding Type

To examine if there are differences in the mean of the IV: branding type, an independent samples t-test compared perceived quality by branding type (see Appendix 5). The results show that there is no significant difference in the scores between store-branding (M=4,46, SD=1,16) and stand-alone branding (M=4,40, SD=1,28) conditions;  $t(185) = -0,297, p = 0,769$ . These results suggest that store-branding is not perceived higher in quality than stand-alone branding. The table and figure below summarize the results.

Perceived Quality by Branding Type				
DV	Branding Type	N	Mean	Std. Deviation
Perceived Quality	Store-branded PL	95	4,46	1,16
	Stand-alone branded PL	92	4,40	1,28

Notes: Tests for Assumptions in Appendix 5.

Table 10 – Perceived Quality by Branding Type

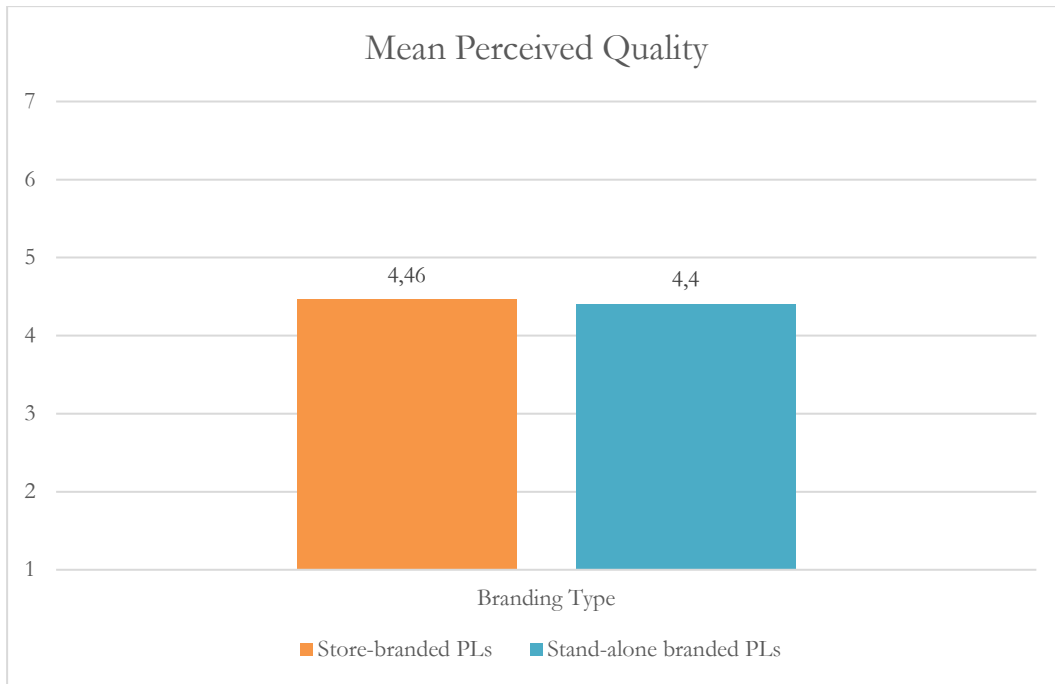


Figure 4 – Mean Perceived Quality by Branding Type – there is no significant difference between the two branding strategies

#### *Perceived Quality by PL Type and Branding Type*

A 2-way factorial ANCOVA examined the effect of PL type and branding type on perceived quality while controlling for the effect of store image perception (see Appendix 6). The purpose of the test was to verify the results of the previous tests by statistically controlling for the effects of store image perceptions as well as checking to see if there were an interaction effect between the two IV variables. ANCOVA is an appropriate test for examining means between groups while controlling for the effect of a covariate (Malhotra & Birks, 2003). The design produced two main effects, one for PL type and one for branding type, as well as an interaction effect between the two.

The results show that there is an insignificant interaction between the effects of PL type and branding type,  $F(1, 182) = 0,048, p = 0,827$  and an insignificant main effect of branding type,  $F(1, 182) = 0,371, p = 0,543$ . However, the results show that there is a significant main effect of PL type,  $F(1, 182) = 67,84, p = 0,000$ . The covariate store image is also significant,  $F(1,$

182) = 36,95,  $p = 0,000$ . An ANOVA was conducted afterward for result verification purposes and show similar results (see Appendix 6).

The results suggest that there are differences in perceptions of quality for consumers across the type of PL but not across the type of branding when controlling for store image perception. It appears that store-branding does not influence the respondents' perceived quality any differently than stand-alone branding does for either of the PL types. The group means along with the adjusted mean are summarized in the table and figure below.

Perceived Quality by PL Type and Branding Type					
PL Type	Branding Type	N	Mean	Adj. Mean*	Std. Deviation
Standard PL	SAB	46	3,76	3,79	1,01
	SB	49	3,88	3,91	0,96
Premium PL	SAB	46	5,04	5,00	1,21
	SB	46	5,06	5,05	1,05

Notes: Tests for Assumptions in Appendix 6  
 \* Covariate evaluated at: store image = 4,00

Table 11 – Perceived Quality by PL type and Branding Type

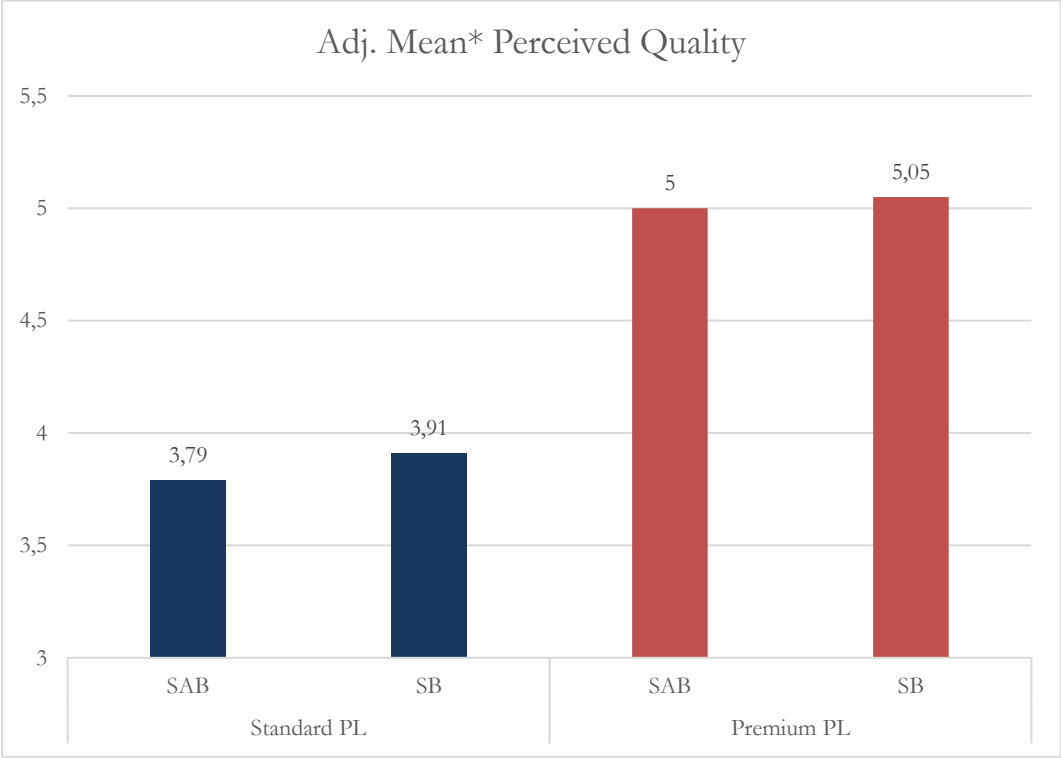


Figure 5 - Adj. Mean Perceived Quality by PL Type and Branding Type, \*Covariate evaluated at store image = 4,00

### *Store Attitudes and Product Attitudes*

To examine if store attitudes was appropriate to use as a covariate, the research examined the relationship between store attitudes and product attitudes. Since the two variables each had two dimensions: utilitarian and hedonic, multiple regressions were conducted for each of the two DVs and the covariates as the predictors (see Appendix 7). When “Product Attitude – Hedonic” was the DV, both covariates were significantly related to it. The beta value for Store Attitude – Hedonic was 0,199 which is significantly different from zero ( $t(185) = 2,162, p = 0,032$ ) and the beta value for Store Attitude – Utilitarian was 0,364 which also is significantly different from zero ( $t(185) = 4,154, p < 0,001$ ).

When “Product Attitude – Utilitarian” was the DV, both covariates were significantly related to it. The beta value for Store Attitude – Hedonic was 0,219 which is significantly different from zero ( $t(185) = 2,812, p = 0,005$ ) and the beta value for Store Attitude – Utilitarian was 0,259 which also is significantly different from zero ( $t(185) = 3,493, p = 0,001$ ). The results suggest that store attitudes explain variation in the DV: product attitudes and that it is appropriate to include as a covariate.

### *Product Attitudes by PL Type*

A one-way MANOVA examined if mean differences existed on the DVs: Product Attitude – Utilitarian; and Product Attitude - Hedonic by PL type (see Appendix 8). It is an appropriate statistical test to assess differences across multiple (correlated but non-multicollinear) DVs simultaneously (Malhotra & Birks, 2003). A Pearson r first assessed the relationship between the DVs. The results show that there is an appropriate correlation between the two DVs, Store Attitude - Utilitarian and Store Attitude - hedonic [ $r = 0,62, n = 187, p = 0,000$ ].

The results of the one-way MANOVA show that there is a statistically significant difference in product attitudes between the standard PL and the premium PL,  $F(2, 184) = 51,37, p < .0001$ ; Wilk's  $\Lambda = 0,642$ , partial  $\eta^2 = 0,36$ . Both utilitarian scores ( $F(1, 185) = 12,78; p < .0001$ ; partial

$\eta^2 = 0,065$ ) and hedonic scores ( $F(1, 185) = 94,8; p < .0001$ ; partial  $\eta^2 = 0,339$ ) are statistically significant different across the type of PL. Thus, there is a statistically significant difference across the levels of the IV variable, PL type, on a linear combination of the dependent variables, utilitarian and hedonic scores. These results suggest that consumers' product attitudes differ between standard PLs and premium PLs. The table and figure below summarize the results.

DVs	PL Type	N	Mean	Std. Deviation
Product Attitude - Utilitarian	Standard PL	95	3,3509	1,13234
	Premium PL	92	3,9565	1,18416
Product Attitude - Hedonic	Standard PL	95	3,0711	1,11307
	Premium PL	92	4,7147	1,19499

*Notes: Tests for Assumptions in Appendix 8*

Table 12 – Product Attitudes by PL Type – significant difference between standard PLs and premium PLs

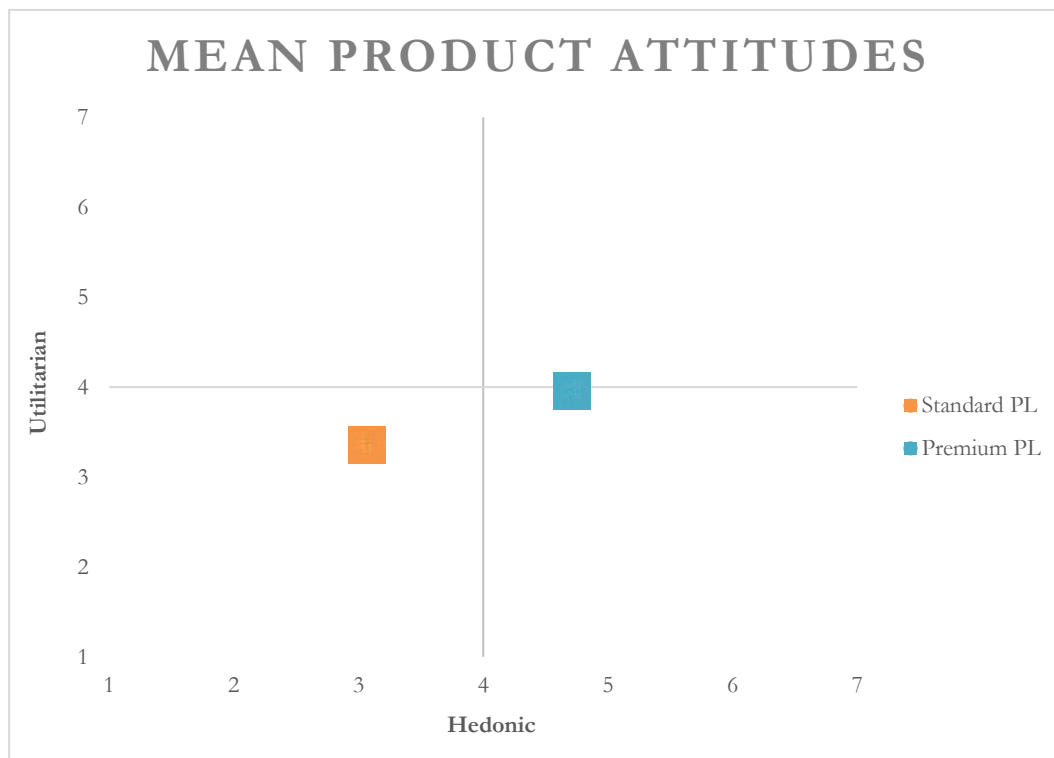


Figure 6 - Mean Product Attitudes by PL Type

*Product Attitudes by Branding Type*

A one-way MANOVA examined if mean differences existed on the DVs: Product Attitude – Utilitarian; and Product Attitude - Hedonic by branding type (see Appendix 9). The results of the test show that there is not a statistically significant difference in product attitudes between the store-branding and stand-alone branding,  $F(2, 184) = 1,458, p = 0,235$ ; Wilk's  $\Lambda = 0,984$ , partial  $\eta^2 = 0,016$ . Both utilitarian scores ( $F(1, 185) = 2,063; p = 0,153$ ; partial  $\eta^2 = 0,011$ ) and hedonic scores ( $F(1, 185) = 0,030; p = 0,863$ ; partial  $\eta^2 = 0,000$ ) are not significantly different across the type of branding. These results suggest that consumers' product attitudes do not differ between the two types of branding. The table and figure below summarize the results.

DVs	Branding Type	N	Mean	Std. Deviation
Product Attitude - Utilitarian	SAB	92	3,52	1,15
	SB	95	3,77	1,13
Product Attitude - Hedonic	SAB	92	3,86	1,49
	SB	95	3,87	1,34

*Notes: Tests for Assumptions in Appendix 9*

*Table 13 - Product Attitudes by Branding Type - no significant difference between the two branding strategies*

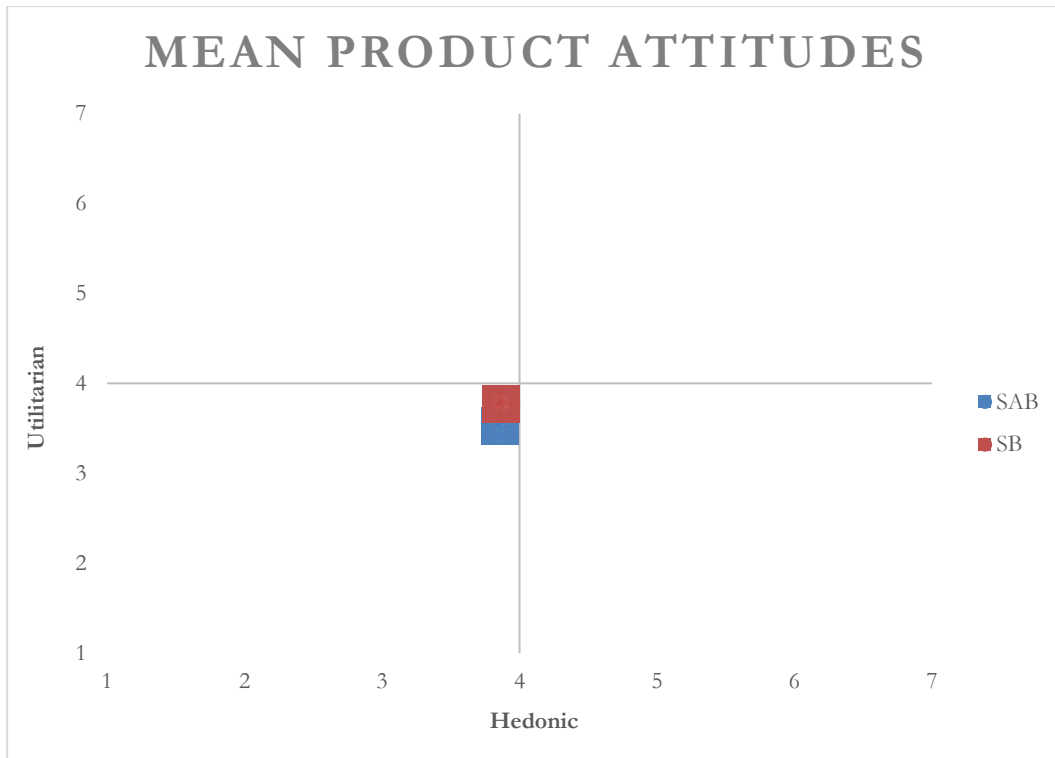


Figure 7 - Mean Product Attitudes by Branding Type

*Product Attitudes by PL Type and Branding Type*

A 2-way factorial MANCOVA examined the effect of PL type and branding type on product attitudes while controlling for the effect of store attitudes (see Appendix 10). The purpose of this test was to verify the results of the previous tests by statistically controlling for the effects of store attitudes as well as checking to see if there would be an interaction effect between the two IVs. This test is appropriate when there are two or more categorical IVs, two or more correlated but non-multicollinear continuous DVs, and one or more continuous covariates (Malhotra & Birks, 2003). The test produced two main effects, one for the PL type and one for the branding type, as well as an interaction effect between the two IVs while adjusting for differences in the covariates.

Based on Wilk’s Lambda criterion, the results show that both the covariates adjust the values of the outcome with statistical significance ( $p \leq 0,007$ ) and that there is a significant main effect for both the covariates on both product attitudes ( $p < 0,011$ ). The results also show that there is

a significant main effect of PL type ( $p < 0,001$ ), for both the DVs; product attitude - utilitarian ( $F(1, 181) = 11,19, p = 0,001, \text{partial } \eta^2 = 0,058$ ) and for product attitude - hedonic ( $F(1, 181) = 107,34, p < 0,001, \text{partial } \eta^2 = 0,372$ ). However, the main effect of branding type does not significantly affect the DVs ( $p = 0,191$ ), and neither does the interaction effect ( $p = 0,454$ ), after adjusting for the covariates. A MANOVA was conducted afterward for result verification purposes and show similar results (see Appendix 10)

These results suggest that the type of branding does not affect consumers' attitude towards the product for neither the standard PL nor the premium PL when adjustments are made for store attitude. The results also suggest that even when controlling for store attitudes, consumers' product attitudes for standard PLs and premium PLs are significantly different from each other. The table and figure below summarize the results.

Product Attitudes	PL Type	Branding Type	N	Mean	Adj. Mean*	Std. Deviation
Utilitarian	Standard PL	SAB	46	3,20	3,28	1,11
		SB	49	3,50	3,51	1,14
	Premium PL	SAB	46	3,85	3,75	1,30
		SB	46	4,07	4,06	1,06
Hedonic	Standard PL	SAB	46	2,92	3,02	1,03
		SB	49	3,21	3,23	1,18
	Premium PL	SAB	46	4,80	4,70	1,29
		SB	46	4,63	4,63	1,34

Notes: Tests for Assumptions Appendix 10.

\* Covariates evaluated at: store attitude utilitarian = 4,26 and store attitude hedonic = 3,54

Table 14 – Product Attitudes by PL type and Branding-type

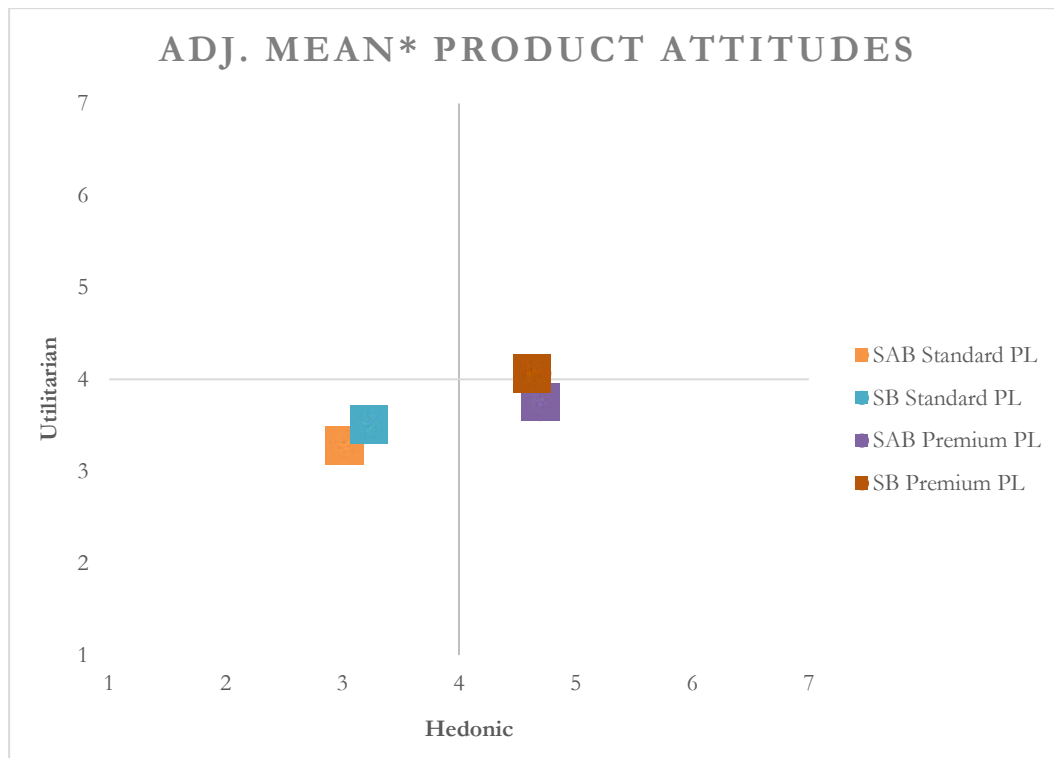


Figure 8 - Adj. Mean Product Attitudes by PL Type and Branding Type, \* Covariate store attitude, utilitarian = 4,26, and hedonic = 3,54

### Hypotheses Testing Results

The table below summarizes the results of the hypotheses. The statistical tests reject the null-hypotheses for H1 and H4, whereas the null-hypotheses for H2, H3, H5, and H6 are accepted.

Null Hypothesis	Description	Results
H1	There are no differences on perceived quality by the type of PL after controlling for store image perceptions	Rejected
H2	There are no differences on perceived quality by the type of branding after controlling for store image perceptions	Accepted
H3	The effect of branding type on consumers' perception of quality is the same for a standard PL and a premium PL after controlling for store image perceptions	Accepted
H4	There are no differences on product attitudes by the type of PL after controlling for store attitudes	Rejected
H5	There are no differences on product attitudes by the type of branding after controlling for store attitudes	Accepted
H6	The effect of branding type on consumers' product attitudes is the same for a standard PL and a premium PL after controlling for store attitudes	Accepted

Table 15 – Hypotheses Testing

#### 4.1.6 Further Analysis

Since the hypotheses testing showed that there were no differences in perceptions of quality and product attitudes for the SB strategy and the SAB strategy for either type of PLs, further analysis was conducted. The purpose of this analysis was to verify the results across different consumer segments. Potentially, consumers, segmented based on their store perceptions, would react differently to the two branding strategies (Collins-dodd & Lindley, 2003). The following section thus, first segments the consumers based on their store image perception and attitudes towards the store (together referred to as *store perceptions*). Afterward, to operationalize perceived quality and product attitudes as one construct, factor analysis was conducted to reduce the variables (referred to as *product perceptions*). The aim was to explore if there would be a significant interaction effect between segment type and branding type on product perceptions.

##### *Segmentation Based on Store Perception*

The purpose of this segmentation analysis is to classify respondents that are relatively homogeneous within themselves and heterogeneous between each other based on their store perceptions (the variables: store image; store attitude – hedonic; and store attitude – utilitarian) (Yim & Ramdeen, 2015). The hierarchical cluster analysis is based on Ward's Method, measured by the Squared Euclidian distance, and standardized ranging from -1 to 1 (see Appendix 11). The plotted agglomeration schedule (see Appendix 11) clearly shows that the first substantial increase in coefficient values is between the second-last and last case and thus that the appropriate number of clusters is two.

The table below shows the characteristics of the two segments regarding their perceived store image and store attitudes. The first segment, which has 71 cases, is named "Store Enthusiasts" and the second segment, which has 116 cases, is named "Store Pessimists."

Segment	Variable	Mean	Std. Deviation
Store Enthusiasts N = 71	Store Image	5,07	0,63
	Store Attitude - Utilitarian	5,51	0,66
	Store Attitude - Hedonic	4,65	0,91
Store Pessimists N = 116	Store Image	3,34	0,72
	Store Attitude - Utilitarian	3,49	1,06
	Store Attitude - Hedonic	2,85	0,96

Table 16 - Segment Characteristics - segments based on store perceptions

### Product Perceptions

To operationalize *product perceptions*, a factor analysis (principal component analysis with varimax rotation) reduced the three variables: perceived quality; product attitude – hedonic; and product attitude – utilitarian (see Appendix 11). Based on eigenvalues greater than 1, one factor was extracted (KMO = 0,613, Bartlett's  $p = 0,000$ ) with 73,06% of the total variance explained. The table below presents the product perceptions by segment type.

Variable	Segment	Mean	N	Std. Deviation	Min/Max
Product Perceptions (-3 to 3)	Store Enthusiasts	0,56	71	0,83	-0,83/2,68
	Store Pessimists	-0,35	116	0,94	-2,5/1,74

Table 17 – Product Perceptions by Segment Type

### Product Perceptions by Segment Type

Below, the table presents the results of a factorial ANOVA with three IVs: PL type; branding type; and segment type, and the DV: product perceptions (see Appendix 11 for full analysis). The primary interest of the analysis was to examine whether there would be an interaction between segment type and branding type. It was expected that a store-branded strategy would affect the product perceptions of the Store Enthusiasts more than the Store Pessimists.

PL Type	Branding Type	Segment	N	Mean	Std. Deviation
Standard PL	SAB	Store Enthusiasts	14	-0,27	0,46
		Store Pessimists	32	-0,79	0,87
	SB	Store Enthusiasts	16	0,17	0,57
		Store Pessimists	33	-0,70	0,76
Premium PL	SAB	Store Enthusiasts	21	1,11	0,62
		Store Pessimists	25	0,04	0,97
	SB	Store Enthusiasts	20	0,89	0,81
		Store Pessimists	26	0,29	0,67

Table 18 – Product Perceptions by Branding Type, Segment Type, and PL Type

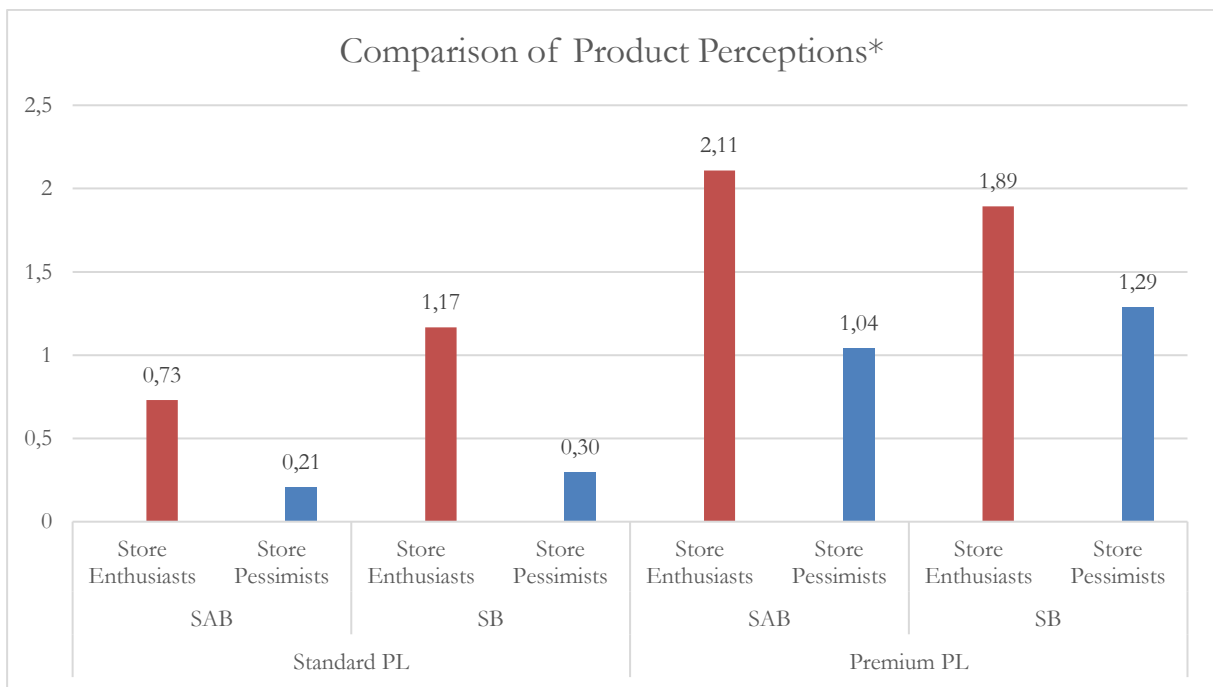


Figure 9 - Product Perceptions by PL type, Branding type, and Segment type, \* Values are mean product perceptions + 1 for illustrative purposes

Although the results show that there is a significant main effect of segment type  $F(1, 179) = 43,41$ ,  $p = 0,000$ , the interaction between segment type and branding type is insignificant  $F(1, 179) = 0,061$ ,  $p = 0,805$ . The results mean that there is no significant interaction between segment type and branding type regarding the product perceptions, i.e., a store-branded strategy does not affect the product perceptions of the Store Enthusiasts more than the Store Pessimists.

## 4.2 Discussion

The results surprisingly showed that there were no differences on consumers' perception of quality or product attitudes across the two tested PL branding strategies, store-branding, and stand-alone branding, for both the standard PL and the premium PL. These results are surprising and not as expected. Based on the literature of cue utilization theory, it was expected that the SB strategy would affect consumers' product perceptions more strongly than the SAB strategy. The reason is, that brand name repeatedly has been found to be an extrinsic cue that positively affects consumers' perceptions (Grewal et al., 1998; Rigaux-Bricmont, 1982; Teas & Agarwal, 2000). The extrinsic cue of brand name generally has a high CV because it is easy to understand and recognize and serves as a *summary construct* for consumers (Richardson et al., 1994; Teas & Agarwal, 2000). Generally, only when cues have a high PV as well as a high CV, are they used in the quality-judgment (Olson & Jacoby, 1972). However, in the absence of cues with both high PV and CV, consumers must choose between other cues with either high PV and low CV or low PV and high CV (Schellink, 1983). In the context of CPG cues with high CV and low PV, such as brand name, are used more frequently, and it is therefore surprising that there are no differences on both perceived quality and product attitudes for the two types of branding strategies (Richardson et al., 1994). The findings thus suggest that the extrinsic cue of a retailer' brand name on the packaging of a product, is not used to infer the quality of a product nor does it affect consumers' product attitudes, for the tested product category and tested retailer.

Besides being surprising from the perspective of cue utilization theory, the results were also surprising from the perspective of brand extension literature (K. L. Keller & Aaker, 1990; Milberg, Sinn, & Goodstein, 2010; Völckner & Sattler, 2006). Based on Interbrand's "Top 50 European Retailers" list, Lidl was picked for this study as it was one of the European retailers with the highest brand equity (Interbrand, 2014; K. O. Keller et al., 2016). It was expected that the brand equity of Lidl would transfer to the brand extension, the SB PLs, which would be

evident by the differential effect on perceived quality and product attitudes between the PLs with the SB strategies and the PLs with the SAB strategies (Leclerc et al., 1994). As such, the brand equity of the parent brand, Lidl, was not transferred to the brand extension, the SB PLs (Bao et al., 2011; K. L. Keller & Aaker, 1990). A theoretical implication of these findings is that it is likely that store brand equity should be conceptualized differently from brand equity and that brand extension should be thought of differently for grocery retailers than for NBs (Beristain & Zorrilla, 2011; Hartman & Spiro, 2005). The reason for this is that “retailer brands are sufficiently different from product brands” and that the flow of equity is weaker for retailer brands than they are for product brands, due to their different qualities (Ailawadi & Keller, 2004, p. 332; Sayman & Raju, 2004).

## CHAPTER 5: CONCLUSIONS AND LIMITATIONS

The following section outlines the main findings, managerial and academic implications as well as the limitations and suggestions for further research.

### 5.1 Main Findings & Conclusions

This study set out to research how consumers' perception of quality and product attitudes differ based on the type of PL branding strategy and type of PL, in a European context. Based on the research problem, the research formulated and attempted to answer three RQs. This section details the main findings of each of the RQs.

#### 5.1.1 RQ1

**RQ1:** Based on literature related to cue utilization theory, how do grocery retailers' standard PLs differ from their premium PLs?

Based on prior research in the theoretical literature stream of cue utilization theory, this research identified four cues consistently associated with the quality-perception process of consumers. The four cues were price, packaging, advertising, and ingredients. The literature review found that standard PLs and premium PLs differed substantially on the four cues. Regarding price, standard PLs tend to be priced between 20 and 50 % lower than NBs whereas premium PLs are priced alike or even sometimes slightly higher than NBs. About the packaging characteristics, standard PLs tend to copy or even imitate the packaging characteristics of the leading NBs, whereas premium PLs distinguish themselves from other PLs and NBs by having unique-looking packaging designs made with quality materials. Regarding advertising, retailers do not feature their standard PLs in their advertisements but sometimes do with their premium PLs. Additionally, some retailers spend vast sums on their premium PLs by for instance making use of celebrity endorsements. Finally, standard PLs tend to have good quality ingredients comparable to mid-tier NBs, but these ingredients tend to be like those of NBs. Premium PLs,

on the other hand, offer very high-quality ingredients and often differentiate themselves based on innovative and unique ingredients.

#### 5.1.2 RQ2

**RQ2:** Are there differences on perceived quality by the type of branding (SB and SAB) and the type of PL (standard PL and premium PL) after controlling for store image perceptions?

The research can conclude that there are no differences in perceived quality by the type of branding. Several analyses were conducted to examine the RQ. However, there are no significant differences in the mean of perceived quality for store-branding compared to stand-alone branding. Branding type does therefore not have a main effect on perceived quality and does not significantly interact with PL type. There are, however, differences in perceived quality by the type of PL. As expected, premium PLs are judged to be superior in quality compared to the standard PLs. The difference in quality is likely due to the combined manipulation of price, advertising, packaging characteristics, and ingredients between the two types of PLs. Additionally, the analyses show that store image is moderately correlated with and has a significant effect of on perceived quality.

#### 5.1.3 RQ3

**RQ3:** Are there differences on product attitudes (utilitarian and hedonic) by the type of branding (SB and SAB) and the type of PL (standard PL and premium PL) after controlling for store attitudes (utilitarian and hedonic)?

This study did not find any significant difference in store attitudes by the type of branding. Branding type does therefore not have a main effect on product attitudes and does not significantly interact with PL type. These findings imply that consumers do not have different attitudes towards products based on the branding type for both PL types. However, the analyses did find that there are differences in product attitudes by the type of PL. Thus, the attitudes towards premium PLs are significantly different from the attitudes towards standard PLs.

Premium PLs are perceived significantly higher in both the utilitarian and hedonic dimension of consumer attitudes, with the difference in hedonic dimension being the most substantial. Additionally, the analyses show that store attitudes have a significant effect on product attitudes.

## 5.2 Managerial and Academic Implications

This section outlines the managerial and academic implications for the results of the study.

### 5.2.1 Managerial Implications

The findings of this research carry several critical managerial implications. First, the research successfully shows that by manipulating the price, packaging characteristics, advertising information, and ingredients, that consumers perceive products within the same product category as significantly different from each and with substantially different levels of quality. Retail managers can use these insights to develop and manage their multi-tier PL products and to successfully positioning their products in the right tier. They can also use these insights to support the fact that grocery retailers can create strong PL brands by investing in the same features that NBs invest in.

Secondly, the findings suggest that retailers should focus their attention on creating and maintaining favorable store attitudes and store images. Consumers' perceptions of the retailer influence product attitudes and perceived product quality regardless if products are store-branded or stand-alone branded. These findings are supported by the segmentation analysis which shows that when consumers are segmented based on their store perceptions, those with a favorable perception, have more positive product perceptions than those with less favorable store perceptions. Based on these findings, retailers should invest in creating a favorable store image as it can positively influence perceptions of their PL products.

### 5.2.2 Academic Implications

This research expands upon studies carried out in the literature stream of PLs by providing insights into consumers' perceptions of different PL branding strategies. Repeated calls have been made to understand better conditions under which PLs are more promising from a consumer's perspective (Ailawadi & Keller, 2004; Schnittka, 2015). This research can conclude that for the tested product category and grocery retailer, that the choice between a store-branded and stand-alone branded strategy does not have a significant impact on consumers' perception of quality. This research additionally contributes to the literature by accounting for the hedonic and utilitarian dimensions of consumer attitudes to understand consumers' perceived product positioning and categorization of PLs (Nenycz-Thiel & Romaniuk, 2016).

### 5.3 Limitations and Further Research

There are several limitations to this study. First, this research has used a non-probability sampling method which means that the sample is not representative of the target population. Additionally, the analysis suffers from a relatively small sample size which compromises the reliability and validity of the study. Further research should account for the sampling error and sampling bias by including a more extensive and representative sample and focus on potential differences across countries and cultures (K. O. Keller et al., 2016).

Due to limited time and resources, this research only studied one product category, one grocery retailer, and two tiers. Because of that, the generalizability of the results is very limited, and further research should investigate if the results apply to various retailers and product categories. More specifically, it would be interesting to see if the same results apply when comparing a discount retailer with an upscale retailer (Schnittka, 2015). It would also be interesting to see if the results vary across product categories that PLs traditionally have very low market shares in, such as cosmetics and beauty, and product categories that PLs traditionally have very high market shares in, such as dairy products (Nielsen, 2014). Finally,

including the lowest quality-tier, the economy PLs might also reveal different results (Geyskens et al., 2010).

This study has investigated consumers' product perceptions by looking at perceived quality and the hedonic and utilitarian dimensions of consumers' attitudes towards products. Although these two constructs account for a large variation in consumers' product perceptions, they do not explain the perceived sacrifice that consumers make in purchasing situations. Additionally, they do not explain the perceived value for money, which is an important part of consumers' decision-making process of CPG (Richardson et al., 1996). Further research might include the constructs of perceived sacrifice and perceived value by applying the conceptual model proposed by Teas and Agarwal (2000).

Another limitation of this study is that it did not manipulate the quality-cues: price; advertising; packaging; and ingredients individually and it is therefore not clear the extent to which each of the cues impacts consumers' product perceptions. Further research could address this by setting up a more extensive research design where the impact of each cue is assessed individually and in combination with the others.

Finally, the theoretical foundation on which this research is carried out relates primarily to cue utilization theory (Olson & Jacoby, 1972; Richardson et al., 1994). While this theory has been applied extensively to the understanding of cue usage for quality perception, it is used less for understanding consumers' product attitudes. The findings suggest that manipulation of quality-cues impact product attitudes but it is not clear theoretically how and why this is the case. Further research could explore the relationship between perceived quality and the hedonic and utilitarian dimensions of consumer attitudes and relate the concepts to cue usage.

## BIBLIOGRAPHY

- Aaker, D. A., Kumar, V., & Day, G. S. (1995). *Marketing Research* (5.). John Wiley & Sons, Inc.
- Ailawadi, K. L., & Harlam, B. (2004). An Empirical Analysis of the Determinants of Retail Margins: The Role of Store-Brand Share. *Journal of Marketing*, *68*, 147–165.
- Ailawadi, K. L., & Keller, K. L. (2004). Understanding Retail Branding: Conceptual Insights and Research Priorities. *Journal of Retailing*, *80*, 331–342.  
<https://doi.org/10.1016/j.jretai.2004.10.008>
- Ailawadi, K. L., Pauwels, K., & Steenkamp, J.-B. E. M. (2008). Private-Label Use and Store Loyalty. *Journal of Marketing*, *72*(November), 19–30.  
<https://doi.org/10.1509/jmkg.72.6.19>
- Babbie, E. R. (1973). *Survey Research Methods*. Belmont, California: Wadsworth Publishing Company, Inc.
- Bao, Y., Bao, Y., & Sheng, S. (2011). Motivating Purchase of Private Brands: Effects of Store Image, Product Signatureness, and Quality Variation. *Journal of Business Research*, *64*(2), 220–226. <https://doi.org/10.1016/j.jbusres.2010.02.007>
- Batra, R., & Ahtola, O. T. (1991). Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes. *Marketing Letters*, *2*(2), 159–170.  
<https://doi.org/10.1007/BF00436035>
- Beristain, J. J., & Zorrilla, P. (2011). The Relationship Between Store Image and Store Brand Equity: A Conceptual Framework and Evidence from Hypermarkets. *Journal of Retailing and Consumer Services*, *18*(6), 562–574.  
<https://doi.org/10.1016/j.jretconser.2011.08.005>
- Braak, A. ter, Geyskens, I., & Dekimpe, M. G. (2014). Taking Private Labels Upmarket: Empirical Generalizations on Category Drivers of Premium Private Label Introductions. *Journal of Retailing*, *90*(2), 125–140. <https://doi.org/10.1016/j.jretai.2014.01.003>
- Brown, J. D. (1997). Skewness and Curtosis. Retrieved May 25, 2018, from [http://hosted.jalt.org/test/bro\\_1.htm](http://hosted.jalt.org/test/bro_1.htm)
- Collins-dodd, C., & Lindley, T. (2003). Store Brands and Retail Differentiation: The Influence of Store Image and Store Brand Attitude on Store Own Brand Perceptions. *Retailing and Consumer Services*, *10*, 345–352.
- Conn, C. (2005). Innovation in Private-Label Branding. *Design Management Review*, *16*(2), 55–62.
- Corstjens, M., & Lal, R. (2000). Building Store Loyalty Through Store Brands. *Journal of Marketing Research*, *37*(3), 281–291. <https://doi.org/10.1509/jmkr.37.3.281.18781>
- Cox, D. F. (1967). The Sorting Rule Model of the Consumer Product Evaluation Process. *Risk Taking and Information Handling in Consumer Behavior*.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Approaches*

- (3rd Edition). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. <https://doi.org/10.2307/1523157>
- Dawes, J., & Nenycz-Thiel, M. (2013). Analyzing the Intensity of Private Label Competition Across Retailers. *Journal of Business Research*, 66(1), 60–66. <https://doi.org/10.1016/j.jbusres.2011.07.023>
- De Vaus, D. (2002). *Surveys in Social Research* (5th ed.). New York: Routledge.
- Dhar, R., & Wertenbroch, K. (2000). Consumer Choice Between Hedonic and Utilitarian Goods. *Journal of Marketing Research*, 37(1), 60–71. <https://doi.org/10.1509/jmkr.37.1.60.18718>
- Dhar, S. K., & Hoch, S. J. (1997). Why Store Brand Penetration Varies by Retailer. *Marketing Science*, 16(3), 208–227. <https://doi.org/10.1287/mksc.16.3.208>
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of Price, Brand, and Store Information on Buyers' Product Evaluations. *Journal of Marketing Research*, XXVIII(1), 307–319. <https://doi.org/10.3102/00346543067001043>
- Geyskens, I., Gielens, K., & Gijsbrechts, E. (2010). Proliferating Private-Label Portfolios: How Introducing Economy and Premium Private Labels Influences Brand Choice. *Journal of Marketing Research*, 47(5), 791–807. <https://doi.org/10.1509/jmkr.47.5.791>
- Gielens, K. (2012). New Products: The Antidote to Private Label Growth? *Journal of Marketing Research*, 49(3), 408–423. <https://doi.org/10.1509/jmr.10.0183>
- Gliem, J. A., & Gliem, R. R. (2003). Calculating, Interpreting, and Reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales. In *2003 Midwest Research to Practice Conference in Adult, Continuing, and Community Education* (pp. 82–88). <https://doi.org/10.1109/PROC.1975.9792>
- Gotlieb, J. B., & Sarel, D. (1992). The Influence of Type of Advertisement, Price, and Source Credibility on Perceived Quality. *Journal of the Academy of Marketing Science*, 20(3), 253–260. <https://doi.org/10.1007/BF02723412>
- Grewal, D., Krishnan, R., Baker, J., & Borin, N. (1998). The Effect of Store Name, Brand Name and Price Discounts on Consumers' Evaluations and Purchase Intentions. *Journal of Retailing*, 74(3), 331–352. [https://doi.org/10.1016/S0022-4359\(99\)80099-2](https://doi.org/10.1016/S0022-4359(99)80099-2)
- Hartman, K. B., & Spiro, R. L. (2005). Recapturing Store Image in Customer-Based Store Equity: A Construct Conceptualization. *Journal of Business Research*, 58(8), 1112–1120. <https://doi.org/10.1016/j.jbusres.2004.01.008>
- Hökelekli, G., Lamey, L., & Verboven, F. (2017). Private Label Line Proliferation and Private Label Tier Pricing: A New Dimension of Competition Between Private Labels and National Brands. *Journal of Retailing and Consumer Services*, 36(November 2016), 39–52. <https://doi.org/10.1016/j.jretconser.2016.12.014>
- Hoskins, J. D. (2016). Offering value and capturing surplus: A strategy for private label sales in a new customer loyalty building scenario. *Journal of Retailing and Consumer Services*, 28, 274–280. <https://doi.org/10.1016/j.jretconser.2015.06.006>
- Inman, J. J., Shankar, V., & Ferraro, R. (2004). The Roles of Channel-Category Associations

- and Geodemographics in Channel Patronage. *Journal of Marketing*, 68(2), 51–71. <https://doi.org/10.1509/jmkg.68.2.51.27789>
- Interbrand. (2014). *Best Retail Brands*.
- Jacoby, J., Olson, J. C., & Haddock, R. A. (1971). Price, Brand Name, and Product Composition Characteristics as Determinants of Perceived Quality. *Journal of Applied Psychology*, 55(6), 570–579. <https://doi.org/10.1037/h0032045>
- Keller, K. L. (2008). *Strategic Brand Management*. Pearson (Vol. 58). <https://doi.org/10.2307/1252315>
- Keller, K. L., & Aaker, D. A. (1990). Consumer Evaluations of Brand Extensions. *Journal of Marketing*, 54(January), 27–41. <https://doi.org/10.1108/03090560110363391>
- Keller, K. L., & Aaker, D. A. (1992). The Effects of Sequential Introduction of Brand Extension. *Journal of Marketing Research*, 35–50.
- Keller, K. O., Dekimpe, M. G., & Geyskens, I. (2016). Let Your Banner Wave? Antecedents and Performance Implications of Retailers' Private-Label Branding Strategies. *Journal of Marketing*, 80(4), 1–19. <https://doi.org/10.1509/jm.15.0154>
- Kirmani, A., & Wright, P. (1989). Money Talks: Perceived Advertising Expense and Expected Product Quality. *Journal of Consumer Research*, 16(3), 344. <https://doi.org/10.1086/209220>
- Kumar, N., & Steenkamp, J.-B. E. M. (2007). *Private Label Strategy: How to Meet the Store Brand Challenge* (1st ed.). Harvard Business Review Press.
- Lamey, L., Deleersnyder, B., Dekimpe, M. G., & Steenkamp, J.-B. E. M. (2007). How Business Cycles Contribute to Private-Label Success: Evidence from the United States and Europe. *Journal of Marketing*, 71(1), 1–15. <https://doi.org/10.1509/jmkg.71.1.1>
- Leclerc, F., Schmitt, B. H., & Dubé, L. (1994). Foreign Branding and Its Effects on Product Perceptions and Attitudes. *Journal of Marketing Research*, XXXI, 263–270.
- Lee, D., & Hyman, M. R. (2008). Hedonic/Functional Congruity Between Stores and Private Label Brands. *The Journal of Marketing Theory and Practice*, 16(3), 219–232. <https://doi.org/10.2753/MTP1069-6679160303>
- Levy, M., & Weitz, B. A. (2004). *Retailing Management*. McGraw-Hill/Irwin.
- Malhotra, N., & Birks, D. F. (2003). *Marketing Research - An Applied Approach* (3rd ed.). Essex, England: Prentice Hall Inc.
- McDaniel, C., & Baker, R. C. (1977). Convenience Food Packaging and the Perception of Product. *Journal of Marketing*, 41(4), 57. <https://doi.org/10.2307/1250234>
- Milberg, S. J., Sinn, F., & Goodstein, R. C. (2010). Consumer Reactions to Brand Extensions in a Competitive Context: Does Fit Still Matter? *Journal of Consumer Research*, 37(3), 543–553. <https://doi.org/10.1086/653099>
- Miyazaki, A. D., Grewal, D., & Goodstein, R. C. (2005). The Effect of Multiple Extrinsic Cues on Quality Perceptions: A Matter of Consistency. *Journal of Consumer Research*, 32(1), 146–153. <https://doi.org/10.1086/429606>

- Moorthy, S., & Zhao, H. (2000). Advertising Spending and Perceived Quality. *Marketing Letters*, 11(3), 221–232. <https://doi.org/10.1023/a:1008135126025>
- Nenycz-Thiel, M., & Romaniuk, J. (2016). Understanding Premium Private Labels: A Consumer Categorisation Approach. *Journal of Retailing and Consumer Services*, 29, 22–30. <https://doi.org/10.1016/j.jretconser.2015.10.008>
- Nielsen. (2014). *The State of Private Label Around the World*.
- Okada, E. M. (2005). Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods. *Journal of Marketing Research*, 42(1), 43–53. <https://doi.org/10.1509/jmkr.42.1.43.56889>
- Olson, J. C., & Jacoby, J. (1972). Cue Utilization in the Quality Perception Process. In *Proceedings of the Third Annual Conference of the Association for Consumer Research* (pp. 167–179). Chicago, IL: Association for Consumer Research. <https://doi.org/10.1108/eb026082>
- Pauwels, K., & Srinivasan, S. (2004). Who Benefits from Store Brand Entry? *Marketing Science*, 23(3), 364–390. <https://doi.org/10.1287/mksc.1030.0036>
- Rao, A. R. (2005). The Quality of Price as a Quality Cue. *Journal of Marketing Research*, 42(4), 401–405. <https://doi.org/10.1509/jmkr.2005.42.4.401>
- Rao, A. R., & Monroe, K. B. (1989). The Effect of Price, Brand Name, and Store Name on Buyers' perceptions of Product Quality: An Integrative Review. *Journal of Marketing Research*, XXVI(1), 351–357.
- Richardson, P. S., Dick, A. S., & Jain, A. K. (1994). Extrinsic and Intrinsic Cue Effects on Perceptions of Store Brand Quality. *Journal of Marketing*, 58(4), 28. <https://doi.org/10.2307/1251914>
- Richardson, P. S., Jain, A. K., & Dick, A. S. (1996). Household Store Brand Proneness: A Framework. *Journal of Retailing*, 72(2), 159–185.
- Rigaux-Bricmont, B. (1982). Influences of Brand Name and Packaging on Perceived Quality. In *Advances in Consumer Research Volume 9* (pp. 472–477). Retrieved from <http://acrwebsite.org/volumes/6050/volumes/v09/NA-09>
- Saunders, M., Lewis, P., & Thornhill, A. (2008). *Research Methods for Business Students*. *Research methods for business students*. <https://doi.org/10.1007/s13398-014-0173-7.2>
- Sayman, S., Hoch, S. J., & Raju, J. S. (2002). Positioning of Store Brands. *Marketing Science*, 21(4), 378–397. <https://doi.org/10.1287/mksc.21.4.378.134>
- Sayman, S., & Raju, J. S. (2004). Investigating the Cross-Category Effects of Store Brands. *Review of Industrial Organization*, 24(2), 129–141. <https://doi.org/10.1023/B:REIO.0000033349.67467.b7>
- Schellink, D. A. (Tony). (1983). *Cue Choice As a Function of Time Pressure and Perceived Risk*. *Advances in Consumer Research Volume 10*.
- Schnittka, O. (2015). Are They Always Promising? An Empirical Analysis of Moderators Influencing Consumer Preferences for Economy and Premium Private Labels. *Journal of*

- Retailing and Consumer Services*, 24(C), 94–99.  
<https://doi.org/10.1016/j.jretconser.2015.02.006>
- Semeijn, J., Riel, A. C. R. van, & Ambrosini, A. B. (2004). Consumer Evaluations of Store Brands: Effects of Store Image and Product Attributes. *Journal of Retailing and Consumer Services*, 11, 247–258. [https://doi.org/10.1016/S0969-6989\(03\)00051-1](https://doi.org/10.1016/S0969-6989(03)00051-1)
- Steenkamp, J.-B. E. M. (1989). *Product quality. An Investigation Into the Concept and How It Is Perceived By Consumers* (1st ed.). Maastricht: Wageningen.  
[https://doi.org/10.1016/0167-8116\(89\)90056-6](https://doi.org/10.1016/0167-8116(89)90056-6)
- Steenkamp, J.-B. E. M., Van Heerde, H. J., & Geyskens, I. (2010). What Makes Consumers Willing to Pay a Price Premium for National Brands over Private Labels? *Journal of Marketing Research*, 47(6), 1011–1024. <https://doi.org/10.1509/jmkr.47.6.1011>
- Teas, R. K., & Agarwal, S. (2000). The Effects of Extrinsic Product Cues on Consumers' Perceptions of Quality, Sacrifice, and Value. *Journal of the Academy of Marketing Science*, 28(2), 278–290. Retrieved from  
<http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?vid=1&sid=48471ff1-ea71-4ec3-b315-62ed1696c73f%40sessionmgr4005&hid=4203>
- ter Braak, A., Dekimpe, M. G., & Geyskens, I. (2013). Retailer Private-Label Margins: The Role of Supplier and Quality-Tier Differentiation. *Journal of Marketing*, 77(4), 86–103.  
<https://doi.org/10.1509/jm.11.0566>
- Völckner, F., & Sattler, H. (2006). Drivers of Brand Extension Success. *Journal of Marketing*, 70(2), 18–34. <https://doi.org/10.1509/jmkg.70.2.18>
- Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003). Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude. *Journal of Marketing Research*, 40(3), 310–320. <https://doi.org/10.1509/jmkr.40.3.310.19238>
- Yim, O., & Ramdeen, K. T. (2015). Hierarchical Cluster Analysis: Comparison of Three Linkage Measures and Application to Psychological Data. *The Quantitative Methods for Psychology*, 11(1), 8–21. <https://doi.org/10.20982/tqmp.11.1.p008>
- Zeithaml, V. (1988). Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 52(3), 22.  
<https://doi.org/10.2307/1251446>

## APPENDICES

### Appendix 1 – The Survey Questionnaire

The screenshots below show the survey as the respondents saw them. A long line indicates a new page. The respondents were randomly grouped into four sections. All respondents saw the same information except for when indicated.



Hello and thank you for participating in this survey for my Master's Thesis as part of my MSc in Management with Specialization in Marketing at Católica-Lisbon SBE. Your contribution is truly appreciated.

The answers are strictly confidential and anonymous and will be used for the purposes of this study only. There are no right nor wrong answers, so please answer as truthfully as possible.

The survey takes approximately 2-3 minutes to complete.

If you would like the chance to win one of the two €30 gift cards, please enter your e-mail address at the end of the survey.

Once again, thank you!



Are you currently living or have you previously lived in a European country?

Yes

No





Have you ever purchased mayonnaise?

Yes

No



Do you grocery shop at least once per month?

Yes

No



The following section is about the grocery retailer Lidl



Please indicate how familiar you are with Lidl

	Far below average	Moderately below average	Slightly below average	Average	Slightly above average	Moderately above average	Far above average
My familiarity with Lidl is...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please answer the statements below according to how much you agree with them

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Lidl is close to my <u>'ideal'</u> store	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lidl has <u>helpful and knowledgeable</u> salespeople	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lidl provides an <u>attractive shopping experience</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lidl provides <u>good overall service</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall I have a <u>favorable view</u> of Lidl	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lidl is a <u>high performing</u> retailer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lidl carries <u>high quality merchandise</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate Lidl on each of the following dimensions

Uninterested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Interested
Non-essential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Essential
Superfluous (i.e. unnecessary)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Vital
Mundane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Fascinating
Not needed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Needed
Boring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Interesting
Unexciting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Exciting





Imagine that you are going to shop at your local Lidl store...



You pass the aisle with condiments and see Hellmann's Mayonnaise which is **priced at €3**



Then one of the four scenarios show:

1)

Next to Hellmann's you see the following **Product X** which is also **priced at €3**  
You suddenly remember that before you left your home to go grocery shopping, there was  
**an advertisement in the TV from Lidl, which featured Product X below.**



2)

Next to Hellmann's you see the following **Product X** which is also **priced at €3**  
You suddenly remember that before you left your home to go grocery shopping, there  
was **an advertisement in the TV from Lidl, which featured Product X below.**



3)

Next to Hellmann's you see the following **Product X** which is priced at €2



4)

Next to Hellmann's you see the following **Product X** which is priced at €2



Please look carefully at Product X...

Based on your impressions of Product X above, please rate the product on each of the following dimensions

		This product is...								
of very bad quality		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		of very good quality
an inferior product		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		a superior product
not at all reliable		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		very reliable
of low quality		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		of high quality

Based on your impressions of Product X above, please rate the product on each of the following dimensions

Unexciting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Exciting
Non-essential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Essential
Boring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Interesting
Superfluous (i.e. unnecessary)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Vital
Uninterested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Interested
Mundane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Fascinating
Not needed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Needed



Now please carefully consider the **packaging of Product X** and indicate your level of agreement with the two statements below.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The packaging of the product is <u>unique</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider the packaging to be <u>premium</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Here in the last part of the survey I would like to ask you a few questions about yourself.

How old are you?

Under 18

18 - 24

25 - 34

35 - 44

45 - 54

55 - 64

65 - 74

75 - 84

85 or older

What is your gender?

Male

Female

What is your nationality?

Portuguese

Danish

German

Italian

Spanish

British

Other,  
please  
indicate:

What is the highest education level you have received?

Less than  
high school  
degree

High school  
graduate or  
similar

Bachelor  
Degree

Master  
Degree /  
MBA or  
similar

Doctoral  
Degree / PhD

What is approximately your yearly gross income?

Less than €10,000

€10,000 - €19,999

€20,000 - €29,999

€30,000 - €39,999

€40,000 - €49,999

€50,000 - €59,999

€60,000 - €69,999

€70,000 - €79,999

€80,000 - €89,999

€90,000 - €99,999

€100,000 - €149,999

More than €150,000

I prefer not to answer

If you would like to participate in the draw of winning one of the €30 gift cards to either Amazon or FNAC, please enter your e-mail next to the gift card you would like to win







## Appendix 2 – Rotated Component Matrix from Factor Analysis

Below, the rotated component matrixes from the factor analysis are presented. They show that the utilitarian items fall into one dimension and the hedonic items fall into a separate dimension. The analysis was done to make sure that product attitudes is a two-dimensional construct and that it is measured accordingly.

### Store Attitude - Rotated Component Matrix

	Component	
	1	2
Store Utilitarian 1	,365	,827
Store Utilitarian 2	,292	,878
Store Utilitarian 3	,269	,902
Store Hedonic 1	,840	,369
Store Hedonic 2	,834	,290
Store Hedonic 3	,846	,359
Store Hedonic 4	,856	,211

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser

Normalization.

a. Rotation converged in 3 iterations.

### SB PL Attitude - Rotated Component Matrix<sup>a</sup>

	Component	
	1	2
PL SB Utilitarian 1	,276	,806
PL SB Utilitarian 2	,145	,904
PL SB Utilitarian 3	,389	,802
PL SB Hedonic 1	,743	,438
PL SB Hedonic 2	,816	,264
PL SB Hedonic 3	,912	,181
PL SB Hedonic 4	,899	,243

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

### SAB PPL Attitude - Rotated Component Matrix<sup>a</sup>

	Component	
	1	2
PPL SAB Utilitarian 1	,282	,866
PPL SAB Utilitarian 2	,241	,856
PPL SAB Utilitarian 3	,322	,854
PPL SAB Hedonic 1	,871	,336
PPL SAB Hedonic 2	,915	,232
PPL SAB Hedonic 3	,870	,255
PPL SAB Hedonic 4	,825	,336

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

### SAB PL Rotated Component Matrix<sup>a</sup>

	Component	
	1	2
PL SAB Utilitarian 1	,335	,899
PL SAB Utilitarian 2	,414	,842
PL SAB Utilitarian 3	,351	,843
PL SAB Hedonic 1	,692	,491
PL SAB Hedonic 2	,772	,438
PL SAB Hedonic 3	,896	,316
PL SAB Hedonic 4	,891	,310

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser

Normalization.

a. Rotation converged in 3 iterations.

### SB PPL Attitude - Rotated Component Matrix<sup>a</sup>

	Component	
	1	2
PPL SB Utilitarian 1	,157	,852
PPL SB Utilitarian 2	,187	,852
PPL SB Utilitarian 3	,240	,772
PPL SB Hedonic 1	,767	,473
PPL SB Hedonic 2	,884	,311
PPL SB Hedonic 3	,834	,328
PPL SB Hedonic 4	,824	-,025

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

### Appendix 3 – Store Image and Perceived Quality

A Pearson's r is a bivariate measure of the association between two variables. The correlation coefficient varies from 0 (no relationship) to 1/-1 (perfect positive/negative linear relationship). The association between perceived quality and store image is 0,389 which can be considered a moderate association. The result is statistically significant.

		Perceived Quality	Store Image Perception
Perceived Quality	Pearson Correlation	1	,389**
	Sig. (2-tailed)		,000
	N	187	187
Store Image Perception	Pearson Correlation	,389**	1
	Sig. (2-tailed)	,000	
	N	187	187

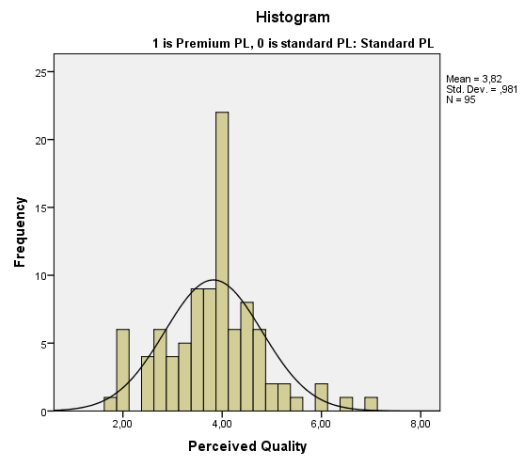
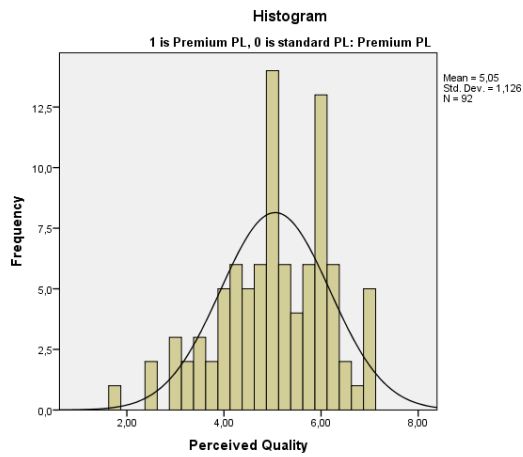
\*\* . Correlation is significant at the 0.01 level (2-tailed).

### Appendix 4 – Perceived Quality by PL Type

For an independent samples t-test, several assumptions must be checked. The assumption of normality assumes that the scores are normally distributed and is assessed using Shapiro-Wilk test of normality. The results of the test show that the data is not normally distributed. Because of that, the histograms are inspected, which show that the data appears normally distributed to an acceptable level. The assumption of homogeneity of variance assumes that both groups have equal variances and is assessed using Levene's Test for Equality of Error Variances. The results show that we can reject the null hypothesis and assume equal variances for both the groups. The assumption of no outliers assumes that there are no outliers on the DV by each level of the IV. Outliers are assessed by inspecting the box plots with marks outliers based on the inter-quartile range rule multiplier of 1,5 and 3. Four outliers are identified for the scores of the standard PL for the inter-quartile range rule multiplier of 1,5. The cases of the outliers are inspected and do not show any obvious case of lack of cooperation in their answers. Although the outliers compromise the results of the test, they are kept because they appear to be valid responses. Because the assumptions of normality and outliers are violated, we have to be careful with the interpretation and inferences made from the test. Below, the output tables for the assumptions tests as well as figures are shown.

Assumption of Normality:

	1 is Premium PL, 0 is standard PL	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Perceived Quality	,00	,123	95	,001	,962	95	,007
	1,00	,100	92	,023	,971	92	,035

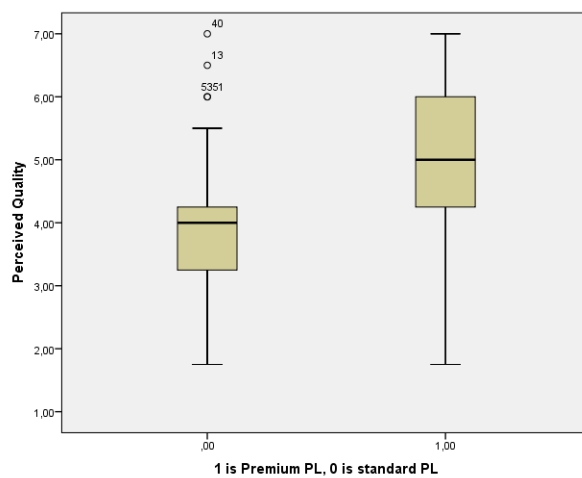


Assumption of Homogeneity of Error Variance:

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Perceived Quality	Equal variances assumed	2,774	,098	-7,974	185	,000	-1,23066	,15434	-1,53515	-,92617
	Equal variances not assumed			-7,956	179,849	,000	-1,23066	,15468	-1,53589	-,92544

Assumption of No Outliers:



## Appendix 5 – Perceived Quality by Branding Type

For an independent samples t-test, several assumptions must be checked. The assumption of normality assumes that the scores are normally distributed and is assessed using Shapiro-Wilk test of normality. The results of the test show that the data is normally distributed. The assumption of homogeneity of variance assumes that both groups have equal variances and is assessed using Levene's Test for Equality of Error Variances. The results show that we can reject the null hypothesis and assume equal variances for both the groups. The assumption of no outliers assumes that there are no outliers on the DV by each level of the IV. Outliers are assessed by inspecting the box plots with marks outliers based on the inter-quartile range rule multiplier of 1,5 and 3. No outliers are identified.

### Assumption of Normality:

	1 is SB, 0 is SAB	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Perceived Quality	SAB	,123	92	,001	,976	92	,083
	SB	,067	95	,200*	,983	95	,246

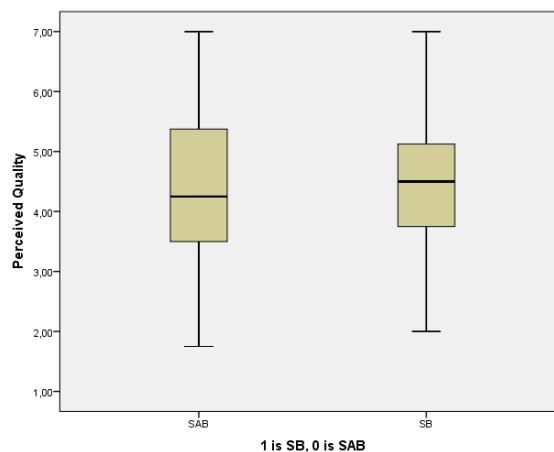
\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### Assumption of Homogeneity of Error Variance:

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Perceived Quality	Equal variances assumed	1,356	,246	-,297	185	,767	-,05309	,17886	-,40596	,29978
	Equal variances not assumed			-,296	182,092	,767	-,05309	,17913	-,40654	,30036

### Assumption of No Outliers:



## Appendix 6 – Perceived Quality by PL Type and Branding Type

For an ANCOVA several assumptions must be checked. The assumption of normality assumes that the scores are normally distributed and is assessed using Shapiro-Wilk test of normality. The results of the normality tests can be seen in Appendix 4 and Appendix 5. The assumption of homogeneity of variance assumes that both groups have equal variances and is assessed using Levene's Test for Equality of Error Variances. The results show that we can reject the null hypothesis and assume equal variances across the groups. The assumption of homogeneity of regression slopes assumes that the relationship between the DV and the covariate does not vary across groups. To assess the homogeneity of regression slopes, an ANCOVA is run to assess if there is an interaction between the IVs and the covariate. The results show that the interactions are not significant and therefore that the relationship between the DV and the covariate does not vary across the groups. Outliers are assessed by inspecting the box plots with marks outliers based on the inter-quartile range rule multiplier of 1,5 and 3. See Appendix 4 and Appendix 5 for the assumption of no outliers.

### Assumption of Homogeneity of Error Variance:

**Levene's Test of Equality of Error Variances<sup>a</sup>**

Dependent Variable: Perceived Quality

F	df1	df2	Sig.
1,912	3	183	,129

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.  
a. Design: Intercept + Store\_Image + Premium\_PL + SB + Premium\_PL \* SB

### Homogeneity of Regression slopes:

**Tests of Between-Subjects Effects**

Dependent Variable: Perceived Quality

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	105,851 <sup>a</sup>	3	35,284	37,782	,000	,382
Intercept	101,241	1	101,241	108,410	,000	,372
Premium_PL	2,148	1	2,148	2,300	,131	,012
Store_Image	34,803	1	34,803	37,268	,000	,169
PL Type * Store_Image	,400	1	,400	,428	,514	,002
Error	170,897	183	,934			
Total	3945,188	187				
Corrected Total	276,749	186				

a. R Squared = ,382 (Adjusted R Squared = ,372)

**Tests of Between-Subjects Effects**

Dependent Variable: Perceived Quality

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	42,143 <sup>a</sup>	3	14,048	10,958	,000	,152
Intercept	88,970	1	88,970	69,400	,000	,275
Store_Image	41,383	1	41,383	32,280	,000	,150
SB	,033	1	,033	,026	,872	,000
Brand Type * Store_Image	,004	1	,004	,003	,957	,000
Error	234,605	183	1,282			
Total	3945,188	187				
Corrected Total	276,749	186				

a. R Squared = ,152 (Adjusted R Squared = ,138)

## Results:

### ANCOVA - Tests of Between-Subjects Effects

Dependent Variable: Perceived Quality

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	105,849 <sup>a</sup>	4	26,462	28,181	,000	,382
Intercept	101,639	1	101,639	108,241	,000	,373
Store_Image	34,700	1	34,700	36,954	,000	,169
PL Type	63,704	1	63,704	67,842	,000	,272
Branding Type	,348	1	,348	,371	,543	,002
PL Type * Branding Type	,045	1	,045	,048	,827	,000
Error	170,899	182	,939			
Total	3945,188	187				
Corrected Total	276,749	186				

a. R Squared = ,382 (Adjusted R Squared = ,369)

### ANCOVA - 4. PL Type \* Brand Type

Dependent Variable: Perceived Quality

1 is Premium PL, 0 is standard PL	1 is SB, 0 is SAB	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Standard PL	SAB	3,793 <sup>a</sup>	,143	3,511	4,076
	SB	3,911 <sup>a</sup>	,139	3,638	4,184
Premium PL	SAB	4,995 <sup>a</sup>	,143	4,713	5,278
	SB	5,051 <sup>a</sup>	,143	4,769	5,333

a. Covariates appearing in the model are evaluated at the following values: Store Image Perception = 4,0008.

### ANOVA - Tests of Between-Subjects Effects

Dependent Variable: Perceived Quality

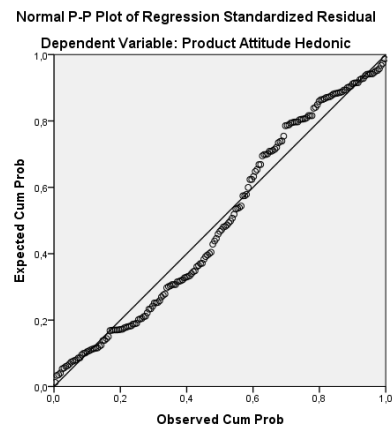
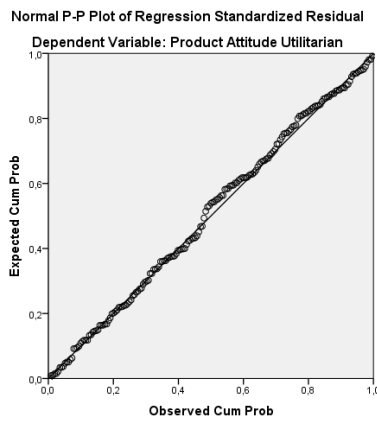
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	71,149 <sup>a</sup>	3	23,716	21,109	,000	,257
Intercept	3680,458	1	3680,458	3275,899	,000	,947
PL Type	70,973	1	70,973	63,171	,000	,257
Branding Type	,241	1	,241	,214	,644	,001
PL Type * Branding Type	,117	1	,117	,104	,747	,001
Error	205,600	183	1,123			
Total	3945,188	187				
Corrected Total	276,749	186				

a. R Squared = ,257 (Adjusted R Squared = ,245)

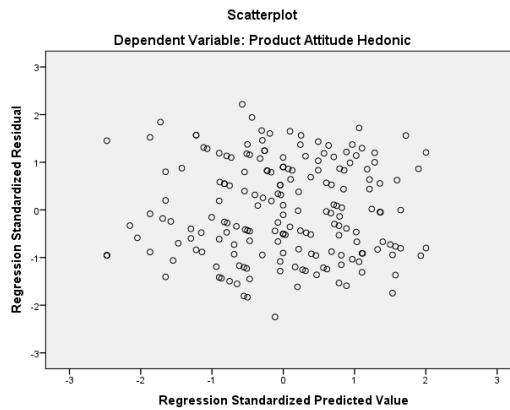
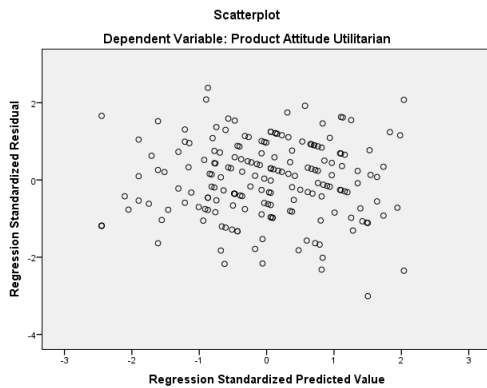
## Appendix 7 – Store Attitudes and Product Attitudes

The primary purpose of the multiple regression is to assess if the two variables: Store Attitude – Hedonic and Store Attitude – Utilitarian significantly affect the two DVs: Product Attitude – Hedonic and Product Attitude – Utilitarian. For the multiple regressions, several assumptions must be checked. First, the assumption of normality is assessed by interpreting the normal P-P plots. In both cases, the residuals of the regression are normally distributed as they do not deviate a lot. The assumption of homoscedasticity is assessed by interpreting the scatterplot of the residuals. In both cases, the data does not have any obvious patterns, and it is distributed equally above and below on the x-axis and on the y-axis. Finally, the assumption of absence of multicollinearity is assessed by interpreting the VIF values. In both cases, the values are below 10, and the assumption is therefore met.

## Assumption of Normality:



## Assumption of homoscedasticity:



## Assumption of multicollinearity and t-test:

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1,772	,267		6,650	,000		
Store Attitude Utilitarian	,259	,074	,293	3,493	,001	,597	1,675
Store Attitude Hedonic	,219	,078	,236	2,812	,005	,597	1,675

a. Dependent Variable: Product Attitude Utilitarian

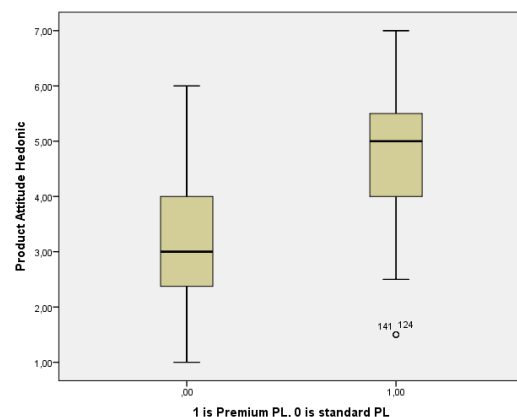
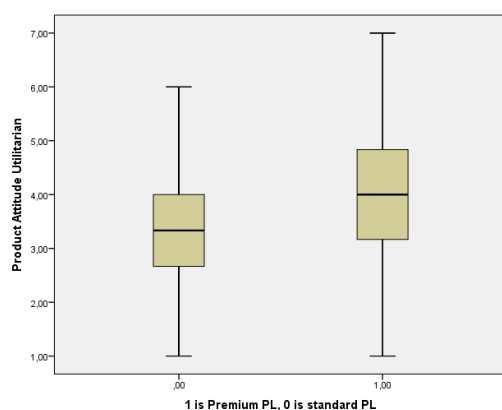
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1,626	,315		5,161	,000		
Store Attitude Utilitarian	,364	,088	,347	4,154	,000	,597	1,675
Store Attitude Hedonic	,199	,092	,181	2,162	,032	,597	1,675

a. Dependent Variable: Product Attitude Hedonic

## Appendix 8 – Product Attitudes by PL type

To perform a one-way MANOVA, several assumptions have to be checked. The assumption of no outliers assumes that there are no outliers on the DVs by each level of the IV. Outliers are assessed by inspecting the box plots which marks outliers based on the inter-quartile range rule multiplier of 1,5 and 3. Four outliers are identified for the scores of the standard PL for the inter-quartile range rule multiplier of 1,5. The cases of the outliers are inspected and do not show any obvious case of lack of cooperation in their answers. Although the outliers compromise the results of the test, they are kept because they appear to be valid responses. The assumption of normality assumes that the scores are normally distributed and is assessed using Shapiro-Wilk test of normality. The results of the test show that the data is not normally distributed for Product Attitude – Hedonic for the Premium PL. Because of that, the histogram is inspected, which show that the data appears normally distributed to an acceptable level. Next, the assumption of a linear relationship between each pair of the DVs for each group of the IV is assessed by interpreting scatterplots. The scatterplots indicate that there are linear relationships for both. The assumption of variance/covariance matrices is assessed by interpreting Box’s M test of equality of covariance. The results show that  $p > 0,001$  and the assumption is met. Finally, the assumption of no multicollinearity is checked by assessing bivariate correlation analysis with Pearson’s  $r$ . The DVs are moderately related, and the assumption is met.

Assumption of no outliers:

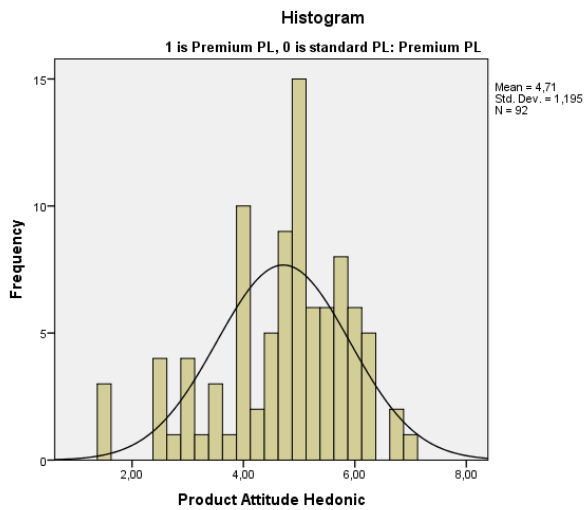


Assumption of normality:

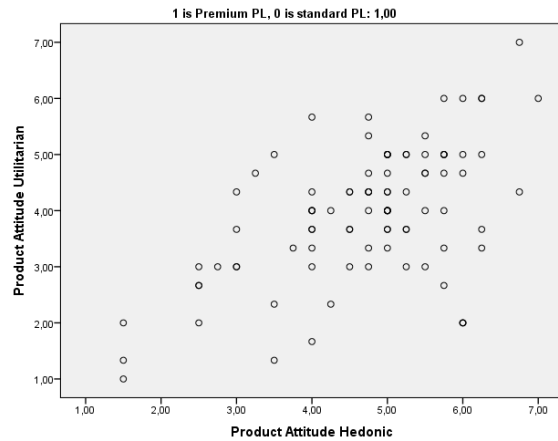
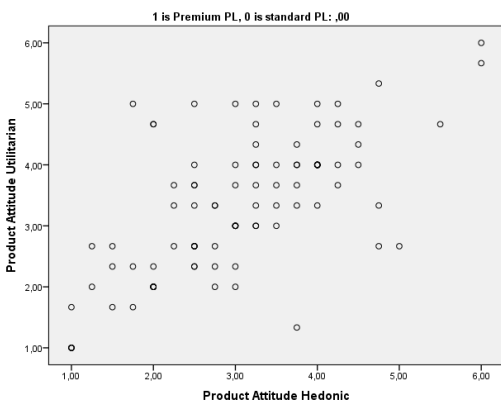
		Tests of Normality						
		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk			
	PL Type	Statistic	df	Sig.	Statistic	df	Sig.	
Product Attitude Utilitarian	Standard PL	,106	95	,010	,979	95	,131	
	Premium PL	,091	92	,059	,982	92	,232	
Product Attitude Hedonic	Standard PL	,064	95	,200*	,981	95	,180	
	Premium PL	,142	92	,000	,951	92	,002	

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction



**Assumption of Linear Relationship:**



**Assumption of Variance/Covariance Matrices:**

**Box's Test of Equality of Covariance Matrices<sup>a</sup>**

Box's M	3,758
F	1,238
df1	3
df2	6370555,129
Sig.	,294

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Premium\_PL

**Assumption of absence of multicollinearity:**

**Correlations**

		Product Attitude Utilitarian	Product Attitude Hedonic
Product Attitude Utilitarian	Pearson Correlation	1	,624**
	Sig. (2-tailed)		,000
	N	187	187
Product Attitude Hedonic	Pearson Correlation	,624**	1
	Sig. (2-tailed)	,000	
	N	187	187

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

## Results:

### Descriptive Statistics

	PL Type	Mean	Std. Deviation	N
Product Attitude Utilitarian	Standard PL	3,3509	1,13234	95
	Premium PL	3,9565	1,18416	92
	Total	3,6488	1,19424	187
Product Attitude Hedonic	Standard PL	3,0711	1,11307	95
	Premium PL	4,7147	1,19499	92
	Total	3,8797	1,41548	187

### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	,931	1239,394 <sup>b</sup>	2,000	184,000	,000	,931
	Wilks' Lambda	,069	1239,394 <sup>b</sup>	2,000	184,000	,000	,931
	Hotelling's Trace	13,472	1239,394 <sup>b</sup>	2,000	184,000	,000	,931
	Roy's Largest Root	13,472	1239,394 <sup>b</sup>	2,000	184,000	,000	,931
PL Type	Pillai's Trace	,358	51,373 <sup>b</sup>	2,000	184,000	,000	,358
	Wilks' Lambda	,642	51,373 <sup>b</sup>	2,000	184,000	,000	,358
	Hotelling's Trace	,558	51,373 <sup>b</sup>	2,000	184,000	,000	,358
	Roy's Largest Root	,558	51,373 <sup>b</sup>	2,000	184,000	,000	,358

a. Design: Intercept + Premium\_PL

b. Exact statistic

### Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Product Attitude Utilitarian	17,144 <sup>a</sup>	1	17,144	12,782	,000	,065
	Product Attitude Hedonic	126,262 <sup>b</sup>	1	126,262	94,797	,000	,339
Intercept	Product Attitude Utilitarian	2495,718	1	2495,718	1860,748	,000	,910
	Product Attitude Hedonic	2833,141	1	2833,141	2127,107	,000	,920
PL Type	Product Attitude Utilitarian	17,144	1	17,144	12,782	,000	,065
	Product Attitude Hedonic	126,262	1	126,262	94,797	,000	,339
Error	Product Attitude Utilitarian	248,130	185	1,341			
	Product Attitude Hedonic	246,406	185	1,332			
Total	Product Attitude Utilitarian	2755,000	187				
	Product Attitude Hedonic	3187,375	187				
Corrected Total	Product Attitude Utilitarian	265,274	186				
	Product Attitude Hedonic	372,668	186				

a. R Squared = ,065 (Adjusted R Squared = ,060)

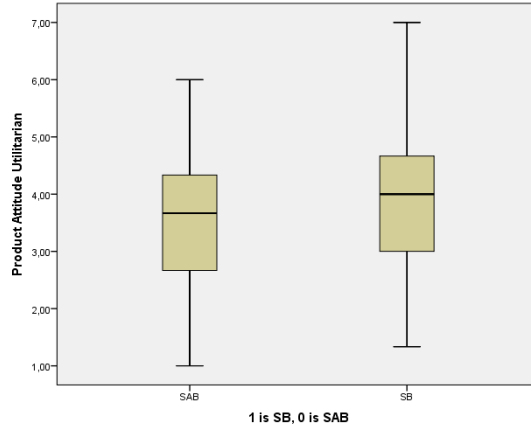
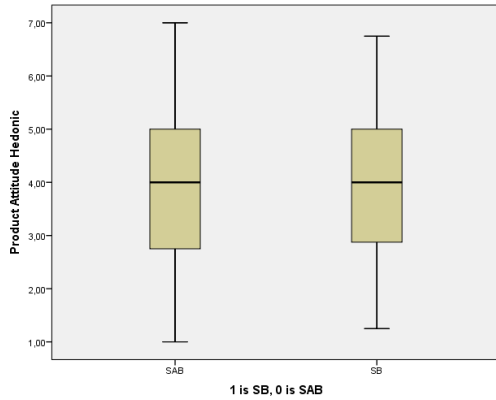
b. R Squared = ,339 (Adjusted R Squared = ,335)

## Appendix 9 - Product Attitudes by Branding Type

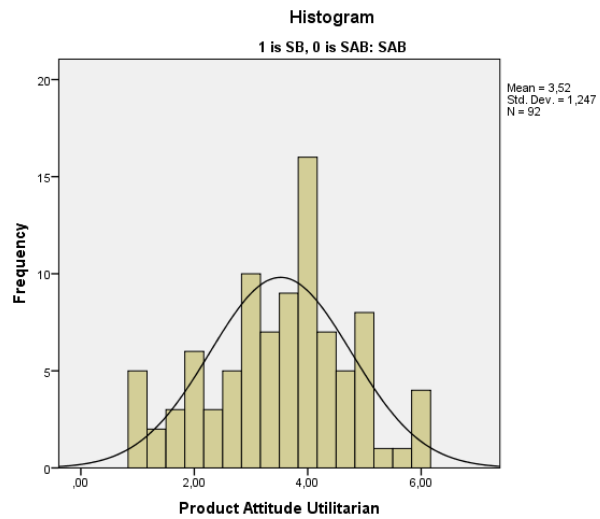
To perform a one-way MANOVA, several assumptions have to be checked. Outliers are assessed by inspecting the box plots. No outliers are identified. The assumption of normality assumes that the scores are normally distributed and is assessed using Shapiro-Wilk test of normality. The results of the test show that the data is not normally distributed for Product Attitude – Utilitarian for the SAB. Because of that, the histogram is inspected, which show that the data appears normally distributed to an acceptable level. Next, the assumption of a linear relationship between each pair of the DVs for each group of the IV is assessed by interpreting scatterplots. The scatterplots indicate that there are linear relationships for both. The assumption of variance/covariance matrices is assessed by interpreting Box's M test of

equality of covariance. The results show that  $p > 0,001$  and the assumption is met. Finally, the assumption of no multicollinearity is checked, see Appendix 8 for results and test.

Assumption of No Outliers:



Assumption of normality:



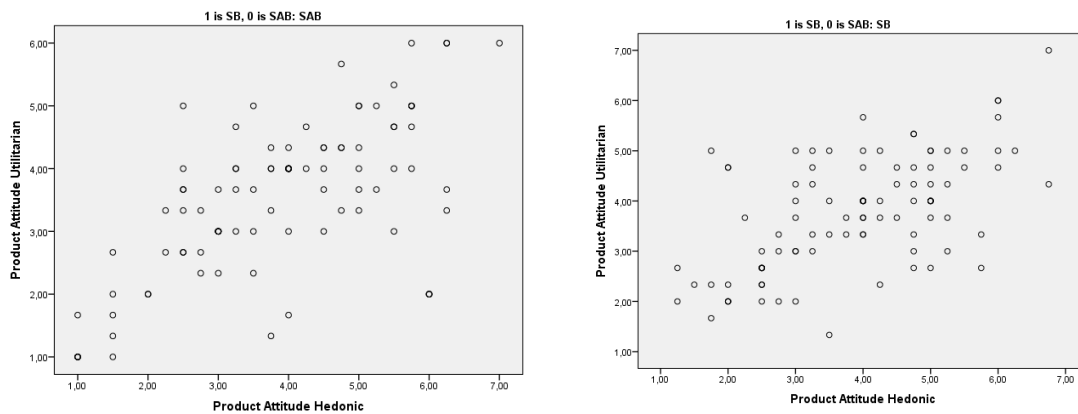
Tests of Normality

	Branding Type	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Product Attitude Utilitarian	SAB	,106	92	,013	,971	92	,039
	SB	,085	95	,088	,979	95	,126
Product Attitude Hedonic	SAB	,070	92	,200*	,973	92	,052
	SB	,096	95	,032	,976	95	,081

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### Assumption of Linear Relationship:



### Assumption of Variance/Covariance Matrices:

**Box's Test of Equality of Covariance Matrices<sup>a</sup>**

Box's M	1,430
F	,471
df1	3
df2	6370555,129
Sig.	,702

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Store\_Att\_Uti + Store\_Att\_Hed + SB

### Results:

**Multivariate Tests<sup>a</sup>**

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	,914	973,603 <sup>b</sup>	2,000	184,000	,000	,914
	Wilks' Lambda	,086	973,603 <sup>b</sup>	2,000	184,000	,000	,914
	Hotelling's Trace	10,583	973,603 <sup>b</sup>	2,000	184,000	,000	,914
	Roy's Largest Root	10,583	973,603 <sup>b</sup>	2,000	184,000	,000	,914
SB	Pillai's Trace	,016	1,458 <sup>b</sup>	2,000	184,000	,235	,016
	Wilks' Lambda	,984	1,458 <sup>b</sup>	2,000	184,000	,235	,016
	Hotelling's Trace	,016	1,458 <sup>b</sup>	2,000	184,000	,235	,016
	Roy's Largest Root	,016	1,458 <sup>b</sup>	2,000	184,000	,235	,016

a. Design: Intercept + SB

b. Exact statistic

**Tests of Between-Subjects Effects**

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Product Attitude Utilitarian	2,926 <sup>a</sup>	1	2,926	2,063	,153	,011
	Product Attitude Hedonic	,060 <sup>b</sup>	1	,060	,030	,863	,000
Intercept	Product Attitude Utilitarian	2486,348	1	2486,348	1753,296	,000	,905
	Product Attitude Hedonic	2813,564	1	2813,564	1396,938	,000	,883
SB	Product Attitude Utilitarian	2,926	1	2,926	2,063	,153	,011
	Product Attitude Hedonic	,060	1	,060	,030	,863	,000
Error	Product Attitude Utilitarian	262,348	185	1,418			
	Product Attitude Hedonic	372,607	185	2,014			
Total	Product Attitude Utilitarian	2755,000	187				
	Product Attitude Hedonic	3187,375	187				

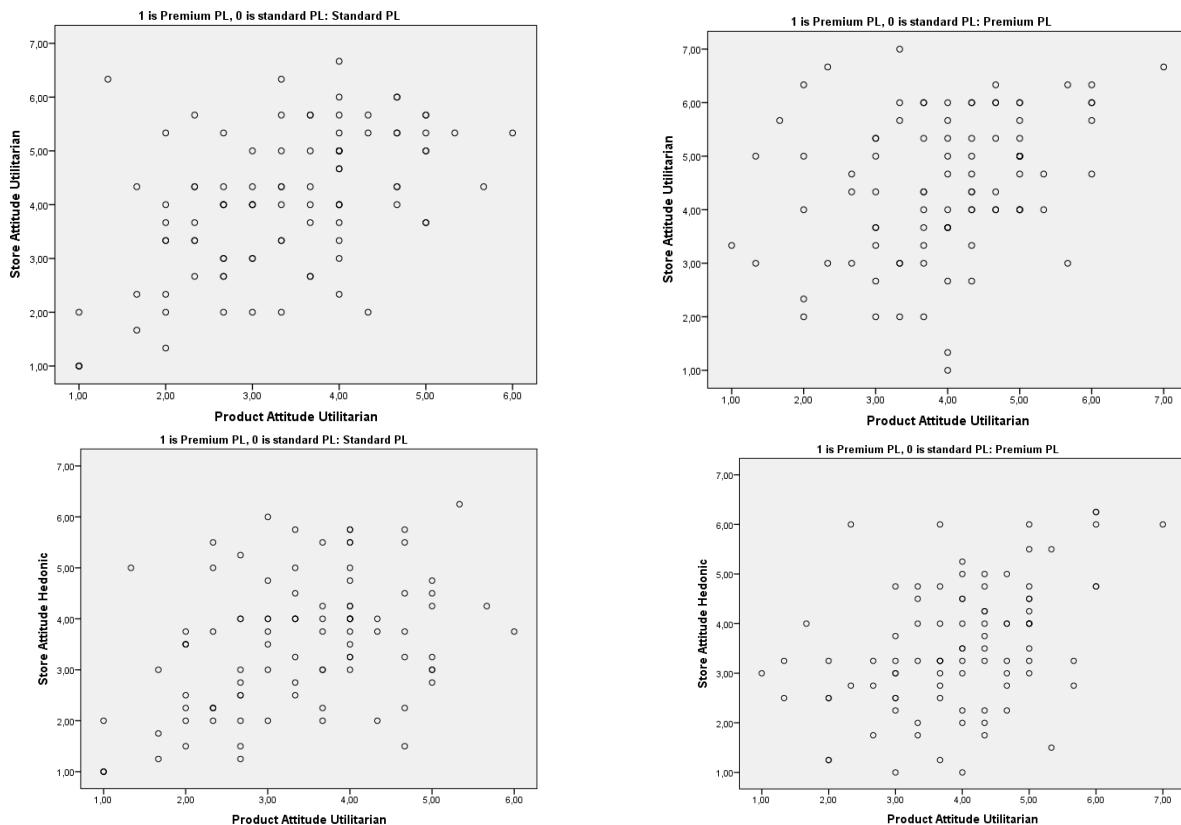
Corrected Total	Product Attitude Utilitarian	265,274	186				
	Product Attitude Hedonic	372,668	186				

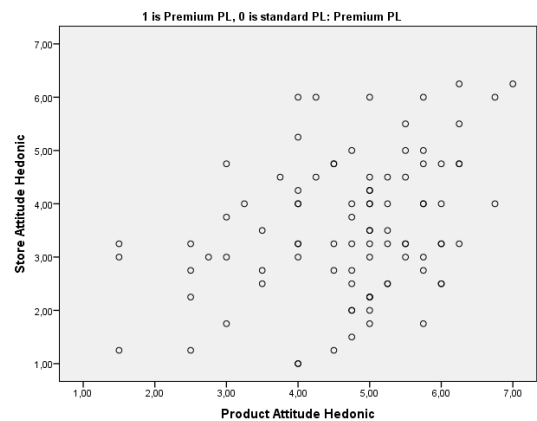
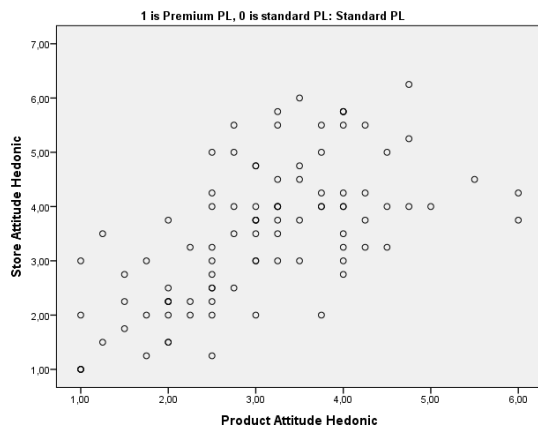
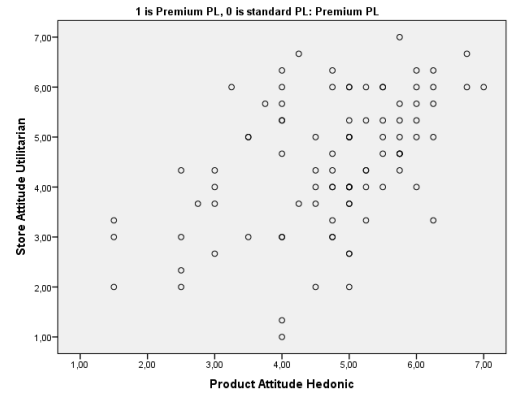
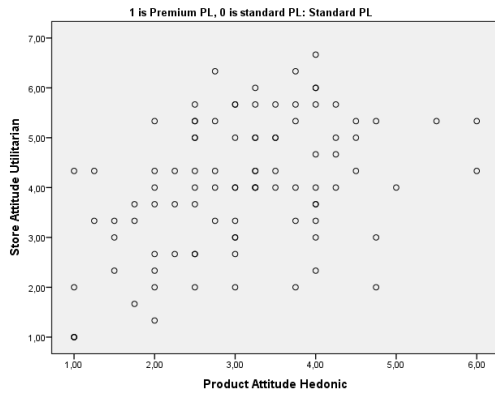
- a. R Squared = ,011 (Adjusted R Squared = ,006)
- b. R Squared = ,000 (Adjusted R Squared = -,005)

### Appendix 10 – Product Attitudes by PL Type and Branding Type

For a MANCOVA several assumptions must be checked. The assumption of normality assumes that the scores are normally distributed and is assessed using Shapiro-Wilk test of normality. The results of the normality tests can be seen in Appendix 8 and Appendix 9. The assumption of a linear relationship between each pair of the DVs for each group of the IV is assessed by interpreting scatterplots. The results can be seen in Appendix 8 and Appendix 9. The assumption of a linear relationship between each of the covariates and each DV within each group of the IV is assessed by interpreting the scatterplots. The scatterplots show that there are moderately linear relationships between all the combinations. The assumption of homogeneity of regression slopes assumes that the relationship between the DV and the covariate does not vary across groups. To assess the homogeneity of regression slopes, two MANCOVAs are run to assess if there is an interaction between the IVs and the covariates. The results show that there are interactions and thus that the relationship between the DV and the covariate vary across the groups. Because the assumption is violated, a MANOVA is performed afterwards to verify the results without the covariates. The assumption of variance/covariance matrices is assessed by interpreting Box's M test of equality of covariance. The results show that  $p > 0,001$  and the assumption is met. Outliers are assessed by inspecting the box plots. For assumption of no outliers see Appendix 8 and Appendix 9. The assumption of normality assumes that the scores are normally distributed and is assessed using Shapiro-Wilk test of normality. The results can be seen in Appendix 8 and Appendix 9.

### Assumption of Linear Relationship between Covariates and DVs by IVs





### Assumption of Homogeneity of Regression Slopes

#### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	,292	37,158 <sup>b</sup>	2,000	180,000	,000	,292
	Wilks' Lambda	,708	37,158 <sup>b</sup>	2,000	180,000	,000	,292
	Hotelling's Trace	,413	37,158 <sup>b</sup>	2,000	180,000	,000	,292
	Roy's Largest Root	,413	37,158 <sup>b</sup>	2,000	180,000	,000	,292
Premium_PL	Pillai's Trace	,051	4,805 <sup>b</sup>	2,000	180,000	,009	,051
	Wilks' Lambda	,949	4,805 <sup>b</sup>	2,000	180,000	,009	,051
	Hotelling's Trace	,053	4,805 <sup>b</sup>	2,000	180,000	,009	,051
	Roy's Largest Root	,053	4,805 <sup>b</sup>	2,000	180,000	,009	,051
Store_Att_Uti	Pillai's Trace	,057	5,469 <sup>b</sup>	2,000	180,000	,005	,057
	Wilks' Lambda	,943	5,469 <sup>b</sup>	2,000	180,000	,005	,057
	Hotelling's Trace	,061	5,469 <sup>b</sup>	2,000	180,000	,005	,057
	Roy's Largest Root	,061	5,469 <sup>b</sup>	2,000	180,000	,005	,057
Store_Att_Hed	Pillai's Trace	,095	9,481 <sup>b</sup>	2,000	180,000	,000	,095
	Wilks' Lambda	,905	9,481 <sup>b</sup>	2,000	180,000	,000	,095
	Hotelling's Trace	,105	9,481 <sup>b</sup>	2,000	180,000	,000	,095
	Roy's Largest Root	,105	9,481 <sup>b</sup>	2,000	180,000	,000	,095
Premium_PL * Store_Att_Hed	Pillai's Trace	,124	12,717 <sup>b</sup>	2,000	180,000	,000	,124
	Wilks' Lambda	,876	12,717 <sup>b</sup>	2,000	180,000	,000	,124
	Hotelling's Trace	,141	12,717 <sup>b</sup>	2,000	180,000	,000	,124
	Roy's Largest Root	,141	12,717 <sup>b</sup>	2,000	180,000	,000	,124
Premium_PL * Store_Att_Uti	Pillai's Trace	,120	12,307 <sup>b</sup>	2,000	180,000	,000	,120
	Wilks' Lambda	,880	12,307 <sup>b</sup>	2,000	180,000	,000	,120
	Hotelling's Trace	,137	12,307 <sup>b</sup>	2,000	180,000	,000	,120
	Roy's Largest Root	,137	12,307 <sup>b</sup>	2,000	180,000	,000	,120

a. Design: Intercept + Premium\_PL + Store\_Att\_Uti + Store\_Att\_Hed + Premium\_PL \* Store\_Att\_Hed + Premium\_PL \* Store\_Att\_Uti  
 b. Exact statistic

### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	,211	24,064 <sup>b</sup>	2,000	180,000	,000	,211
	Wilks' Lambda	,789	24,064 <sup>b</sup>	2,000	180,000	,000	,211
	Hotelling's Trace	,267	24,064 <sup>b</sup>	2,000	180,000	,000	,211
	Roy's Largest Root	,267	24,064 <sup>b</sup>	2,000	180,000	,000	,211
Store_Att_Uti	Pillai's Trace	,091	9,014 <sup>b</sup>	2,000	180,000	,000	,091
	Wilks' Lambda	,909	9,014 <sup>b</sup>	2,000	180,000	,000	,091
	Hotelling's Trace	,100	9,014 <sup>b</sup>	2,000	180,000	,000	,091
	Roy's Largest Root	,100	9,014 <sup>b</sup>	2,000	180,000	,000	,091
Store_Att_Hed	Pillai's Trace	,053	4,999 <sup>b</sup>	2,000	180,000	,008	,053
	Wilks' Lambda	,947	4,999 <sup>b</sup>	2,000	180,000	,008	,053
	Hotelling's Trace	,056	4,999 <sup>b</sup>	2,000	180,000	,008	,053
	Roy's Largest Root	,056	4,999 <sup>b</sup>	2,000	180,000	,008	,053
SB	Pillai's Trace	,006	,537 <sup>b</sup>	2,000	180,000	,585	,006
	Wilks' Lambda	,994	,537 <sup>b</sup>	2,000	180,000	,585	,006
	Hotelling's Trace	,006	,537 <sup>b</sup>	2,000	180,000	,585	,006
	Roy's Largest Root	,006	,537 <sup>b</sup>	2,000	180,000	,585	,006
SB * Store_Att_Hed	Pillai's Trace	,038	3,580 <sup>b</sup>	2,000	180,000	,030	,038
	Wilks' Lambda	,962	3,580 <sup>b</sup>	2,000	180,000	,030	,038
	Hotelling's Trace	,040	3,580 <sup>b</sup>	2,000	180,000	,030	,038
	Roy's Largest Root	,040	3,580 <sup>b</sup>	2,000	180,000	,030	,038
SB * Store_Att_Uti	Pillai's Trace	,040	3,749 <sup>b</sup>	2,000	180,000	,025	,040
	Wilks' Lambda	,960	3,749 <sup>b</sup>	2,000	180,000	,025	,040
	Hotelling's Trace	,042	3,749 <sup>b</sup>	2,000	180,000	,025	,040
	Roy's Largest Root	,042	3,749 <sup>b</sup>	2,000	180,000	,025	,040

a. Design: Intercept + Store\_Att\_Uti + Store\_Att\_Hed + SB + SB \* Store\_Att\_Hed + SB \* Store\_Att\_Uti  
 b. Exact statistic

### Assumption of homogeneity of variance/covariance:

#### Box's Test of Equality of Covariance Matrices<sup>a</sup>

Box's M	10,741
F	1,170
df1	9
df2	379329,627
Sig.	<b>,309</b>

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Store\_Att\_Uti + Store\_Att\_Hed + Premium\_PL + SB + Premium\_PL \* SB

### Results:

#### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	,296	37,803 <sup>b</sup>	2,000	180,000	,000	,296
	Wilks' Lambda	,704	37,803 <sup>b</sup>	2,000	180,000	,000	,296
	Hotelling's Trace	,420	37,803 <sup>b</sup>	2,000	180,000	,000	,296
	Roy's Largest Root	,420	37,803 <sup>b</sup>	2,000	180,000	,000	,296
Store_Att_Uti	Pillai's Trace	,054	5,110 <sup>b</sup>	2,000	180,000	,007	,054
	Wilks' Lambda	,946	5,110 <sup>b</sup>	2,000	180,000	,007	,054
	Hotelling's Trace	,057	5,110 <sup>b</sup>	2,000	180,000	,007	,054
	Roy's Largest Root	,057	5,110 <sup>b</sup>	2,000	180,000	,007	,054
Store_Att_Hed	Pillai's Trace	,092	9,148 <sup>b</sup>	2,000	180,000	,000	,092
	Wilks' Lambda	,908	9,148 <sup>b</sup>	2,000	180,000	,000	,092
	Hotelling's Trace	,102	9,148 <sup>b</sup>	2,000	180,000	,000	,092

	Roy's Largest Root	,102	9,148 <sup>b</sup>	2,000	180,000	,000	,092
Premium_PL	Pillai's Trace	,380	55,133 <sup>b</sup>	2,000	180,000	,000	,380
	Wilks' Lambda	,620	55,133 <sup>b</sup>	2,000	180,000	,000	,380
	Hotelling's Trace	,613	55,133 <sup>b</sup>	2,000	180,000	,000	,380
	Roy's Largest Root	,613	55,133 <sup>b</sup>	2,000	180,000	,000	,380
SB	Pillai's Trace	,018	1,670 <sup>b</sup>	2,000	180,000	,191	,018
	Wilks' Lambda	,982	1,670 <sup>b</sup>	2,000	180,000	,191	,018
	Hotelling's Trace	,019	1,670 <sup>b</sup>	2,000	180,000	,191	,018
	Roy's Largest Root	,019	1,670 <sup>b</sup>	2,000	180,000	,191	,018
Premium_PL * SB	Pillai's Trace	,009	,794 <sup>b</sup>	2,000	180,000	,454	,009
	Wilks' Lambda	,991	,794 <sup>b</sup>	2,000	180,000	,454	,009
	Hotelling's Trace	,009	,794 <sup>b</sup>	2,000	180,000	,454	,009
	Roy's Largest Root	,009	,794 <sup>b</sup>	2,000	180,000	,454	,009

a. Design: Intercept + Store\_Att\_Uti + Store\_Att\_Hed + Premium\_PL + SB + Premium\_PL \* SB

b. Exact statistic

#### Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Product Attitude Utilitarian	75,312 <sup>a</sup>	5	15,062	14,352	,000	,284
	Product Attitude Hedonic	193,644 <sup>b</sup>	5	38,729	39,156	,000	,520
Intercept	Product Attitude Utilitarian	54,602	1	54,602	52,026	,000	,223
	Product Attitude Hedonic	59,697	1	59,697	60,356	,000	,250
Store_Att_Uti	Product Attitude Utilitarian	6,994	1	6,994	6,664	,011	,036
	Product Attitude Hedonic	8,374	1	8,374	8,467	,004	,045
Store_Att_Hed	Product Attitude Utilitarian	12,716	1	12,716	12,116	,001	,063
	Product Attitude Hedonic	14,843	1	14,843	15,007	,000	,077
Premium_PL	Product Attitude Utilitarian	11,744	1	11,744	11,190	,001	,058
	Product Attitude Hedonic	106,167	1	106,167	107,339	,000	,372
SB	Product Attitude Utilitarian	3,321	1	3,321	3,164	,077	,017
	Product Attitude Hedonic	,219	1	,219	,221	,639	,001
Premium_PL * SB	Product Attitude Utilitarian	,065	1	,065	,062	,804	,000
	Product Attitude Hedonic	,923	1	,923	,933	,335	,005
Error	Product Attitude Utilitarian	189,962	181	1,050			
	Product Attitude Hedonic	179,024	181	,989			
Total	Product Attitude Utilitarian	2755,000	187				
	Product Attitude Hedonic	3187,375	187				
Corrected Total	Product Attitude Utilitarian	265,274	186				
	Product Attitude Hedonic	372,668	186				

a. R Squared = ,284 (Adjusted R Squared = ,264)

b. R Squared = ,520 (Adjusted R Squared = ,506)

#### Results of confirmatory MANOVA:

Effect	Multivariate Tests <sup>a</sup>						
	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	
Intercept	Pillai's Trace	,931	1236,383 <sup>b</sup>	2,000	182,000	,000	,931
	Wilks' Lambda	,069	1236,383 <sup>b</sup>	2,000	182,000	,000	,931
	Hotelling's Trace	13,587	1236,383 <sup>b</sup>	2,000	182,000	,000	,931
	Roy's Largest Root	13,587	1236,383 <sup>b</sup>	2,000	182,000	,000	,931
Premium_PL	Pillai's Trace	,362	51,627 <sup>b</sup>	2,000	182,000	,000	,362
	Wilks' Lambda	,638	51,627 <sup>b</sup>	2,000	182,000	,000	,362

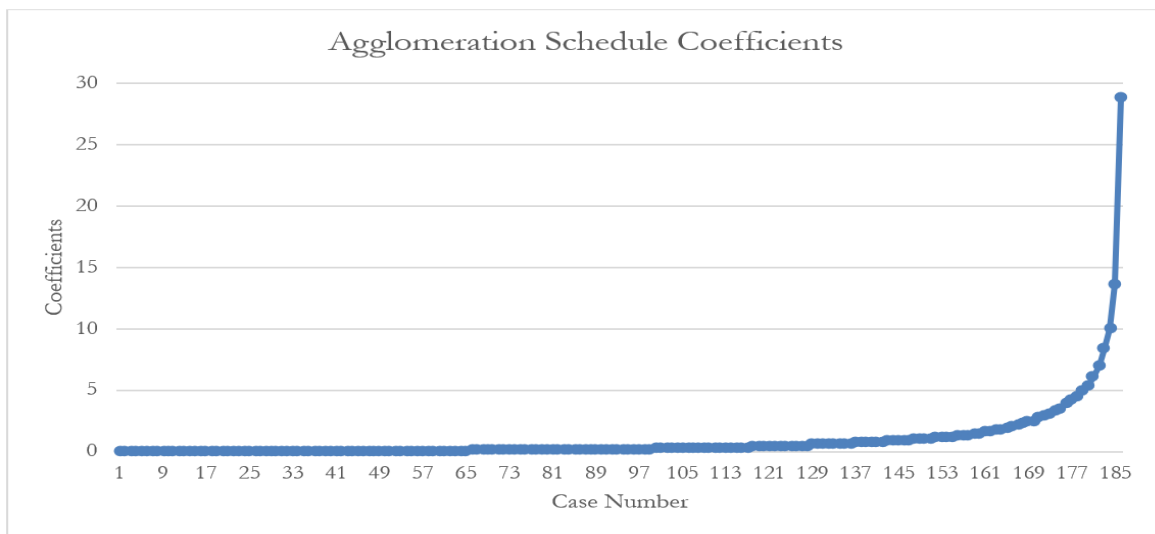
	Hotelling's Trace	,567	51,627 <sup>b</sup>	2,000	182,000	,000	,362
	Roy's Largest Root	,567	51,627 <sup>b</sup>	2,000	182,000	,000	,362
SB	Pillai's Trace	,016	1,436 <sup>b</sup>	2,000	182,000	,241	,016
	Wilks' Lambda	,984	1,436 <sup>b</sup>	2,000	182,000	,241	,016
	Hotelling's Trace	,016	1,436 <sup>b</sup>	2,000	182,000	,241	,016
	Roy's Largest Root	,016	1,436 <sup>b</sup>	2,000	182,000	,241	,016
Premium_PL * SB	Pillai's Trace	,013	1,154 <sup>b</sup>	2,000	182,000	,318	,013
	Wilks' Lambda	,987	1,154 <sup>b</sup>	2,000	182,000	,318	,013
	Hotelling's Trace	,013	1,154 <sup>b</sup>	2,000	182,000	,318	,013
	Roy's Largest Root	,013	1,154 <sup>b</sup>	2,000	182,000	,318	,013

a. Design: Intercept + Premium\_PL + SB + Premium\_PL \* SB

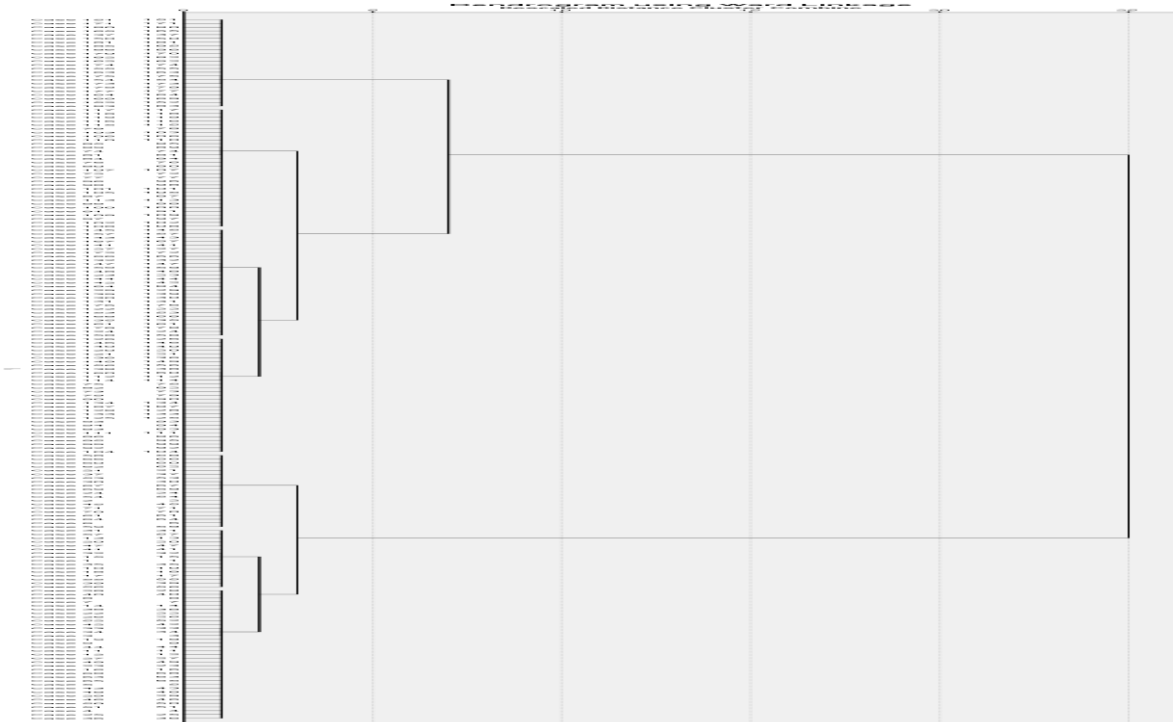
b. Exact statistic

## Appendix 11 – Further Analysis

For the ANOVA, several assumptions are checked. The assumption of normality is assessed using Shapiro-Wilk test of normality. The results of the test show that the data is not normally distributed for Product Perceptions for the premium PL. Because of that, the histogram is inspected, which show that the data appears normally distributed to an acceptable level. Outliers are assessed by inspecting the box plots, showing that there are several outliers based on the inter-quartile range rule multiplier of 1,5. The cases of the outliers are inspected and do not show any obvious case of lack of cooperation in their answers. Although the outliers compromise the results of the test, they are kept because they appear to be valid responses. The assumption of homogeneity of variance assumes that all groups have equal variances and is assessed using Levene's Test for Equality of Error Variances. The results show that we cannot reject the null hypothesis and assume equal variances across the groups. Because some of the assumptions are violated, we must be careful with the interpretation and inferences made from the test.



Dendrogram:



Factor Analysis Results:

Correlation Matrix<sup>a</sup>

		Product Attitude Utilitarian	Product Attitude Hedonic	Perceived Quality
Correlation	Product Attitude Utilitarian	1,000	,624	,422
	Product Attitude Hedonic	,624	1,000	,728
	Perceived Quality	,422	,728	1,000
Sig. (1-tailed)	Product Attitude Utilitarian		,000	,000
	Product Attitude Hedonic	,000		,000
	Perceived Quality	,000	,000	

a. Determinant = ,286

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,613
Bartlett's Test of Sphericity	Approx. Chi-Square	230,607
	df	3
	Sig.	,000

Communalities

	Initial	Extraction
Product Attitude Utilitarian	1,000	,617
Product Attitude Hedonic	1,000	,861
Perceived Quality	1,000	,714

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,192	73,055	73,055	2,192	73,055	73,055
2	,586	19,520	92,575			
3	,223	7,425	100,000			

Extraction Method: Principal Component Analysis.

**Component Matrix<sup>a</sup>**

	Component 1
Product Attitude Utilitarian	,785
Product Attitude Hedonic	,928
Perceived Quality	,845

Extraction Method: Principal Component Analysis.  
a. 1 components extracted.

**3-way ANOVA:**

**Assumption of Normality:**

**Tests of Normality**

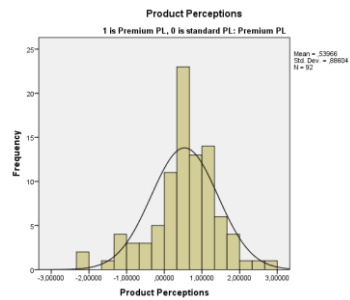
	Segments	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Product Perceptions	Store Enthusiasts	,080	71	,200*	,977	71	,223
	Store Pessimists	,071	116	,200*	,978	116	,052

\*. This is a lower bound of the true significance.  
a. Lilliefors Significance Correction

**Tests of Normality**

	PL Type	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Product Perceptions	Standard PL	,057	95	,200*	,991	95	,747
	Premium PL	,118	92	,003	,960	92	,006

\*. This is a lower bound of the true significance.  
a. Lilliefors Significance Correction

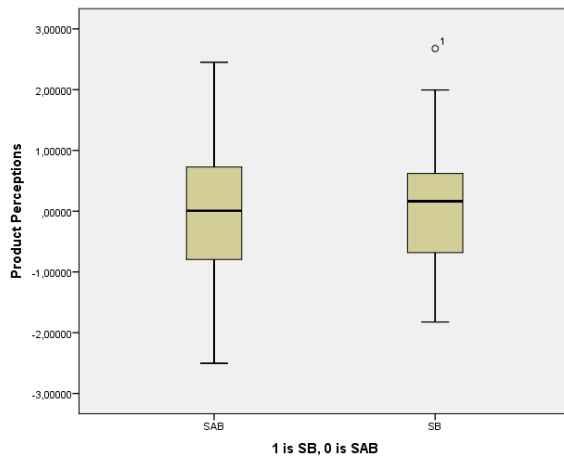
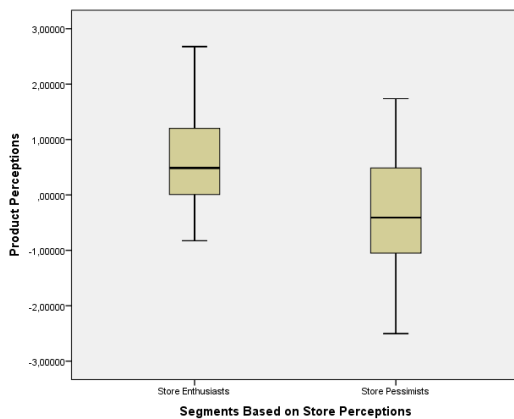


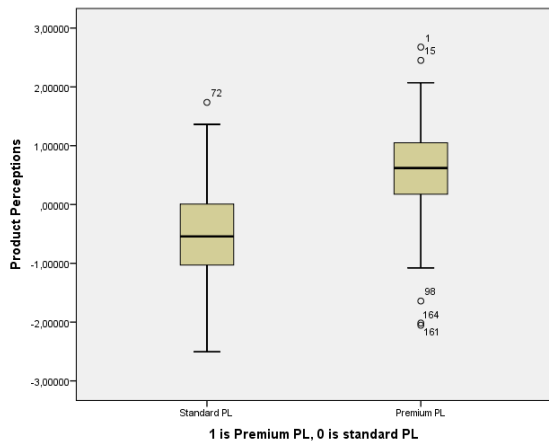
**Tests of Normality**

	Branding Type	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Product Perceptions	SAB	,066	92	,200*	,988	92	,545
	SB	,065	95	,200*	,986	95	,400

\*. This is a lower bound of the true significance.  
a. Lilliefors Significance Correction

**Assumption of No Outliers:**





### Assumption of Homogeneity of Error Variance:

#### Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable: Product Perceptions

F	df1	df2	Sig.
2,245	7	179	,033

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Premium\_PL + SB + Segments + Premium\_PL \* SB + Premium\_PL \* Segments + SB \* Segments + Premium\_PL \* SB \* Segments

### Results of ANOVA:

#### Tests of Between-Subjects Effects

Dependent Variable: Product Perceptions

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	81,780 <sup>a</sup>	7	11,683	20,065	,000	,440
Intercept	1,444	1	1,444	2,480	,117	,014
Premium_PL	41,537	1	41,537	71,341	,000	,285
SB	,828	1	,828	1,423	,235	,008
Segments	25,277	1	25,277	43,414	,000	,195
Premium_PL * SB	,660	1	,660	1,134	,288	,006
Premium_PL * Segments	,214	1	,214	,368	,545	,002
SB * Segments	,036	1	,036	,061	,805	,000
Premium_PL * SB * Segments	1,751	1	1,751	3,008	,085	,017
Error	104,220	179	,582			
Total	186,000	187				
Corrected Total	186,000	186				

a. R Squared = ,440 (Adjusted R Squared = ,418)