



**CATÓLICA  
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**Consumer drivers of private label purchase intent and the  
mediating role of perceived purchase risk**

An analysis on Beauty and Personal Care categories

Dissertation by

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# Abstract

**Title:** Consumer drivers of private label purchase intent and the mediating role of perceived purchase risk - An analysis on Beauty and Personal Care categories

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The retail landscape has changed considerably in the last decade. This dramatic change is partially due to the global growth of private labels, which are now a must game for any strong retailer. Private label brands provide several advantages to retailers such as competing against strong brand leaders while yielding bargaining power and offering high profitability. Hence, retailers continue to broaden their private label offerings into new product categories whilst constantly investing in quality.

However, it has been a challenge to strike through in certain categories, especially the ones where product differentiation and involvement are high, and consumers identify a potential risk associated with making a wrong purchase. A particular example is Hair Care, where name brands still outperform private labels on a large scale.

This entire study consists on an investigation of what drives consumers' private label purchase intent in the Beauty and Personal Care industry, namely the categories of Hair Care and Body Care, giving a special attention to the role of perceived purchase risk.

The methodology used for this investigation includes both primary and secondary data, encompassing two surveys and one interview to Sonae MC's private label manager of Beauty and Personal Care products.

Results obtained with this study suggest that Private label purchase intent is explained by different consumer traits as well as by the purchase risk associated with the product or category. In addition, perceived purchase risk plays a key role in mediating some of these relationships.

## Resumo

**Título:** Fatores influenciadores da intenção de compra de marcas próprias e o papel mediador do risco associado à compra - Uma análise a categorias de Beleza e Cuidados Pessoais

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A indústria do retalho tem sofrido grandes transformações na última década, em parte devido ao crescimento global das marcas próprias.

Estas são, atualmente, um dado poderoso para qualquer retalhista, pois trazem várias vantagens, desde competirem com grandes marcas de fornecedor e assim dando poder negocial ao retalhista, até produzirem uma alta rentabilidade e serem bastante lucrativas.

Consequentemente, grande parte dos retalhistas continua a expandir a sua gama de produtos de marca própria, investindo paralelamente na constante melhoria da qualidade dos mesmos.

No entanto, tem sido um grande desafio suceder em certas categorias, particularmente nas quais a diferenciação entre produtos é alta e onde os consumidores identificam um risco potencial elevado associado à compra.

Um exemplo de uma categoria assim é Produtos para Cabelo, onde as grandes marcas ainda superam extraordinariamente as marcas próprias.

O seguinte estudo consiste numa investigação sobre o que leva os consumidores a comprarem produtos de marca própria nas categorias de Produtos para Cabelo e de Cuidados do Corpo dando uma atenção especial ao papel do risco nesse processo.

Os métodos utilizados para esta investigação incluem dados primários e dados secundários, consistindo em dois questionários e uma entrevista à gestora de marca própria de produtos de Higiene e Beleza.

Os resultados obtidos sugerem que a intenção de compra de produtos de marca própria é explicada por diferentes características do consumidor e pelo risco associado à compra do produto em questão. O risco associado à compra, inclusivamente, desempenha um efeito mediador em algumas dessas relações.

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## List of Abbreviations and Acronyms

<b>CI</b>	Confidence Interval
<b>DV</b>	Dependent Variable
<b>IV</b>	Independent Variable
<b>PL</b>	Private Label

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# 1 INTRODUCTION

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## 1.1 Problem Statement

The dynamics of grocery retail and what retailers offer to consumers are mainly motivated by consumer demands. Throughout the years, the retail industry has adapted to customer's evolving needs and expectations.

In the last decade, Portuguese consumption patterns have changed dramatically, mainly due to the economic downturn that considerably diminished consumers' purchasing power. While consumers' budgets became tighter, private labels emerged as a huge success. Simultaneously, retailers increase promotions to secure their position and market share, allowing the customers to purchase at lower prices.

Private Labels are advantageous for retailers in many ways as they generate higher margins, provide retailers with negotiating power over shelf-space and distribution, but also help increase customer's store loyalty due to their exclusiveness (Ailawadi, Pauwels, and Steenkamp 2008).

Private labels' success has been strongest in commodity driven- categories such as milk or canned products, where the perceived product differentiation is low and purchase frequency is high. Nevertheless, retailers continue to expand their private label offerings into new, riskier, product categories where product differentiation is higher.

Most Portuguese grocery retailers have been developing and selling their own products almost across all product categories, though some categories are demonstrating greater Private Label success than others.

On a major perspective, consumers' acceptability is positive and private label purchases are attaining good outcomes. Although in certain categories, it has been a challenge to conquer consumers to purchase private label products.

The Literature suggests that category risk plays a key role in Private label penetration. For instance, most consumers prefer to purchase higher priced brands as a way of avoiding the risk of making a purchase mistake (Burton et al. 1998).

This dissertation holds two main goals: the first is to investigate which consumer traits predict private label purchase intent; the second is to analyze if the perceived risk associated with the purchase mediates these relationships, in other words, if perceived purchase risk can explain

the relationships between consumer characteristics and purchase intent for private label products.

This study will focus on Beauty and Personal Care product categories and will compare two categories with distinct levels of perceived risk: Hair Care and Body Care.

## **1.2 Research Questions**

- **RQ1:** How have Private Labels evolved in the last years?
- **RQ2:** What are the main advantages of Private Labels for retailers?
- **RQ3:** Which consumers' characteristics drive private label purchase intent?
- **RQ4:** Does perceived purchase risk impact Private label purchase intent?
- **RQ5:** Does perceived purchase risk mediate the relationship between consumers' shopping characteristics and private label purchase intent?
- **RQ6:** How do these effects vary between categories with different levels of perceived risk?

## **1.3 Methodology**

Primary and Secondary Data were collected in order to answer the proposed research questions.

First of all, a detailed literature review was performed to find out existing research that could help sustaining the research questions. This literature review was fully built upon academic papers from several journals and disciplines, newspapers and books. It is mainly focused on Retail and Consumer Behavior concepts such as private label evolution, consumer drivers of private label purchase intent and the effect of perceived purchase risk on private label purchase intent.

In what concerns Primary Data, two surveys and one interview were conducted.

The interviewee was the manager of private label products on the Beauty and Personal Care categories. The purpose of the interview was to unveil the retailer's perspective on the topic.

Then, a short pre-survey was distributed online to the target audience in order to verify if certain assumptions were true and determine the consecutive most appropriate research design.

Lastly, a final questionnaire was designed and distributed online to quantitatively assess the causal relationships between the variables.

This questionnaire was targeted to Portuguese female consumers' who buy Beauty and Personal Care products at the supermarket.

All the survey's responses were analyzed using IBM's SPSS statistical software.

The main statistical analysis performed were Mediation models in order to assess the role of Perceived Purchase risk as a mediator of the relationship between consumer perceptual characteristics and private label purchase intent. In addition, frequencies analysis and multiple regressions were also administered.

#### **1.4 Academic and Managerial Relevance of Research**

The topic of this dissertation came up while working at Sonae MC, the Portuguese market leader in food retail. Although Private Label growth within the company has been ascending in the last years, some categories still face big challenges, such as the case of Hair Care products.

This, this study aims at investigating what causes the low private label penetration in the Hair Care category at Sonae MC, by understanding the main consumer drivers of private label purchase intent in the Beauty and Personal care market. This information is valuable for Sonae MC management particularly because their private label strategy for Beauty and Personal Care products is currently going through a full strategic remake – from packaging to positioning.

This topic is academically relevant since it constitutes a further investigation of what has been studied in literature. Among other authors, Ailawadi (2001) has administered research to find the demographic and psychographic traits that influence the usage of Private Label products. This topic has been widely studied in previous research, however studies focused on specific product categories are scarce. Most studies analyzed consumer drivers of Private Label on a broad level, rather than focusing on particular product categories.

The primary goal of this study is to not only to examine these constructs and respective relationships on two particular categories with considerably different levels of risk, but also to evaluate how the category Risk mediates these relationships for both cases.

#### **1.5 Chapter Outline**

The next chapter contains the Literature Review. It provides a profound, synthesized investigation of the relevant topics for this dissertation, along with several hypotheses that are this study proposes to answer. The third chapter comprises the Methodology used for testing the proposed Hypothesis. All the methods used for data collection and analyses are presented in detail.

The fourth chapter includes a comprehensive analysis of the results obtained from the collected data.

Finally, the last chapter focuses on the principal conclusions of the study. This chapter outlines the main findings and recommendations for future research and provides academical suggestions as well as managerial clues that might be useful for Sonae MC in redesigning repositioning its Private Label products.

## 2 LITERATURE REVIEW

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The purpose of this chapter is to provide a comprehensive analysis of previous academic findings and concepts that are necessary to sustain the development of the research Hypothesis and establishing a context for the questions to be answered. Thus it begins by covering the evolution of private labels, followed by a smaller section about the tension between national brands and private labels. After that it summarizes the general consumer characteristics that have been demonstrated to influence consumer's attitude towards private label and ultimately their purchase intent.

### 2.1 Generic no more: Private Labels' new appeal

Retailers are increasingly selling their own brands. Some authors call them "Store brands" (Ailawadi, Neslin, and Gedenk 2001; Dhar and Hoch 1997) while others call them "Private Labels" (Ailawadi et al. 2008; Burton et al. 1998; Hoch and Banerji 1993).

For this dissertation's purpose, the chosen term is Private Label.

Private Labels share similarities with any other brands, like a demand curve with a downward slope with respect to price, and an upward slope with respect to quality (Dhar and Hoch 1997). Yet, what distinguishes them from the other brands is that their success is under full responsibility of the retailer: The retailer is in charge of procurement, development, warehousing and merchandising.

Retailers' own brands have appeared in North America in the early 1900's, when food products were not branded and commodities were sold in bulk.

It all began when the largest food grocery retailer in the United States back then, Atlantic & Pacific Tea Company begun a strategy of procuring and selling food products under their name. Years later, In Europe, retailers like Aldi and Tesco also started growing their businesses by developing their own brands. <sup>1</sup>

Private Labels started simply as generic, low-cost alternatives to name brand products. Then, some retailers introduced product ranges with different levels of price/quality combinations and some created sub-brands accounting for each level in the hierarchy.

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1

[http://www.centromarca.pt/folder/conteudo/632\\_Oxera%20report%20on%20retailer%20own%20brands.pdf](http://www.centromarca.pt/folder/conteudo/632_Oxera%20report%20on%20retailer%20own%20brands.pdf)

On top of this progression, some retailers extended these sub brands for particular customer preferences like “organic ranges”.<sup>2</sup>

A few decades ago there still was a large disparity on the quality levels between store brands and national brands’ products. Nowadays, that gap has significantly diminished, as quality levels of private labels have increased substantially (Bronnenberg and Wathieu 1996).

There are several advantages of Private Labels for retailers. Besides producing higher margins and granting retailers more bargaining power over shelf-space and distribution, they also increase store traffic and ultimately store loyalty due to their exclusiveness (Ailawadi et al. 2008; Jin and Suh 2005; Richardson, Jain, and Dick 1996).

According to Corstjens and Lal (2000), in order to maximize the advantages of private labels, retailers must provide not only low prices but also invest in the quality of their own brand’s products. Hoch et al. (2001) state that perceived quality is the main driver of private label share.

To better respond to consumers quality demands and adapt to the evolving retail marketplace retailers are increasingly offering “comparable quality at a significantly lower cost” (Accenture 2012).

In fact, 71% of global online consumers say store brand quality has improved (Nielsen 2014). In addition to the greater quality levels, retailers keep on broadening their private label offerings into new product categories and consumer segments (Delvecchio 2001).

Traditionally present in commodity driven- categories such as milk or canned products, Private labels have expanded into categories such as soft drinks, cereals, hair care, beer, clothing and many others (Marcel Corstjens and Rajiv Lal 2000).

Notwithstanding, Private label’s success is particularly remarkable in categories where perceived differences among products are low and the purchase frequency is high (Nielsen 2014).

## **2.2 The battle: Private Labels versus Name Brands**

The quality improvements combined with the broader product assortment, has attracted many consumers to choose a (low price) private label instead of a (costly) name brand (Quelch and

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<sup>2</sup>[http://www.centromarca.pt/folder/conteudo/632\\_Oxera%20report%20on%20retailer%20own%20brands.pdf](http://www.centromarca.pt/folder/conteudo/632_Oxera%20report%20on%20retailer%20own%20brands.pdf)

Harding 1996). Some studies state that private labels are now “competing head-to-head with national brands” (Accenture 2012).

Private labels success depends in part on what’s available on the shelves. This means that the broader private label offers there are, the more sales private labels will achieve. However, retailers must be careful, since replacing brands of high penetration and high purchase frequency with private labels can steer customers to the competitors’ stores (Nielsen 2014).

Hoch and Banerji (1993) describe private labels as “An important source of profits for retailers and a formidable source of competition for national brand manufacturers”.

Private labels expansion is pressuring manufacturers to “raise their game” and engage in massive price promotions to be able to take some shelf space and fight the consumer migration that feeds the growth of private labels (Garretson, Fisher, and Burton 2002).

Recent research on how price changes affect brand competition has concluded that “when higher-price, higher-quality brands price deal, they steal unit sales away from other brands in their own price tier and from brands in the tier below, as the moderate and private label brands” (Blattberg and Wisniewski 1989).

In other words, this means that promotions on national brands are likely to have customers switching from private label to the promoted brands. This represents a challenge for retailers.

On one hand, retailers strive to grow their own brands for three major reasons which were mentioned above: they provide higher margins; yield negotiating power with national brand manufacturers and lastly it increases consumer loyalty to their store. On the other hand, retailers cannot bear to discard national brands too much.

Popular national brands are powerful traffic builders, as well as store switchers, meaning that consumers may switch stores if they don’t find the desired products (Martenson 2007).

It is necessary for retailers to optimize their shelves with right assortment. It should be rigorously designed, in order not to discard too many of their consumers’ preferred brands and allowing for enough private label assortment (which conveys higher margins).

The private labels’ expansion and their growing shelf occupation also carry severe challenges for some manufacturers. Even though category leaders remain safe, the second and third market ranked national brands experience a high risk. Take as an example the UK: “40% of sales come from the category leader, 41% from private label and 19% from all other brands” (Nielsen 2014).

### **2.3 Purchase intent for Private Label products**

Purchase intent can be defined as the likelihood that consumers will purchase a certain product or service in the future (Wu, Yeh, and Hsiao 2011). It depends on the extent to which consumers believe that product will satisfy their needs (Kupiec and Revell 2001).

Purchase intentions have been extensively applied in the literature for predicting actual purchase. This construct is often regarded as a valuable indicator of subsequent purchase, as it is formed “under the assumption of a pending transaction” (Chang and Wildt 1994).

Several authors who have studied Private Labels have used the Purchase Intent construct (Jin and Suh 2005; Wu et al. 2011).

Consequently, purchase intent should be an adequate measure regarding consumer’s purchase of Private Label products.

### **2.4 Consumer characteristics influencing attitude towards Private Labels**

Literature suggests that consumers attitude towards Private Labels can be explained by several consumer factors, which can be classified according to three types: personality, perceptual and socioeconomic, with the perceptual characteristics being the most linked to Private Label purchase (Jin and Suh 2005).

The perceptual variables most mentioned in previous research, which have been demonstrated to influence Private Label attitude and purchase intention, include price consciousness, value consciousness, price-quality association, smart shopper perception, brand loyalty and perceived risk (Burton et al., 1998; Garretson et al., 2002; Ailawadi et al., 2001).

#### **2.4.1 Consumer’s Price Consciousness**

One of many possible ways to define price consciousness is “the degree to which the consumer focuses exclusively on paying low prices” (Donald R. Lichtenstein, Nancy M. Ridgway 1993).

Price conscious consumers are sensitive to price and generally seek price savings (Ailawadi et al. 2001).

Under the circumstances, they may find private label products as an opportunity to save money by paying lower prices. As such, the hypothesis concerning price consciousness is the following:

Hypothesis 1: *Consumers' Price consciousness has a positive effect on Private Label purchase intent.*

#### 2.4.2 Consumer's Value Consciousness

Lichtenstein et al. (1993) define value consciousness as “a concern for price paid relative to quality received”.

According to Zeithaml (1988) value refers the tradeoff between what one gives and what one gets in a transaction, in other words, the quality one gets for the price he gives.

Accordingly, the main goal of these types of shoppers when they make a purchase is to maximize the quality-price ratio.

Research on the reasons why private labels succeed, has found that private label quality weights more than price in determining PL category share, implying that success of private labels depends not only on price but also on the product quality (Hoch and Banerji 1993).

Additionally, the quality gap between private labels and name brands has been decreasing, reflected by an increasing market share of private labels (Bronnenberg & Wathieu, 1996).

Past research has found that the higher the perceived value of a product, the higher its purchase intent (Grewal et al. 1998).

Therefore, in categories where Private label brands keep following a low-cost strategy, combined with quality improvements, they are likely to attract a larger share of value conscious consumers. In hypothetical terms:

Hypothesis 2: *Consumers' value consciousness has a positive effect on private label purchase intent.*

#### 2.4.3 Consumer's Price-Quality Association

The price-quality association construct reflects consumer's general belief that the level of price positively influences the level of product quality (Erickson and Johansson 1985).

While some authors advocate that this price-quality association varies across product categories, others defend that it is product-specific (Gerstner 1985).

Following Dickson and Sawyer (1990) attribution theory, certain private label products' low price might lead consumers to attribute it to some dubious product feature, thus perceived them as quality inferior.

Moreover, Wolinsky (1987) defends that inferences drawn from price as well as brand names influence consumers perception of product quality.

Based on the above theories, the following Hypothesis is presented:

*Hypothesis 3: Consumers' price-quality association has a negative effect on private label purchase intent.*

#### 2.4.4 Consumer's Smart Shopper Perception

The smart shopper self-perception construct is an-ego related variable associated with consumer's feelings when making a good purchase decision.

A sense of accomplishment, a boost in self-esteem and pride in shopping *savoir Fare* are examples of feelings these thoughtful shoppers (Garretson et al. 2002).

Consumers who view themselves, as "smart" shoppers believe they know the best available opportunities in the market, therefore tend to make rational choices among brands (Burton et al. 1998).

Schindler (1989) argues that these smart shopper feelings may influence consumer s decision process in the way they affect the evaluation of different alternatives.

Moreover, according to Holbrook (1984) consumers feel smart and proud when they pay a low price for a particular item.

On the basis of this rationale, the following Hypothesis is built:

*Hypothesis 4: Consumers' smart-shopper perception has a negative effect on private label purchase intent.*

#### 2.4.5 Consumers' Brand loyalty

Brand loyal consumers are characterized by their tendency to buy the same brands overtime.

Consumers Brand loyalty can vary according to the product category. However, research suggests there is a general propensity to be brand loyal across all categories (Burton et al.

1998). Contrarily to variety seekers, brand loyal shoppers are unlikely to try or switch to new and unfamiliar brands (Garretson et al. 2002).

As private label brands are not promoted with large national campaigns, they are less likely to become familiar and establish favorable associations in consumer's minds.

Consequently, brand loyalty should be negatively correlated with private label purchase.

In hypothetical words:

*Hypothesis 5: Consumers' brand loyalty has a negative effect on private label purchase intent.*

## **2.5 Perceived Purchase risk**

As declared by Richardson et al. (1996) "The perceived risks associated with using store brands are an important determinant of consumers' propensity to favorably evaluate and purchase these products."

Many empirical studies suggest the degree of perceived risk on a category-level is contingent on the perceived quality variance within brands within the category and the consequences of a purchase mistake or. Some researchers name the latter construct as "product category involvement" (Laurent and Kapferer 1985).

### **2.5.1 Quality Variance**

The perceived quality variance within a category indicates the degree to which consumers view significant quality differences among different brands of products within the same category (Bettman 1974).

Findings suggest that the degree of perceived quality variation across brands in a category is strongly associated with the degree of perceived risk (Batra and Sinha 2000; Narasimhan and Wilcox 1998).

As there is a general perception that private labels are of inferior quality compared with name-brands (Richardson et al. 1996), if the quality variance within a category is high, it may lead to a larger perceived gap between private label and name brand's quality levels.

Moreover, Researchers found that Private label share is lower in categories with higher quality variance among brands (Hoch and Banerji 1993).

As well as that when quality varies considerably within a product category consumers tend to purchase Name brands instead of private labels In an attempt of reducing financial risk (Semeijn, Van Riel, and Ambrosini 2004).

### 2.5.2 Consequences of Purchase mistake

Regarding the perceived consequences of a wrong purchase , Batra and Sinha (2000) suggest that purchases of products of certain categories may seem riskier than others due to the severity of the consequences, such as baby foods.

The same authors also argue that this type of risk should be higher for purchases that may put the consumer subject to social ridicule situations, by their peers or reference groups, and this can happen with low priced-goods.

Moreover, evidence from their study suggests that as the severity of the consequences increases, the purchase of private label products declines.

Other authors agree that in low-risk categories, where the risk of buying the wrong brand is lower, consumers are more likely to buy Private Labels, as it minimizes the opportunity costs (Gomez and Benito, 2008).

Finally, findings in the literature declare that “risk-averse consumers are more likely to purchase higher-priced brands within a product category as a means of reducing the risk of purchasing a brand of inferior quality” (Burton et al. 1998).

Taking risk as the combination of perceived quality variance and the consequences of a purchase mistake, it is hypothesized that as perceived purchase risk increases, private label purchase intent decreases.

*Hypothesis 6: Perceived purchase risk has a negative effect on Private Label purchase intent.*

Furthermore, Richardson et al. (1996) discovered that the perceived quality variation among brands in the category, which several authors regard as category risk, negatively influences the perceived value for money of Private Labels.

Plus, certain unfamiliar brands might be perceived as riskier, and studies have found that brand loyalty is a strategy consumers utilize to reduce the risk associated with certain products and services (Sheth and Parvatiyar 1995).

Other studies also show that risk aversion is positively associated with the greatest degree of brand loyalty (Gounaris and Stathakopoulos 2004).

Based on the all the above findings about the important role of perceived risk on deteriorating consumers' evaluation and purchase intent for private label products, it is expected that perceived risk mediates the (negative) relationships between consumers' perceptual traits and private label purchase intent. Therefore, the following Hypothesis are proposed:

*Hypothesis 7a: Perceived purchase risk mediates the relationship between consumers' price-quality association and Private Label purchase intent.*

*Hypothesis 7b: Perceived purchase risk mediates the relationship between consumers' smart-shopper perception and Private Label purchase intent.*

*Hypothesis 7c: Perceived purchase risk mediates the relationship between consumers' brand loyalty and Private Label purchase intent.*

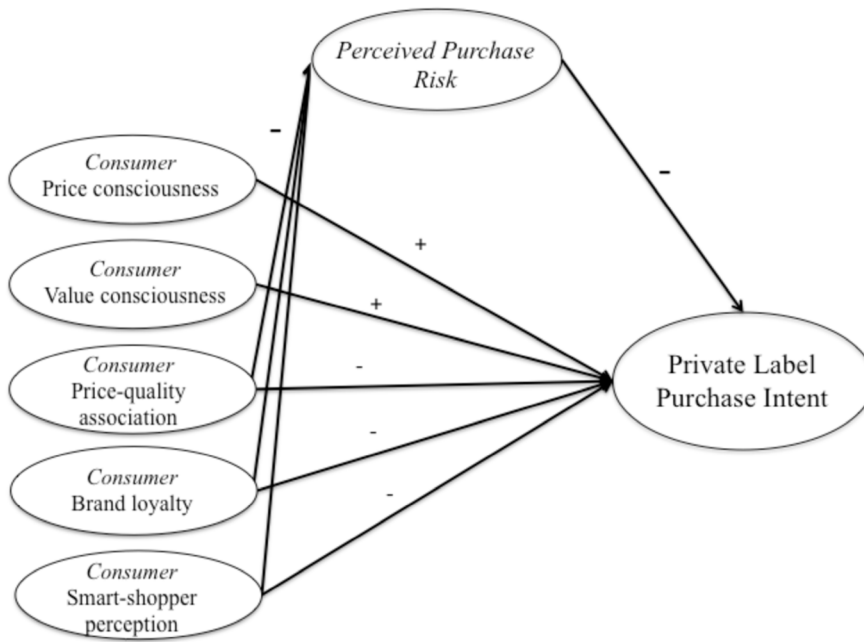
In Figure 1 is presented the conceptual framework of this research. It clearly shows the variables of the study and the hypothesized relationships that will be tested through statistical analysis.

The model depicts the effects of consumers' price consciousness, value consciousness, price-quality association, smart-shopper perception and brand loyalty within a product category on consumers' private label purchase intent.

The mediating effects of perceived purchase risk are also investigated.

All the constructs presented in the model have been studied previously, as well as certain proposed relationships. However, little is known about these relationships under specific product categories, as the majority of the studies that have analyzed consumer drivers of PL purchase intent have done it mainly on a wide, market level.

This study will not only examine and compare these relationships across two product categories with considerably different levels of perceived risk, but also analyze how perceived purchase risk mediates some of these relationships.



**Figure 1 – Conceptual framework of proposed Hypotheses**

### **3 METHODOLOGY**

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This chapter aims at presenting in detail the methodological approach of this study. It concerns the design of the conceptual model, data collection and analysis. That will allow testing the research Hypothesis previously proposed.

#### **3.1 Review of Conceptual Model and Research Approach**

As mentioned in the first chapter, the Conceptual framework of this Dissertation is based upon the effect of six consumer perceptual variables on consumer's Private Label purchase intent on that category.

These consumer variables are Price consciousness, Value consciousness, Price-quality association, Smart shopper perception and brand loyalty within a product category as well as the Perceived Risk associated with the category.

The last variable, Perceived Category Risk is predicted to have a mediating effect on the relationships between the other Independent variables on the dependent one: Private Label purchase intent.

There are three methods mostly used for research purposes: Exploratory, Descriptive and Explanatory.

For this study, both exploratory and explanatory research approaches were followed in order to answer the research questions proposed in the second chapter.

Exploratory research, as the name says, consists on reviewing the Literature on the topic, interviewing people who are knowledgeable about it, or conducting focus groups.

The goal is to help better understanding a problem and not to provide conclusive evidence.

Secondly, Explanatory research, also known as Causal research, aims at explaining the observed situation and identifying the nature of cause-and-effect relationships between the variables (Saunders, Lewis, and Thornhill 2009).

The secondary data collected for the purpose of this study was mainly used for the Literature Review, and was primarily collected from top journals and academic articles. It covered topics such as the evolution of private labels in the retail industry, the tension between private labels and national brands and finally the consumer characteristics that drive the purchase of private label products.

Secondary data was also obtained from Sonae MC's sales files, specifically concerning the share of private label sales across Beauty and Personal Care categories.

## **3.2 Primary Data**

### **3.2.1 Sonae MC Challenge**

Although this dissertation is not about any retailers private Label in particular, the topic has emerged after a conversation with some category leaders at Sonae MC, while having a coffee in-between meetings. The theme was Sonae MC's private label innovation and successful penetration across several categories.

Ultimately, one of the leaders referred to a few cases where the retailer's brand is having more difficulty in competing with the well-established name brands. One concern that was mentioned in particular was the low private label share within Hair care products.

Albeit the greatest part of this investigation was done on a consumer's point of view, by asking directly the target market, it is also important to take the retailers' view was into account.

Therefore, an interview was conducted with the Beauty and Personal Care Private Label manager, Liliana Lage, to unveil the market leader's standpoint on their private label status, challenges, forthcoming steps and main goals. Most of the insights collected from this interview are presented in Chapter 4.

### **3.2.2 Online Pre- Survey**

As mentioned in the first chapter, one important factor in determining consumers' propensity to purchase private label products is the perceived risk associated with the purchase.

Therefore, an online questionnaire was administered to assess the perceived risk of seven sub-categories of the Beauty and Personal Care product segment: Shampoo, Conditioner, Body cream, Face Cream, Shower Gel, Deodorants and Oral Hygiene.

The questionnaire consisted of two screening questions and one formal question. This formal question was replicated for several product categories, depending on the answers to the second screening question, where respondents were asked about which categories they purchase at the supermarket. The survey was available online to the general public between April 30<sup>th</sup> and May 15<sup>th</sup>. Although the survey was launched in Portuguese, an English version

can be found in Appendix I.

The goal of this questionnaire was to prove that there is a high variability in perceived purchase risk among different Beauty and Personal Care categories, and that Hair Care products fall among the riskiest.

### 3.2.3 Online Survey

A second survey was administered to gather quantitative data for this research.

The primary goal of this questionnaire was to evaluate the consumer traits that drive private label purchase intent as well as the role of risk on the categories of Hair Care and Body Care, following the conceptual model proposed in Chapter 1.

The inquiry was composed by 13 questions, and aimed at Portuguese Women who buy personal care and hygiene products at the supermarket. It was distributed via e-mail and social media between May 25<sup>th</sup> and June 10<sup>th</sup> 2017.

In the questionnaire, it was applied a between subjects' design, as participants were randomly assigned to one of two scenarios, one comprising a set of questions on Shampoo, symbolizing the Hair Care category, and other containing the same set of questions regarding Shower gel, symbolizing the Body Care category.

Both scenarios were evenly distributed among participants, such that each one of them was responded a close number of people.

Throughout the questionnaire, the respondents were asked to indicate to which degree they agreed with several questions, which translated into the constructs of the conceptual model.

It started with questions on their price consciousness, value consciousness, price-quality association, smart-shopper perception and brand loyalty.

Then there were questions for evaluating the perceived purchase risk within that particular category.

Finally, participants were asked about their purchase intent for the private label product correspondent to their scenario: Shampoo or Shower Gel.

The questionnaire was launched in Portuguese, as the aim of the study is to analyze the shopping behavior of Portuguese consumers. Nonetheless, an English version of the survey is available in Appendix II.

### 3.3 Construct Measurement

A review of relevant literature was carried out in order to select the most suited measures for this study. While some constructs were left as their original versions, others were either combined with similar ones, or slightly adapted to better fit the context of this research. For instance, Price consciousness combines items from two past studies. (Ailawadi et al. 2001; Burton et al. 1998)

This study's constructs, number of scale items and the literature sources used to build these scales are displayed in Figure 2.

All constructs used in the surveys were measured using statements with 7-point Likert-type scales, ranging from “Completely agree” to “Completely disagree”.

For measuring most of the constructs, three scale items were used, except for Price-quality association that had four items, Perceived purchase risk, which involved five items and lastly private label purchase intent, which consisted of only one item.

The reason for Perceived Risk to encompass more scale items than others is that it combines two concepts of risk: Perceived Quality Variation and Consequences of Purchase Mistake (Batra and Sinha 2000).

Measurement Model		
Construct	Literature for Scale Items	Nr of Items
Price consciousness	(Ailawadi, Neslin, & Gedenk, 2001)	3
	(Burton et al., 1998)	
Value consciousness	(Garretson, Fisher, & Burton, 2002)	3
	(Ailawadi, Neslin, & Gedenk, 2001)	
Price-quality association	(Donald R. Lichtenstein, Nancy M. Ridgway, n.d.)	4
Smart-shopper perception	(Ailawadi, Neslin, & Gedenk, 2001)	3
Brand loyalty	(Garretson, Fisher, & Burton, 2002)	3
	(Ailawadi, Neslin, & Gedenk, 2001)	
Perceived purchase risk	(Batra & Sinha, 2000)	5
Private label purchase intent	(Chang & Wildt, 1994)	1

Figure 2: Proposed constructs, number of scale items and relevant literature source

### 3.4 Data Analysis

All data collected from the Surveys was analyzed using SPSS.

The first survey simply required using Descriptive Statistics and Frequencies, in order to assess average risk for each category.

The second survey was analyzed using both multiple linear regressions and Mediation analysis using the bootstrapping method with bias-corrected confidence estimates. All statistical tests were carried out considering a significance level of 5%.

The analysis of the results started with the execution of two multiple Linear Regressions to evaluate the effect of the consumer attributes as well their perceived purchase risk for the two product categories of Shampoo and Shower Gel. A linear regression is the appropriate analysis for predicting a variable's value based on the value of another variable, by applying a linear equation to the data. Better than a simple linear regression that only considers one dependent variable, is a multiple linear regression, which models the relationship between two or more explanatory variables and a response variable.

Secondly, simple mediation analyses were performed. A Mediation model is typically used to estimate the indirect effect of one variable (X) on another variable (Y) through an intermediary, mediator variable (M). Thus, the mediator variable helps explain the relationship between the independent and dependent variables.

The intent of this study's model is to estimate the indirect effect of three consumer perceptual variables on Private label purchase intent, through the intermediary (mediator) variable, which in this case is perceived risk.

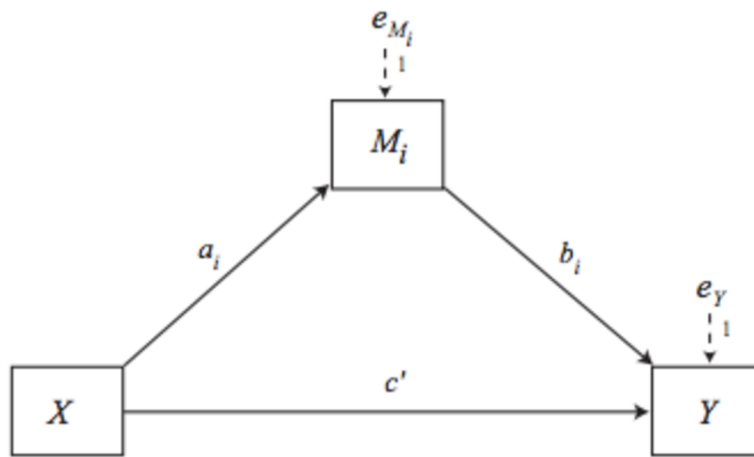
Therefore, three mediation models were performed in separate, one for each consumer characteristic, or independent variable.

The selected model for the analysis was a "classis mediation" model (Hayes, 2013) and its displayed in Figure 3. X represents the consumer characteristics, M stands for the Mediator - perceived purchase risk- and Y means the purchase intent for private label.

Paths *a* and *b* compose the indirect effects of X on Y, through M, being path *a* the effect of X over M and path *b* the effect of M over Y.

Path *c'* shows the direct effect of X on Y.

There is also a path *c*, which is not represented in the image, which stands for the total effect of X on Y.



**Figure 3: Hayes's PROCESS Model 4: "classic" mediation**

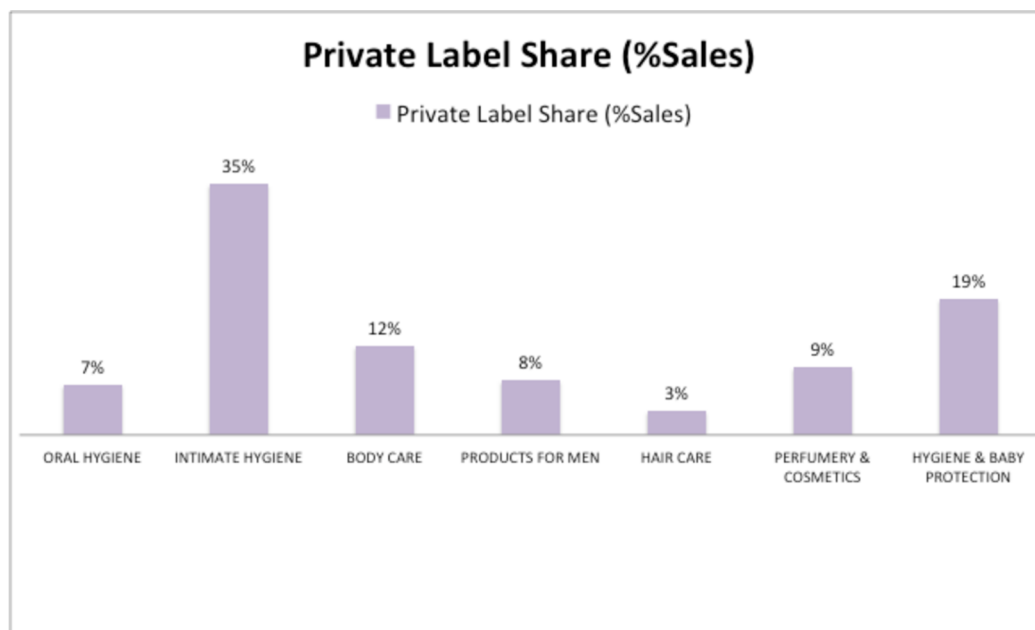
## 4 RESULTS AND DISCUSSION

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### 4.1 Sonae MC: The Retailer's view

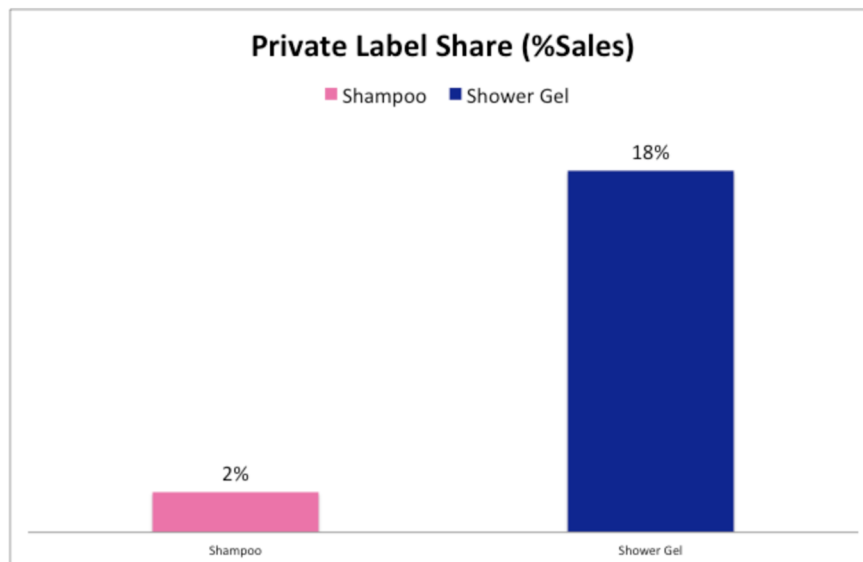
#### 4.1.1 Private label Sales

The popularity of private labels keeps growing at Sonae MC, as private label shares' and the variety of product offer increases across the majority of product categories, year after year. However, there are certain categories where the name brands are very well established and pose great challenges to alternative brands like private labels, which is the case of the Beauty and Personal Care segment. Although within the Beauty and Personal business unit at Sonae MC, private label penetration varies greatly among its categories, some categories have very low private label penetration. One great example of this is that of the Hair Care category, where PL sales account only for 3% of the total sales volume of the full category (Figure 4).



**Figure 4: The share of private label sales across the Beauty and Personal Care categories at Sonae MC in 2016.**

Additional data at the sub-category level has been able to demonstrate an example where there is a large disparity between the private label penetration, which are the sub-categories of Shampoo and Shower gel with 2% and 18% of private label penetration individually (Figure 5).



**Figure 5: The share of private label sales on the Beauty and Personal Care sub-categories of Shampoo and Shower Gel at Sonae MC in 2016.**

These findings served as basis for this study, since the best way to evaluate the purchase intent for a category with very low penetration of private labels, as Hair Care, is to select two cases with significant different results for comparing and extracting valid conclusions.

#### 4.1.2 An Interview with Private Label Category Manager

As mentioned in Chapter 3, a short interview (Appendix III) with the Beauty and Personal Care Private Label manager, Liliana Lage, was administered in order to investigate Sonae MC's view on what the main challenges of these types of products are, and their expectations for the near future.

According to Liliana, the main reason for consumer's to purchase private label products is the perceived price/quality ratio. Thus, the main challenge for her team, and most probably all private label managers, is to provide the consumer with a low price, satisfying quality and constant product innovation, while maximizing the retailer's profitability. Particularly in the

Beauty and Personal Care industry, the magnitude of promotions on name brands and their enormous capacity of R&D make it difficult for private labels to thrive.

The Personal Care categories are the ones where Sonae MC's private labels are able to attain a considerable share of sales, like Body Care Baby Products.

Contrarily, where private labels are less prosperous are the Beauty categories like Skincare and Hair Care. The main reason for this hardship is the lack of product offering and a price-quality positioning that is far from the market requirements.

Within the Beauty and Personal Care industry there are categories where the penetration of name brands is very high and there is still a lot of work needed in order to defeat these brands. A good example of this reality is Hair Care, for instance, where suppliers like P&G own brands like Pantene that not only have a large range of products, but also invest highly in promotions that make the final price of the Shampoos almost as low as the private labels'. Therefore, Liliana believes that what really prevents the success of private labels is not the perceived quality but, instead, the low-price gap originated by deep promotions and the higher brand recognition and brand loyalty that these brands have among consumers.

Another example that Liliana mentioned where it is quite difficult to gain consumers trust is Skincare. However, Lidl – the German grocer- has already been able to “democratise” the Beauty market, by offering facial creams that have gained outstanding recognition and several quality awards, at very low prices. Consumers have been reacting to this new landscape and she believes Sonae MC will soon follow this path.

However, as reported by Liliana, the most critical category in what concerns Private labels at the moment is Hair Care.

The Beauty and Personal care team at Sonae MC is currently redesigning their private label strategy, which they entitle a 360° strategy. They are working on a new product range, price positioning and quality improvements in order to fulfill the market requirements.

In addition, a new, consistent brand image is being developed. Soon, Continente's private label will offer a complete Hair Care range of products with excellent quality at a competitive price, as declares the manager.

## 4.2 Online Pre-Survey

The goal of the Pre-Survey was to prove both that the product categories of Hair Care and Body Care had different perceptions of risk by consumers, and that the same happens for the sub-categories of Shampoo and Shower Gel, which will be the focus of this study. Therefore, this questionnaire evaluated, on a scale from 1 to 7, the perceived risk of seven sub-categories of Beauty and Personal Care products: Shampoo, Conditioner, Body cream, Face Cream, Shower Gel, Deodorants and Oral Hygiene.

The scale used to evaluate risk was taken from Batra & Sinha (2000), and comprised two measures of risk, Perceived Quality Variation and Consequences of Purchase Mistake, which were merged into one construct named “Perceived Purchase Risk” for analysis simplification purposes.

The collected data was analyzed with SPSS statistical software. First, the Cronbach’s Alpha was calculated to check the reliability of the construct of “Perceived Risk” for each category. Most of the values obtained were above 0.7, which is the minimum of the most desirable, thus demonstrating a high degree of internal consistency between the items.

On a scale from 1 to 7, Results indicate that Shower Gel is the sub-category with lower risk, with an average perceived purchase risk of 3.59 and Shampoo is the sub-category with the second highest risk, with an average perceived risk of 5.52. The riskiest sub category according to the target is (Appendix IV). The average risk among the seven studied categories were 4.95.

In order to evaluate if this sub-category risk divergences also applied on a category level, the risk of the categories of Hair Care and Body Care were computed. Beginning with Hair Care, the perceived purchase risk of this category was estimated by the average of Shampoo and Conditioner, resulting in a perceived risk of 5.46. Likewise, the perceived risk of Body Care was estimated by the mean of Shower Gel and Body Cream, resulting in a perceived risk of 3.98

The above results prove this dissertation primary assumption that there is a high disparity of perceived risk on a sub-category level, between the Shampoo and Shower Gel, as well as on a Category level, between the categories of Hair Care and Body Care.

## 4.3 Online Survey

### 4.3.1 Sample Characterization

In total, 318 respondents answered the questionnaire, but only 246 were considered valid.

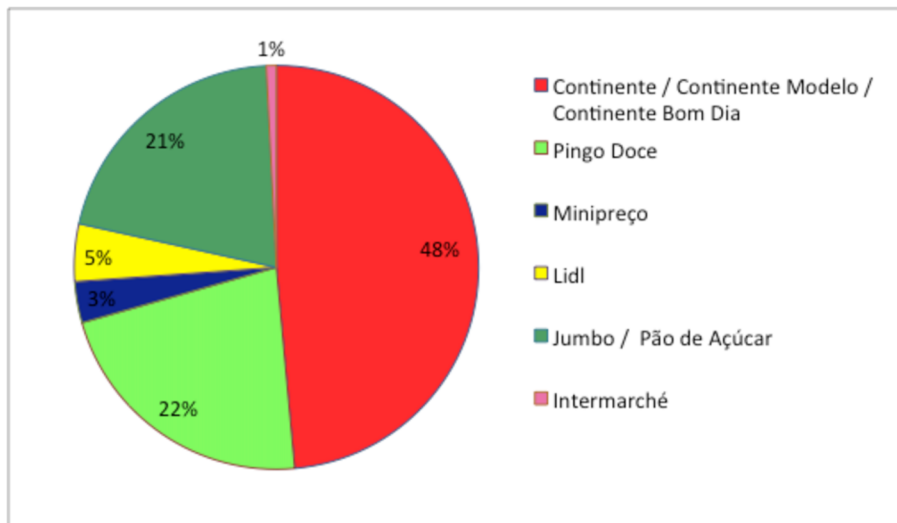
As already explained in the previous chapter – Methodology – the survey contained a between subject’s design, therefore participants were randomly assigned to one of two scenarios each consisting of questions about consumers’ purchasing habits for one of two product sub-categories: Shampoo (Hair Care) or Shower Gel (Body Care).

Since the scenarios were evenly distributed among respondents, each of them got approximately the same number of participants. The “Shampoo” scenario had 122 answers while the “Shower Gel” scenario had 124.

Considering the age of the respondents, the majority (29%) was aged between 45 and 54 years old followed by the younger age group, with less than 25 years old, comprising 24% of the sample population.

Overall, it appears to be a considerably educated sample, as most participants have completed either bachelor degree (46%) or a Master’s degree (30%). As concerns the sample’s occupation, about half of the respondents (48%) have a job working for someone else and 25% express to have a job on their own. From the remaining participants, 16% are students and the remaining are either retired or unemployed. Monthly individual incomes between 10000 and 1999 euros are the most prominent, comprising 41% of the sample. Immediately below with a share of 23% respondents, is the income level between 500€ and 999€ per month.

Concerning respondent’s store choice for buying Beauty and Personal Care products, nearly half has declared to go to Continente (49%), followed by Pingo Doce (22%) and thirdly Jumbo or Pão de Açúcar stores (21%), as shown in Figure 6.



**Figure 6: Store preference for buying Beauty and Personal Care products**

#### 4.3.2 Measures Reliability

Similarly to the pre-survey, the collected data was analyzed by performing the appropriate statistical tests in SPSS software. The first thing that was done was to recode the reverse coded items and check the reliability of each measure used in the questionnaire, by analyzing the Chronbach's alpha. The Cronbach's alpha indicates to which degree a set of items are related are as a group.

Cronbach's alphas for each measure are shown in Figure 7. Ratings of 0.70 or more are the most preferable and most of the measures fulfill this requirement. In particular, for the Price Consciousness measure, one item was deleted in order to increase the internal consistency of the group of items. The same method was applied to Value Consciousness, yet it was not effective.

Measure	Nr of items	Cronbach's Alpha	
		Shampoo	Shower gel
Price Consciousness	2	.606	.691
Value Consciousness	3	.529	.743
Price-Quality Association	4	.895	.858
Brand Loyalty	3	.851	.833
Smart Shopper Perception	3	.886	.858
Perceived Purchase Risk	5	.734	.777

**Figure 7: Survey items' reliabilities**

#### **4.4 Hypothesis Testing**

Advancing to the subsequent steps of the analysis, multiple linear regressions as well as a mediation analysis were conducted for testing the Hypothesis proposed in Chapter 2.

In particular, the goal was not only to evaluate the effect of five consumer perceptual characteristics plus the perceived purchase risk on consumer's purchase intent private label products, namely Shampoo and shower gel which belong to the categories of Hair Care and Body Care, but also to test the mediating role of purchase perceived risk on the relationships between the consumer traits and private label purchase intent.

##### **The effects of consumer perceptual variables over Private Label purchase intent**

To begin, a multiple linear regression was conducted to predict respondents purchase intent for a private label product based upon their price consciousness, value consciousness, price-quality association, brand loyalty and smart-shopper perception. This first analysis comprised only the consumer perceptual variables, excluding perceived risk from the equation.

A preliminary analysis was performed to ensure there was no violation of the assumption of normality, linearity and multicollinearity, assuring data validity of the models. A significant regression model was found for all three scenarios: for the entire sample, for the sample which questions were regarding Shampoo, and for the sample about shower gel. The resulting models'  $R^2$  were 31%, 25% and 40%

Following the same procedure, a second multiple regression was conducted incorporating all the consumer variables and risk together to predict Private Label purchase intent. The goal was adding to the equation the effect of the category perceived risk on the purchase intent for an either a private label Shampoo or shower gel. The analysis was firstly done for the entire sample. The outcome model again, was significant for the three scenarios.

To begin with the analysis on the entire sample, the linear regression model ( $F(6,242)=24.38$ ,  $p < .001$ ) presented an  $R^2$  of 38%, meanwhile for Shampoo ( $F(6,115)=8.53$ ,  $p < .001$ ) it exhibited an  $R^2$  of 31% and for Shower gel ( $F(6,120)=15.338$ ,  $p < .001$ ) an  $R^2$  of 43%.

Results show that crosswise, the  $R^2$  values on the second regression are the most favorable, which demonstrates that the variable risk definitely improves the explainability of the

regression models. Accordingly, along this dissertation these will be the considered coefficients for the analysis.

Recalling the Hypotheses evaluating the direct effects of consumer perceptual variables over Private Label purchase intent as well as the effect of perceived risk:

H1: Consumers’ price consciousness has a positive effect on private label purchase intent

H2: Consumers’ value consciousness has a positive effect on private label purchase intent.

H3: Consumers’ price-quality association has a negative effect on private label purchase intent.

H4: Consumers’ smart-shopper perception has a negative effect on private label purchase intent.

H5: Consumers’ brand loyalty has a negative effect on private label purchase intent.

H6: Perceived purchase risk has a negative effect on private label purchase intent.

#### 4.4.1 Consumer drivers of Private Label Purchase Intent: Results for the entire sample

According to the results from the regression comprising the entire sample it is observable that four variables have significant coefficients.

The variables include Price consciousness, price-quality association, smart-shopper perception and perceived purchase risk. These variables are shown to have a significant effect on private label purchase intent. In Figure 8.1 are displayed the standardized regression coefficients for the linear regression model comprising the entire sample population.

ALL Sample		
<u>Variable</u>	<b>Standardized Coefficients <math>\beta</math></b>	<b>Sig.</b>
Price Consciousness	.314	.000
Value Cons	.006	.926
Price-Quality Association	-.256	.000
Smart-Shopper Perception	-.141	.014
Brand Loyalty	.008	.885
Perceived Risk	-.289	.000

Dependent Variable: PI\_PLall

**Figure 8.1: Regression Standardized Coefficients for the entire sample.**

Looking at the variable Price Consciousness, the coefficient exhibits that for every unit increase in Price consciousness, the purchase intent for private label products (Shampoo and shower gel) will grow roughly 31%, all other variables remaining constant. Consequently, Hypothesis 1 is approved: *Consumers' price consciousness has a positive effect on Private Label purchase intent.*

Price quality association, on the other hand, turns out to have a contrary effect over private label purchase intent. If a consumer's price quality association increases by one unit, their purchase intent for private label decreases by 26%. Thus, Hypothesis 3 is confirmed: *Consumers' price-quality association has a negative effect on private label purchase intent.*

Similarly, Smart shopper perception manifests a negative association with private label purchase intent. As consumer's self-perception of a smart shopper grows one unit, their willingness to purchase a private label product decreases by 14%. This result validates Hypothesis 4: *Consumers' smart-shopper perception has a negative effect on private label purchase intent.*

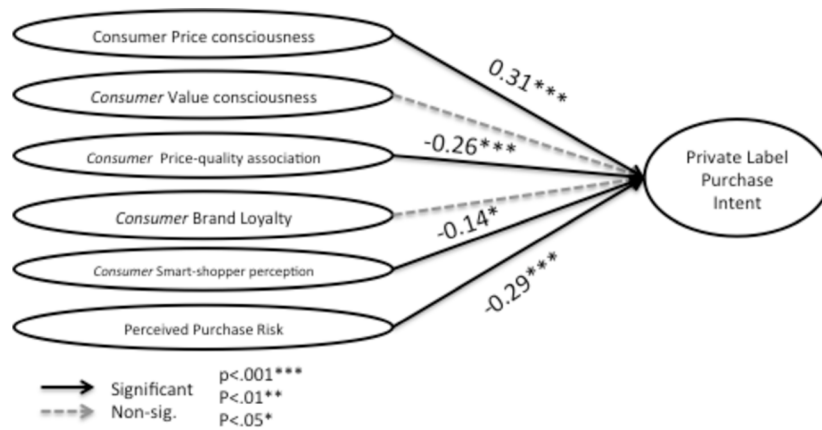
Finally, the variable purchase risk appears to significantly predict private label purchase intent. In numerical terms, for one unit increase in consumer's perceived risk, purchase intent for private label Shampoos will decrease by nearly 30%. Hypothesis 6 is, therefore, certified: *Perceived purchase risk has a negative effect on Private Label purchase intent.*

According to the described results, considering the entire sample population, most Hypotheses from the literature review are validated.

Hypothesis 1, Hypothesis 3, Hypothesis 4 and Hypothesis 6 are confirmed.

Nonetheless, Hypothesis 2 and Hypothesis 5 could not be validated, as the coefficients resulting from the performed regression model were not statistically significant.

Figure 8.2 displays a diagram with the Hypothesis tests' results comprising the entire sample population.



**Figure 8.2: Resulting variable relationships for the entire sample.**

#### 4.4.2 Consumer drivers of Private Label Purchase Intent: Results for Shampoo

The attained results from the performed regression indicate that three out of the six independent variables have significant coefficients. These variables are consumer's Price consciousness, consumer's Price-quality association and perceived purchase risk. Bearing a significant coefficient means that these variables have a statistically significant effect over the dependent variable - private label Shampoo purchase intent.

In Figure 9.1 are exposed the standardized regression relative to the sample population allocated with questions about Shampoo.

Sample SHAMPOO		
Variable	Standardized Coefficients $\beta$	Sig.
Price Consciousness	.188	.050
Value_Cons	.137	.159
Price-Quality_Association	-.306	.001
Smart-Shopper_Perception	-.086	.322
Brand_Loyalty	.029	.725
Perceived_Risk	-.286	.002

Dependent Variable: PI\_PLShampoo

**Figure 9.1: Regression Standardized Coefficients for Shampoo**

Looking at the variable Price Consciousness, the (standardized) regression coefficient (Model 2) reveals that for every unit increase in Price consciousness, the purchase intent for private

label Shampoos will increase by approximate 22%, holding all other variables constant. This result validates Hypothesis 1: *Consumers' price consciousness has a positive effect on Private Label **Shampoo** purchase intent.*

Price quality association conveys a significant negative coefficient, which means that as consumers association that higher priced Shampoos insinuate better quality increases, it is predicted that the purchase intent for private label Shampoos will decrease. Based on the standardized coefficient, for one unit increase in price-quality association regarding Shampoos, purchase intent for private label decreases by about 39%.

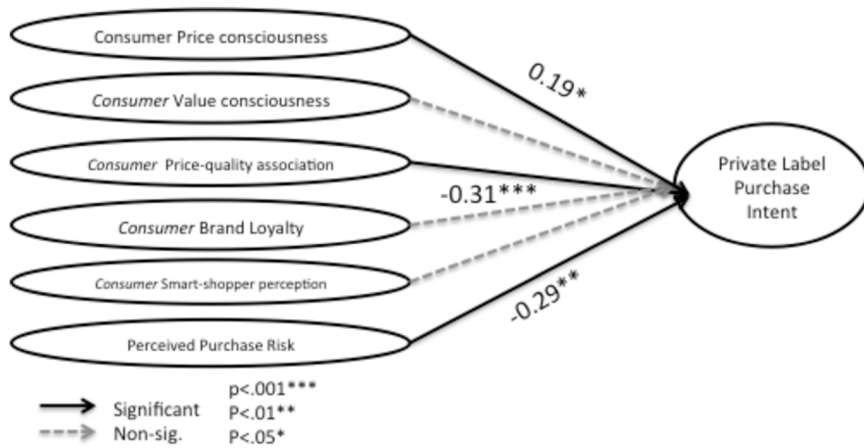
This result confirms Hypothesis 3: *Consumer's price-quality association has a negative effect on private label **Shampoo** purchase intent.*

Concerning purchase risk, this variable has demonstrated to significantly predict private label purchase intent. There is a significant and negative relationship between consumers perceived risk of buying the wrong Shampoo, and the purchase intent for private label Shampoos. Quantitatively, for one unit increase in consumer's perceived risk, purchase intent for private label Shampoos will decrease by 40%.

Based on the above result, there is evidence to uphold Hypothesis 6: *Perceived purchase risk has a negative effect on Private Label **Shampoo** purchase intent.*

The collected data does not provide statistical evidence to support the Hypothesis H2, H4 and H5, since the resulting coefficients for the consumer variables value consciousness, brand loyalty and smart-shopper perception were not significant on the performed regression models, considering a 95% CI.

A diagram with the results for the Hypothesis testing on Shampoo is presented in Figure 9.2.



**Figure 9.2: Resulting variable relationships for Shampoo.**

4.4.3 Consumer drivers of Private Label Purchase Intent: Results for shower gel

In respect of the results of linear regression aimed at predicting Private Label Shower Gel purchase intent, the consumer variables with significant coefficients are Price consciousness, Price-quality Association, Smart-Shopper Perception and Risk.

The standardized regression coefficients, respecting the population designated with questions about shower gel, are shown in Figure 10.1.

Sample SHOWER GEL		
Variable	Standardized Coefficients $\beta$	Sig.
Price Consciousness	.467	.000
Value_Cons	-.123	.142
Price-Quality_Association	-.191	.011
Smart-Shopper Perception	-.207	.009
Brand_Loyalty	.006	.939
Perceived_Risk	-.209	.011

Dependent Variable: PI\_PLShowerGel

**Figure 10.1: Regression Standardized Coefficients for Shower gel.**

Price Consciousness' variable coefficient poses that for every single increase in consumer's price consciousness when shopping for shower gel, the purchase intent for Private Label

product increases nearly 50%. Accordingly, Hypothesis 1 is verified: *Consumers' Price consciousness has a positive effect on Private Label **Shower gel** purchase intent.*

Contrarily, Price quality association shows an inverse relationship with private label purchase intent. As consumers price quality association within shower gel products increases by one unit, their purchase intent for private label decreases by 19%. This result upholds Hypothesis 3: *Consumers' price-quality association has a negative effect on private label **Shower gel** purchase intent.*

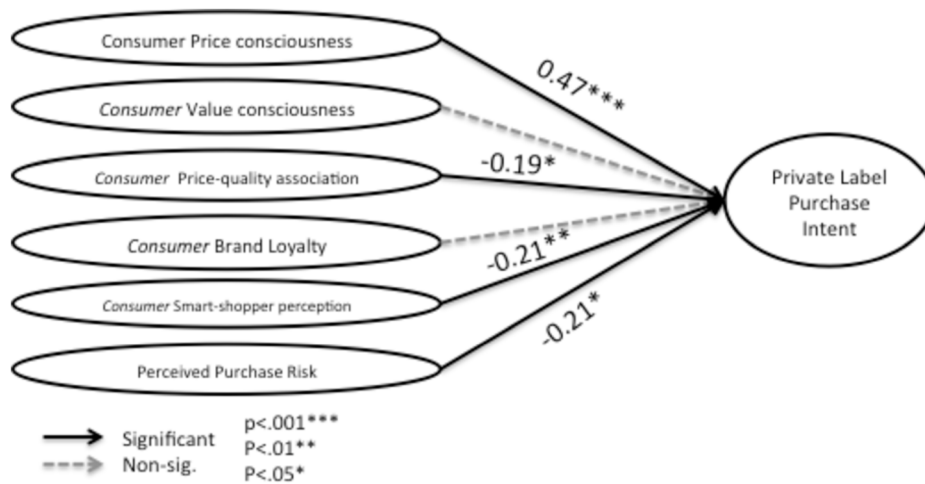
Moreover, Smart shopper perception also demonstrates a negative relationship with private label shower gel purchase intent. The more consumers perceived themselves as Shopping “experts” when it comes to Shower Gel, the less they are willing to purchase a private label product, in numerical terms, a decrease of 20%. Therefore, there is evidence to agree with Hypothesis 4: *Consumers' smart shopper perception has a negative effect on Private Label **Shower gel** purchase intent.*

Perceived risk conveys a negative coefficient, which implies the purchase intent for private label Shower Gel decreases as the perceived risk associated with the purchase increases, thus confirming Hypothesis 6: *Perceived purchase risk has a negative effect on Private Label **Shower gel** purchase intent.*

As is evident from the above results, several Hypotheses from the literature review chapter are validated. Alike the results for Hair Care, hypothesis H1, H3 and H6 are supported. In addition, Hypothesis 4 is also confirmed.

The prevailing Hypothesis concerning the relationship between brand loyalty and PL purchase intent (H5) cannot be upheld based on the obtained results due to the fact that the regression coefficient for brand loyalty was not significant considering a 95% CI.

A diagram with the results for the Hypothesis testing on Shower Gel is given in Figure 10.2.



**Figure 10.2: Resulting variable relationships for shower gel.**

### The mediating effect of risk on Private Label purchase intent

Succeeding the regression analysis and having discovered the effects of each consumer characteristic and Perceived purchase risk on the Purchase Intent for a Private Label Shampoo, a Mediation analysis was performed to assess whether the negative effects of consumers Price-Quality Association, Brand Loyalty and Smart-Shopper perception on their private label purchase intent are mediated by perceived purchase risk.

In sum, this section aims at testing the Hypotheses that investigate the mediating effect of perceived risk on the impact of consumer perceptual variables over Private Label purchase intent, as proposed in the second chapter:

H7a: Perceived purchase risk mediates the negative relationship between consumers' price-quality association and Private Label purchase intent.

H7b: Perceived purchase risk mediates the negative relationship between consumers' smart-shopper perception and Private Label purchase intent.

H7c: Perceived purchase risk mediates the negative relationship between consumers' brand loyalty and private label purchase intent.

#### 4.4.4 Perceived risk as a mediator of PL purchase intent

Following the regression analysis that unveiled the effects of each consumer characteristic and Perceived purchase risk on the Purchase Intent for a Private Label Shampoo, a Mediation analysis was performed to investigate whether perceived purchase risk mediates the (negative) relationship between consumers' shopping characteristics – Price-Quality Association, Brand Loyalty and Smart-Shopper perception -and the purchase intent for private label. The analysis comprised the entire sample, including both responses for Shampoo and shower gel related questions, as the goal is access the mediating role of risk, which happens to be the main difference between the two product categories.

The idea behind Mediation analysis is that the direct effect of the independent variable (IV), on the dependent variable should decrease after a mediator (M) is added to the model.

The mediation analysis, therefore, compares the total effect of the IV on the DV without mediator, denominated c-path, with the “new” effect of the IV on the DV after controlling for the mediator, known as c'path.

The goal is to disclose whether the difference between these two effects (c-path – c' path), generally known as the indirect effect, is statistically significant.

As mentioned above, in order to advocate mediation, c'-path should be smaller than c-path.

However, there are two types of mediation: if c' is non-significant there is full mediation; if both paths are significant there is only partial mediation.

An alternative to estimate the indirect effect and its significant is the Sobel test (Sobel. 1982). It consists of a Z-test on whether the difference between c path and c'path is statistically significant and different from zero.

Sobel tests were ultimately performed for each analysis to confirm the results.

Finally, to calculate the effect sizes the measure used was the Percent mediation ( $P_M$ ), interpreted as the percentage of the total effect that is accounted for by the indirect effect.

The subsequent analysis considers consumer traits ad the independent variables, perceived risk as the mediator and private label purchase intent as the outcome variable, or dependent variable.

Starting with price-quality association as the independent variable, the mediation analysis' results indicate that consumers price-quality association is a significant predictor of perceived

purchase risk (a-path:  $a = 0.30$ ,  $p < .001$ ), and that perceived purchase risk is a significant predictor of private label purchase intent (b-path:  $b = -0.64$ ,  $p < .001$ ).

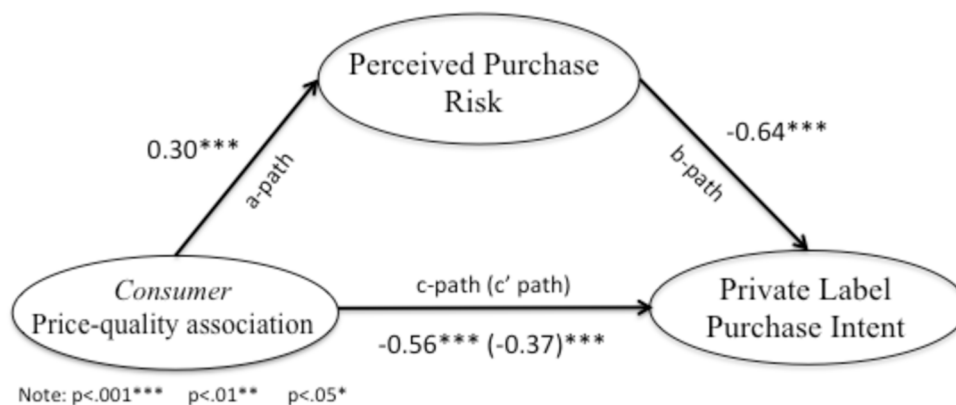
Although after controlling for the mediator - perceived purchase risk - the direct effect of Price-quality association's effect on purchase intent is significant (c'-path:  $c' = -0.37$ ,  $p < .001$ ), it is less than the total effect of price quality association on purchase intent. (c-path:  $c = -0.56$ ,  $p < .001$ ), revealing there exists "partial" mediation.

To conclude, a significant indirect effect of price-quality association on purchase intent via perceived purchase risk is observed (IE =  $-0.19$ , 95% CI =  $[-0.29; -0.11]$ ).

This result is supported by the Sobel test ( $Z = -4.31$ ,  $p < .001$ ).

The mediator could account for 34% of the total effect,  $P_M = .34$ .

As a result, Hypothesis 7a is validated: *Perceived purchase risk mediates the relationship between consumers' price-quality association and Private Label purchase intent.*



**Figure 11.1: The mediating role of perceived risk on the relationship between price-quality and private label purchase intent.**

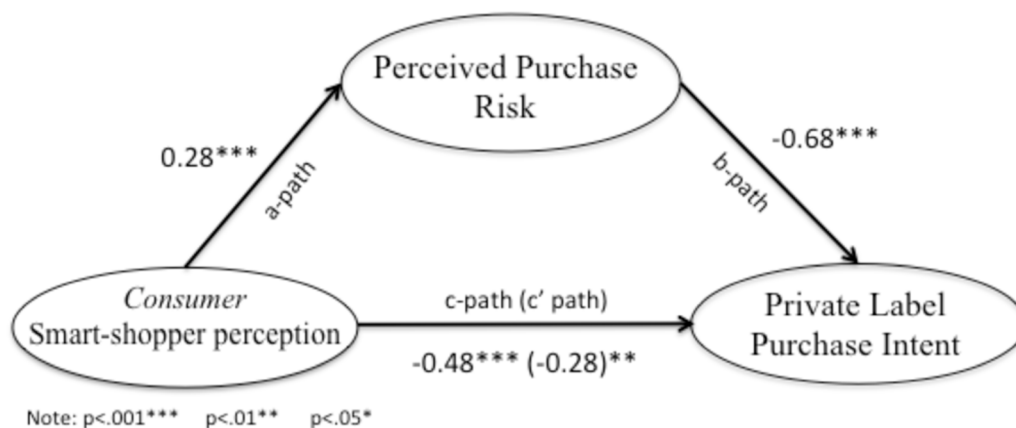
As to consumers' smart-shopper perception, it appears to be a significant predictor of perceived purchase risk (a-path:  $a = 0.28$ ,  $p < .001$ ) and perceived purchase risk a significant predictor of private label purchase intent. (b-path:  $b = -0.68$ ,  $p < .001$ ).

The total effect of smart-shopper perception on private label purchase intent is significant (c-path:  $c = -0.48$ ,  $p < .001$ ), as well as the direct effect after controlling for the mediator (c'-path:  $c' = -0.28$ ,  $p < .01$ ),

However, the direct effect is smaller than the total effect, reflecting, again, situation of partial mediation, as the predictive (direct) effect of smart shopper perception on private label purchase intent decreases after controlling for the mediator.

At last, results reveal a significant indirect effect of Smart Shopper perception on Purchase Intent for private label products (IE=  $-0.19$ , 95% CI =  $[-0.28; -0.12]$ ) and the Sobel Test confirms it. ( $Z=-4.27$ ,  $p<.001$ ) The mediator could account for roughly half of the total effect,  $P_M=.41$ .

These results confirm Hypothesis 7b: *Perceived purchase risk mediates the relationship between consumers' smart-shopper perception and Private Label purchase intent.*



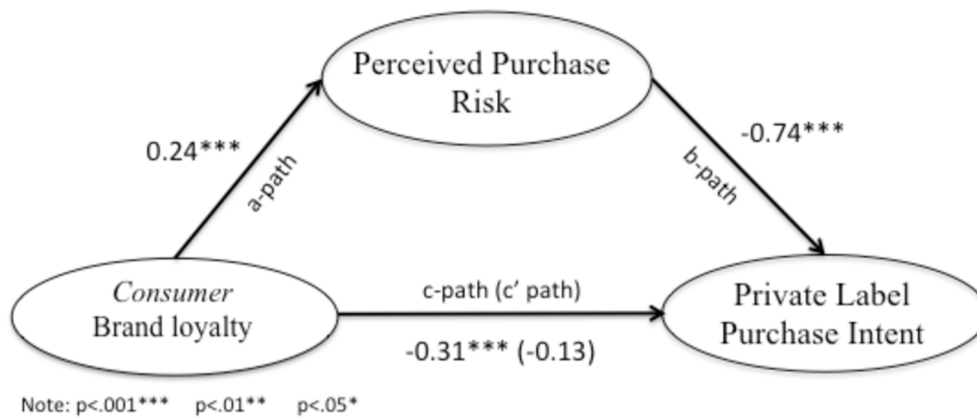
**Figure 11.2: The mediating role of perceived risk on the relationship between smart-shopper perception and private label purchase intent.**

Lastly, in respect to brand loyalty, results reveal a significant relationship between Shampoo brand loyalty and perceived purchase risk (a-path:  $a=0.24$ ,  $p<.001$ ) while the mediator demonstrated a significant relationship between purchase risk and private label purchase intent (b-path:  $b=-0.74$ ,  $p<.001$ ).

While the total effect of brand loyalty on PL purchase intent was significant. (c-path:  $c=-0.31$ ,  $p<.001$ ), brand loyalty had no longer a significant relationship with PL purchase intent after controlling for the mediator - perceived risk (c'-path:  $c'=-0.13$ ,  $p=0.09$ ). This situation is regarded as full mediation.

Furthermore, results disclose a significant indirect effect of Brand Loyalty on Purchase Intent for PL Shower Gel (IE=  $-0.18$ , 95% CI =  $[-0.32; -0.09]$ ) and the Sobel Test confirms it. ( $Z=-4.09$ ,  $p<.001$ ). The mediator accounts for more than half of the total effect,  $P_M=.57$ .

The above result provides enough statistical evidence to approve Hypothesis 7c: *Perceived purchase risk mediates the relationship between consumers' brand loyalty and Private Label purchase intent.*



**Figure 11.3: The mediating role of perceived risk on the relationship between brand loyalty and private label purchase intent.**

Concisely, the previous analysis aimed at responding to Hypotheses H7a, H7b and H7c, that declared that risk mediates the (negative) relationships between consumers' characteristics - price-quality association, smart-shopper perception and brand loyalty - and Private Label purchase intent.

		Total Effect (c)	Direct Effect (c')	Indirect effect (a*b)	% explained by risk (Pm)
H7a	Price-quality association	-0.56***	-0.37***	-0.19***	34%
H7b	Smart-shopper perception	-0.48***	-0.28**	-0.19***	41%
H7c	Brand loyalty	-0.31***	-0.13	-0.18***	57%

**Figure 12: Path coefficients for the total, direct and indirect effects as well as the % of the total effect that is accounted by the mediator (perceived risk).**

The obtained results provide enough statistical evidence to declare at a 95% confidence level that under the product categories of hair care and Body Care, the variable perceived purchase risk (partially or fully) mediates the relationships between consumers' perceptual traits - price-quality association, smart-shopper perception and brand loyalty – and private label Purchase Intent, being accountable for precisely 34%, 41% and 57% of the total effects these variables exert on private label purchase intent.

Summarizing, the following three hypothetical statements are validated:

Hypothesis 7a: *Perceived purchase risk mediates the negative relationship between consumers' price-*

*quality association and Private Label purchase intent.*

Hypothesis 7b: *Perceived purchase risk mediates the negative relationship between consumers' smart-shopper perception and Private Label purchase intent.*

Hypothesis 7c: *Perceived purchase risk mediates the negative relationship between consumers' brand loyalty and private label purchase intent.*

#### 4.4.5 Testing for Moderation effects

Ultimately, a moderation analysis was performed to assess if risk, besides a mediator, is also a moderator of the above relationships. The model used for the analysis was Hayes's PROCESS Model 1: Moderation with a continuous moderator.

A moderator variable is one that changes the strength of the relationship between a dependent and independent variable. Statistically, a variable is called moderator if there is an interaction between the independent variable(s) and the moderator variable such that affects the dependent variable. Thus, in order to exist Moderation there must be interaction.

Given that each model should contain only one independent variable, five analyses were conducted, one for each consumer characteristic: Price consciousness, Value consciousness, Price-quality association, Smart-shopper perception and Brand loyalty.

The moderator variable here is perceived risk and the dependent variable is private label purchase intent.

Results show that the interaction effect between the independent variables and the moderator is not significant for any case ( $p > 0.05$ ), revealing that there is no significant moderation effect between the variables, which means there is not enough evidence to conclude that there is a moderating effect in the population. (Appendices XI → XV)

## 5 CONCLUSIONS AND LIMITATIONS

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### 5.1 Main Findings and Conclusions

This research had two main objectives. First, it aimed at studying whether and how consumer perceptual traits and perceived purchase risk influence private label purchase intent and how these relationships vary depending on the category's level of risk. To investigate these effects, this study focused on the Beauty and Personal Care industry and analyzed two particular product categories with different levels of perceived risk, namely Hair Care and Body Care, which were rated by consumers as high-risk and low-risk respectively.

The second fundamental purpose of this study was to assess whether perceived purchase risk could explain the nature of the relationships between consumer characteristics and purchase intent for private label products on the studied product categories. These effects were measured using SPSS statistical software.

#### 5.1.1 Consumer drivers of private label purchase intent

First and foremost, multiple linear regressions were performed to assess the effects of consumers' price consciousness, value consciousness, price-quality association, brand loyalty, smart-shopper perception and perceived risk on private label purchase intent, contextualized in accordance with each product category. As already explained through the methodology, the survey's participants were randomly assigned to one of two scenarios where they were asked questions about their consumer behavior towards buying Shampoo or Shower gel.

A first regression was performed for the entire sample followed by two more detailed analyses, one for each category's sample.

The main goal of these analyses was to compare the results for both categories, considering that they have different levels of perceived risk as confirmed by the pre-survey's collected data.

To begin with the analysis of entire sample it was demonstrated that consumers' price consciousness, price-quality association, smart-shopper perception and perceived purchase risk have a significant effect in predicting private label purchase intent.

While consumers' price consciousness seems to positively influence purchase intent for private label, which is predictable since these brands are usually the lowest priced, their price-quality association, smart-shopper self-perception and perceived purchase risk exert the contrary effect.

However, the focus of this research is to understand the different drivers between both categories, Hair Care and Body Care, in order to explain the high variability in private label penetration.

Thus, moving on to the results on a category-level, the particular examples of Shampoo and shower gel were chosen to represent the Hair Care and the Body Care categories through the data collection process and analysis.

Results obtained from the analysis on consumer's shopping behavior towards Shampoos, support that within this product category (Hair Care), consumers' price consciousness positively influences their PL purchase intent while their price-quality association and perceived purchase risk negatively influence their purchase intent for private label.

The remaining consumer traits such as value consciousness, brand loyalty and smart-shopper perception appear not to directly predict private label purchase intent for this product category, contrarily to what was expected from the literature review.

In respect of consumer's shopping behavior towards shower gel, the results defended that within this category, consumers' price consciousness, price-quality association, smart shopper perception and perceived purchase risk had a direct effect over their purchase intent for private label. While consumers price consciousness appears to positively predict purchase intent for private label shower gel, the remaining four variables had demonstrated to have the opposite effect.

Consumers' value consciousness and brand loyalty are believed not to have a direct effect over private label purchase intent for this product category, which does not support the corresponding Hypothesis based on the literature review.

On the table below (Figure 13) are displayed the conclusions from the Hypotheses proposed in the Literature Review, related to the consumer traits that drive private label purchase intent.

	Verdict	
	Haircare	Bodycare
(H1) There is a direct positive relationship between consumer's price consciousness and private label purchase intent	✓	✓
(H2) There is a direct positive relationship between consumer's value consciousness and private label purchase intent	✗	✗
(H3) There is a direct negative relationship between consumer's price-quality association and private label purchase intent	✓	✓
(H4) There is a direct negative relationship between consumer's smart-shopper perception and private label purchase intent	✗	✓
(H5) There is direct negative relationship between consumer's brand loyalty and private label purchase intent	✗	✗
(H6) There is a direct negative relationship between perceived purchase risk and private label purchase intent	✓	✓

**Figure 13: Status of Hypotheses H1-> H6**

Comparing results for both categories, there are several differences that stand out.

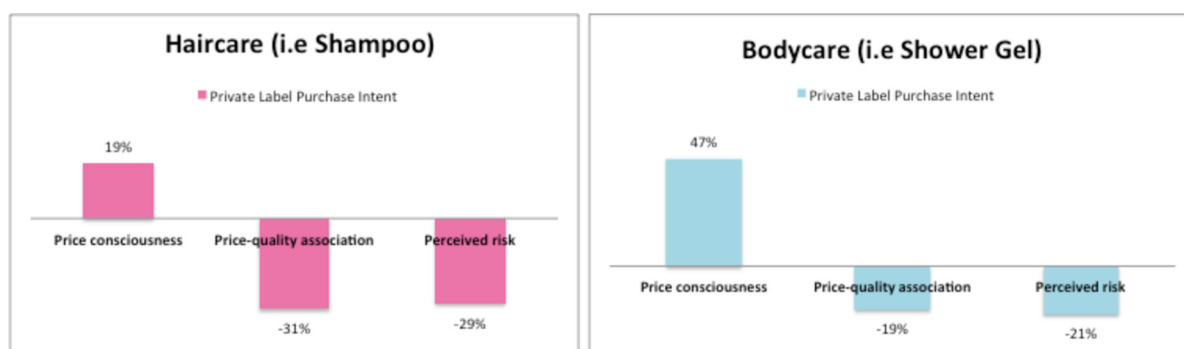
First, regarding the consumer variables that predict Private label purchase intent, it is clear that for Hair Care products, specifically Shampoo, both consumer's price –quality association and perceived purchase risk play substantial role in predicting their willingness to purchase private label, making them less likely to do so.

Contrarily, for Body care products, i.e. shower gel, the strongest effect on predicting private label purchase intent is given by consumers' price consciousness, which positively influences consumers to purchase private label products (Figure 12).

In addition, these results demonstrate that the consumer's characteristics that most drive consumers away from purchasing private label Hair Care products are price-quality association and perceived purchase risk.

As to Body Care products, price-consciousness is the main reason for consumers to buy private label Body Care products.

It is possible to conclude is that although price- consciousness prompts consumers to purchase private label products on a general level, on the case of Hair Care, it is not a primary driver, as its positive spur does not outplay the discouraging effect of price-quality association and perceived risk.



**Figure 14: The change (%) in private label purchase intent that results from the unit increase in the variables Price consciousness, Price-quality association and Perceived risk.**

5.1.2 The mediating role of perceived purchase risk

Results obtained from the mediation analysis suggest that, under the categories of hair care and body care, perceived purchase risk explains the relationships between consumer’s price-quality association, smart-shopper perception and brand loyalty, with the purchase intent for private label products.

Strictly speaking, an increased price-quality association causes higher perceived purchase risk, which then leads to lower private label purchase intent.

Thus, perceived purchase risk explains the relation between price-quality association and private label purchase intent because it conveys the effect price-quality association on private label purchase intent.

Likewise, greater smart-shopper perception causes higher perceived risk or a purchase mistake, which then provokes lesser private label purchase intent.

Hence, perceived purchase risk explains the association between consumers’ smart-shopper perception and private label purchase intent because it carried the effect of the first on the latter.

Lastly, extra brand loyalty induces higher perceived risk, which then breeds diminished private label purchase intent.

Thereby, perceived risk transmits the effect that consumers’ brand loyalty exerts on private label purchase intent.

	Verdict
(H7a) The negative relationship between consumer's price-quality association and PL purchase intent is mediated by the perceived purchase risk.	✓
(H7b) The negative relationship between consumer's brand loyalty and PL purchase intent is mediated by the perceived purchase risk.	✓
(H7c) The negative relationship between consumer's smart-shopper perception and PL purchase intent is mediated by the perceived purchase risk.	✓

**Figure 15: Status of Hypotheses H7a, H7b and H7c**

These results demonstrate that risk plays a crucial role in dissuading consumers from purchasing private label Beauty and Personal Care products, as it is inherent in the way that at least three consumer traits that influence purchase intent for these products.

Starting with price-quality association, it is plausible that the more consumers associate higher prices with better quality, the less they are willing to buy private label, as these are usually the least priced options. What is new from this analysis is the confirmation that as consumers price-quality association amongst Beauty and Personal Care products increases, they perceive a higher risk associated with low price-products, and that explains the reluctance to purchase private label products.

As it was verified in the initial analysis, the categories of hair care and Body Care have considerably different levels of perceived risk, meaning this is not only a consumer-factor but also a category-factor.

Therefore, the previous results can also be interpreted in the following way: as a category's perceived price-quality ratio increases, the worse are the perceived consequences of a purchase mistake, making consumers less willing to purchase private label products because of their low price.

Regarding consumers' smart-shopper perception, the primary relationship of these characteristic with private label purchase intent is that the more the consumer perceives himself/herself as a smart shopper, the less likely to purchase private label products.

It is understood by this analysis that that smart shopper perception is significantly related to the perceived purchase risk, which hints that the greater is a consumer's self-perception of a smart shopper, the higher the perceived risk associated with making a wrong purchase which deters the consumer from buying private label products.

Lastly, as regards to brand loyalty, it is logical that the more loyal to a brand consumers are, the less likely to buy private label. However, this analysis has shown that this causal effect is indirectly explained by the perceived risk of private label products. One way to interpret the above conclusion is that consumers use brand loyalty as cue for avoiding risk and uncertainty, as referred in the literature review.

The above conclusions served as basis for the managerial implications described further down this chapter.

## **5.2 Academic Relevance**

This research is academically relevant since there is a lack of academic research on private label purchase intent focusing on specific product categories, especially on the Beauty and Personal Care industry.

A category-focused analysis of Private Label purchase is pertinent because each category has its own particularities that stimulate consumers to behave in a certain way. Hence, by narrowing and focusing the research, it is possible to draw more concrete and category-specific conclusions.

Several authors have investigated Private Label attitude and its antecedents, including several consumer characteristics, both economic and hedonic, and also risk-related variables as the perceived quality of Private Label products, its perceived variation within product categories and consequences of purchase mistakes, but none has investigated the role of risk as a mediator of the relationships between several consumer perceptual variables and private label purchase intent.

Therefore, this dissertation contributes to the knowledge of consumer behavior in what concerns the consumer drivers of private labels purchase intent as well as the important role of risk in influencing directly and indirectly consumers' willingness to buy private labels.

### **5.3 Managerial Implications**

This dissertation intends to help Sonae MC redesigning and managing their private label strategy for Beauty and Personal Care products, in particular for Hair Care products, such as Shampoo, by understanding the main drivers of consumers' purchase intent, as well as learning the role that risk played on consumer's attitude towards Private Labels.

The obtained results contained valuable managerial knowledge particularly relevant as the retailers' line of Beauty and Personal Care products is going through a major strategic shift.

Based on the collected results, an example of a managerial action that should be taken is to focus a more on improving consumer's perception of quality of their Hair Care products and focus a little less on the price. This action would contribute to decreasing consumer's perceived purchase risk associated with Continente's private label Hair Care products, as it is a key purchase driver in this category. One way to do this is by developing three or more distinct product segments with different positioning, from a low-priced to the more "premium" segment. In line with the "premium" line of Shampoos, I would recommend investing in a segment of "natural" or "organic" products, as it is becoming a market demand.

Since Hair Care is a category with high-perceived risk, quality assurance is a must, and by having a premium, higher-priced product line, it would improve the brand's image as a whole. I would also recommend discontinuing the products with the retailer's brand name, "Continente", and using only exclusive brands, like 'Mylabel'.

Moreover, communication is key. Sonae MC has been working on and launching several campaigns promoting their private label products, which the best way to gain consumers' trust and loyalty to the brand. My recommendation is that Sonae MC keeps on developing those integrated strategies for the Beauty and Personal Care products and assure that these efforts reach the maximum number of target consumers and resonate with them.

Concerning the strategy for Body Care products, alike in Hair Care it is important to assure quality and diminish consumers perceived risk as much as possible. However, as the main driver for private label purchase in Body Care is consumers' price consciousness, I would recommend to always keep the price low and invest in highly in communication, emphasizing that quality levels of their products match most name-brands in the market and strengthening their brand identity which also leads to customer loyalty. In this case I believe the retailer's name should be the brand name, contrarily to what I referred for Hair Care.

#### **5.4 Limitations and Further Research**

As most studies, this investigation had its limitations. One of the limitations was the number of responses collected on the online survey. Although the survey collected an acceptable number of valid responses (246 responses), participants were randomly assigned to one of two scenarios regarding two product categories: Hair Care or Body Care, which resulted in 122 answers for the first scenario and 124 answers for the second one. As such, a larger sample size would be advised to be more representative of each sample population. Another limitation is that survey was only distributed online, through digital channels, as email and Facebook, which prevents people without these platforms from answering it, narrowing the sample.

A third factor that could have limited the research was the choice of the sub-categories of Shampoo and Shower Gel to symbolize the categories of Hair Care and Body Care. Despite both being top sellers within the categories they belong to, there are other sub-categories that, if analyzed, could have led to different results.

In respect to future research in this field, it would be favorable to conduct a similar study increasing the sample size. Moreover, it should be advantageous to perform a similar analysis across more product categories, especially with different levels of product involvement and perceived risk.

Doing experimental research on the supermarket would also be interesting, by observing consumers behavior and discover other consumer characteristics behind private label purchase intent, as well as contextual variables (e.g. available promotions on name brands, depth of discount, price gap).

Finally, there would surely be meaningfulness to explore deeper the correlations between perceived risk and private label share of sales, since this investigation's results slightly suggested some interrelationships.

Decidedly, there is plenty of room for compelling research to be done on this field of study.

## 6 REFERENCES

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- Accenture (2012), *Harnessing the Power of Private Label in Retail*.
- Ailawadi, Kusum L., Scott A. Neslin, and Karen Gedenk (2001), "Pursuing the Value-Conscious Consumer: Store Brands Versus National Brand Promotions," *Journal of Marketing*, 65(1), 71–89.
- Ailawadi, Kusum L., Koen Pauwels, and Jan-Benedict E.M. Steenkamp (2008), "Private-Label Use and Store Loyalty," *Journal of Marketing*, 72(6), 9–30.
- Batra, Rajeev; and Indrajit Sinha (2000), "Consumer-Level Factors Moderating The Success Of Private Label Brands," *Journal of Retailing*, 76(2), 175–191.
- Bettman, James R. (1974), "Relationship of Information-Processing Attitude Structures to Private Brand Purchasing Behavior.," *Journal of Applied Psychology*, 59(1), 79–83.
- Blattberg, Robert C. and Kenneth J. Wisniewski (1989), "Price-Induced Patterns of Competition," *Marketing Science*, 8(4), 291–309.
- Bronnenberg, Bart J and Luc Wathieu (1996), "Asymmetric Promotion Effects and Brand Positioning Asymmetric Promotion Effects and Brand Positioning," *Marketing Science*, 15(4), 379–94.
- Burton, S., D. R. Lichtenstein, R. G. Netemeyer, and J. a. Garretson (1998), "A Scale for Measuring Attitude toward Private Label Products and an Examination of Its Psychological and Behavioral Correlates," *Journal of the Academy of Marketing Science*, 26(4), 293–306.
- Chang, Tung-Zong and Albert R Wildt (1994), "Price, Product Information, and Purchase Intention: An Empirical Study," *Journal of the Academy of Marketing Science*, 22(1), 16–27.
- Delvecchio, Devon (2001), "Consumer Perceptions of Private Label Quality: The Role of Product Category Characteristics and Consumer Use of Heuristics," *Journal of Retailing and Consumer Services*, 8, 239–49.
- Dhar, S. K. and S. J. Hoch (1997), "Why Store Brand Penetration Varies by Retailer,"

*Marketing Science*, 16(3), 208–27.

Dickson, Peter R. and Alan G. Sawyer (1990), “The Price Knowledge and Search of Supermarket Shoppers,” *Journal of Marketing*, 54(1), 42–53.

Donald R. Lichtenstein, Nancy M. Ridgway, Richard G. Netemeyer (1993), “Price Perceptions and Consumer Shopping Behavior: A Field Study,” *Journal of Marketing Research*, 30(2), 234–45.

Erickson, Gary M. and Johny K. Johansson (1985), “The Role of Price in Multi-Attribute Product Evaluations The Role of Price in Multi-Attribute Product Evaluations The Role of Price in Multi-Attribute Product Evaluations,” *Source Journal of Consumer Research*, 12(2), 195–99.

Garretson, Judith A., Dan Fisher, and Scot Burton (2002), “Antecedents of Private Label Attitude and National Brand Promotion Attitude: Similarities and Differences,” *Journal of Retailing*, 78(2), 91–99.

Gerstner, Eitan (1985), “Do Higher Prices Signal Higher Quality?,” *Journal of Marketing Research*, 22(2), 209–15.

Gomez, Monica and Natalia R. Benito (2008), “Manufacturer’s Characteristics That Determine the Choice of Producing Store Brands,” *European Journal of Marketing*, 42(1/2), 154–77.

Gounaris, Spiros and Vlasis Stathakopoulos (2004), “Antecedents and Consequences of Brand Loyalty: An Empirical Study,” *Journal of Brand Management*, 11(4), 283–306.

Grewal, Dhruv, R Krishnan, Julie Baker, and Norm Borin (1998), “The Effect of Store Name, Brand Name and Price Discounts on Consumers’ Evaluations and Purchase Intentions,” *Journal of Retailing*, 74(3), 331–352.

Holbrook, Morris B. (1994). “The nature of customer value: an axiology of services in the consumption experience,” *Service quality: New directions in theory and practice*, 21, 21-71.

Hoch, Stephen J. and Shumeet Banerji (1993), “When Do Private Labels Succeed?,” *Sloan Management Review*, 34, 57–67.

Hoch, Stephen J., Alan L. Montgomery, and Paark Young-Hoon (2001), *Long-Term Growth*

*Trends in Private Label Market Shares.*

- Jin, Byoung-ho and Yong Gu Suh (2005), "Integrating Effect of Consumer Perception Factors in Predicting Private Brand Purchase in a Korean Discount Store Context," *Journal of Consumer Marketing*, 22(2), 62–71.
- Kupiec, Beata and Brian Revell (2001), "Measuring Consumer Quality Judgements," *British Food Journal*, 103(1), 7–22.
- Laurent, Gilles and Jean-Noel Kapferer (1985), "Measuring Consumer Involvement Profiles," *Journal of Marketing Research*, 22(1), 41–53.
- Marcel Corstjens and Rajiv Lal (2000), "Building Store Loyalty Through Store Brands," *Journal of Marketing Research*, 37(1), 281–91.
- Martenson, Rita (2007), "Corporate Brand Image, Satisfaction and Store Loyalty: A Study of the Store as a Brand, Store Brands and Manufacturer Brands," *International Journal of Retail & Distribution Management*, 35(7), 544–55.
- Narasimhan, Chakravarthi and Ronald T Wilcox (1998), "Private Labels and the Channel Relationship: A Cross-Category Analysis," *The Journal of Business*, 71(4), 573–600.
- Nielsen (2014), *The State of Private Label Around the World*.
- Quelch, J A and D Harding (1996), *Brands Versus Private Labels: Fighting to Win*, Harvard Business School Publishing, <https://books.google.pt/books?id=dxAVnQEACAAJ>.
- Richardson, Paul S, Arun K Jain, and Alan Dick (1996), "Household Store Brand Proneness: A Framework," *Journal of Retailing*, 72(2), 159–85.
- Saunders, M., P. Lewis, and A. Thornhill (2009), *Research Methods for Business Students*, 5th Pearson Education Limited.
- Schindler, Robert M. (1989), "The Excitement of Getting a Bargain: Some Hypotheses Concerning the Origins and Effects of Smart-Shopper Feelings", *Advances in Consumer Research*, 16, 447-53
- Semeijn, Janjaap, Allard C. R. Van Riel, and A. Beatriz Ambrosini (2004), "Consumer Evaluations of Store Brands: Effects of Store Image and Product Attributes," *Journal of Retailing and Consumer Services*, 11(1), 247–58.

Sheth, Jagdish N. and Atul Parvatiyar (1995), "The Evolution of Relationship Marketing," *International Business Review*, 4(4), 397–418.

Valarie A. Zeithaml (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence," *Journal of Marketing*, 52(3), 2–22.

Wolinsky, Asher (1987), "Brand Names and Price Discrimination," *The Journal of Industrial Economics*, 35(3), 255–68.

Wu, Paul C. S., Gary Yeong-Yuh Yeh, and Chieh-Ru Hsiao (2011), "The Effect of Store Image and Service Quality on Brand Image and Purchase Intention for Private Label Brands," *Australasian Marketing Journal*, 19, 30–39.

## 7 APPENDIX

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### 7.1 Appendix I: Online Pre-Survey Guideline

*Note: This pre-survey was launched in Portuguese only, as the target market in study is Portuguese (female) consumers.*

**Have you ever bought Beauty and Personal Care products at the supermarket?**

- Yes
- No

*If “No” is selected, skip to end of questionnaire*

**From the following categories of Personal Care products, which ones do you buy, or have bought at the supermarket?**

- Shampoo
- Hair Conditioner
- Face Cream
- Body Cream
- Deodorant
- Oral hygiene

*Only the selected categories will appear on the next question(s).*

**Next you will be presented with a series of categories of Beauty and Personal Care products. For each category presented, think about all the brands that you know: from the most notable name brands to private labels.**

**Please indicate to which extent do you agree or disagree with the following sentences.**

- All brands of *Category* are basically the same in quality.
- I don't think that there are any significant differences among different brands of *Category* in terms of quality.
- Category* brands do not vary a lot in terms of quality.
- There are only minor variations among brands of (category) in terms of quality.
- When I choose a brand of *Category*, it is not a big deal if I make a mistake.

- One can't go too wrong if one buys the wrong brand of *Category*.

## **7.2 Appendix II: Online Survey Guideline**

*Note: This survey was launched in Portuguese only, as the target market in study is Portuguese (female) consumers.*

### **Introduction**

My name is Madalena Barata and the following questionnaire is a key part of my Master Thesis at Católica-Lisbon School of Business and Economics.

Thank you in advance for your time and cooperation!

All your answers will be treated anonymously, and the questionnaire will take approximately 3 minutes to answer.

Note: This questionnaire is directed to women only.

### **Block 1 – Target Selection**

#### **Q1 Have you ever bought Personal Care products at the supermarket?**

- Yes
- No

*If “No” is selected, skip to end of questionnaire*

### **Block 2 – Shampoo**

Imagine that you are at the supermarket looking to buy a new Shampoo.

Please indicate to which extent you agree or disagree with the following sentences.

#### **Q2 (Price consciousness – 3 Items)**

- The time it takes to find low prices of Shampoo is usually not worth the effort (rev\_coded)
- I compare prices of at least a few brands of Shampoo before I choose one.
- It is important to me to get the best price for the Shampoo I buy.

#### **Q3 (Price-quality association – 4 Items)**

- “Generally speaking, the higher the price of a Shampoo, the higher the quality.”

- “The old saying "you get what you pay for" is generally true for Shampoo.”
- “The price of a Shampoo is a good indicator of its quality.”
- “You always have to pay a bit more for the best Shampoo.”

#### **Q4 (Value Consciousness – 3 Items)**

- When purchasing a Shampoo, I always try to maximize the quality I get for the money I spend.
- I generally shop around for lower prices on Shampoos, but they still must meet quality requirements before I buy them.
- I always check prices of several Shampoos to be sure I get the best value for the money I spend.

#### **Q5 (Brand Loyalty – 3 Items)**

- Once I have made a choice on which brand of Shampoo to purchase, I am likely to continue to purchase it.
- Even though Shampoos are available in a number of different brands, I always tend to buy the same brand.
- I am willing to make an effort to search for my favorite brand of Shampoo.

#### **Q6 (Smart-Shopper Self perception – 3 Items)**

- I am somewhat of an expert when it comes to shop for Shampoos.
- People think of me as a good source of shopping information on Shampoos.
- I enjoy giving people tips on what Shampoos to buy.

#### **Q5 (Perceived purchase risk - 5 Items)**

- All brands of Shampoo are basically the same in quality. (-)
- I think there are any significant differences among different brands of Shampoo in terms of quality. (+)
- Shampoo brands do not vary a lot in terms of quality. (-)
- There are only minor variations among brands of Shampoo in terms of quality. (-)
- When I choose a brand of Shampoo it is not a big deal if I make a mistake. (-)
- One can't go too wrong if one buys the wrong brand of Shampoo. (-)

**Q7 (Private label purchase intent)**

- Are you willing to purchase a Shampoo of Private Label?

**Block 3 –Showergel**

(same questions from Block 2 with Shower gel on the place of Shampoo)

**Block 4 – Store preference**

**Q8 which stores do you most frequently buy your personal care products at?**

Continente / Continente Modelo / Continente Bom Dia

Pingo Doce

Minipreço

Lidl

Intermarché

Jumbo / Pão de Açúcar

## **Block 5 – Demographic Variables**

### **Q9 Age**

- Less than 25 years
- 25-34 years
- 35-44 years
- 45-54 years
- 55 – 64 years
- 60 -74 years
- 75 years or older

### **Q10 Gender**

- Male
- Female

### **Q11 Education**

- Middle School
- High School
- Bachelor Degree
- Master Degree
- Doctoral Degree

### **Q12 Occupation**

- Student
- Employee
- Self-Employed worker
- Retired
- Other

### **Q13 Monthly Personal Income**

- Less 500€
- 500€ - 999€
- 1000€ - 1999€
- 2000€ - 2999€
- 3000€ - 4999€
- More than 5000€

### **7.3 Appendix III: Interview Guideline**

1. In your opinion, what are the main drivers for a consumers to buy Private label products?
2. What are the biggest challenges that private labels face in the Beauty and Personal care industry?
3. In which categories are Sonae MC's private labels most successful?
4. Inversely, in which categories are Sonae MC's private labels less successful?
5. What do you believe is the main reason for such a low private label penetration in certain categories?
6. I heard tht you are fully redesigning your Beauty and Personal Care product line, specially the brand Mylabel. What is the positioning and "value proposition" of the upcoming brand?

## 7.4 Appendix IV: SPSS Output - Pre-Survey

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
AvRisk_Shampoo	23	2,40	7,00	5,5217	1,26346
AvRisk_ShowerGel	18	1,60	6,60	3,5889	1,33984
AvRisk_BodyCream	20	2,00	7,00	4,3700	1,47295
AvRisk_OralHygiene	19	2,60	7,00	4,6842	1,31372
AvRisk_Conditioner	16	4,40	7,00	5,4000	,74117
AvRisk_Deodorant	24	2,00	7,00	5,0104	1,42615
AvRisk_FacialCream	14	5,00	7,00	6,0429	,61858
Valid N (listwise)	0				

## 7.5 Appendix V: SPSS Output - Demographic factors

Idade:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Menos de 25 anos	58	19,1	23,6	23,6
	25 a 34 anos	33	10,9	13,4	37,0
	35 a 44 anos	43	14,2	17,5	54,5
	55 a 64 anos	34	11,2	13,8	68,3
	45 a 54 anos	70	23,1	28,5	96,7
	Mais de 64 anos	8	2,6	3,3	100,0
	Total	246	81,2	100,0	
Missing	System	57	18,8		
Total		303	100,0		

Habilitações Académicas:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ensino Secundário	45	14,9	18,3	18,3
	Licenciatura	114	37,6	46,3	64,6
	Mestrado	73	24,1	29,7	94,3
	Doutoramento	14	4,6	5,7	100,0
	Total	246	81,2	100,0	
Missing	System	57	18,8		
Total		303	100,0		

**Ocupação:**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Estudante	39	12,9	15,9	15,9
	Trabalhador por conta de outrem	119	39,3	48,4	64,2
	Trabalhador por conta própria	62	20,5	25,2	89,4
	Reformado	17	5,6	6,9	96,3
	Desempregado	9	3,0	3,7	100,0
	Total	246	81,2	100,0	
Missing	System	57	18,8		
Total		303	100,0		

**Rendimento mensal líquido:**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Menos que 500€	38	12,5	15,4	15,4
	500€ a 999€	57	18,8	23,2	38,6
	1000€ a 1999€	100	33,0	40,7	79,3
	2000€ a 2999€	33	10,9	13,4	92,7
	3000€ a 4999€	13	4,3	5,3	98,0
	Mais que 5000€	5	1,7	2,0	100,0
	Total	246	81,2	100,0	
Missing	System	57	18,8		
Total		303	100,0		

**Em que supermercado faz com mais frequencia as suas compras de produtos de Higiene e Beleza?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Continente / Continente				
Modelo / Continente Bom	117	38,6	48,5	48,5
Dia				
Pingo Doce	53	17,5	22,0	70,5
Minipreço	8	2,6	3,3	73,9
Lidl	11	3,6	4,6	78,4
Jumbo / Pão de Açúcar	50	16,5	20,7	99,2
Intermarché	2	,7	,8	100,0
Total	241	79,5	100,0	
Missing				
System	62	20,5		
Total	303	100,0		

**7.6 Appendix VI: SPSS Output – Regression (Shampoo)**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,555 <sup>a</sup>	,308	,272	1,968

a. Predictors: (Constant), Risk\_S, PriceCons\_S, BL\_S, SmtSh\_S, PQ\_S, ValueCons\_Shampoo

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	198,143	6	33,024	8,525	,000 <sup>b</sup>
	Residual	445,464	115	3,874		
	Total	643,607	121			

a. Dependent Variable: Está disposto a comprar Champô de marca "branca"?

b. Predictors: (Constant), Risk\_S, PriceCons\_S, BL\_S, SmtSh\_S, PQ\_S, ValueCons\_Shampoo

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,873	1,096		5,360	,000
	PriceCons_S	,249	,129	,188	1,925	,050
	ValueCons_Shampoo	,245	,173	,137	1,416	,159
	PQ_S	-,428	,126	-,306	-3,401	,001
	SmtSh_S	-,119	,120	-,086	-,995	,322
	BL_S	,041	,115	,029	,353	,725
	Risk_S	-,526	,163	-,286	-3,231	,002

a. Dependent Variable: Está disposto a comprar Champô de marca "branca"?

### 7.7 Appendix VII: SPSS Output – Regression (Shower Gel)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,659 <sup>a</sup>	,434	,406	1,730

a. Predictors: (Constant), Risk\_ShowerGel, ValueCons\_ShowerGel, PriceQuality\_ShowerGel, BrandLoyalty\_ShowerGel, SmartShopper\_ShowerGel, PriceCons\_ShowerGel

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	275,526	6	45,921	15,338	,000 <sup>b</sup>
	Residual	359,277	120	2,994		
	Total	634,803	126			

a. Dependent Variable: Está disposto a comprar Gel de Banho de marca "branca"?

b. Predictors: (Constant), Risk\_ShowerGel, ValueCons\_ShowerGel, PriceQuality\_ShowerGel, BrandLoyalty\_ShowerGel, SmartShopper\_ShowerGel, PriceCons\_ShowerGel

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36,407	,847		42,967	,000
	PriceCons_ShowerGel	,589	,109	,467	5,381	,000
	ValueCons_ShowerGel	-,175	,119	-,123	-1,478	,142
	PriceQuality_ShowerGel	-,279	,108	-,191	-2,570	,011
	BrandLoyalty_ShowerGel	,008	,100	,006	,076	,939
	SmartShopper_ShowerGel	-,297	,111	-,207	-2,663	,009
	Risk_ShowerGel	-,332	,128	-,209	-2,596	,011

a. Dependent Variable: Está disposto a comprar Gel de Banho de marca "branca"?

### 7.8 Appendix VIII: SPSS Output – Regression (Entire Sample)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,614 <sup>a</sup>	,377	,361	1,88791

a. Predictors: (Constant), Risk\_all, PCons\_all, SmtSh\_all, BL\_all, PQ\_all, VCons\_all

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	521,305	6	86,884	24,377	,000 <sup>b</sup>
	Residual	862,535	242	3,564		
	Total	1383,839	248			

a. Dependent Variable: PI\_all

b. Predictors: (Constant), Risk\_all, PCons\_all, SmtSh\_all, BL\_all, PQ\_all, VCons\_all

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6,818	,673		10,126	,000
	PCons_all	,422	,085	,314	4,954	,000
	VCons_all	-,009	,102	-,006	-,094	,926
	PQ_all	-,376	,084	-,256	-4,485	,000
	SmtSh_all	-,206	,083	-,141	-2,483	,014
	BL_all	,011	,076	,008	,145	,885
	Risk_all	-,497	,101	-,289	-4,904	,000

a. Dependent Variable: PI\_all

### 7.9 Appendix IX: SPSS Output – Mediation (IV: Price-quality association)

Model = 4  
 Y = PI\_all  
 X = PQ\_all  
 M = Risk\_all

Sample size  
 249

\*\*\*\*\*  
 Outcome: Risk\_all

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,3503	,1227	1,6603	34,5377	1,0000	247,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,7072	,2082	17,8026	,0000	3,2970	4,1173
PQ_all	,2991	,0509	5,8769	,0000	,1988	,3993

\*\*\*\*\*  
 Outcome: PI\_all

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,5191	,2695	4,1094	45,3738	2,0000	246,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	8,9046	,4950	17,9888	,0000	7,9296	9,8796
Risk_all	-,6423	,1001	-6,4163	,0000	-,8394	-,4451
PQ_all	-,3717	,0855	-4,3479	,0000	-,5400	-,2033

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

Outcome: PI\_all

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,3837	,1472	4,7777	42,6442	1,0000	247,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	6,5236	,3532	18,4679	,0000	5,8278	7,2193
PQ_all	-,5637	,0863	-6,5302	,0000	-,7338	-,3937

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS \*\*\*\*\*

Total effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-,5637	,0863	-6,5302	,0000	-,7338	-,3937

Direct effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-,3717	,0855	-4,3479	,0000	-,5400	-,2033

Indirect effect of X on Y

Effect	Boot SE	BootLLCI	BootULCI	
Risk_all	-,1921	,0436	-,2863	-,1149

Partially standardized indirect effect of X on Y

Effect	Boot SE	BootLLCI	BootULCI	
Risk_all	-,0813	,0180	-,1204	-,0495

Completely standardized indirect effect of X on Y

Effect	Boot SE	BootLLCI	BootULCI	
Risk_all	-,1307	,0296	-,1951	-,0777

Ratio of indirect to total effect of X on Y

Effect	Boot SE	BootLLCI	BootULCI	
Risk_all	,3407	,0886	,2033	,5591

Ratio of indirect to direct effect of X on Y

Effect	Boot SE	BootLLCI	BootULCI	
Risk_all	,5169	,3367	,2551	1,2680

R-squared mediation effect size (R-sq\_med)

Effect	Boot SE	BootLLCI	BootULCI	
Risk_all	,0911	,0261	,0449	,1478

Normal theory tests for indirect effect

Effect	se	Z	p
-,1921	,0446	-4,3054	,0000

## 7.10 Appendix X: SPSS Output – Mediation (IV: Smart-shopper perception)

Model = 4  
 Y = PI\_all  
 X = SmSh\_all  
 M = Risk\_all

Sample size  
 249

\*\*\*\*\*  
 Outcome: Risk\_all

Model Summary						
	R	R-sq	MSE	F	df1	df2
p	,3343	,1118	1,6810	31,0822	1,0000	247,0000
	,0000					

Model						
	coeff	se	t	p	LLCI	ULCI
constant	4,0465	,1632	24,7887	,0000	3,7250	4,3681
SmSh_all	,2839	,0509	5,5751	,0000	,1836	,3842

\*\*\*\*\*  
 Outcome: PI\_all

Model Summary						
	R	R-sq	MSE	F	df1	df2
p	,4968	,2469	4,2367	40,3155	2,0000	246,0000
	,0000					

Model						
	coeff	se	t	p	LLCI	ULCI
constant	8,4886	,4840	17,5388	,0000	7,5353	9,4419
Risk_all	-,6830	,1010	-6,7613	,0000	-,8820	-,4840
SmSh_all	-,2838	,0858	-3,3085	,0011	-,4528	-,1149

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*  
 Outcome: PI\_all

Model Summary						
	R	R-sq	MSE	F	df1	df2
p	,3270	,1069	5,0037	29,5641	1,0000	247,0000
	,0000					

Model						
	coeff	se	t	p	LLCI	ULCI
constant	5,7248	,2816	20,3269	,0000	5,1701	6,2796
SmSh_all	-,4777	,0879	-5,4373	,0000	-,6508	-,3047

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS \*\*\*\*\*

Total effect of X on Y						
Effect	SE	t	p	LLCI	ULCI	
-,4777	,0879	-5,4373	,0000	-,6508	-,3047	

Direct effect of X on Y						
Effect	SE	t	p	LLCI	ULCI	
-,2838	,0858	-3,3085	,0011	-,4528	-,1149	

```

Indirect effect of X on Y
      Effect      Boot SE      BootLLCI      BootULCI
Risk_all      -,1939        ,0411        -,2847        -,1232

Partially standardized indirect effect of X on Y
      Effect      Boot SE      BootLLCI      BootULCI
Risk_all      -,0821        ,0171        -,1197        -,0521

Completely standardized indirect effect of X on Y
      Effect      Boot SE      BootLLCI      BootULCI
Risk_all      -,1327        ,0279        -,1938        -,0838

Ratio of indirect to total effect of X on Y
      Effect      Boot SE      BootLLCI      BootULCI
Risk_all      ,4059        ,1047        ,2497        ,6626

Ratio of indirect to direct effect of X on Y
      Effect      Boot SE      BootLLCI      BootULCI
Risk_all      ,6832        ,6058        ,3326        1,9557

R-squared mediation effect size (R-sq_med)
      Effect      Boot SE      BootLLCI      BootULCI
Risk_all      ,0734        ,0233        ,0348        ,1277

Normal theory tests for indirect effect
      Effect      se          z          p
      -,1939      ,0454      -4,2737      ,0000

```

## 7.11 Appendix XI: SPSS Output – Mediation (IV: Brand Loyalty)

```

Model = 4
      Y = PI_all
      X = BL_all
      M = Risk_all

```

```

Sample size
      249

```

```

*****
Outcome: Risk_all

```

```

Model Summary

```

	R	R-sq	MSE	F	df1	df2
p	,3013	,0908	1,7207	24,6555	1,0000	247,0000
	,0000					

```

Model

```

	coeff	se	t	p	LLCI	ULCI
constant	3,6849	,2457	14,9985	,0000	3,2010	4,1689
BL_all	,2416	,0486	4,9654	,0000	,1457	,3374

```

*****
Outcome: PI_all

```

```

Model Summary

```

	R	R-sq	MSE	F	df1	df2
p						

,4712 ,2220 4,3765 35,0978 2,0000 246,0000  
,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	8,6377	,5416	15,9481	,0000	7,5709	9,7045
Risk_all	-,7441	,1015	-7,3333	,0000	-,9440	-,5443
BL_all	-,1346	,0814	-1,6544	,0993	-,2949	,0256

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*  
Outcome: PI\_all

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,2279	,0519	5,3117	13,5278	1,0000	247,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	5,8956	,4317	13,6580	,0000	5,0454	6,7458
BL_all	-,3144	,0855	-3,6780	,0003	-,4827	-,1460

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS \*\*\*\*\*

Total effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-,3144	,0855	-3,6780	,0003	-,4827	-,1460

Direct effect of X on Y

Effect	SE	t	p	LLCI	ULCI
-,1346	,0814	-1,6544	,0993	-,2949	,0256

Indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
Risk_all	-,1798	,0454	-,2838	-,1028

Partially standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
Risk_all	-,0761	,0190	-,1196	-,0435

Completely standardized indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
Risk_all	-,1303	,0323	-,2024	-,0751

Ratio of indirect to total effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
Risk_all	,5718	,2955	,3176	1,1876

Ratio of indirect to direct effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
Risk_all	1,3354	341,6447	-2,1350	23,0247

R-squared mediation effect size (R-sq\_med)

	Effect	Boot SE	BootLLCI	BootULCI
Risk_all	,0433	,0205	,0112	,0921

Normal theory tests for indirect effect

Effect	se	Z	p
-,1798	,0440	-4,0856	,0000

## 7.12 Appendix XII: SPSS Output – Moderation (IV: Price consciousness)

Model = 1  
 Y = PI\_all  
 X = PCon\_all  
 M = Risk\_all

Sample size  
 249

\*\*\*\*\*  
 Outcome: PI\_all

### Model Summary

	R	R-sq	MSE	F	df1	df2
p	,5379	,2893	4,0141	33,2489	3,0000	245,0000
	,0000					

### Model

	coeff	se	t	p	LLCI	ULCI
constant	7,7867	1,4885	5,2313	,0000	4,8548	10,7185
Risk_all	-1,0343	,2813	-3,6762	,0003	-1,5884	-,4801
PCon_all	,0600	,2823	,2127	,8318	-,4960	,6160
int_1	,0600	,0538	1,1158	,2656	-,0459	,1660

Product terms key:

int\_1 PCon\_all X Risk\_all

R-square increase due to interaction(s):

	R2-chng	F	df1	df2	p
int_1	,0036	1,2449	1,0000	245,0000	,2656

## 7.13 Appendix XIII: SPSS Output – Moderation (IV: Value consciousness)

Model = 1  
 Y = PI\_all  
 X = VCon\_all  
 M = Risk\_all

Sample size  
 249

\*\*\*\*\*  
 Outcome: PI\_all

### Model Summary

	R	R-sq	MSE	F	df1	df2
p	,4825	,2328	4,3334	24,7810	3,0000	245,0000
	,0000					

### Model

	coeff	se	t	p	LLCI	ULCI
constant	6,3345	1,6980	3,7307	,0002	2,9901	9,6790
Risk_all	-,6413	,3475	-1,8452	,0662	-1,3258	,0433
VCon_all	,4017	,3213	1,2501	,2125	-,2312	1,0346
int_1	-,0369	,0643	-,5740	,5665	-,1637	,0898

Product terms key:

int\_1 VCon\_all X Risk\_all

R-square increase due to interaction(s):

	R2-chng	F	df1	df2	p
int_1	,0010	,3295	1,0000	245,0000	,5665

### 7.14 Appendix XIV: SPSS Output – Moderation (IV: Price-quality association)

Model = 1

Y = PI\_all  
X = PQ\_all  
M = Risk\_all

Sample size  
249

\*\*\*\*\*

Outcome: PI\_all

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,5217	,2722	4,1111	30,5370	3,0000	245,0000
	,0000					

Model

	coeff	se	t	p	LLCI	ULCI
constant	7,9951	1,0789	7,4101	,0000	5,8699	10,1202
Risk_all	-,4611	,2156	-2,1389	,0334	-,8858	-,0365
PQ_all	-,0922	,3067	-,3005	,7640	-,6963	,5119
int_1	-,0537	,0566	-,9488	,3436	-,1651	,0578

Product terms key:

int\_1 PQ\_all X Risk\_all

R-square increase due to interaction(s):

	R2-chng	F	df1	df2	p
int_1	,0027	,9003	1,0000	245,0000	,3436

### 7.15 Appendix XV: SPSS Output – Moderation (IV: Smart-shopper perception)

Model = 1

Y = PI\_all  
X = SmSh\_all  
M = Risk\_all

Sample size  
249

\*\*\*\*\*

Outcome: PI\_all

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,4998	,2498	4,2374	27,1934	3,0000	245,0000
	,0000					

Model

	coeff	se	t	p	LLCI	ULCI
constant	7,7045	,9346	8,2435	,0000	5,8636	9,5455
Risk_all	-,5243	,1908	-2,7475	,0065	-,9001	-,1484
SmSh_all	,0351	,3363	,1043	,9170	-,6274	,6976
int_1	-,0613	,0626	-,9806	,3277	-,1845	,0619

Product terms key:

int\_1 SmSh\_all X Risk\_all

R-square increase due to interaction(s):

	R2-chng	F	df1	df2	p
int_1	,0029	,9616	1,0000	245,0000	,3277

## 7.16 Appendix XVI: SPSS Output – Moderation (IV: Brand loyalty)

Model = 1  
Y = PI\_all  
X = BL\_all  
M = Risk\_all

Sample size  
249

\*\*\*\*\*  
Outcome: PI\_all

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,4714	,2222	4,3930	23,3367	3,0000	245,0000
	,0000					

Model

	coeff	se	t	p	LLCI	ULCI
constant	8,3216	1,2572	6,6194	,0000	5,8454	10,7978
Risk_all	-,6741	,2709	-2,4882	,0135	-1,2078	-,1405
BL_all	-,0635	,2679	-,2369	,8130	-,5912	,4643
int_1	-,0152	,0546	-,2788	,7806	-,1228	,0923

Product terms key:

int\_1 BL\_all X Risk\_all

R-square increase due to interaction(s):

	R2-chng	F	df1	df2	p
int_1	,0002	,0777	1,0000	245,0000	,7806