The effects of consumers' psychological characteristics on intentions to purchase Private Labels

A study on the Essential Grocery Goods category

Carolina Ferrão Brites

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Professor Daniel Fernandes

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ABSTRACT

Title: The effects of consumers' psychological characteristics on intentions to purchase Private Labels: A study on the Essential Grocery Goods category

Author: Carolina Ferrão Brites

Private Labels are brands owned by retailers and marketed exclusively in their stores. Its competitive price and acceptable quality are some of its advantages. The demand for Private Labels is expected to continue rising in the coming years, especially during economic recessions, when consumers need to do cost savings and switch from National Brands to Private Labels.

This dissertation analyzes intentions to purchase Private Labels in the Essential Grocery Goods category, which includes pasta, rice, olive oil, oil, flour, sugar, among others, in the Portuguese market. The research questions aim to understand the main drivers and barriers to purchase, and the effects of consumers' psychological characteristics, such as personality traits and maximization scales, on purchasing intentions. For that, a literature review and a qualitative analysis were done to develop the research hypotheses, followed by a quantitative analysis to verify those hypotheses.

Regarding consumers' personality traits, Agreeableness positively influences intentions to purchase Economy Pasta and Premium Pasta, while Extraversion positively influences the purchasing intentions for Premium Pasta and Premium Olive Oil. As for consumers' maximization scales, High Standards negatively impact intentions to purchase Economy Pasta and Economy Olive Oil, Alternative Search positively influences Standard Pasta "Italy", and Decision Difficulty negatively influences the purchasing intentions for Standard Olive Oil "From Cooperative". The consumption of Flour is not significantly influenced by consumers' psychological characteristics.

Keywords: Private Label, Economy Private Label, Standard Private Label, Premium Private Label, Essential Grocery Goods, Pasta, Olive Oil, Flour, Personality Traits, Maximization Scales, Socio-Demographics

SUMÁRIO

Título: Os efeitos que as características psicológicas dos consumidores têm nas intenções de compra de Marcas Próprias: Um estudo sobre a categoria de Bens Essenciais

Autor: Carolina Ferrão Brites

As Marcas Próprias são marcas que pertencem aos retalhistas e são vendidas exclusivamente nas suas lojas. O preço competitivo e a qualidade aceitável são algumas das suas vantagens. Prevê-se que a procura por Marcas Próprias continue a aumentar nos próximos anos, especialmente em tempos de recessões económicas, onde os consumidores procuram reduzir custos e trocam as Marcas de Fornecedor por Marcas Próprias.

Esta dissertação analisa as intenções de compra por Marcas Próprias na categoria de Bens Essenciais, que inclui massas, arroz, azeite, óleo, farinha, açúcar, entre outros, no mercado Português. Este estudo tem como objetivo perceber os principais motivos e barreiras de compra, bem os efeitos que as características psicológicas dos consumidores, tais como os traços de personalidade e as escalas de maximização, têm nas suas intenções de compra. Para tal, foi feita uma revisão de literatura e uma análise qualitativa para formular hipóteses, seguida de uma análise quantitativa para verificar essas mesmas hipóteses.

Relativamente aos traços de personalidade, a Agradabilidade influencia positivamente as intenções de compra de Massas Económicas e Massas Superiores, enquanto que a Extroversão influencia positivamente o interesse por Massas Superiores e Azeite Superior. Quanto às escalas de maximização, os Altos Padrões influenciam negativamente as intenções de compra de Massas Económicas e Azeite Económico, a Busca Alternativa influencia positivamente as Massas Padrão "Itália", e a Dificuldade de Decisão influencia negativamente o interesse em Azeite Padrão "De Cooperativa". As intenções de compra por Farinha não são significativamente influenciadas pelas características dos consumidores.

Palavras-chave: Marca Própria, Marca Própria Económica, Marca Própria Padrão, Marca Própria Superior, Bens Essenciais, Massa, Azeite, Farinha, Traços de Personalidade, Escalas de Maximização, Sociodemográficos

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LIST OF ABBREVIATIONS

Abbreviation	Definition
DOP	Protected Designation of Origin
DV	Dependent Variable
H	Hypothesis
IV	Independent Variable
NB	National Brands
PL	Private Labels
PS	Problem Statement
R	Reverse-scored
RQ	Research Question
SKU	Stock Keeping Unit

CHAPTER I – INTRODUCTION

1.1. Contextual Background

Over the years, Private Labels (PLs) have been rising and rising in popularity. Retailers have been developing and marketing their own products to meet customers' needs. And as result, National Brands (NBs) started to face a new challenge of protecting their market share (The Nielsen Company, 2018).

Economic downturns are a major driver of Private Label growth since consumers look for ways to cut costs. And when the economy recovers, however, consumers' spending habits often remain unchanged as individuals take a more conservative approach to household expenses (The Nielsen Company, 2018).

The current COVID-19 pandemic has also led to a significant increase in the consumption of Private Labels. Due to availability issues, some National Brands' products were out of stock for weeks as manufacturers struggled to meet sudden spikes in demand, prompting consumers to turn to Private Labels (Begley & McOuat, 2021).

In addition, consumers' perceptions of quality and affordability of Private Labels have shifted. Many now consider Private Labels as equivalent or even substitutes for National Brands. When it comes to quality, PL products are perceived as good and getting better. The extensions into Premium Private Labels, organic and sustainable products were an endorser to raise PL quality perceptions on consumers. And consumers' value for money has stretched from premium to more affordable. Consumers believe that Private Labels offer a similar quality at a lower price as National Brands (The Nielsen Company, 2018; Begley & McOuat, 2021).

1.2. Problem Statement and Research Questions

The objective of this research is to investigate the impact of consumers' psychological characteristics on intentions to purchase Private Labels, in Portugal. This study looks at how consumers' personality traits and maximization scales influence the consumption of Economy PLs, Standard PLs, and Premium PLs. In order to conduct a more thorough investigation, only

the Essential Grocery Goods category (pasta, rice, olive oil, oil, flour, sugar, etc.,) was examined, with a greater focus on pasta, olive oil, and flour products.

The Problem Statement (PS) and Research Questions (RQ) of this research are described below.

PS: This dissertation strives to understand the effects of psychological characteristics, such as personality traits and maximization scales, on consumers' intentions to purchase Economy PLs, Standard PLs, and Premium PLs, on the Essential Grocery Goods category.

RQ1: What are the main drivers to purchase Private Labels?

RQ2: What are the main barriers to purchase Private Labels?

RQ3: What psychological characteristics affect intentions to purchase Private Labels?

RQ4: Of the psychological characteristics that affect intentions to purchase Private Labels, what are the effects on the purchase of Economy PL, Standard PL, and Premium PL?

1.3. Research Relevance

Studying Private Labels provides managerial insights for both retailers, that market their Private Labels, and for national manufacturers, that lose their market share for Private Labels.

According to several research, Private Labels bring financial benefits for retailers in a way that creates store differentiation, improves profitability, increases market share, and rises customer loyalty (Matthijssen & Heath, 2019; Begley & McOuat, 2020).

Also, since only the Essential Grocery Goods category is being analyzed, future strategies for this category can be better defined.

1.4. Scope of Analysis

It is already known that the main driver to purchase Private Labels is its affordability and that the main barrier is its perceived inferior quality. But besides PL products attributes, how do consumers' psychological characteristics affect their intentions to purchase Private Labels?

The purpose of this research is to bring insights regarding how personality traits and maximization scales can influence consumers' behavior when purchasing either Economy PLs, Standard PLs, or Premium PLs, by observing the Essential Grocery Goods category.

1.5. Chapter Outline

This dissertation is divided into five chapters. The first chapter provides an introduction to the Private Labels market and the research problem statement, questions, and relevance. The second chapter includes a literature review that covers prior research regarding Private Labels and some hypotheses for the research questions. The third chapter comprises the methodology used for data collection and data analysis in order to verify the research hypotheses. The fourth chapter presents the results obtained from the collected data. And finally, the fifth chapter summarizes the main findings, limitations, and recommendations for future research.

CHAPTER II – LITERATURE REVIEW

This chapter contains the most relevant insights found in previous literatures regarding Private Labels and intentions to purchase them. Also, along this section, several hypotheses to the research questions were developed.

2.1. Market Overview

2.1.1. The Private Labels Market

Private Labels are brands owned and marketed by retailers, that have been on the market for about 70 years. Over time, these brands have evolved from generic, cheap, and low quality to lower priced than national brands and acceptable quality (Gielens et at., 2021).

Several versions of Private Labels have been developed and shown substantial growth around the world. The Tiered Private Label is a strategy that comprises offering Economy PL to the price-sensitive but not quality-sensitive consumers, Standard PL to mainstream consumers seeking acceptable quality at lower prices, and Premium PL to the quality-sensitive segment seeking value (Gielens et at., 2021).

Over the years, the growth of Private Labels has been attributed to multiple factors. There seems to exist a correlation between Private Label success and economic expansions and contractions (Lamey et al., 2007).

Private Label share increases when the economy is suffering and decreases when the economy is flourishing. However, there are asymmetries in the extent and speed with which Private Labels share changes. During economic downturns, consumers are more likely to migrate to Private Labels. But when the economy stars to recover, some continue to purchase Private Labels instead of switching back to National Brands. Additionally, the switch to Private Labels is faster than the opposite movement to National Brands when the recession ends (Lamey et al., 2007).

When the economy contracts, most retailers invest more heavily in their Private Label, making it even more difficult for National Brands to make up for the lost market share, and leaving permanent damage on National Brands' performance levels (Lamey et al., 2007).

2.1.2. Retailers' Perspective

The current market is characterized by consumers' sensitivity to product quality and inertia to brand choice in low involvement goods. Keeping this in mind, Private Labels can be an instrument for retailers to generate store differentiation, store loyalty, and store profitably, even when Private Labels do not have a margin advantage over National Brands (Corstjens & Lal, 2000).

The cheap and low quality Private Label tactic is not covered by this strategy. On the contrary, this Private Label strategy strengthens rather than weakens price competition among retailers. And to establish this opportunity, Private Labels' quality must be above a certain threshold. As a result, quality Private Labels can act as an implicit coordination mechanism that enables retailers to increase their profits (Corstjens & Lal, 2000).

Private Labels can be more beneficial if a significant portion of consumers buy National Brands since there will be established complementary roles between Private Labels and National Brands. Private Labels create store differentiation and store loyalty, whereas National Brands enable retailers to raise prices and increase store profitability (Corstjens & Lal, 2000).

In regard to the Portuguese market, eight Private Labels were identified: Lidl, Aldi, Mini Preço, Auchan, Continente, Pingo Doce, Intermaché, and Mercadona (Cardoso & Lima, 2019; Neves, 2019).

Lidl is the supermarket chain with the largest PL share in its assortment. Its PL sales represent 80% of total sales and offers a PL product range with more than 2,000 SKUs, present in all categories. On the other hand, Aldi offers unique and exclusive products, with more than 60 PL brands in the most varied categories. And Mini Preço PL represents 44% of its sales. Auchan was the first supermarket to launch a Private Label in Portugal. One out of every three products in their customer's basket is a PL product. Continente offers 4,000 SKUs of PL. While Pingo Doce PL represents 34% of its sales. Intermaché offers 3,700 SKUs of PL, representing 25%

of its sales. And lastly, Mercadona, a recent retailer in Portugal, is starting to threaten the existing PLs with an extensive PL assortment and competitive prices (Cardoso & Lima, 2019; Neves, 2019).

2.1.3. Consumers' Perspective

Private Labels are essentially used by retailers to differentiate their assortment and price, with price being the dominant driver of consumers' purchasing intentions (Walsh & Mitchell, 2010).

H1.1: *Price is a driver to purchase PL.*

Consumers' quality perceptions regarding Private Labels are improving, and as a result, their willingness to pay a higher price for National Brands over Private Labels is decreasing. This is due to the impact of marketing and manufacturing factors, that influence consumers' quality perceptions of National Brands against Private Labels and affect the price premium consumers are willing to pay for National Brands over Private Labels (Steenkamp et al., 2010).

The willingness to pay for National Brands decreases as Private Labels mature. In countries where Private Labels are more developed, returning to manufacturing basics is the key to success for National Brands. And in countries where Private Label is in development, marketing plays a significant role in enhancing the willingness to pay for National Brands (Steenkamp et al., 2010).

H1.2: *Perceived quality improvements are a driver to purchase PL.*

Products introduced by leading National Brands, Standard PLs, and Premium PLs are more likely to increase category sales than products presented by follower National Brands and Economy PLs. National Brands tend to hurt rival National Brands more often than Private Labels. And only the leading National Brands are likely to steal share from all three Private Label tiers. Standard PLs tend to be harmed less often by rival new products, unless introduced by the leading National Brands (Gielens, 2012).

Overall, Private Labels are more likely to be affected by National Brands that maintain a significant price gap and offer new products with new benefits. However, National Brands must

maintain a smaller price gap to fight Economy PLs successfully while offering products with fewer benefits (Gielens, 2012).

H1.3: *Product variety is a driver to purchase PL.*

Economy PLs and Premium PLs cannibalize incumbent Private Labels. Economy PLs benefit National Brands since make them the middle quality option in the retailer assortment. On the other hand, Premium PLs have mixed effects on National Brands. Premium PLs share is likely to improve and negatively impact National Brands when presented in categories with frequent price promotions, a longer inter-purchase time, a higher need for variety, a higher operational risk, but a lower social risk. Premium PLs are considered one of the hottest trends in grocery retailing. (Geyskens et al, 2010; Braak et al, 2014).

H1.4: *Premium products are a driver to purchase PL.*

However, National Brands' price promotions negatively impact intentions to purchase Private Labels. Consumers' price-quality consideration set, sales promotions, and the choice context can induce brand switching between price-quality tiers. If one of these factors causes consumers to change to a higher price-quality tier within their brand-tier consideration set, then the other factors are less likely to induce switching in the same direction. And therefore, there is a likelihood of switching between particular brand tiers due to price promotions (Nowlis & Simonson, 2008).

H2.1: *NB price promotions are a barrier to purchase PL.*

Consumers still perceive Private Labels as inferior to National Brands. Even though the intrinsic quality of Private Labels has been improving, the extrinsic perception of Private Labels still has to be enhanced (Olsen et al., 2011).

H2.2: *PL perceived inferior quality is a barrier to purchase PL.*

Consumers' intentions to purchase Private Labels are likely dependent on their trust in the retailer. The higher the level of confidence in the retailer, the larger the consumers' willingness to purchase and benefit from the retailer's Private Label. Therefore, a high level of trust in a

retailer can make consumers more motivated to buy Private Labels and become more aware of Private Label oriented marketing activities (Vale et al., 2016).

H2.3: *Trust is a barrier to purchase PL.*

2.2. The Private Label Consumer

2.2.1. Personality Traits

It is a fact that consumers take into account price and quality when shopping. But they are also starting to consider other aspects, such as image, ethics, sustainability, and social responsibility. Consumers' values and personalities do influence their behavior, and consequently, their ways to shop (Gielens et at., 2021).

Unfortunately, it was not possible to find previous literature regarding consumers' personality traits and intentions to purchase Private Labels. However, some relevant information was found.

Several researchers constructed the Big Five Personality Inventory, which is a theory that believes there are five basic personality dimensions that describe essential traits and serve as the building blocks of personality. The five personality traits mentioned by the theory are: Extraversion, Agreeableness, Openness, Conscientiousness, and Neuroticism (Rammstedt et al., 2007; Cherry, 2021).

Each trait represents a range between two opposite extremes. For example, Extraversion represents a continuum between extreme extraversion and extreme introversion. Most consumers stand somewhere in between the two ends. Each personality dimension will be described in the next paragraphs (Cherry, 2021).

Openness to Experience features characteristics such as knowledge and imagination. Consumers high in this trait tend to be more creative and adventurous. And consumers low in this trait tend to struggle with abstract thinking and are more traditional (Cherry, 2021).

As to Conscientiousness, the standard features of this dimension include goal-oriented behaviors, high levels of thoughtfulness, and impulse control. Consumers high in this trait tend to be sensitive to details and organized (Cherry, 2021).

Extraversion is characterized by high emotional expressiveness, excitability, sociability, talkativeness, and assertiveness. Consumers high in this trait tend to be outgoing and energetic in social situations. And consumers low in this trait tend to be more reserved and less energetic in social environments (Cherry, 2021).

On the other hand, Agreeableness includes attributes such as affection, kindness, altruism, and trust. Consumers high in this trait tend to be more cooperative, while those low in this trait tend to be more competitive and manipulative (Cherry, 2021).

And lastly, Neuroticism is a trait characterized by emotional instability, sadness, and moodiness. Consumers high in this trait experience anxiety, irritability, mood swings, and melancholy. And consumers low in this trait tend to be more emotionally resilient and stable (Cherry, 2021).

H3.1: *Personality Traits influence intentions to purchase PL.*

2.2.2. Maximization Scales

According to a Nielsen's study regarding the growth of Private Labels in Europe, 63% of respondents believe they are intelligent shoppers when purchasing PLs, 76% that PLs are usually excellent value for money, 81% buy PLs to save money, 75% that PLs are a good alternative over NBs, and 70% that it is essential to get the best price on a product. The results of this research indicate that consumers do choice optimization when shopping for groceries (The Nielsen Company, 2018).

Schwartz and other researchers validated the Maximization Scales theory, which suggests consumers tend to optimize when making decisions between being maximizers or satisfiers. Some consumers consistently try to choose the best option, while other consumers tend to satisfice and choose the good enough option. This theory defends three dimensions of

maximization scales: Alternative Search, Decision Difficulty, and High Standards (Nenkov et al., 2008).

The Alternative Search dimension measures consumers' tendency to seek better options. Decision Difficulty represents the difficulty associated with choosing and making decisions. And the High Standards dimension represents consumers' tendency to hold high standards when choosing (Nenkov et al., 2008).

H3.2: *Maximization Scales influence intentions to purchase PL.*

2.2.3. Socio-Demographics

Concerning the Socio-Demographics factors, it was found that being a woman plays a crucial role in intentions to purchase Private Labels. Women tend to purchase Private Labels more frequently than men (Miquel et al., 2017).

Several studies also indicate that consumers with low household income are more willing to purchase Private Labels. However, empirical results demonstrated the opposite and showed that they actually buy fewer Private Labels. This result was justified by consumers with lower income also have lower education levels and stronger price-quality associations, which leads to a greater trust in National Brands and more receptivity to NBs advertisements. It was also found that middle income consumers are the most likely to purchase Private Labels (Dawes & Thiel, 2013).

H3.3: *Socio-Demographics influence intentions to purchase PL.*

2.3. The Essential Grocery Goods category

2.3.1. Consumption of Essential Grocery Goods

Unfortunately, it was not possible to find previous research regarding intentions to purchase Private Labels and the Essential Grocery Goods category. However, some relevant information was found.

According to a study conducted by BusinessNES, that compiles a list of the top 100 grocery products that have the highest demand and profitability in the United States, Pasta (42nd position), Rice (49th), Flour (70th), Olive Oil (78th), and Sugar (98th) are the best-seller products of the Essential Grocery Goods category (BusinessNES, 2021).

Furthermore, a Nielsen study revealed that the Portuguese Market is almost equally divided between Private Labels and National Brands. In 2016, Private Labels had a market share of 30% versus 60% of National Brands. And it is expected that the Private Label share has raised in the following years (The Nielsen Company, 2018).

2.3.2. Product Attributes

Product Attributes may seem irrelevant, but they can influence consumers' quality perceptions, and consequently, their intentions to purchase Private Labels. Product attributes such as package claims, quality certifications, and premium versions will be described in the following paragraphs.

A claim placed on the package transmits more confidence about the products' quality. The proximity to the product makes the claim seem more verifiable, and therefore, decreases manufacturers' manipulation and increases consumers' credibility. This results in a higher likelihood to purchase the products (Fajardo & Townsend, 2015).

Also, consumers are getting more and more concerned with food safety and food production on a global scale. This has resulted in the development of public and private standards of food safety, with the purpose of certifying products' quality and providing more trust to consumers (Trienekens & Zuurbier, 2008).

And, as previously mentioned, the premium versions of products are a significant driver to increase demand and market share (Caldieraro et al., 2015).

CHAPTER III – METHODOLOGY

3.1. Research Method

As mentioned in Chapter I, this dissertation aims to study the effects of consumers' psychological characteristics on intentions to purchase Economy PLs, Standard PLs, and Premium PLs, in the Essential Grocery Goods category.

Both primary and secondary data were collected for this research. Secondary data was used to gather information previously collected by other researchers regarding the Private Labels market, its advantages and disadvantages for retailers and consumers, and about the Essential Grocery Goods category. These literature reviews were used to obtain preliminary insights regarding Private Labels, and also to develop the qualitative and quantitative research. The secondary data is presented in **Chapter II – Literature Review**.

As for the primary data, telephone interviews and an online survey were performed in order to measure the relationship between consumers' needs and actions towards Private Labels, but also psychological characteristics and socio-demographics. The interviews were used to gather qualitative insights, while the survey was performed to quantify the information collected. The primary data is presented through this **Chapter III – Methodology**.

3.2. Qualitative Research

An In-Depth Interview was conducted to six participants in order to obtain qualitative insights regarding consumers' attitudes towards Private Labels, and to answer the first three research questions: ***RQ1:*** *What are the main drivers to purchase Private Labels?;* ***RQ2:*** *What are the main barriers to purchase Private Labels?;* ***RQ3:*** *What psychological characteristics affect intentions to purchase Private Labels?*.

The Interviews were conducted by telephone and were semi-structured, with some planned questions and other unplanned questions that emerged as the interviews progressed. The designed questions were done based on the insights gathered from the Literature Review. The questions were open-ended to incentivize interviewees to speak freely. And the interview guideline was adaptable to the interviewees' answers.

Regarding the sample, only Portuguese consumers who live in Portugal, and that have already purchased Private Labels were interviewed. Therefore, five PL Consumers and one PL Non-Consumer were selected to be interviewed.

The Interview Guideline (Appendix 1) was divided into four sections. The first section started by asking about interviewees' general shopping habits and how frequently they purchase Private Labels. The second section was divided into two sub-sections: one for PL Consumers and another for PL Non-Consumers. The first two questions were the same for both groups, asking the motives for purchasing and not purchasing Private Labels, respectively, and Private Labels' pre-purchasing perceptions. Afterward, PL Consumers were questioned about their habits when purchasing Private Labels, and PL Non-Consumers discussed improvements for Private Labels and their willingness to purchase them in the future. The third section was used to explore interviewees' psychological characteristics, more precisely, their personality traits and maximization scales. And finally, the fourth section asked about consumers' socio-demographics.

Telephone Interviews were the method chosen since it offers a lot of advantages, such as asking complex questions, clarifying misunderstandings, probing for more complete answers, saving traveling time, and easiness of callbacks. However, this method also brings disadvantages, such as interviewer bias, prestige seeking, personal questions, and the inability to employ visual aids (Malhotra et at., 2017).

3.2.1. Data Insights

Socio-Demographics

As previously mentioned, six consumers were interviewed, out of which five PL Consumers and one PL Non-Consumer. The PL Consumers interviewed were Bárbara, Madalena, Miguel, Paula, and Tomás. All of them purchase Private Labels frequently. And the PL Non-Consumer interviewed was Sofia. She does not purchase Private Labels, only exceptionally. It was challenging to find more PL Non-Consumers, which may illustrate that Portuguese consumers buy Private Labels regularly.

Out of the six participants, four were women and two were men. It was also difficult to find male participants who shop for groceries, which might indicate that women go to the supermarket more commonly than men, and as a result, buy more Private Labels than men.

Interviewees' ages vary between 23 and 55 years old, with an average of 34 years old, which indicates that the sample is of adult age.

All have a high level of education, with most having a Master's Degree, which could demonstrate that education level has an influence on intentions to purchase Private Labels.

Having this, it is possible to take a preliminary conclusion that consumers' socio-demographic characteristics may influence intentions to purchase Private Labels, and therefore, ***H3.3****: Socio-Demographics influence intentions to purchase PL* is verified. In Sub-Chapter **4.2.2. - Consumers' Characteristics**, this hypothesis will be checked again.

General Shopping Habits

The five PL Consumers purchase Private Labels every time they go to the supermarket. They buy both Private Labels and National Brands, but their basket is majorly composed of Private Label products. Sofia (PL Non-Consumer) only purchases National Brands.

All interviewees mentioned that they usually go to at least two supermarkets. They go to a major store to do the majority of their grocery shopping, and then go to a smaller store for last-minute purchases. Continente and Lidl were the two supermarkets most mentioned by interviewees to do the main household shopping since they offer a wide variety of products at affordable prices. Pingo Doce, Auchan, and Supercor were listed as the supermarkets to go for complementary shopping, because they are located next to the interviewees' homes.

Regarding consumers' purchasing frequency, all participants shop at least once a week for groceries.

Attitudes towards Private Labels

All interviewees perceive Private Labels as low price and good quality, which is seen as the beneficial purchasing factors. Many also mentioned that quality is not much different from National Brands, and since the price is significantly lower, that is perceived as a positive aspect for participants.

Having this, ***H1.1:*** *Price is a driver to purchase PL* and ***H1.2:*** *Perceived quality improvements are a driver to purchase PL* are verified.

Nevertheless, all participants stated that they prefer to purchase their favorite products from National Brands. Quality is the critical factor, being stated that Private Labels cannot match the quality of National Brands. In this situation, price is not a relevant factor, with all interviewees mentioning that they would rather pay a higher price for a product that will meet their expectations. Miguel (PL Consumer) highlighted that National Brands are specialized in their products since they have been producing them for a long time, while Private Labels duplicate National Brands' products and are not experts in the field. This is also why Sofia (PL Non-Consumer) only purchases from National Brands, aside the fact of being financially stable and not being sensitive to the price.

Also, Madalena and Miguel (PL Consumers) have had negative experiences with some Private Label products. They complained that the quality was poor, and it fell short of their expectations. As a result, they never purchased those products again.

With this, ***H2.2:*** *PL perceived inferior quality is a barrier to purchase PL* and ***H2.3:*** *Trust is a barrier to purchase PL* are verified.

Many mentioned that when National Brands offer price promotions, they would choose National Brands over Private Labels, even in the product categories they value the least. The main reason for this is the small price difference between brands, making National Brands more desirable.

Therefore, ***H2.1:*** *NB price promotions are a barrier to purchase PL* is verified.

Regarding the Essential Grocery Goods category, the consumption of Private Labels varies a lot depending on the consumers' preferences. For example, Madalena (PL Consumer) is a pasta lover and only buys pasta from National Brands. On the other hand, Bárbara (PL Consumer) does not place a high value on pasta, rice, flour, or sugar, so she purchases these products from Private Labels. An exceptional example is Paula (PL Consumer), that enjoys olive oil but is also a price-sensitive consumer, and therefore buys olive oil from Private Labels, but only if it has a DOP certification.

The pre-purchasing perceptions of Private Labels were consensual between interviewees. Private labels were perceived to be of poor quality, too affordable, and untrustworthy. The minimalist packaging was also cited as a source of concern regarding the products' quality.

Nowadays, PL Consumers expect from Private Labels a fair price-quality ratio and shelf availability. Sofia PL Non-Consumer) noted that she would buy Private Labels when National Brands were out of stock.

With this, a new hypothesis was created ***H1.5:*** *Shelf Availability is a driver to purchase PL.*

Additionally, Tomás (PL Consumer) revealed that he occasionally visits Lidl on purpose because it offers different products than other supermarkets, so he goes there to search for new products to try. It is relevant to recall that Lidl's assortment is majorly made up of their Private Label.

A new hypothesis was created ***H1.6:*** *Curiosity is a driver to purchase PL.*

Some recommendations were made to improve the purchasing intentions of Private Labels. Sofia (PL Non-Consumer) suggested that she would buy Private Labels if they offered innovative products that National Brands do not offer. And Miguel (PL Consumer) also stated that Private Labels could provide more category variety and premium products.

Having this, ***H1.3:*** *Product variety is a driver to purchase PL* and ***H1.4:*** *Premium products are a driver to purchase PL* are verified.

Consumers' Characteristics

When interviewees were asked how they would classify themselves when optimizing decisions, on a scale from one to five (1 – "Good enough option"; 5 – "The best option"), the responses varied between four and five, ensuring that all participants seek to choose the best alternative available when making decisions.

In terms of personality traits, on a scale from one to five, PL Consumers rated themselves between three and five regarding their Extraversion level (1 – Non-Extrovert; 5 – Fully Extrovert), between two and four regarding Agreeableness (1 – Non-Agreeable; 5 – Fully Agreeable), between two and five regarding Consciousness (1 – Non-Conscious; 5 – Fully Conscious), between three and four regarding Neuroticism (1 – Non-Neurotic; 5 – Fully Neurotic), and between two and five regarding Openness to Experience (1 – Non-Open; 5 – Fully Open).

In contrast, the PL Non-Consumer classified herself as a four regarding Extraversion, three regarding Agreeableness, four regarding Consciousness, three regarding Neuroticism, and three regarding Openness to Experience.

The major distinction between PL Consumers and PL Non-Consumers is that PL Consumers are more open to experience. However, this sample may not be fully representative of the population studied.

Having this, a new hypothesis was created ***H4.1:*** *Openness to Experience positively influence intentions to purchase PL.*

3.3. Quantitative Research

An online survey was conducted to 416 participants in order to obtain quantitative data regarding consumers' characteristics and attitudes towards Private Labels. The main goal of this research part was to answer the last research question: ***RQ4:*** *Of the psychological characteristics that affect intentions to purchase Private Labels, what are the effects on the purchase of Economy PL, Standard PL, and Premium PL?.*

The online survey (Appendix 2) started with three screening questions, in order to only analyze the PL Consumers. The first screening question selected only Portuguese consumers who live in Portugal to continue the survey. Those screened out were redirected to the end of the survey. The second screening question asked about Private Labels' purchasing frequency. Those who had never purchased Private Labels were redirected to a set of questions that asked the motives for never having purchased it and their willingness to do it in the future. Those who answered that were not willing to purchase Private Labels were redirected to the end of the survey. And the last screening question investigated the willingness to purchase PL Essential Grocery Goods. Those who answered that they were not willing to purchase it were redirected to the end of the survey.

Participants were then asked two questions regarding their general shopping habits. They were questioned about their usual purchasing supermarket, and then to rank the factors that influence them the most to the least to purchase Private Labels, on a scale from one to five (1 – Influence a lot; 5 – Do not influence).

Afterward, consumers' psychological characteristics were analyzed, using as reference Rammstedt et al. (2007) 10-item version of the Big Five Personality Inventory, and Nenkov et al. (2008) 6-item version of the Maximization Scales, in order to evaluate consumers' personality traits and decisions optimization. Participants were asked to indicate how much they agreed with a set of statements, on a scale from one to five (1 – Totally Disagree; 5- Totally Agree).

The following part of the questionnaire illustrated images of three Continente Private Label products: pasta, olive oil, and flour. These three products were the ones chosen because they are the best sellers of the Essential Grocery Goods category, according to the Literature Review and the Qualitative Interviews done. Each product was presented in different formats, according to their Private Labels tiers available: Economy PL, Standard PL, and Premium PL. The participants were asked to rate their interest in purchasing each product, on a scale from one to five (1 – Not Interested, 5 – Extremely Interested).

The products' price was not mentioned. And the images were slightly edited, in order to remove some statements and symbols that were not relevant to the analysis, and also to better match the

respective Private Label tier. The main goal was for consumers to judge the products for their image and claims.

Table 1: Online Survey images

A. B. C. D. E. F. G. H. I.

Image	Product Description
A	Economy Pasta
B	Standard Pasta "Italy"
C	Standard Pasta "High Fiber"
D	Premium Pasta
E	Economy Olive Oil
F	Standard Olive Oil "From Cooperative"
G	Premium Olive Oil
H	Economy Flour
I	Standard Flour "High Fiber"

And the final set of questions was about socio-demographics, questioning inquiries regarding their age, education level, monthly income, marital status, and city.

The Online Survey was the method chosen to do the quantitative research since it is a fast way to obtain direct access to information, allows more accurate results as there is no inhibiting intermediary, it is possible to download the results, and is easier to contact certain target groups. However, this method also has disadvantages, such as low response rates, low control over the respondent and respective answers, no opportunity to clarify doubts, and may not be representative of the population (Malhotra et at., 2017).

3.3.1. Data Analysis

The online survey was developed on Qualtrics Survey Software and the data collected was analyzed on IBM SPSS Software.

Before running the analysis, the collected data was cleaned and consolidated, where incomplete answers and inconsistent values were screened out. In a total of 416 answers, only 321 were considered valid to be used in the data analysis (Appendix 3).

Some variables were computed, and others were recoded. A variable was computed for each of the Big Five Personality Traits: Extraversion, Agreeableness, Consciousness, Neuroticism, and Openness to Experience. Each trait was calculated by the conjoint mean of two sub-questions from Question 8 of the survey. And one out of each pair of two sub-questions were recoded (R).

Table 2: Personality Traits variables

Personality Traits	Variable Computation
Extraversion	Mean (Q1 R, Q6)
Agreeableness	Mean (Q2, Q7 R)
Conscientiousness	Mean (Q3 R, Q8)
Neuroticism	Mean (Q4 R, Q9)
Openness to Experience	Mean (Q5 R, Q10)

A variable was also computed for each Maximization Scale: Alternative Search, Decision Difficulty, and High Standards. Each scale was calculated by the conjoint average of two sub-questions from Question 9 of the survey.

Table 3: Maximization Scales variables

Maximization Scales	Variable Computation
Alternative Search	Mean (Q1, Q2)
Decision Difficulty	Mean (Q3, Q4)
High Standards	Mean (Q5, Q6)

As previously mentioned, the three best sellers of the Essential Grocery Goods category were selected to be presented in the survey: pasta, olive oil, and flour. Each product was illustrated in different formats, according to the three Private Label Tiers: Economy PL, Standard PL, and Premium PL.

Table 4: Essential Grocery Goods variables

Economy PL	Standard PL	Premium PL
Pasta	Pasta "Italy"	Pasta
Olive Oil	Pasta "High Fiber"	Olive Oil
Flour	Olive Oil "From Cooperative"	
	Flour "High Fiber"	

Regarding the data analysis, the first questions of the survey only required the use of Descriptive Statistics, such as Frequencies, Descriptives, and Crosstabs.

For the last part of the survey, Multiple Linear Regressions were used, following the stepwise method, in order to analyze the relationship between consumers' psychological characteristics and their intentions to purchase the Private Label products presented in the survey.

Dependent Variable: Intentions to Purchase the PL product
Independent Variables: Personality Traits; Maximization Scales

A Linear Regression is an appropriate approach to predict the impact of a variable on another variable's value, by applying a linear equation to the data set. Another proper approach is a Multiple Linear Regression, which predicts the impact of two or more variables on a variable's value (Malhotra et at., 2017).

Not all the independent variables had a significant impact on the dependent variable. It was only analyzed the Linear Regressions that had the highest adjusted R squared and significance level. Regarding the Personality Traits, it was only statistically significant to analyze Economy Pasta, Premium Pasta, and Premium Olive Oil. And for the Maximization Scales, Economy

Pasta, Standard Pasta “Italy”, Economy Olive Oil, and Standard Olive Oil “From Cooperative” were the only significant variables worth analyzing.

Several statistical tests were performed to validate the Linear Regressions assumptions. All tests considered a significance level of 5%.

A Pearson Correlation analysis was run to understand the levels of correlation and multicollinearity. The independent variables do not have a high correlation with the dependent variable, and between themselves, since the correlation values are all between -0.8 and 0.8, so there is a low probability of multicollinearity. The Tolerance value is higher than 0.40 and the VIF value is lower than 2.5, indicating there are no multicollinearity concerns. In the collinearity diagnostics tables, the Condition Indexes are all lower than 15, except for the 3rd dimension, with a value of 16.993. Nevertheless, if the threshold taken into account were 30, all results would suggest no multicollinearity concerns as well.

The Durbin-Watson test was used to investigate the absence of autocorrelation between errors. The values were close to 2, which suggests there is no autocorrelation.

Scatterplots were computed for each independent variable, in order to analyze if there is linearity. The X-axis presents the dependent variable, and the Y-Axis represents the independent variable. All Linear Regressions variables were linear, either positively or negatively.

The Histograms and Normal P-P plots were used to observe the distribution of standardized residuals. All Histograms displayed a bell-shaped format. And the Normal P-P plots show their observations close to the line. Therefore, errors could be normally distributed for all regressions. The Skewness and Kurtosis tests were also checked. The values varied between -1 and +1, being close to zero. In conclusion, all errors are possibly normally distributed according to the residuals.

Also, Multiple One-Way ANOVAs were performed to analyze the relationship between consumers’ socio-demographic characteristics and their intentions to purchase the Private Label products presented in the survey.

Dependent Variable: Intentions to Purchase the PL product

Independent Variables: Gender; Age; Education Level; Income Level

CHAPTER IV – RESULTS

4.1. Socio-Demographics

As previously mentioned, 416 consumers participated in the online survey, out of which 303 responses were considered valid and within the target group.

The majority of participants were females, representing 252 respondents against 44 male respondents. Regarding age, participants were similarly distributed between the different age groups. As to education level, respondents have a high education level, with most having a Bachelor's Degree. And finally, the majority of participants have a low-medium income level, with a monthly income until 2,000€.

4.2. General Shopping Habits

Before analyzing the effects of psychological characteristics on intentions to purchase the PL products, it is relevant to examine consumers' general shopping habits, which correspond to the first questions of the survey.

Starting by the purchasing frequency of Private Labels, 48.3% of respondents said they buy it frequently, 23.1% buy it every time they go to a supermarket, also 23.1% do it occasionally, and 5% said that rarely purchase Private Labels. Only 2 out of 321 respondents answered that never purchase Private Labels. As previously mentioned, these respondents were redirected to a set of questions to state the motives for not purchasing Private Labels and their willingness to do it in the future (Appendix 4). Unfortunately, none of the respondents indicated their reasons, but both confirmed that were not willing to purchase Private Labels in the future (Appendix 5).

Regarding inquiries' willingness to purchase PL Essential Grocery Goods, pasta (203 votes), sugar (193), rice (191), and flour (173) are the products that consumers are more likely to purchase from Private Labels, in contrast with olive oil (137) and oil (115), which are the ones less likely to be purchased from Private Labels. Only 16 respondents answered that were not willing to purchase these Essential Grocery Goods products from Private Labels (Appendix 6).

The supermarkets most visited by participants for grocery shopping are Continente (39.3%), Pingo Doce (29.7%), and Lidl (14.2%) (Appendix 7). It is important to recall that, according to the Literature Review, these supermarkets invest a lot in their Private Label.

4.3. Hypothesis Testing

In the following paragraphs, the hypothesis of this dissertation will be checked based on the results found in the quantitative survey.

It is worth mentioning that after the screening questions, the survey sample was reduced to 303 participants, corresponding only to the ones interested in purchasing PL Essential Grocery Goods.

4.3.1. Drivers and Barriers to Purchase

A Friedman test was used to analyze the ranked factors that influence consumers' intentions to purchase Private Labels. Its p-value of 0.000 rejects the null hypothesis of all means being equal. Kendall's W test shows a 60.6% variability, meaning that participants do not agree in 39.4% of the variability. The moderate variability indicates that factors have a medium effect on influencing consumers' purchase intentions. The Pairwise comparisons indicate a statistical significance between all factors except for Price-Quality. By analyzing the individual means of each influential factor, Price (1.62) and Quality (1.91) are the most influential factors, followed by Trust (3.07) and Curiosity (3.96), while Shelf Availability (4.43) is the least influential factor (Appendix 8).

Having this, ***H1.5:*** *Shelf Availability is a driver to purchase PL,* and ***H1.6:*** *Curiosity is a driver to purchase PL* can be verified.

Further drivers and barriers to purchase Private Labels were not included in this chapter, since the data gathered from the qualitative interviews were considered insightful enough to validate the respective hypothesis.

Additionally, it was also analyzed how the products' packaging can influence intentions to purchase PL Essential Grocery Goods, through claims and quality certifications. For that, a descriptive analysis was performed (Appendix 9).

Starting by analyzing pasta, Economy Pasta (3.95) was the product with the highest purchasing intentions, followed by Standard Pasta "High Fiber" (3.61), and Standard Pasta "Italy" (3.56). Premium Pasta (3.50) was the product with the lowest purchasing intentions.

Regarding olive oil, Standard Olive Oil "From Cooperative" (3.66) was the product with the highest purchasing intentions, followed by Premium Olive Oil (3.43). Economy Olive Oil (3.28) was the product with the lowest purchasing intentions.

As for flour, Economy Flour (3.94) was the product with the highest purchasing intentions, while Standard Flour "High Fiber" (3.59) was the product with the lowest purchasing intentions.

In conclusion, pasta and flour are the products that consumers go with the basic packaging and choose the Economy version. However, for olive oil, consumers opt for products with quality certifications and claims, such as the Standard and Premium versions.

4.3.2. Effects of Consumers' Characteristics

Personality Traits

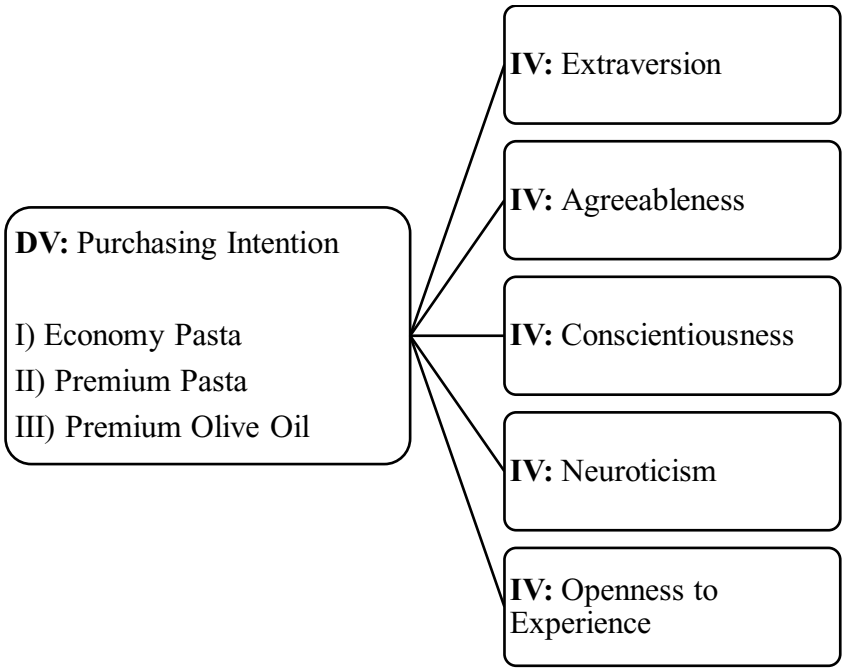
The effects of Personality Traits on consumers' intentions to purchase Private Labels will be presented next, and hypothesis ***H3.1:*** *Personality Traits influence intentions to purchase PL* will be verified or rejected.

Starting by analyzing the Personality Traits means, Agreeableness (3.83) has the highest mean, followed by Conscientiousness (3.54), Openness to Experience (3.51), and Extraversion (3.42). Neuroticism (2.87) is the trait with the lowest mean.

When performing Multiple Linear Regressions, Economy Pasta (0.010), Premium Pasta (0.001), and Premium Olive Oil (0.000) were the only products with statistical significance (p-

value < 0.05). The following figure illustrates the linear regression's dependent and independent variables used to analyze the Personality Traits effects.

Figure 1: Linear Regression for Personality Traits



For Economy Pasta, the R square indicates the model explains 2.2% of the variation on intentions to purchase Economy Pasta. The model's p-value (0.010) is lower than the significance level of 0.05, rejecting that all coefficients are equal to zero. The model is globally significant, and at least one of the explanatory variables is significant to explain the dependent variable's behavior. The stepwise method selected one independent variable: Agreeableness. All remaining variables were excluded. Agreeableness significance level (0.010) equals the model's, indicating that Agreeableness is statistically significant to explain the effect on consumers' purchasing intentions. The unstandardized coefficient exhibit that a unit increase in Agreeableness increases the purchase intentions for Economy Pasta by 0.326, with all other variables remaining constant (Appendix 10).

Regarding Premium Pasta, the R square indicates the model explains 5.1% of the variation on intentions to purchase Premium Pasta. The model's p-value (0.000) is lower than the significance level of 0.05, rejecting the null hypothesis of all coefficients being equal to zero. The model is globally significant, and at least one of the explanatory variables is significant to

explain the dependent variable's behavior. The stepwise method selected two independent variables: Extraversion and Agreeableness. All remaining variables were excluded. Extraversion (0.001) and Agreeableness (0.048) significance levels are lower than 0.05, indicating that are statistically significant to explain the effect on consumers' purchasing intentions. The unstandardized coefficients exhibit that a unit increase in Extraversion increases the purchase intentions for Gourmet Pasta by 0.310, and Agreeableness increases by 0.255, with all other variables remaining constant (Appendix 11).

And lastly, for Premium Olive Oil the R square indicates the model explains 6.5% of the variation on intentions to purchase Premium Olive Oil. The model's p-value (0.000) is lower than the significance level of 0.05, rejecting the null hypothesis of all coefficients being equal to zero. The model is globally significant, and at least one of the explanatory variables is significant to explain the dependent variable's behavior. The stepwise method selected one independent variable: Extraversion. All remaining variables were excluded. Extraversion significance level (0.000) equals the model's, indicating that Extraversion is statistically significant to explain the effect on consumers' purchasing intentions. The unstandardized coefficients exhibit that a unit increase in Extraversion increases the purchase intentions for Gourmet Olive Oil by 0.401, with all other variables remaining constant (Appendix 12).

In conclusion, Personality Traits influence purchasing intentions, specifically in the Essential Grocery Goods category. Agreeableness affects positively Economy Pasta and Premium Pasta. And Extraversion affects positively Premium Pasta and Premium Olive Oil.

It is notable that the Extraversion trait impacts Premium PL products. The higher the level of Extraversion, the higher the purchasing intentions for Premium Pasta and Premium Olive Oil. In contrast, the effects of the Agreeableness trait may not be sufficient to draw a conclusion, but it does influence both Economy PL and Premium PL.

Having this, ***H3.1:*** *Personality Traits influence intentions to purchase PL* is verified. And ***H4.1:*** *Openness to Experience positively influence intentions to purchase PL* is rejected.

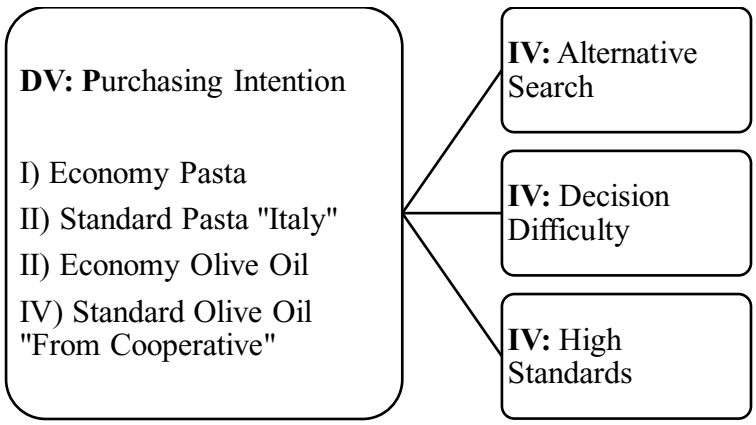
Maximization Scales

The effects of Maximization Scales on consumers' intentions to purchase Private Labels will be presented next, and hypothesis ***H3.2:*** *Maximization Scales influence intentions to purchase PL* will be verified or rejected.

Starting by analyzing the Maximization Scales means, High Standards (3.27) has the highest mean, followed by Alternative Search (3.23). Decision Difficulty (3.08) is the scale with the lowest mean.

When performing Multiple Linear Regressions, Economy Pasta (0.005), Standard Pasta "Italy" (0.002), Economy Olive Oil (0.016), and Standard Olive Oil "From Cooperative" (0.010) were the only products with statistical significance (p-value < 0.05). The following figure illustrates the linear regression's dependent and independent variables used to analyze the Maximization Scales effects.

Figure 2: Linear Regression for Maximization Scales



In regard to Economy Pasta, the R square indicates the model explains 2.6% of the variation on intentions to purchase Economy Pasta. The model's p-value (0.005) is lower than the significance level of 0.05, rejecting the null hypothesis of all coefficients being equal to zero. The model is globally significant, and at least one of the explanatory variables is significant to explain the dependent variable's behavior. The stepwise method selected one independent variable: High Standards. All remaining variables were excluded. High Standards significance level (0.005) equals the model's, indicating that High Standards is statistically significant to

explain the effect on consumers' purchasing intentions. The unstandardized coefficients exhibit that a unit increase in High Standards decrease the purchase intentions for Economy Pasta by -0.226, with all other variables remaining constant (Appendix 13).

As for Standard Pasta "Italy", the R square indicates the model explains 3.3% of the variation on intentions to purchase Standard Pasta "Italy". The model's p-value (0.002) is lower than the significance level of 0.05, rejecting the null hypothesis of all coefficients being equal to zero. The model is globally significant, and at least one of the explanatory variables is significant to explain the dependent variable's behavior. The stepwise method selected one independent variable: Alternative Search. All remaining variables were excluded. Alternative Search significance level (0.002) equals the model's, indicating that Alternative Search is statistically significant to explain the effect on consumers' purchasing intentions. The unstandardized coefficients exhibit that a unit increase in Alternative Search increase the purchase intentions for Standard Pasta "Italy" by 0.211, with all other variables remaining constant (Appendix 14).

Concerning Economy Olive Oil, the R square indicates the model explains 1.9% of the variation on intentions to purchase Economy Olive Oil. The model's p-value (0.016) is lower than the significance level of 0.05, rejecting the null hypothesis of all coefficients being equal to zero. The model is globally significant, and at least one of the explanatory variables is significant to explain the dependent variable's behavior. The stepwise method selected one independent variable: High Standards. All remaining variables were excluded. Alternative Search significance level (0.002) equals the model's, indicating that High Standards is statistically significant to explain the effect on consumers' purchasing intentions. The unstandardized coefficients exhibit that a unit increase in High Standards decrease the purchase intentions for Economy Olive Oil by -0.203, with all other variables remaining constant (Appendix 15).

And finally, for Standard Olive Oil "From Cooperative", the R square indicates the model explains 2.2% of the variation on intentions to purchase Standard Olive Oil "From Cooperative". The model's p-value (0.010) is lower than the significance level of 0.05, rejecting the null hypothesis of all coefficients being equal to zero. The model is globally significant, and at least one of the explanatory variables is significant to explain the dependent variable's behavior. The stepwise method selected one independent variable: Decision Difficulty. All remaining variables were excluded. Decision Difficulty significance level (0.002) equals the model's, indicating that Decision Difficulty is statistically significant to explain the effect on

consumers' purchasing intentions. The unstandardized coefficients exhibit that a unit increase in Decision Difficulty decrease the purchase intentions for Standard Olive Oil "From Cooperative" by -0.184, with all other variables remaining constant (Appendix 16).

Summing up, Maximization Scales influence purchasing intentions, specifically in the Essential Grocery Goods category. High Standards affects negatively Economy Pasta and Economy Olive Oil, Alternative Search affects positively Standard Pasta "Italy", and Decision Difficulty affects negatively Standard Olive Oil "From Cooperative".

It is possible to conclude that the High Standards scale impacts the Economy PL products. The higher the level of High Standards, the lower the purchasing intentions for Economy Pasta and Economy Olive Oil. In contrast, the effects of the Alternative Search and Decision Difficulty scales may not be sufficient to draw a conclusion, but they do influence Standard PL products, such as Standard Pasta "Italy" and Standard Olive Oil "From Cooperatives", respectively.

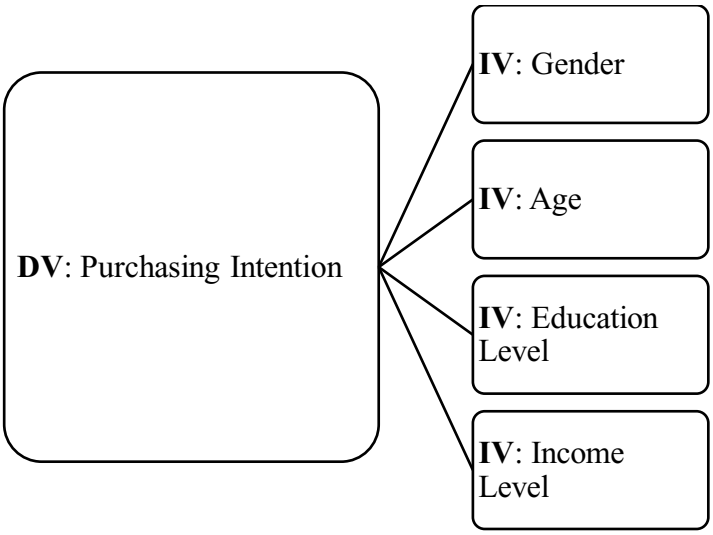
Having this, ***H3.2:*** *Maximization Scales influence intentions to purchase PL* is verified.

Socio-Demographics

The effects of consumers' Socio-Demographics on intentions to purchase Private Labels will be presented next, and hypothesis ***H3.3:*** *Socio-Demographics influence intentions to purchase PL* will be verified or rejected.

Multiple One-Way ANOVAs were performed to analyze the relationship between consumers' socio-demographic characteristics and their intentions to purchase the Private Label products.

Figure 3: One-Way ANOVA for Socio-Demographics



There were no significant variables when analyzing the effect of Gender on purchasing intentions. So, a Cross Tabulation was run to analyze that relationship. The Fisher's Exact test was used to understand the variables' statistical independence since cells have counts smaller than five. The p-value of 0.066 is higher than the significance level of 0.05, not rejecting the null hypothesis that the two variables are independent. However, by observing the phi value (0.193) and the cramer's V value (0.136), there is a weak association between variables. Nevertheless, frequencies were analyzed. 49.2% of female participants purchase Private Labels frequently and 26.6% purchase every time they go to the supermarket, in contrast with male participants, where 45.5% purchases Private Labels frequently and 31.8% purchase occasionally. Notably, women tend to purchase more Private Labels than men. However, it is important to note that the sample could have a gender bias, since women are the predominant consumer, representing 252 respondents, while men represent 44 respondents (Appendix 17).

Standard Pasta "Italy" was the only significant variable when analyzing the effect of Age on purchasing intentions. The Levene's test was run to analyze the homogeneity of variances, with a p-value of 0.02, lower than the significance level of 0.05, rejecting the null hypothesis of equal means. The Welch test was then performed, with a p-value of 0.027, lower than the significance level of 0.05, rejecting the null hypothesis of equal means. Means were also analyzed, and younger participants, with ages under 18 years old (4.50), between 18-24 years old (4.05), 25-34 years old (3.56), and 35-44 years old (3.54), had the highest purchasing

intentions, in comparison with older participants, with ages between 45-54 years old (3.25), 55-64 years old (3.13), and more than 64 years old (3.40) (Appendix 18).

Economy Pasta was the only significant variable when analyzing the effect of Education Level on purchasing intentions. The Levene's test was run to analyze the homogeneity of variances, with a p-value of 0.003, lower than the significance level of 0.05, rejecting the null hypothesis of equal means. The Welch test was then performed, with a p-value of 0.039, lower than the significance level of 0.05, rejecting the null hypothesis of equal means. Means were also analyzed, and participants with the highest Education Levels, such as Doctorate//Ph.D. (3.00), Master's Degree/MBA or similar (3.77), Post-Graduation (3.87), and Bachelor's Degree (3.82), had the lowest purchasing intentions, in comparison with participants with the lowest Education Levels, such as Basic Education (4.72) and Secondary Education (4.26) (Appendix 19).

Premium Pasta was the only significant variable when analyzing the effect of Income Level on purchasing intentions. The Levene's test was run to analyze the homogeneity of variances, with a p-value of 0.034, lower than the significance level of 0.05, rejecting the null hypothesis of equal means. The Welch test was then performed, with a p-value of 0.016, lower than the significance level of 0.05, rejecting the null hypothesis of equal means. Means were also analyzed, and participants with medium-high Income Levels, such as between 1001€-2000€ (3.64), 2001€-3000€ (3.56), 30001€-4000€ (4.67), and 40001€-5000€ (4.00), have the highest purchasing intentions, in comparison with participants with the lowest Income Levels, such as under or equal to 635€, and between 636€-1000€. Also, inquiries with the highest Income Level (more than 5000€) have the lowest purchasing intentions (3.00) (Appendix 20).

In conclusion, Socio-Demographics partially influence consumers' purchasing intentions, in the Essential Grocery Goods category. It was not possible to conclude if Gender influences intentions to purchase the PL products, but Age, Education, and Income do influence it. The younger the consumer is, the higher are the intentions to purchase Standard Pasta "Italy". The higher the consumer Education Level is, the lower are the intentions to purchase Economy Pasta. And if the consumer has a medium-high Income Level, the higher are the intentions to purchase Premium Pasta.

Although Pasta was the only product statistically significant to analyze consumers' Socio-Demographic characteristics, it may be possible to conclude that Age influences intentions to

purchase Standard PL, Education Level influences Economy PL, and Income Level influences Premium PL. That is, the lower the age, the higher the purchasing intentions for Standard PL, the higher the Education Level, the lower the purchasing intentions for Economy PL, and the higher the Income Level, the higher the intentions to purchase Premium PL.

Having this, ***H3.3:*** *Socio-Demographics influence intentions to purchase PL* is partially verified.

CHAPTER V – CONCLUSIONS AND LIMITATIONS

5.1. Main Findings and Conclusions

The objective of this research was to explore the effects of consumers' psychological characteristics on intentions to purchase Private Labels, so that retailers could adapt their strategies in order to change consumers' attitudes, goals, and behaviors based on these insights. This study focused on the Essential Grocery Goods category, which includes pasta, rice, olive oil, oils, flour, sugar, among others.

The hypotheses of this dissertation attempted to address the main drivers and barriers to purchase Private Labels, as well as the impacts of consumers' psychological characteristics, such as personality traits, and maximization scales, on intentions to purchase Private Labels.

The price, quality, product variety, premium versions, shelf availability, and curiosity were the six main identified drivers to purchase Private Labels. Consumers value a fair price-quality ratio, buy the products that are available on the shelves, and are curious to try new products and brands.

As a result, hypotheses ***H1.1:*** *Price is a driver to purchase PL;* ***H1.2:*** *Perceived quality improvements are a driver to purchase PL;* ***H1.3:*** *Product variety is a driver to purchase PL;* ***H1.4:*** *Premium products are a driver to purchase PL;* ***H1.5:*** *Shelf Availability is a driver to purchase PL;* and ***H1.6:*** *Curiosity is a driver to purchase PL* are verified.

In contrast, National Brands price promotions, Private Labels perceived inferior quality, and the trust placed on retailers were the main three barriers identified to purchase Private Labels. The small price gap between National Brands and Private Labels when National Brands do price promotions makes it more attractive for consumers to choose National Brands. Consumers also choose National Brands over Private Labels in their favorite products because they believe Private Labels can't replicate such good quality as National Brands do, since they are not specialized in the field. And lastly, if consumers do not trust the retailer, they will not trust its Private Label.

As a result, hypotheses ***H2.1:*** *NB price promotions are a barrier to purchase PL;* ***H2.2:*** *PL perceived inferior quality is a barrier to purchase PL;* ***H2.3:*** *Trust is a barrier to purchase PL* are verified.

Regarding consumers' characteristics, it was checked that personality traits, maximization scales, and socio-demographics do influence intentions to purchase Private Labels.

Agreeableness and Extraversion were the two most statistically significant personality traits that influence purchasing intentions for PL Essential Grocery Goods.

Agreeableness positively influences intentions to purchase Economy Pasta and Premium Pasta. This personality trait includes affection, kindness, altruism, and trust. Consumers high in Agreeableness tend to be more cooperative, while those low in this trait tend to be more competitive and manipulative. An explanation for this effect could be that consumers with high levels of Agreeableness are more open to trust in Private Labels, and consequently, to try all Private Label tiers.

Extraversion positively influences intentions to purchase Premium Pasta and Premium Olive Oil. This personality trait is characterized by high emotional expressiveness, excitability, sociability, talkativeness, and assertiveness. Consumers high in this trait tend to be outgoing and energetic in social situations. And consumers low in this trait tend to be more reserved and less energetic in social environments. An explanation for this effect could be that consumers' excitability and outgoingness make them more willing to try new and different products, such as premium Private Labels.

Concerning maximization scales, the three scales High Standards, Alternative Search, and Decision Difficulty do influence significantly intentions to purchase Private Labels.

High Standards negatively influences Economy Pasta and Economy Olive Oil. This dimension relies on consumers' tendency to hold rigorous criteria when choosing. A possible explanation for this effect could be that consumers prefer to choose a National Brand over a Private Label since it is more specialized in its products.

Alternative Search positively influences Standard Pasta "Italy". This dimension measures consumers' tendency to seek for better options. So, this situation can be justified by consumers feeling more open to purchase a Private Label that claim for product attributes. For example, in this case, the product indicates that the pasta is from Italy, and since pasta is an Italian food, claiming "Italy" in the packaging could signal quality.

And lastly, Decision Difficulty negatively influences Standard Olive Oil "From Cooperative". This dimension represents consumers' difficulty associated with choosing and making decisions. A possible explanation for this effect could be that consumers feel overloaded with so many different olive oil offers and end up choosing a National Brand that they trust, making their choice easier.

Consumers' socio-demographic characteristics were also analyzed in order to detect their influence on intentions to purchase Private Labels.

It was not possible to conclude if Gender do influence or not intentions to purchase Private Labels. But it can be assumed that it does not influence it.

On the other hand, Age influences purchasing intentions regarding Private Labels. The younger the consumer is, the higher are the intentions to purchase Standard Pasta "Italy". A possible reason could be that older generations may have more concerns regarding health and prefer to purchase National Brands since they may transmit more credibility.

Regarding consumers' Education Level, the higher the level, the lower are the intentions to purchase Economy Pasta. This could be explained by consumers with high education levels are more informed about products and market offers, and thus prefer to choose National Brands or tiered up Private Labels, which raise more confidence.

Income also influences intentions to purchase Private Labels. If the consumer has a medium-high Income Level, the higher are the intentions to purchase Premium Pasta. A possible explanation could be that consumers with higher income levels have more financial stability and are more prone to try premium products.

With this, hypotheses ***H3.1:*** *Personality Traits influence intentions to purchase PL;* ***H3.2:*** *Maximization Scales influence intentions to purchase PL;* ***H3.3:*** *Socio-Demographics influence intentions to purchase PL* are verified. And ***H4.1:*** *Openness to Experience positively influence intentions to purchase PL* is rejected.

5.2. Limitations and Further Research

This dissertation has some limitations that may compromise the validity of its conclusions.

One of the main limitations is the survey sample size, with only 303 valid responses, which do not represent the totality of the Portuguese market. Additionally, the sample has a gender bias, with women being the predominant consumer, representing 252 respondents, in contrast with 44 male respondents. Also, the channels where the qualitative interview and the quantitative survey were distributed were another drawback, where possible participants that do not have access to a cellphone or to internet may have been prevented from giving their insights, narrowing the sample size.

Another limitation is the focus on the Essential Grocery Goods category, especially in only three products of the category: pasta, olive oil, and flour. Despite being the best sellers, there are other products and other categories worth investigating, that could have led to different results. Similarly, the focus solely on the Portuguese market creates another constraint, making it not possible to draw conclusions for other countries.

For future research, it would be advantageous to increase the sample size, extend the analysis to more products and other categories, and to include other psychological variables that may influence consumers' purchasing intentions.

It would also be interesting to do experimental research on different retailers' supermarkets, in order to observe consumers' attitudes towards Economy PL, Standard PL, and Premium PL offers.

And finally, it could be enriching to deeper analyze the correlations between consumers' psychological characteristics and intentions to purchase Private Labels.

5.3. Managerial Implications

The insights obtained on this research can be useful for retailers to adapt their strategies to enhance the drivers and mitigate the barriers to purchase Private Labels. Additionally, retailers can develop new strategies to change consumers' attitudes, goals, and behaviors based on the insights collected regarding consumers' phycological characteristics.

In order to increase sales in PL Essential Grocery Goods, retailers may start by boosting the products' packaging and investing more in claims, such as "High Fiber", and quality certifications, such as the DOP certification. With this, Private Label products will gain more credibility and increase quality perceptions. Nevertheless, it is important to not elaborate the packaging so much, because in some products, such as pasta and flour, consumers prefer the Economy version.

Retailers should also continue to invest in Premium PL, since consumers value premium products, and it is an opportunity to increase consumers' quality perceptions regarding Private Labels. Additionally, it is relevant to offer more exclusive products in Premium PL, once consumers with high levels of Extraversion are the ones that consume most premium products, and they look for new and different products. This strategy will create more customer satisfaction, and consequently, customer loyalty.

Moreover, extending the Essential Grocery Goods category by offering more products will increase purchasing intentions, since it can prevent consumers to switch to National Brands if they can find the products in the Private Label assortment. However, it is necessary to be careful about the overload of offerings. For example, the excess of different olive oil options creates Decision Difficulty for consumers, that is, makes it harder for consumers to choose, and they may end up going for the easy option and buying a National Brand they already trust. In this particular case, retailers should try to decrease the number of olive oil offers and concentrate their portfolio on certified olive oil and premium olive oil in their Private Label.

And to conclude, retailers should continue to provide competitive prices and to improve quality of their Private Label.

REFERENCES

Begley, S., & McOuat, A. (2020). *Turning private labels into powerhouse brands*. McKinsey & Company. https://www.mckinsey.com/industries/retail/our-insights/turning-private-labels-into-powerhouse-brands

Begley, S., & McOuat, A. (2021). *The potential for powerhouse Private Brands: an updated view.* McKinsey & Company. https://www.mckinsey.com/industries/retail/our-insights/the-potential-for-powerhouse-private-brands-an-updated-view

Braak, A. T., Geyskens, I., & Dekimpe, M. G. (2014). *Taking private labels upmarket: Empirical generalizations on category drivers of premium private label introductions.* Journal of Retailing. https://www.sciencedirect.com/science/article/abs/pii/S0022435914000049

BusinessNES.com. (2021). *List of 100 Top Selling Grocery Items 2021 & Tips*. BusinessNES. https://businessnes.com/list-of-top-selling-grocery-items-and-tips/

Cardoso, M., & Lima, P. (2019). *Como os grupos de distribuição nos tentam convencer a comprar produtos das suas marcas.* Jornal Expresso. https://expresso.pt/economia/2019-07-09-Como-os-grupos-de-distribuicao-nos-tentam-convencer-a-comprar-produtos-das-suas-marcas.

Cherry, K. (2005). *What Are the Big 5 Personality Traits?* Verywell Mind. https://www.verywellmind.com/the-big-five-personality-dimensions-2795422

Continente.com. (2021). *Continente - o seu Hipermercado para Compras Online.* Continente Online. https://www.continente.pt/

Corstjens, M., & Lal, R. (2000). *Building Store Loyalty through Store Brands*. Journal of Marketing Research. https://journals.sagepub.com/doi/full/10.1509/jmkr.37.3.281.18781

Dawes, J., & Thiel, M. N. (2013). *Analyzing the intensity of private label competition across retailers*. Journal of Business Research. https://www.sciencedirect.com/science/article/abs/pii/S0148296311002591

Fajardo, T. M., & Townsend, C. (2015). *Where you say it matters: Why packages are a more believable source of product claims than advertisements.* Journal of Consumer Psychology. https://myscp.onlinelibrary.wiley.com/doi/10.1016/j.jcps.2015.11.002

Geyskens, I., Gielens, K., & Gijsbrechts, E. (2010). *Proliferating Private-Label Portfolios: How Introducing Economy and Premium Private Labels Influences Brand Choice*. Journal of Marketing Research. https://journals.sagepub.com/doi/abs/10.1509/jmkr.47.5.791

Gielens, K. (2012). *New Products: The Antidote to Private Label Growth?* Journal of Marketing Research. https://journals.sagepub.com/doi/abs/10.1509/jmr.10.0183

Gielens, K., Ma, Y., Namin, A., Sethuraman, R., Smith, R. J., Bachtel, R. C., & Jervis, S. (2021). *The Future of Private Labels: Towards a Smart Private Label Strategy*. Journal of
Retailing. https://www.sciencedirect.com/science/article/abs/pii/S0022435920300701

Lamey, L., Deleersnyder, B., Dekimpe, M. G., & Steenkamp, J. E. M. (2007). *How Business Cycles Contribute to Private-Label Success: Evidence from the United States and Europe*. Journal of Marketing. https://journals.sagepub.com/doi/abs/10.1509/jmkg.71.1.001

Malhotra, N., Numan, D., & Birks, D., (2017). *Marketing Research - An Applied Approach*, 5th Edition. Pearson Education. https://www.pearson.com/uk/educators/higher-education-educators/program/Malhotra-Marketing-Research-An-applied-approach-5th-Edition/PGM1638972.html

Matthijssen, V., & Heath, L. (2019). *Has private label become branded?*. Deloitte. https://www2.deloitte.com/au/en/blog/consumer-blog/2019/has-private-label-become-branded.html

Miquel, M. J., Caplliure, E. M., Pérez, C., & Bigné, E. (2017). *Buying private label in durables: Gender and other psychological variables.* Journal of Retailing and Consumer Services. https://www.sciencedirect.com/science/article/abs/pii/S0969698916303150

Nenkov, G. Y., & Morrin, M. & Ward, A. & Schwartz, B. & Hulland, J. (2008). *A short form of the Maximization Scale: Factor structure, reliability and validity studies.* Judgement and Decision Making. http://journal.sjdm.org/8323/jdm8323.html

Neves, R. (2019). *Paulo Azevedo e a ameaça Mercadona: No retalho alimentar, foram mais as invasões francesas.* Jornal de Negócios. https://www.jornaldenegocios.pt/empresas/comercio/detalhe/paulo-azevedo-e-a-ameaca-mercadona-no-retalho-alimentar-foram-mais-as-invasoes-francesas

Nielsen.com. (2018). *The rise and rise again of private label*. The Nielsen Company. https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/global-private-label-report.pdf

Nowlis, S., & Simonson, I. (2008). *Sales Promotions and the Choice Context as Competing Influences on Consumer Decision Making*. Journal of Consumer Psychology. https://myscp.onlinelibrary.wiley.com/doi/10.1207/s15327663jcp0901_1

Rammstedt, B., & John, O. P. (2007). *Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German*. Journal of Research in Personality. https://www.sciencedirect.com/science/article/abs/pii/S0092656606000195

Steenkamp, J. E. M., Heerde H. J. V., & Geyskens, I. (2010). *What Makes Consumers Willing to Pay a Price Premium for National Brands over Private Labels?.* Journal of Marketing Research. https://journals.sagepub.com/doi/abs/10.1509/jmkr.47.6.1011

Trienekens, J., & Zuurbier, P. (2008). *Quality and safety standards in the food industry, developments and challenges.* International Journal of Production

Economics. https://www.sciencedirect.com/science/article/abs/pii/S092552730700312X

Vale, R. C., Matos, P. V. & Caiado, J. (2016). *The impact of private labels on consumer store loyalty: An integrative perspective*. Journal of Retailing and Consumer Services. https://www.sciencedirect.com/science/article/abs/pii/S0969698915300928

Walsh, G., & Mitchell, V. (2010). *Consumers' Intention to Buy Private Label Brands Revisited*. Journal of General Management. https://journals.sagepub.com/doi/abs/10.1177/030630701003500302

APPENDIX

Appendix 1: Interview Guideline

Introduction	
First of all, thank you for accepting to participate in this interview. My name is Carolina Brites and I am master's student at Católica-Lisbon SBE. I am currently writing my thesis, which studies the effects of psychological characteristics on consumers' intentions to purchase Private Labels. This interview will take approximately 20 minutes. It is divided into 4 sections, where you will be asked some questions regarding your general shopping habits, intentions to purchase Private Labels, psychological characteristics, and socio-demographics. Feel free to add anything you would like during the interview.	
Section I: General Shopping Habits	
Private Labels are brands owned and marketed by retailers. For example, the brand Continente is owned by the retailer Continente and marketed only on Continente's supermarkets.	
Q1	Please talk me through your purchasing habits regarding grocery shopping. What supermarket do you usually go to and what motivates you to go there? How often do you go to the supermarket?
Q2	Do you usually purchase private labels?
Section II-A: For PL Consumers (if the answer to Q2 is "Yes")	
Q3	What are your main motives to purchase private labels? And what product categories do you usually buy private labels?
Q4	What were your perceptions regarding private labels before purchasing it?
Q5	What do you look for in private labels? (E.g.: price, quality, shelf availability, etc.)
Q6	Please talk me through your purchasing habits regarding private labels. How often do you purchase it? Which private labels do you usually buy? What private labels have you bought in the past? And how was the experience?
Section II-B: For PL Non-Consumers (if the answer to Q2 is "No")	
Q7	What are your main motives for not purchasing private labels? Have you ever bought private labels?
Q8	What are your perceptions regarding private labels?

Q9	What do you think companies should improve in their strategy in order to incentivize consumers to purchase more private labels?
Q10	Would you be willing to purchase private labels in the future? If yes, which product categories, motivations, frequency, etc.?

Section III: Consumers' Characteristics	
Q11	In a scale from 1 to 5, being 1 strongly disagree and 5 strongly agree, please classify how much you believe you are: a. Extrovert b. Agreeable c. Conscientious d. Neurotic e. Open to Experience
Q12	In a scale from 1 to 5, being 1 strongly disagree and 5 strongly agree, please classify how much you believe you choose: a. The best option b. The good enough option

Section IV: Socio-Demographics	
Q13	Age
Q14	Gender
Q15	Level of Education

Appendix 2: Online Survey Guideline

Block I: Introduction
Dear Participant, Thank you for taking the time to answer this survey. This questionnaire was created as part of my master's thesis at Católica-Lisbon SBE, which studies the effects of psychological characteristics on consumers' intentions to purchase Private Labels. This survey will take approximately 5 minutes. It is divided into 4 sections, where you will be asked about your general shopping habits, intentions to purchase Private Labels, psychological characteristics, and socio-demographics. The responses are anonymous, so feel free to share your honest opinion. If you need to contact me, please do so via s-cbrites@ucp.pt.

Block II: Portuguese from Portugal		
Q1	Do you have Portuguese nationality and currently live in Portugal?	1 - No 2 - Yes
If "No" is selected: skip to End of Survey		
Block III: PL Purchasing Frequency		
Private Labels are brands owned and marketed by retailers. For example, the brand Continente is owned by the retailer Continente and marketed only on Continente's supermarkets.		
Q2	Approximately, how often do you purchase Private Labels?	1 - Never 2 - Rarely 3 - Occasionally 4 - Often 5 - Always
If "Never" is selected: skip to Block III-A		
Block III-A: Never purchased PL		
Q3	Why have you never purchased Private Labels?	(Open answer question)
Q4	Would you be willing to purchase Private Labels in the future?	1 - No 2 - Yes
If "No" is selected: skip to End of Survey		
Q5	Which of the following products would you be willing to purchase from a Private Label?	(Multiple choice answer) 1 - Pasta 2 - Rice 3 - Olive Oil 4 - Oil 5 - Flour 6 - Sugar 7 - None of the above
If "None of the above" is selected: skip to End of Survey		
Block IV: General Shopping Habits		
Q6	Which of the following supermarkets is the one you go more often?	1 - Continente 2 - Pingo Doce 3 - Mini Preço

		4 - Auchan 5 - Intermaché 6 - E. Leclerc 7 - El Corte Inglés 8 - Lidl 9 - Aldi 10 - Mercadona 11 - Other
Q7	Rank the following factors according to what influences you the most and the least to purchase Private Labels, with 1 being the most influencing factor and 5 the least influencing factor.	1 - Price 2 - Quality 3 - Curiosity 4 - Trust 5 – Shelf-Availability
Block V: Psychological Characteristics		
Q8	Indicate your level of agreement with the following sentences: I see myself as someone who... 1 - ... is reserved. 2 - ... is generally trusting. 3 - ... tends to be lazy. 4 - ... is relaxed, handles stress well. 5 - ... has few artistic interests. 6 - ... is outgoing, sociable. 7 - ... tends to find fault with others. 8 - ... does a thorough job. 9 - ... gets nervous easily. 10 - … has an active imagination.	1 - Strongly Disagree 2 - Moderately Disagree 3 - Neither Agree nor Disagree 4 - Moderately Agree 5 - Strongly Agree
Q9	Indicate your level of agreement with the following sentences:	1 - Strongly Disagree 2 - Moderately Disagree

	1 - When I am in the car listening to the radio, I often check the other stations to see if something better is playing, even if I am relatively satisfied with what I'm listening to. 2 - No matter how satisfied I am with my job, it's only right for me to be on the lookout for better opportunities. 3 - I often find it difficult to shop for a gift for a friend. 4 - Renting videos is really difficult. I'm always struggling to pick the best one. 5 - No matter what I do, I have the highest standards for myself. 6 - I never settle for second best.	3 - Neither Agree nor Disagree 4 - Moderately Agree 5 - Strongly Agree
Block VI: Intentions to purchase PL		
As explained before, this dissertation aims to study the intentions to purchase Private Labels, particularly in the Essential Grocery Goods category, that includes pasta, rice, olive oil, oil, sugar, flour, etc. The following block will present 3 Continente's products, displayed in different formats, in order to analyze your purchase intentions for each of one.		
Q10	Indicate how interested you are in purchasing each of the following products: 1 - (Image): Economy Pasta 2 - (Image): Standard Pasta "Fiber Source" 3 - (Image): Standard Pasta "Italy" 4 - (Image): Premium Pasta	1 - Not at all Interested 2 - Slightly Interested 3 - Moderately Interested 4 - Very Interested 5 - Extremely Interested
Q11	Indicate how interested you are in purchasing each of the following products: 1 - (Image): Economy Olive Oil 2 - (Image): Standard Olive Oil "From Cooperative" 3 - (Image): Premium Olive Oil	1 - Not at all Interested 2 - Slightly Interested 3 - Moderately Interested 4 - Very Interested 5 - Extremely Interested
Q12	Indicate how interested you are in purchasing each of the following products:	1 - Not at all Interested 2 - Slightly Interested 3 - Moderately Interested

1 - (Image): Economy Flour	4 - Very Interested
2 - (Image): Standard Flour "High Source of Fiber"	5 - Extremely Interested
Block VII: Socio-Demographics	
Q13 Gender:	1 - Man 2 - Woman 3 - Other 4 - I prefer not to say
Q14 Age:	1 - Less than 18 years old 2 - Between 18 and 24 years old 3 - Between 25 and 34 years old 4 - Between 35 and 44 years old 5 - Between 45 and 54 years old 6 - Between 55 and 64 years old 7 - More than 64 years old
Q15 Education Level:	1 - Middle School 2 - High School 3 - Bachelor's Degree 4 - Post Graduation 5 - Master's Degree / MBA or similar 6 - Doctoral's Degree / Ph.D 7 - Other
Q16 Monthly Income Range:	1 - Less or equal to €635 2 - Between €636 and €1000 3 - Between €1001 and €2000 4 - Between €2001 and €3000

	5 - Between €3001 and €4000 6 - Between €4001 and €5000 7 - More than €5000
Q17 Marital Status:	1 - Single 2 - Married 3 - Divorced 4 - Widowed 5 - In a domestic partnership
Q18 City:	(Open answer question)

Appendix 3: Frequencies – Portuguese living in Portugal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	321	100,0	100,0	100,0

Appendix 4: Frequencies – PL Purchasing Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	2	,6	,6	,6
	Rarely	16	5,0	5,0	5,6
	Occasionally	74	23,1	23,1	28,7
	Often	155	48,3	48,3	76,9
	Always	74	23,1	23,1	100,0
	Total	321	100,0	100,0	

Appendix 5: Crosstabs – Never purchased PL by Willingness to purchase PL

		No	Total
Approximately, how often do you purchase private labels?	Never	2	2
Total		2	2

Appendix 6: Frequencies – Willingness to Purchase PL Essential Grocery Goods

		Pasta	Rice	Olive Oil	Oil	Flour	Sugar	None of the above
N	Valid	203	191	137	115	173	193	16
	Missing	118	130	184	206	148	128	305

Appendix 7: Frequencies – Usual Shopping Location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Continente	119	37,1	39,3	39,3
	Pingo Doce	90	28,0	29,7	69,0
	Mini Preço	10	3,1	3,3	72,3
	Auchan	14	4,4	4,6	76,9
	Intermaché	11	3,4	3,6	80,5
	El corte Inglés	3	,9	1,0	81,5
	Lidl	43	13,4	14,2	95,7
	Aldi	5	1,6	1,7	97,4
	Mercadona	8	2,5	2,6	100,0
	Total	303	94,4	100,0	
Missing	System	18	5,6		
Total		321	100,0		

Appendix 8: Friedman's ANOVA – Factors that influence Intentions to Purchase PL

	N	Mean	Std. Deviation	Minimum	Maximum
Price	301	1,62	,810	1	4
Quality	301	1,91	,808	1	5
Curiosity	301	3,96	,932	1	5
Trust	301	3,07	,997	1	5
Shelf Availability	301	4,43	,886	1	5

	Mean Rank
Price	1,62
Quality	1,91
Curiosity	3,96
Trust	3,07
Shelf Availability	4,43

N	301
Kendall's W[a]	,606
Chi-Square	729,087
df	4
Asymp. Sig.	,000

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
Price-Quality	-,292	,129	-2,268	,023	,233
Price-Trust	-1,452	,129	-11,265	,000	,000
Price-Curiosity	-2,342	,129	-18,173	,000	,000
Price-Shelf Availability	-2,807	,129	-21,782	,000	,000
Quality-Trust	-1,159	,129	-8,996	,000	,000
Quality-Curiosity	-2,050	,129	-15,904	,000	,000
Quality-Shelf Availability	-2,515	,129	-19,513	,000	,000
Trust-Curiosity	,890	,129	6,908	,000	,000
Trust-Shekf Availability	-1,355	,129	-10,517	,000	,000
Curiosity-Shelf Availability	-,465	,129	-3,609	,000	,003

Appendix 9: Frequencies – Purchasing Intentions for PL Essential Grocery Goods

	N	Minimum	Maximum	Mean	Std. Deviation
Pasta_Basic	303	1	5	3,95	1,283
Pasta_Fiber	303	1	5	3,61	1,279
Pasta_Italy	303	1	5	3,56	1,214
Pasta_Gourmet	303	1	5	3,50	1,324
Olive Oil_Basic	303	1	5	3,28	1,351
Olive Oil_Cooperative	303	1	5	3,66	1,196
Olive Oil_Gourmet	303	1	5	3,43	1,274
Flour_Basic	303	1	5	3,94	1,107
Flour_Fiber	303	1	5	3,59	1,222
Valid N (listwise)	303				

Appendix 10: Linear Regression – Economy Pasta by Personality Traits

	Mean	Std. Deviation	N
Pasta_Basic	3,95	1,283	303
Extraversion	3,4208	,81195	303
Agreeableness	3,8350	,58045	303
Conscientiousness	3,5479	,77215	303
Neuroticism	2,8729	,94704	303
Openness	3,5182	,83020	303

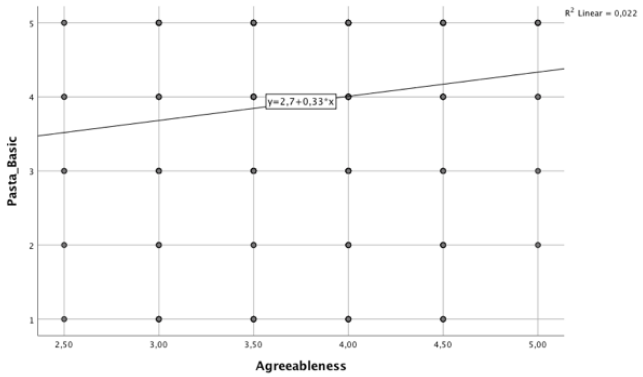
		Pasta_Basic	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Pearson Correlation	Pasta_Basic	1,000	-,024	,148	-,014	-,009	-,082
	Extraversion	-,024	1,000	,051	,134	-,157	,130
	Agreeableness	,148	,051	1,000	,056	-,115	,051
	Conscientiousness	-,014	,134	,056	1,000	-,034	,094
	Neuroticism	-,009	-,157	-,115	-,034	1,000	-,040
	Openness	-,082	,130	,051	,094	-,040	1,000

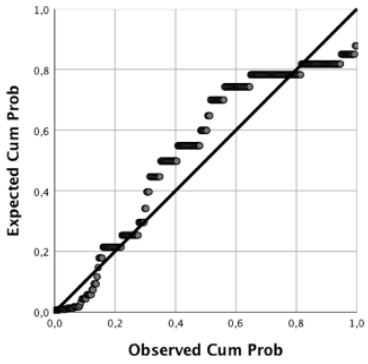
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,148[a]	,022	,019	1,271	1,943

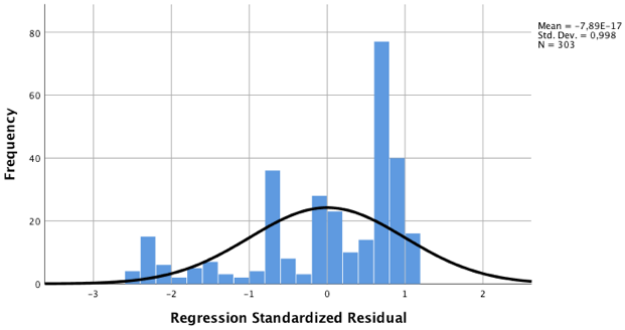
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,826	1	10,826	6,698	,010[b]
	Residual	486,527	301	1,616		
	Total	497,353	302			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2,703	,489		5,529	,000		
	Agreeableness	,326	,126	,148	2,588	,010	1,000	1,000

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Agreeableness
1	1	1,989	1,000	,01	,01
	2	,011	13,311	,99	,99







Agree

N	Valid	303
	Missing	18
Skewness		-,009
Std. Error of Skewness		,140
Kurtosis		-,291
Std. Error of Kurtosis		,279

Appendix 11: Linear Regression – Premium Pasta by Personality Traits

	Mean	Std. Deviation	N
Pasta_Gourmet	3,50	1,324	303
Extraversion	3,4208	,81195	303
Agreeableness	3,8350	,58045	303
Conscientiousness	3,5479	,77215	303
Neuroticism	2,8729	,94704	303
Openness	3,5182	,83020	303

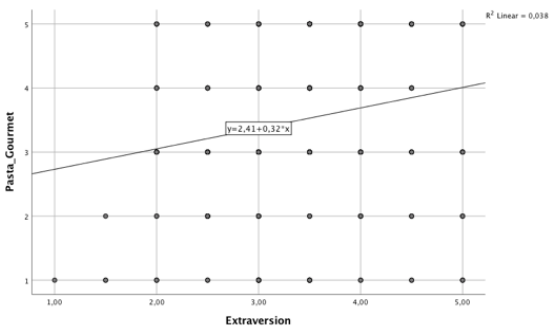
		Pasta_Gourmet	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Pearson Correlation	Pasta_Gourmet	1,000	,196	,122	,054	-,025	,129
	Extraversion	,196	1,000	,051	,134	-,157	,130
	Agreeableness	,122	,051	1,000	,056	-,115	,051
	Conscientiousness	,054	,134	,056	1,000	-,034	,094
	Neuroticism	-,025	-,157	-,115	-,034	1,000	-,040
	Openness	,129	,130	,051	,094	-,040	1,000

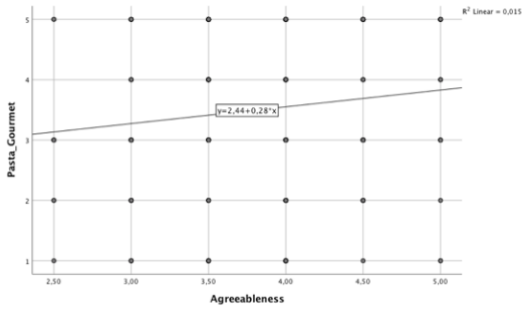
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,196[a]	,038	,035	1,301	
2	,226[b]	,051	,045	1,295	1,892

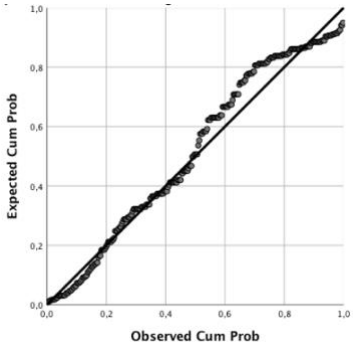
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20,328	1	20,328	12,012	,001[b]
	Residual	509,414	301	1,692		
	Total	529,743	302			
2	Regression	26,948	2	13,474	8,039	,000[c]
	Residual	502,795	300	1,676		
	Total	529,743	302			

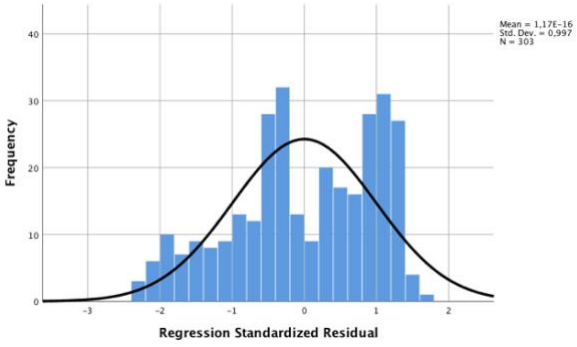
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2,412	,324		7,441	,000		
	Extraversion	,320	,092	,196	3,466	,001	1,000	1,000
2	(Constant)	1,464	,576		2,544	,011		
	Extraversion	,310	,092	,190	3,376	,001	,997	1,003
	Agreeableness	,255	,129	,112	1,987	,048	,997	1,003

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Extraversion	Agreeablenss
1	1	1,973	1,000	,01	,01	
	2	,027	8,557	,99	,99	
2	1	2,951	1,000	,00	,01	,00
	2	,039	8,669	,03	,87	,16
	3	,010	16,993	,97	,12	,84









		Extra_N	Agree
N	Valid	303	303
	Missing	18	18
Skewness		-,059	-,009
Std. Error of Skewness		,140	,140
Kurtosis		-,308	-,291
Std. Error of Kurtosis		,279	,279

Appendix 12: Linear Regression – Premium Olive Oil by Personality Traits

	Mean	Std. Deviation	N
Olive Oil_Gourmet	3,43	1,274	303
Extraversion	3,4208	,81195	303
Agreeableness	3,8350	,58045	303
Conscientiosness	3,5479	,77215	303
Neuroticism	2,8729	,94704	303
Openness	3,5182	,83020	303

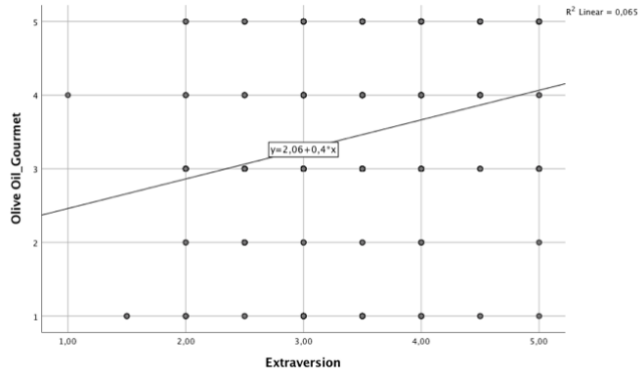
		Olive Oil_Gourmet	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Pearson Correlation	Olive Oil_Gourmet	1,000	,256	-,017	,011	-,054	,065
	Extraversion	,256	1,000	,051	,134	-,157	,130
	Agreeableness	-,017	,051	1,000	,056	-,115	,051
	Conscientiousness	,011	,134	,056	1,000	-,034	,094
	Neuroticism	-,054	-,157	-,115	-,034	1,000	-,040
	Openness	,065	,130	,051	,094	-,040	1,000

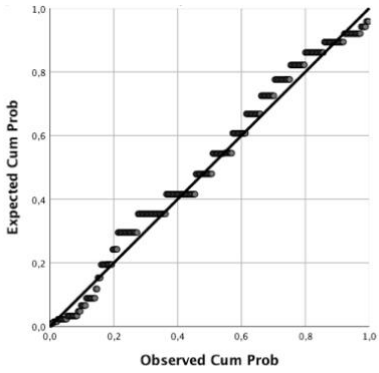
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,256[a]	,065	,062	1,234	2,154

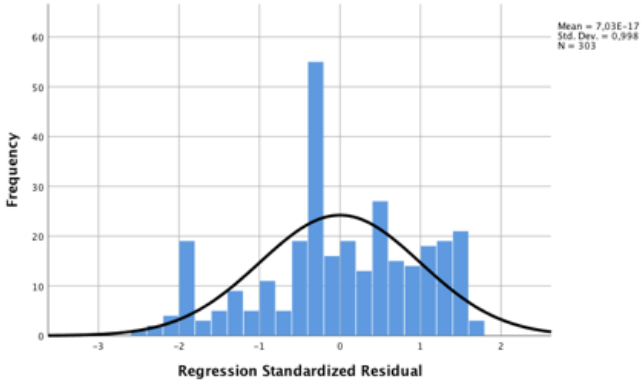
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32,045	1	32,045	21,046	,000[b]
	Residual	458,318	301	1,523		
	Total	490,363	302			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2,060	,307		6,700	,000		
	Extraversion	,401	,087	,256	4,588	,000	1,000	1,000

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	Variance Proportions Extraversion
1	1	1,973	1,000	,01	,01
	2	,027	8,557	,99	,99







Extra_N

N	Valid	303
	Missing	18
Skewness		-,059
Std. Error of Skewness		,140
Kurtosis		-,308
Std. Error of Kurtosis		,279

Appendix 13: Linear Regression – Economic Pasta by Maximization Scales

	Mean	Std. Deviation	N
Pasta_Basic	3,95	1,283	303
Alternative S.	3,2360	1,03798	303
Decision D.	3,0858	,96249	303
High S.	3,2723	,91941	303

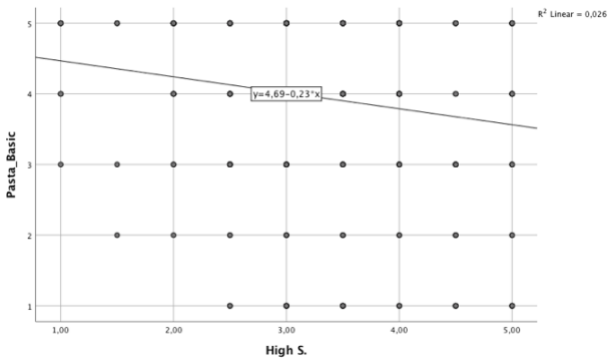
		Pasta_Basic	Alternative S.	Decision D.	High S.
Pearson Correlation	Pasta_Basic	1,000	,021	-,058	-,162
	Alternative S.	,021	1,000	,271	,250
	Decision d.	-,058	,271	1,000	,164
	High S.	-,162	,250	,164	1,000

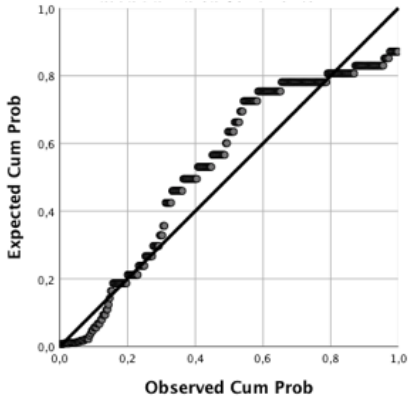
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,162[a]	,026	,023	1,268	1,955

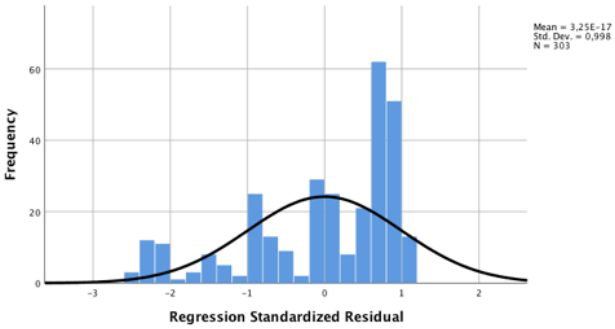
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13,036	1	13,036	8,102	,005[b]
	Residual	484,317	301	1,609		
	Total	497,353	302			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4,693	,270		17,394	,000		
	High S.	-,226	,079	-,162	-2,846	,005	1,000	1,000

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	High S.
1	1	1,963	1,000	,02	,02
	2	,037	7,268	,98	,98







High

N	Valid	303
	Missing	18
Skewness		-,067
Std. Error of Skewness		,140
Kurtosis		-,182
Std. Error of Kurtosis		,279

Appendix 14: Linear Regression – Standard Pasta "Italia" by Maximization Scales

	Mean	Std. Deviation	N
Pasta_Italia	3,56	1,214	303
Alternative S.	3,2360	1,03798	303
Decision D.	3,0858	,96249	303
High S.	3,2723	,91941	303

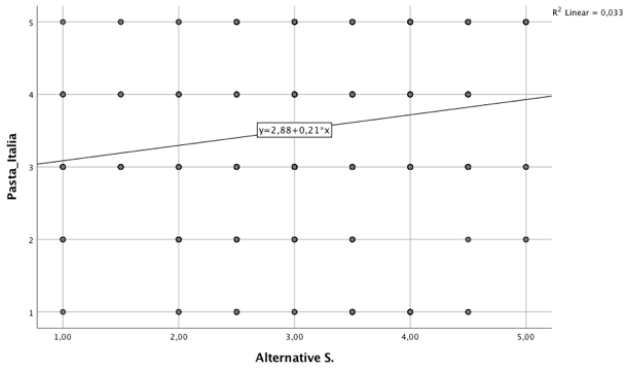
		Pasta_Italia	Alternative S.	Decision D.	High S.
Pearson Correlation	Pasta_Italia	1,000	,180	,034	,096
	Alternative S.	,180	1,000	,271	,250
	Decision D.	,034	,271	1,000	,164
	High S.	,096	,250	,164	1,000

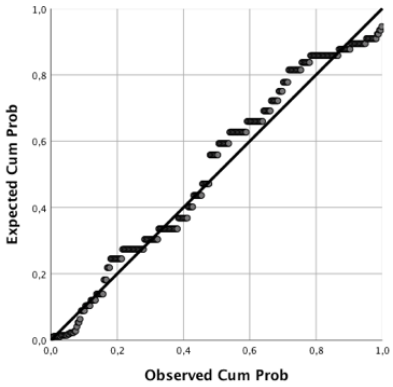
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,180[a]	,033	,029	1,196	1,860

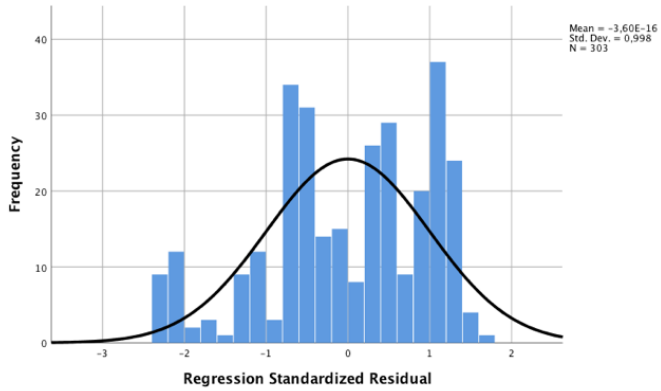
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14,472	1	14,472	10,124	,002[b]
	Residual	430,268	301	1,429		
	Total	444,739	302			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2,875	,225		12,767	,000		
	Alternative S.	,211	,066	,180	3,182	,002	1,000	1,000

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Alternative S.
1	1	1,952	1,000	,02	,02
	2	,048	6,402	,98	,98







Alter

N	Valid	303
	Missing	18
Skewness		-,413
Std. Error of Skewness		,140
Kurtosis		-,472
Std. Error of Kurtosis		,279

Appendix 15: Linear Regression – Economy Olive Oil by Maximization Scales

	Mean	Std. Deviation	N
Olive Oil_Basic	3,28	1,351	303
Alternative S.	3,2360	1,03798	303
Decision D.	3,0858	,96249	303
High S.	3,2723	,91941	303

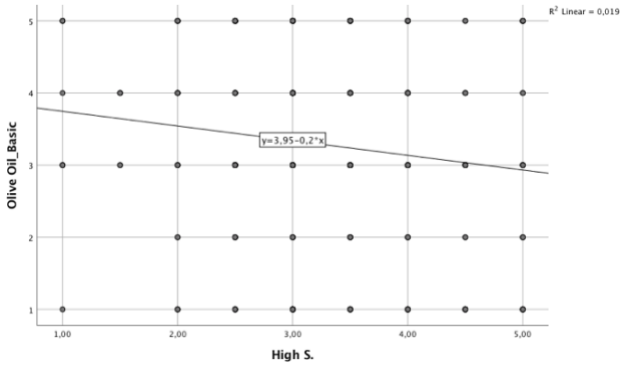
		Olive Oil_Basic	Alternative S.	Decision D.	High S.
Pearson Correlation	Olive Oil_Basic	1,000	-,043	-,090	-,138
	Alternative S.	-,043	1,000	,271	,250
	Decision D.	-,090	,271	1,000	,164
	High S.	-,138	,250	,164	1,000

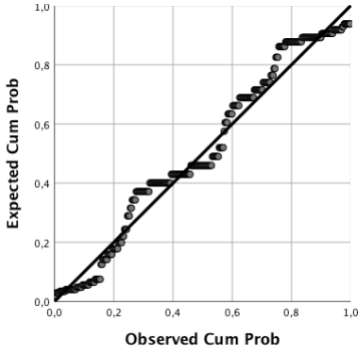
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,138[a]	,019	,016	1,341	1,917

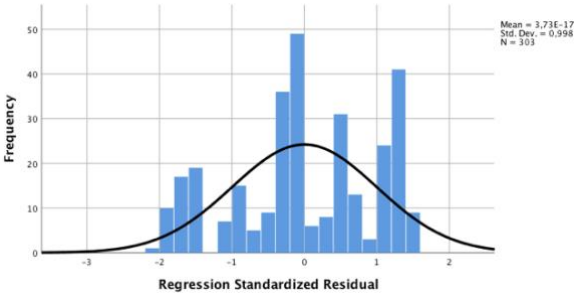
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,558	1	10,558	5,874	,016[b]
	Residual	541,033	301	1,797		
	Total	551,591	302			

		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	3,949	,285		13,849	,000		
	High S.	-,203	,084	-,138	-2,424	,016	1,000	1,000

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	High S.
1	1	1,963	1,000	,02	,02
	2	,037	7,268	,98	,98







High

N	Valid	303
	Missing	18
Skewness		-,067
Std. Error of Skewness		,140
Kurtosis		-,182
Std. Error of Kurtosis		,279

Appendix 16: Linear Regression – Standard Olive Oil "From Cooperatives" by Maximization Scales

	Mean	Std. Deviation	N
Olive Oil_Cooperative	3,66	1,196	303
Alternative S.	3,2360	1,03798	303
Decision D.	3,0858	,96249	303
High S.	3,2723	,91941	303

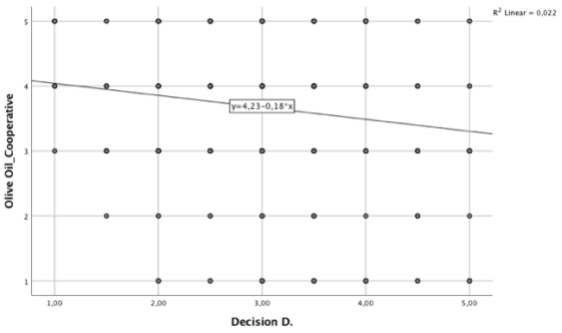
		Olive Oil_Cooperative	Alternative S.	Decision D.	High S.
Pearson Correlation	Olive Oil_Cooperative	1,000	-,005	-,148	-,035
	Alternative S.	-,005	1,000	,271	,250
	Decision D.	-,148	,271	1,000	,164
	High S.	-,035	,250	,164	1,000

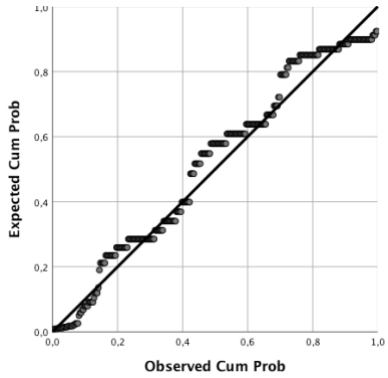
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,148[a]	,022	,019	1,185	2,143

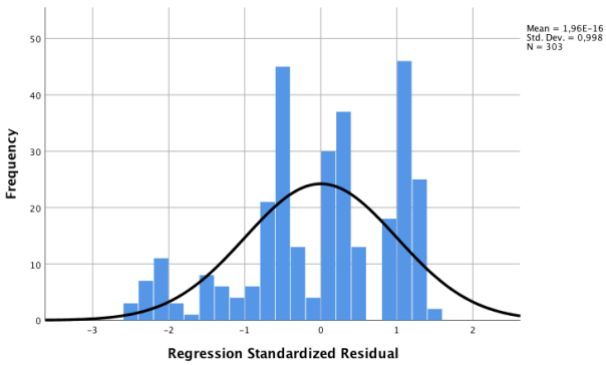
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,508	1	9,508	6,769	,010[b]
	Residual	422,796	301	1,405		
	Total	432,304	302			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4,226	,229		18,452	,000		
	Decision D.	-,184	,071	-,148	-2,602	,010	1,000	1,000

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Decision D.
1	1	1,955	1,000	,02	,02
	2	,045	6,575	,98	,98







Decis

N	Valid	303
	Missing	18
Skewness		-,035
Std. Error of Skewness		,140
Kurtosis		-,406
Std. Error of Kurtosis		,279

Appendix 17: Crosstabs – PL Purchasing Intentions by Gender

			Gender			
			Male	Female	Prefer not to say	Total
Approximately, how often do you buy private labels?	Rarely	Count	4	8	0	12
		% within Gender	9,1%	3,2%	0,0%	4,0%
	Occasionally	Count	14	53	3	70
		% within Gender	31,8%	21,0%	42,9%	23,1%
	Frequently	Count	20	124	4	148
		% within Gender	45,5%	49,2%	57,1%	48,8%
	Always	Count	6	67	0	73
		% within Gender	13,6%	26,6%	0,0%	24,1%
Total		Count	44	252	7	303
		% within Gender	100,0%	100,0%	100,0%	100,0%

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11,235[a]	6	,081	,085		
Likelihood Ratio	12,406	6	,053	,060		
Fisher's Exact Test	10,734			,066		
Linear-by-Linear Association	1,448[b]	1	,229	,255	,130	,030
N of Valid Cases	303					

Appendix 18: One-Way ANOVA – Standard Pasta "Italy" by Age

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Under 18 years old	2	4,50	,707	,500	-1,85	10,85	4	5
18 - 24 years old	64	4,05	,916	,114	3,82	4,28	2	5
25 - 34 years old	62	3,56	1,140	,145	3,28	3,85	1	5
35 - 44 years old	78	3,54	1,336	,151	3,24	3,84	1	5
45 - 54 years old	69	3,25	1,253	,151	2,95	3,55	1	5
55 - 64 years old	23	3,13	1,254	,262	2,59	3,67	1	5
More than 64 years old	5	3,40	1,140	,510	1,98	4,82	2	5
Total	303	3,56	1,214	,070	3,42	3,69	1	5

		Levene Statistic	df1	df2	Sig.
Pasta_Italia	Based on Mean	2,548	6	296	,020
	Based on Median	1,696	6	296	,122
	Based on Median and with adjusted df	1,696	6	274,995	,122
	Based on trimmed mean	2,406	6	296	,028

	Statistic[a]	df1	df2	Sig.
Welch	3,568	6	12,463	,027

a. Asymptotically F distributed.

Appendix 19: One-Way ANOVA – Economy Pasta by Education Level

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Basic Education (9th year)	18	4,72	,958	,226	4,25	5,20	1	5
Secondary Education (12th year)	66	4,26	1,042	,128	4,00	4,51	1	5
Bachelor's Degree	125	3,82	1,302	,116	3,59	4,05	1	5
Postgraduation	23	3,87	1,325	,276	3,30	4,44	1	5
Master's Degree/MBA or similar	61	3,77	1,383	,177	3,42	4,12	1	5
Doctorate/Ph.D.	3	3,00	2,000	1,155	-1,97	7,97	1	5
Other	7	3,71	1,604	,606	2,23	5,20	1	5
Total	303	3,95	1,283	,074	3,81	4,10	1	5

		Levene Statistic	df1	df2	Sig.
Pasta_Basic	Based on Mean	3,358	6	296	,003
	Based on Median	2,987	6	296	,008
	Based on Median and with adjusted df	2,987	6	275,955	,008
	Based on trimmed mean	3,643	6	296	,002

	Statistic[a]	df1	df2	Sig.
Welch	2,761	6	20,809	,039

a. Asymptotically F distributed.

Appendix 20: One-Way ANOVA – Premium Pasta by Income

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Under or equal to 635€	53	3,45	1,280	,176	3,10	3,81	1	5
636€ - 1000€	123	3,36	1,403	,127	3,11	3,61	1	5
1001€ - 2000€	97	3,64	1,301	,132	3,38	3,90	1	5
2001€ - 3000€	18	3,56	,984	,232	3,07	4,04	2	5
3001€ - 4000€	6	4,67	,516	,211	4,12	5,21	4	5
4001€ - 5000€	3	4,00	1,000	,577	1,52	6,48	3	5
More than 5000€	3	3,00	2,000	1,155	-1,97	7,97	1	5
Total	303	3,50	1,324	,076	3,36	3,65	1	5

		Levene Statistic	df1	df2	Sig.
Pasta_Gourmet	Based on Mean	2,313	6	296	,034
	Based on Median	1,831	6	296	,093
	Based on Median and with adjusted df	1,831	6	290,310	,093
	Based on trimmed mean	2,348	6	296	,031

	Statistic[a]	df1	df2	Sig.
Welch	4,080	6	13,237	,016

a. Asymptotically F distributed.