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Awareness, Attitude and Purchase Intention's influence on the response to the Out of Stock of Organic Yogurts

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Dissertation written under the supervision of Paulo Romeiro

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ABSTRACT

Title: “Awareness, Attitude and Purchase Intention’s influence on the response to the Out of Stock of Organic Yogurts”

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In Portugal, the consumption of organic products is a growing trend, since consumers are becoming more concerned in having a healthy diet and adopting a lifestyle which takes into consideration not only how food products can impact their wellbeing but also how sustainable they are from production to consumption. Following this trend, retailers are also taking actions, such as creating areas in the supermarket dedicated only to healthy food products.

This study focused only on organic yogurts, since they represent one of the most consumed categories among organic food products. The main purpose of this thesis is to understand consumers with different levels of Awareness, Attitude and Purchase Intention towards organic yogurts, on how they react to the lack of availability of their preferred organic yogurt. Six in-depth interviews and a survey were used in order to reach a more detailed analysis.

The main conclusions taken from the study are that Awareness and Attitude towards organic yogurts are positively related and both variables influence positively the Purchase Intention of organic yogurts. The main response given by organic yogurt consumers, when confronted with the Out of Stock of their preferred organic yogurt, is to still choose their preferred organic yogurt, waiting for it to be restocked at their usual store or to look for the exact same one at a different store. On the other side, non-organic yogurt consumers when faced with the OOS of their preferred yogurt, opt for another non-organic yogurt with a different flavor or from another brand.

SUMÁRIO

Título: “Influência do Conhecimento, Atitude e Intenção de Compra na resposta à falta de stock de Iogurtes Biológicos”

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Em Portugal, o consumo de produtos biológicos é uma tendência em crescimento dado que os consumidores estão cada vez mais preocupados em ter uma dieta saudável e em adoptar um estilo de vida que tenha em consideração não só como é que os produtos alimentares podem afetar o seu bem-estar, mas também quão sustentáveis são desde a produção ao consumo. Seguindo esta tendência, os retalhistas também estão a adoptar ações como a criação de áreas no supermercado dedicadas exclusivamente a produtos alimentícios saudáveis.

Este estudo focou-se apenas em iogurtes biológicos, visto que representam uma das categorias mais consumidas de produtos alimentares biológicos. O objetivo principal desta tese é compreender consumidores com diferentes níveis de Conhecimento, Atitude e Intenção de Compra relativamente a iogurtes biológicos, sobre como os mesmos reagem à falta de stock do seu iogurte biológico preferido. Foram realizadas seis entrevistas e um questionário com o propósito de produzir uma análise mais detalhada.

Concluindo, o Conhecimento e a Atitude relativos a iogurtes biológicos estão positivamente relacionados e ambas as variáveis influenciam de forma positiva a Intenção de Compra destes produtos. A principal resposta dada pelos consumidores de iogurtes biológicos, quando confrontados com a Falta de Stock do seu iogurte preferido, é continuarem a escolher o iogurte biológico preferido, esperando que o mesmo seja reabastecido na loja habitual ou procurando-o numa loja diferente. Por outro lado, os consumidores de iogurtes não biológicos optam por outro iogurte não biológico com um sabor diferente ou de outra marca.

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GLOSSARY

OOS - Out of Stock

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Chapter 1: Introduction

1.1 Background

In recent years, consumers are becoming increasingly concerned with their health and life quality (Michaelidou and Hassan 2008), these distresses are increasingly embedded in their daily activities. Following this idea, health conscious consumers are more disposed to practice day-to-day exercise and take actions to prevent health problems, like consuming nutritious food (Jayanti and Burns 1998) and consulting health specialists for checkups. Further health behaviors, which are more frequently adopted, involve minimizing bad habits such as alcohol consumption and tobacco use, but also upgrading daily dietary choices (Moorman and Matulich 1993). Consumers' consumption choices are broader than ever before, driving the opportunity to select food quality, safety, nutritional benefits and freshness products. (Stolz 2005). This multiplicity of necessities, habits and attitudes towards healthy food consumption are in line with the rising importance consumers are giving to organic food products (Stolz 2005). Organic or biological food can be described as being produced without the use of synthetic pesticides, fertilizers or growth enhancers (AGROBIO n.d.; Gil, Gracia, and Sanchez 2000; Grunert and Juhl 1995; Smith and Paladino 2010; Stolz 2005) giving consumers the perception of being healthier, tastier, fresher and more environmentally friendly (Krystallis and Chryssohoidis 2005; Elena et al. 2014). At the same time, consumers are preoccupied about the social effects of their consumption behaviors together with their concern towards living a healthier lifestyle (Willer, H. and Lernoud 2016). According to the previous authors, throughout the last years, worldwide organic retail sales have been increasing steadily, reaching 80 billion US dollars in 2014. Organic demand is mainly concentrated in North America and Europe, accounting together for nearly 90% of global organic retail sales (Willer, H. and Lernoud 2016). The international market for organic food and drinks has increased more than five times over the last 15 years and it is expected to continue to grow, displaying a clear trend of increased demand of organic products around the world (Willer, H. and Lernoud 2016). In the case of Portugal, demand for organic products is growing across the years and according to the Sonae MC Executive Director, Inês Valadas, the consumption of healthy nutrition in Portugal has a huge potential per capita (Valadas 2016) and Sonae MC wants to take advantage of this opportunity according to the information given to Público (Silva 2016). Following the same path, the size of organic agricultural land, which represents 6.3% of the total, and the number of producers, has been recently soaring with a growth of 8% and 7% respectively in 2014 (eurostat 2016). This flourishing sector is

valued at 21 million euros of retail sales (IFOAM EU Group 2014; Willer, H. and Lernoud 2016), which has Miosótis, Brio, Celeiro and BIOCOOP as main specialized retail players (Galha 2017). According to Agrobio, about 20 stores per year, in the last 2 years, have opened, which represents a growth of almost 50%. The leading modern retail players, Continente and Pingo Doce, have been implementing specific areas on their supermarkets for organic food categories, to take advantage as early as possible of this growing demand and market opportunity. Sonae MC has recently opened its first organic supermarket Go Natural and it's going to open five more spaces this year (Silva 2016) and according to Inês Valadas, Sonae MC Executive Director, Continente sales of organic products are rising double digit, making it the area that grows more. In retail stores, when consumers who normally choose organic food want to purchase a specific organic product, and it is not available, there are possible reactions consumers can have. One response is to buy a substitute product, which can be organic or not organic. Consumers can also decide to switch stores in order to find the product they were looking for, which will have a negative impact on the retailer sales. This reaction can also have an undesirable effect on sales of other categories if the consumer had the intention to buy more than just that product, which is unavailable in store. In order to understand to what degree organic consumers are not willing to change their preference for organic food, this thesis proposes to study consumers' reaction when confronted with out of stock of organic yogurts in non-specialized food retailers.

1.2 Relevance

It is expected to contribute to the literature in two ways. Firstly, there has seldom been studied the impact of awareness and attitude of organic food on purchase intention. Secondly, although organic food is a rising trend in Portugal, there are no studies that expose how differently consumers of organic products react to stock out in comparison to non-organic product consumers.

1.3 Problem Statement

The main objective of this thesis is to comprehend consumers with distinctive levels of Awareness, Attitude and Purchase Intention regarding organic yogurts, about how they respond to the out of stock of their preferred organic yogurt. In order to accomplish this purpose, the subsequent research questions were framed:

RQ₁: What is the depth of Awareness for organic yogurts?

RQ₂: What are the Attitudes towards organic yogurts?

RQ₃: What drives Purchase Intent for organic yogurts?

RQ₄: What do consumers do when organic yogurts are out of stock?

The following hypothesis were formulated according to the literature:

H₁: Awareness of organic yogurts will be positively affected by Attitude

H₂: Organic yogurts Awareness will positively affect Purchase Intention

H₃: Attitude towards organic yogurts will positively affect Purchase Intention

H₄: In a stock out of organic yogurts, the response of consumers will depend on the level of Awareness of organic yogurts

H₅: In a stock out of organic yogurts, the response of consumers will depend on the level of Attitude towards organic yogurts

H₆: In a stock out of organic yogurts, the response of consumers will depend on the level of Purchase Intention of organic yogurts

1.4 Research Methods

To answer the proposed research questions in a suitable way, detailed search was important for the construction of the literature in order to have in-depth background knowledge of consumers' awareness and attitude towards a product. Also in order to understand how it influences consumers' purchase intention and their reaction when a particular product is out of stock. Then, primary data was collected through the use of an online survey and in depth interviews to both organic and non-organic consumers.

1.5 Thesis Outline

The outline of this thesis is as follows. The second chapter reviews the literature regarding Awareness, Attitude, Out of Stock and Purchase intention. The third chapter describes the methodology used and the data set for this study. The fourth chapter displays the results acquired and examines the legitimacy of each of the hypothesis proposed. The final chapter closes with a summary of the main conclusions, indicating also study limitations and advices for future research.

Chapter 2: Literature Review

With the purpose of justifying the hypothesis of this study and achieve the main goal of this thesis, review of literature will first support the importance of studying organic products. Subsequently, the relationship between consumers' awareness and attitude towards a product, its impact on purchase intention and the reactions to an out of stock of a product will be studied.

2.1. Organic Products

Organic agricultural methods are thought to be more environmentally friendly than conventional agriculture, which depends on use of herbicides, pesticides and inorganic nutrient applications in the production of crops and animals (Bengtsson, Ahnström, and Weibull 2005). Initially, organic food production involved small agricultures and local distribution networks. Nowadays, it involves a complex combination of small and large farmers, local and global distribution networks and an extensive variety of products such as fruits, vegetables, meat, dairy and processed foods (Winter and Davis 2006). The organic agricultural land explored by these producers has expanded roughly fourfold between 1999 and 2014, having achieved 43.7 million hectares in 2014. Likewise, the number of producers improved from 0.2 to 2.3 million producers on the same time period. Consequently, global retail sales of organic products increased more than five times over the last 16 years, having reached 80 billion US dollars in 2014. North America and Europe are the regions with greatest market share of organic sales, having reached 47% and 42% in 2014 respectively (Willer, H. and Lernoud 2016). Many researchers have identified the following reasons for American and European consumers to choose organic food: health and nutrition, better taste, avoidance of pesticides and environmental concern. Other motivations to consume organic products were also identified, such as food safety, freshness, care for animals welfare and personal satisfaction (Baker et al. 2004; Bryła 2016; D. Hardest 2006; Gottschalk and Leistner 2013). According to Willer, H. and Lernoud 2016, in Europe, the retail channels with greatest presence are the general retailers, followed by organic retailers and direct sales. In Portugal, the organic market is a flourishing sector, which is having a strong demand in the last few years, leading to an increase in the number of specialized organic stores and organic farmers' markets. Likewise, the sales of organic products in conventional supermarkets and organic food stores have improved (IFOAM EU Group 2014). D. Hardest 2006 stresses that in USA, fresh produce represents the major category of organic food sales, expressing 42% of sales in the organic sector. In 2015, organic fruits and vegetables continued to be the largest

organic category, with sales of \$14.4 billion in this country (OTA 2016). Produce, dairy, soy and baby foods are the first organic categories to be purchased by consumers, which are perceived as having higher benefits from going organic (Bezawada and Pauwels 2013; Oberholtzer, Greene, and Lopez 2006). According to (OTA 2016), in the USA dairy is the second major organic food category, representing 15% of total organic food sales and accounting for \$6.0 billion in sales, an increase of over 10%. In the UK, dairy is the most popular organic category, with both milk and yogurts sales representing 15% of the total market share (Soil Association 2016). Concerning the Portuguese market, organic yogurts weight on the total fresh dairy market has been increasing on the last couple of years, accounting now for 0.4%. Although it still represents a small portion of the fresh dairy market, organic yogurts are growing at 29%, which is a faster rate than the market average, which is growing at 2% (NIELSEN 2016).

2.2. Awareness and Attitude

Awareness is the simplest form of brand knowledge, which ranges from acknowledgment of brand name to a more complex cognitive structure grounded on exhaustive information (Hoyer and Brown 1990). Keller 1993 stresses that brand awareness is associated with the strength of the brand node, which is shown as the capability consumers have to recognize the brand in distinct situations. Brand awareness is composed by brand recall and brand recognition. According to Esch et al. 2006 brand recall is the most used approach to measure brand awareness. Brand recall demands consumers to properly create the brand from memory in the most diversified situations, such as when product category or needs fulfilled by that category are specified, as well as when any type of probe is used as a cue (Keller 1993). Brand recognition requires consumers to be able to distinguish a brand, which they have seen or heard previously. It can also be explained by the capacity consumers have to confirm previous contact to the brand when it was set as a cue (Keller 1993). Percy and Rossiter 1992 stresses that attitude refers to consumers' overall evaluation of a brand, which must be associated with a current important motivation. Brand attitudes are relevant since they usually form the base for consumer behavior as for example brand choice (Keller 1993). To create an effective marketing strategy for a brand, it is essential to define primarily the level of brand awareness and attitude consumers have towards it (Twedt 1967). Therefore, this leads to predict the following:

H₁: Awareness of organic yogurts will be positively affected by Attitude

Kamins and Marks 1991 showed that familiar brands positively influence purchase intention. Additionally, a well-known brand name product can gain consumers' preferences and increase their purchase intention (Kim and Kim 2016). Awareness of a product is frequently considered a key element of choice (Nedungadi and Hutchinson 1975). Hoyer and Brown 1990 presumes that awareness will maintain the brand in the consumer's evoked set, which will enhance the likelihood of brand purchase. Furthermore, brand awareness may affect consumers' choice in the evoked set by influencing perceived quality (Kim and Kim 2016; Macdonald and Sharp 2003). Through the use of a single item purchase intention scale, Cronin Jr. and Taylor 1992 showed that there is a positive relationship between quality and customer satisfaction. Certain researchers argue that perceived quality will positively impact purchase intention through perceived value (Monroe 1990). Keller 1993 defends that brand choice and consumer loyalty should increase when brand awareness is high. Jones and Sasser Jr. 1995 defined consumer loyalty as the repeated purchase intention of a particular product. The study presented in Kim and Kim 2016 shows that perceived quality and brand loyalty perform as mediators between brand awareness and purchase. Top of mind awareness assumes that consumers' capacity to remember a product or brand will powerfully affect its purchase intention (Nedungadi and Hutchinson 1975). Hoyer and Brown 1990 emphasize that awareness is a determining factor on the process of making a purchase decision for low involvement products. Brand awareness has a major influence on purchase intention since consumers tend to purchase a familiar product (Macdonald and Sharp 2000). Thus, the next hypothesis is proposed:

H₂: Organic yogurts Awareness will positively affect Purchase Intention

Similarly to brand awareness, brand attitude is an essential communication effect in order to generate brand purchase (Lintas and Rossiter 1992). Attitude is defined as the person's internal evaluation of a product (Mitchell and Olson 1981). Additionally, it is described as an individual's evaluation of a significant behavior, which combines the salient beliefs of an individual about the perceived results of executing a behavior (Shim et al. 2001). Fishbein and Ajzen 1975 stresses that an attitude is a function of a person's salient beliefs in a specific moment. Salient beliefs are the ones triggered by memory and considered by the individual in a certain moment. This study proposed an expectancy value model that examines attitudes as a multiplicative function of the consumer's salient beliefs regarding a product and the respective evaluative judgment. Assael and Day 1968 found that attitude is a suitable

predictor of market share. Roughly two thirds of brands either improved their market share when the combination of attitudinal to behavioral loyalty was positive or diminished when the attitudinal profile was less loyal than the behavioral one (Baldinger and Rubinson 1999). Das 2014 believes that consumer's attitude about a product comprising attitudinal preference and commitment has a significant impact on forming loyalty. Brand loyalty represents a repurchase commitment and in upcoming purchases, consumers won't alter their brand loyalty choosing to buy their preferred brands (Kim and Kim 2016). Petty and Cacioppo 1986 created the ELM (Elaboration Likelihood Model), which is grounded on the idea that attitudes are essential since they lead to decisions and other behaviors. As anticipated in ELM, motivation intensifies the influence of brand attitude on purchase intention (Mackenzie and Spreng 1992). Kim and Kim 2016 found that brand attitude as a great influence on purchase intention. Hence, the following hypothesis is predicted:

H₃: Attitude towards organic yogurts will positively affect Purchase Intention

2.3. Out of Stock

According to Ranjan and Puri 2012, out of stock can be explained when a consumer is looking for a specific product and he/she doesn't find it on the usual store shelf. From the literature (Campo, Gijbrecchts, and Nisol 2000; Sloot, Verhoef, and Franses 2005) it is recognized that response to stock out can be affected by product, situation and shopper characteristics. Emmelhainz and Stock 1991 defends that perceived product risk, intended product usage and urgency of need influence consumers' response to the missing item. Consumers' shopping habits, which comprise time available and attitude towards this activity can also impact shoppers' reaction when a product they are looking for is not available at the store shelf (Campo et al. 2000). The type of store visit (planned or spontaneous) is a variable considered in Zinn and Liu 2008, which helps to understand the intended behavior of consumers in an Out of Stock (OOS) situation. Studies by Emmelhainz and Stock 1991; Campo et al. 2000; Corstjens and Corstjens 1995; Schary and Christopher 1979; Verbeke, Farris, and Thurik 1998 commonly identified important consumer variables such as loyalty to the store and to the missing product, which consequently might lead to store switching and reduced product appreciation, respectively. The uniqueness of the item that is OOS can additionally have an effect on consumers' response decreasing the likelihood of switching to a competitor and increasing the probability of postponing the purchase (Liu 2008). Consumers' most studied reactions to out of stock are postponed purchase of the missing item and

purchase of the OOS item in another store, as it was extensively studied in earlier articles (A.Emmelhainz and Stock 1991; Campo et al. 2000; Corstjens and Corstjens 1995; Liu 2008; Ranjan 2012; Schary and Christopher 1979; Sloot et al. 2005; Verbeke et al. 1998; Walter and Grabner 1975; Woensel et al. 2007). Some studies (A.Emmelhainz and Stock 1991; Peckham 1963; Schary and Christopher 1979; Walter and Grabner 1975) identified more effects when testing the situation of a SKU of a particular brand was taken out from the store shelves: brand substitution (at a higher, equal or lower price); product substitution; SKU switching within the same brand (with different size, variety or color); searching the same product in another store; performing a special trip and canceling the purchase at all. These same authors realized that the most common responses to OOS were changing stores to find the missing product, switching brands, switching SKU without changing brand and delaying the purchase. Sloot et al. 2005 found that in an OOS situation brand switch was the most usual outcome (34%), pursued by product purchase delay (23%), store and item switch (19% and 18% respectively). These outcomes are in approximately line with the experimental field experience conducted in Emmelhainz and Stock 1991, which generated an OOS situation on five product categories by removing from the leading brand the most selling SKU. The researchers from this OOS experiment field stated that item switch (41%), brand switch (32%), store switch (14%) and postponement of purchase (13%) are the most common responses to a product OOS in a grocery retailer. Consumers' consciousness towards price might reduce the likelihood of store switch, since these consumers are more devoted to a specific price array than they are to a specific brand or product. On the other side, quality conscious consumers are less inclined to brand switch which can be explained by their motivation to purchase products with a specific quality level that might be expressed by their preferred brand (Sloot et al. 2005).

H₄: In a stock out of organic yogurts, the response of consumers will depend on the level of Awareness of organic yogurts

H₅: In a stock out of organic yogurts, the response of consumers will depend on the level of Attitude towards organic yogurts

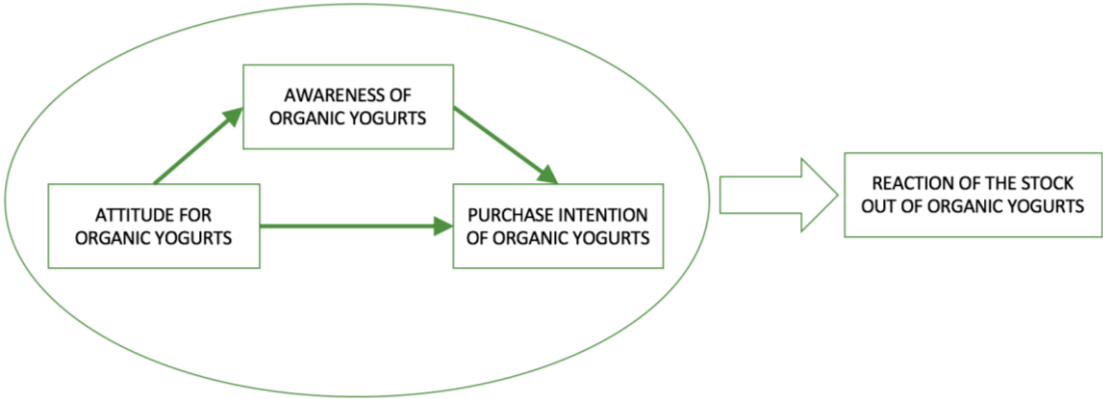
2.4. Purchase Intention

Purchase intentions are a person's conscious strategy to create an effort to buy a product (Spears and Singh 2004). Morrison 1979 describes purchase intention as the probability that a consumer will purchase a specific product. O'Brien 1971 defines intention to purchase as the

extent commitment to a potential action, self-prediction of an expected behavior, or purely, plans. Chang and Wildt 1994 explains that although value perceptions may be created independently of involvement in a transaction, purchase intentions are formed under the supposition of an incomplete transaction, therefore being considered an indispensable indicator of actual purchase. Usually, practical cost considerations (such as price) and other physical resources required to make a purchase influence consumer purchase intentions (Baker, Donthu, and Kumar 2016). The same study argues that purchase intentions are based not only on the practical benefits predicted to come from a brand but also on how the purchase is going to help the consumer accomplish certain social goals, such as self-presentation and conformance of social norms. Schlosser 2003 argues that the degree to which consumers can clearly and easily perceive themselves using a product would affect their expectations of buying it. The theory of reasoned action (TRA) developed by Ajzen and Fishbein, argues that behavioral intentions created by attitude towards a behavior and subjective norms lead to the actual behavior according to the accessibility of resources and opportunities. Grounded on this theory, purchase intentions are frequently used to forecast consumer’s actual behavior (Luo et al. 2011). Likewise, some researchers believe that explicit purchase behavior towards a product is mainly a function of consumer’s intention to purchase (Bennett and Harrell 1975). Moreover, scholars can use purchase intention as a key indicator for valuing consumer behavior. Therefore, when consumers have a positive purchase intention, a favorable brand commitment is going to be formed, which will drive consumers to perform an actual purchase (Wu, Yeh, and Hsiao 2011).

H₆: In a stock out of organic yogurts, the response of consumers will depend on the level of Purchase Intention of organic yogurts

Figure 1 - Conceptual Model



Chapter 3: Methodology

The methodology was developed to gather and analyze the primary and secondary data with the aim of reaching conclusions that will help to confirm the hypotheses projected in the review of literature.

Secondary research contained the insights that were obtained in the elaboration of the Literature Review chapter.

Primary research presented both qualitative and quantitative investigation. Regarding qualitative research, 6 in depth interviews were held. All interviewees selected needed to be responsible for their household grocery shopping. In order to have a balanced sample, organic consumers and those who don't have such consumption habits were interviewed in equal proportion. The participants labeled as organic consumers buy organic food in a frequent basis, being those products an intrinsic part of their daily diet. Interviewees that never bought or buy organic products sporadically were named non-organic consumers. All interviews were recorded and transcribed being then coded in order to better analyze the data. The main objective of using this method was to better understand the consumer journey when purchasing organic yogurts in comparison with one that doesn't even consider organic yogurts.

Two interviews were conducted before the release of the online survey and the remaining four were done after. All interviews were conducted with the aim of giving important insights regarding the interpretation of quantitative results, such as comprehend the underlying reasons and motivations of why certain answers are given.

With respect to quantitative research, an online survey was developed with the aim of not only comprehend the Attitude and Awareness consumers have towards organic products, but also to study how they would react to a hypothetical stock out situation if the yogurt they wanted to buy wasn't available at the store. Studying a hypothetical OOS situation has advantages and disadvantages. One drawback of this approach is that consumers don't always act like they claim they would or sometimes have troubles figuring what action they would truly take (Sloot et al. 2005). On the positive side, it enables keeping the number of interviews at a manageable level, in comparison with interviewing a great amount of consumers hoping to find a few that wanted to purchase an item that was unavailable (Sloot et al. 2005) on the specific category that is being studied. Using a survey instead of performing a field experiment, where actual OOS reactions are studied, also has advantages and disadvantages. A survey is not only less expensive and time consuming than a field experiment but also

doesn't embody any risk for the retailer. On the bright side, a survey permits to measure all reactions to an out of stock, allowing one to discriminate plainly between store switching, purchase postponement and cancellation. It is also possible to gather information on aspects such as the availability of acceptable substitutes and situation-specific time constraints (Campo et al. 2000). On the negative side, using this method consumers may perceive the cost of switching stores as smaller than in reality since they don't have to perform this time consuming activity (Sloot et al. 2005).

In order to test if the questions were phrased in a simple and familiar way for respondents to better understand the survey and also to test if the flow of the questionnaire was able to go through all the information needed to study the hypothesis, a pre-test of the survey was conducted with 10 individuals.

The online survey consisted of 28 questions, which were divided in 4 topics: consumption habits of grocery products and yogurts in particular; organic products awareness, attitude, purchase intention and consumption; yogurts out of stock reaction and demographic questions. The survey was released on December 1st and closed on December 12th from which were obtained 367 valid responses and 41 invalid ones. The sample obtained is representative of the Portuguese population, ensuring a confidence interval of 95% and a margin of error of 7%.

The objective of using both qualitative and quantitative methods was to have a more complete analysis, allowing to look deeper into each hypothesis from a number of viewpoints, a method which is called triangulation (White and Rayner 2014).

Chapter 4: Results

Firstly, this chapter provides data description of the online survey, subsequently presents the analysis of the Research Hypothesis and later the In-Depth Interviews are examined.

4.1 Survey Data Description

The sample is composed of 367 individuals that completed the survey, from which 353 are Portuguese residents and 14 are not. Since the study is focused on the Portuguese market, only respondents who reside in Portugal are going to be accounted for the analysis of the data. From those individuals, 258 are feminine and 95 are male, having the majority of them between 40 and 59 years old. The average household size is between 3 and 4 persons and the vast majority (42.2%) of pre-tax household income is between 25 and 50 thousand euros. More than 70% of the respondents are currently employed and 49.6% have a bachelor degree. The individuals responsible for the purchase of household groceries represent 73.1% of the respondents and the ones that accompany account for 18.4%, which demonstrates that the sample is composed mostly by people who take an active role in grocery shopping decision-making. From those respondents, 86% take no longer than 15 minutes from their house to the store location. On what refers to yogurts purchase and consumption habits, almost 90% of respondents purchase yogurts for themselves or for their family aggregate and 73.1% of them only buy once or less a week. Regarding yogurt consumption, 85.3% respondents consume yogurts and 87.7% of them consume at least 2 yogurts per week. The most popular places where respondents purchase their groceries are hypermarkets (66.9%) and supermarkets (65.7%) leaving specialty stores as a less regarded option with only a fifth of the respondents actually purchasing there. Focusing only on yogurt purchasing, hypermarkets (68.5%) and supermarkets (65.3%) are the most common places and specialty stores are an even less common choice only representing 15.6%. Concerning consumption behaviors, 176 respondents usually consume organic products, being fruit (42.8%), vegetables (43.1%) and dairy (25.8%) the products with higher rate of consumption. The majority of the respondents that buy organic yogurts state a higher purchase price for a single yogurt when compared to respondents, which do not buy organic yogurts. Similar to non-organic respondents, organic consumers purchase predominantly at hypermarkets and supermarkets, the major difference relies on the fact that specialty store are considered by more respondents as a location to purchase groceries. Another important insight from the sample is that none of the respondents purchase exclusively at specialty stores, which shows that both organic and non-organic

consumers continue to give a main importance to normal retail stores such as hyper and supermarkets.

4.2 Hypothesis Analysis

In order to understand what is the respondents' Awareness and Attitude towards organic yogurts, items using a scale from 1 (completely disagree) to 7 (completely agree) were formulated based on literature, with the aim of creating two variables that correspond to Awareness and Attitude. For respondents that don't consume organic products, the items evaluated referred only to organic products in general and not organic yogurts in particular, since it was assumed that their Awareness and Attitude towards organic products would be the same for all organic categories. This assumption was made since consumers that are not familiar with organic products generally do not have enough information to be able to create an opinion about each specific category that is significantly different between each other. For respondents that consume organic products, the items referred exclusively to organic yogurts. To ensure that all the items used represent the variables Awareness and Attitude, the Cronbach's alpha was computed for both dimensions. Regarding Awareness, the Cronbach's alpha equals 0.555 when using the three items associated with the underlying concept and it increases to 0.646 when the sentence "I think I have heard of organic products" is removed. Due to positive contribution achieved when this sentence is removed, it was opted to only use sentences 2 and 3 to explain the concept of Awareness. When computing the Cronbach's alpha for organic yogurts Awareness the value is equal to 0.832 and it changes to 0.811 when the sentence "I think I have heard of organic yogurts" is removed. This small decrease in the Cronbach's alpha does not affect the reliability for this dimension, therefore, in order to guarantee consistency, using the same items for both organic products and yogurts Awareness, the first sentence was removed from the Awareness concept. In what concerns Attitude, the Cronbach's alpha computed is 0.879 when using the items referring to organic products in general and equal to 0.924 for the items concerning organic yogurts. The Cronbach's alpha calculated for the sentences related to organic yogurts would slightly increase to 0.928 when removing the sentence "Organic yogurts are tastier", but since the Cronbach's alpha is already very good, it was decided to maintain all the items when explaining the underlying concept (Attitude). After knowing which items describe Awareness and Attitude, the average of the items for each dimension was computed, in order to give each item, the same weight.

4.2.1. Hypothesis 1 - Regression Analysis: Awareness of organic yogurts will be positively affected by Attitude

$$\text{Awareness of } \widehat{\text{organic yogurts}} = \widehat{\delta}_1 + \widehat{\delta}_2 \text{Attitude for organic yogurts}$$

The first hypothesis has as dependent variable, Awareness of organic yogurts, and it is going to test if the independent variable, Attitude about organic yogurts, will positively influence the dependent variable through the test of an Enter linear regression analysis. Although the regression has a small Adjusted R Square (0.236), the beta coefficient associated with Attitude towards organic yogurts is statistically significant, since the p value is zero and the model uses a significant level of 5%, allowing to reject the hypothesis that Attitude has no effect on Organic Yogurts Awareness of the respondents. The beta coefficient has a positive value equal to 0.732, supporting the hypothesis that Attitude about organic yogurts has a positive influence on Awareness of organic yogurts. It is estimated that when Attitude increases 1 unit, Awareness of organic yogurts will increase by 0.732 units. When analyzing the correlation between Attitude and Awareness it can be concluded that the variables have a positive correlation, meaning that increases in one variable will lead to increases in the other. To understand which dimensions, have a significant impact on Awareness of organic yogurts, a regression analysis was conducted for each one of the dimensions that could have an important influence. From the dimensions studied, four of them were significant to explain the dependent variable for a significance level of 5%, and also increased the explanatory power of the estimated model, when explaining the variations of Awareness around its mean value, since the Adjusted R Square improved on the four cases. When each of the new variables is included in the model, there is no sign of multicollinearity between Attitude and the new variable as the values of Tolerance and VIF are not critical. One of the significant dimensions is Salary Above Average, which has a negative beta coefficient, implying that respondents with a household salary before taxes above 25.000€ have an Awareness one ninth units lower than respondents with an inferior salary, when Attitude increases one unit. On the other side women consumers, respondents responsible for purchasing the groceries or that buy yogurts, have an Awareness approximately one tenth units higher than respondents that are male, that don't purchase the groceries or don't buy yogurts respectively, when Attitude for organic yogurts increases by one unit.

Concluding, Attitude for organic yogurts has a positive impact on Awareness, and this effect is more evident for female respondents, individuals with a family aggregate salary below average, consumers responsible for the household grocery shopping and respondents that purchase yogurts.

4.2.2. Hypothesis 2 - Regression Analysis: Organic yogurts Awareness will positively affect Purchase Intention

$$\widehat{\text{Purchase Intention of organic yogurt}} = \widehat{\alpha}_1 + \widehat{\alpha}_2 \text{Awareness of organic yogurts}$$

A regression analysis was performed with the goal of understanding if the Awareness of organic yogurts, independent variable, will influence Purchase Intention, dependent variable, in a positive way. Despite the low Adjusted R Square obtained, with a value equal to 0.190, the beta associated with the explanatory variable is statistically different from zero, which makes organic yogurts Awareness significant to explain the Purchase Intention of organic yogurts. The beta coefficient related with the independent variable is positive and equal to 0.337, backing the hypothesis that organic yogurts Awareness will positively affect Purchase Intention. In this model, it is expected that when organic yogurts Awareness increases 1 unit, the Purchase Intention towards organic yogurts will increase 0.337 units. When studying the correlation between Awareness and Purchase Intention it can be seen that there is a positive correlation between the two dimensions, implying that increases in one variable will lead to increases in the other.

With the aim of enriching the understanding of the relationship between Awareness of organic yogurts and Purchase Intention, a regression analysis was done for the addition of each individual variable that could have an important effect. In order to analyze this, each variable was transformed into a dummy variable with the objective of composing an interaction term. From the interaction terms studied, just one had a substantial impact on Purchase Intention when using a significance level of 5%. The dummy variable that composes this interaction term is equal to 1 when the respondent purchases yogurts. Moreover, when this interaction term was added, the estimated model had an increase in the power to explain the variations of Purchase Intention around its mean value, since the Adjusted R Square improved. The beta coefficient associated with the interaction term shows that respondents that buy yogurts have a Purchase Intention approximately one eighth units higher than the ones that don't purchase yogurts, when Awareness of organic yogurts increases by one unit.

In conclusion, Awareness of organic yogurts has a positive and significant influence on Purchase Intention and this outcome is more obvious for respondents that buy yogurts.

4.2.3. Hypothesis 3 - Regression Analysis: Attitude towards organic yogurts will positively affect Purchase Intention

$$\widehat{\text{Purchase Intention of organic yogurt}} = \widehat{\beta}_1 + \widehat{\beta}_2 \text{Attitude for organic yogurts}$$

In order to test the third hypothesis, a regression analysis was run to understand if the independent variable, Attitude about organic yogurts, positively affects Purchase Intention of those products (dependent variable). Through the analysis of the Adjusted R Square, it is possible to describe that around 47.6% of the variations of Purchase Intention around its mean value are explained by the estimated model. Moreover, the beta related with the variable Attitude is statistically different from zero, showing that the explanatory variable makes a contribution to the regression model. Additionally, the parameter $\widehat{\beta}_2$ has a positive value equal to 0.795, explaining that when Attitude for organic yogurts increases by 1 unit, Purchase Intention towards those products will increase by 0.795 units. The result of the correlation between Purchase Intention and Attitude indicates that increases in one variable will lead to increases in the other.

A regression analysis was performed for the addition of each interaction term (Attitude*Dummy Variable) that could improve the study of the relationship between Attitude for organic yogurts and Purchase Intention. It was identified that only respondents who purchase yogurts have a significant impact on Purchase Intention when Attitude changes. This effect is positive and enables the understanding that the Purchase Intention of respondents that buy yogurts is approximately one-thirteenth units higher when compared to individuals that don't buy yogurts, when Attitude increases by 1 unit. Furthermore, the explanatory power of the estimated model increased since the Adjusted R Square is now equal to 0.482.

In brief, Attitude of organic yogurts affects positively and significantly Purchase Intention, a conclusion that is clearer for respondents that purchase yogurts.

$$\widehat{\text{Purchase Intention of organic yogurt}} = \widehat{\theta}_1 + \widehat{\theta}_2 \text{Awareness}^* + \widehat{\theta}_3 \text{Attitude}^*$$

*Awareness and Attitude are referred to organic yogurts

Following the individual analysis of Awareness and Attitude on Purchase Intention, it was studied the joint analysis of both dimensions on Purchase Intention. According to the results obtained, the Adjusted R Square is higher when only studying for one of the dimensions' impact on the dependent variable, which means that this new estimated model explains better the variations around Purchase Intention's mean value. In terms of individual impact on Purchase Intention, both variables have a positive and significant impact, since the p-value is lower than 0.01 in both cases. Considering the Standardized Coefficients, it is possible to identify that Attitude has a greater strength in predicting Purchase Intention, since Attitude has the largest beta coefficient (0.626) when compared with Awareness (0.133). These values are measured in standard deviations instead of units, with the purpose of being comparable with one another. The beta coefficient of Attitude presents that a one standard deviation increase in Attitude will lead to a 0.626 standard deviation increase in Purchase Intention, when Awareness is held constant. On the other side, when Attitude is held constant, a one standard deviation increase in Awareness will lead to a 0.133 standard deviation increase in Purchase Intention.

The correlation between the independent variables Awareness and Attitude is positive (0.513), though there isn't collinearity between them, as the correlation is below 0.8 (Marôco 2011). Furthermore, through the analysis of the ANOVA table it was possible to conclude that the model is globally significant (p-value<0.001) for the 5% significant level used. When analyzing the values of Tolerance and VIF it can be inferred that they do not present critical values, showing that there is no indication of multicollinearity (Marôco 2011).

In conclusion, both Attitude and Awareness have a positive and significant impact on Purchase Intention. Though, Attitude has a greater influence in describing Purchase Intention.

4.2.4 Mediator Model: Attitude Direct and Indirect Impact on Purchase Intention

In order to understand if Awareness is a mediator of the impact of Attitude on Purchase Intention, the PROCESS SPSS add-on created by Prof. Andrew F. Hayes was performed for model 4. Through the results of the first model obtained, it is possible to understand that Attitude impacts positively Awareness (Beta=0.7318; p-value<0.001) and that the model has

an R Square of 0.2381. The following model studies how Awareness and Attitude together predict Purchase Intention. The outcome shows that both Awareness (Beta=0.1023; p-value=0.0025) and Attitude (Beta=0.7203; p-value<0.001) have a positive and significant impact on Purchase Intention, having the model an R Square equal to 0.4909. Subsequently, the third model presents how Attitude impacts Purchase Intention. The outcome indicates that Attitude influences Purchase Intention positively (Beta=0.7952; p-value<0.001) and the model has an R Square of 0.4773. When comparing the Beta value of the impact of Attitude on Purchase Intention, it is possible to recognize that the Attitude predicts less when Awareness is present on the model, since the value of Beta falls from 0.7952 to 0.7203, showing that Awareness changes the relationship between Attitude and Purchase Intention. Regarding the indirect effect of Attitude on Purchase Intention, it can be observed that Awareness has a positive influence on the Attitude's impact on Purchase Intention. Moreover, the fact that the bootstrap confidence interval does not contain the zero value, means that the impact that Attitude has on Purchase Intention is different from the impact that Attitude has on Purchase Intention having Awareness as a mediator.

In conclusion, the mediator model improves the analysis of the impact of Attitude on Purchase Intention, showing that Awareness is a good mediator.

4.2.5. Hypothesis 4 - Chi-Square Test: In a stock out of organic yogurts, the response of consumers will depend on the level of Awareness of organic yogurts

For this analysis, only respondents that purchase organic yogurts were accounted, since the objective of the study is to understand if Awareness of organic yogurts, is significant to explain the decision consumers make, of continuing to opt for an organic yogurt or changing to a non-organic yogurt or a substitute product, when confronted with the Out of Stock of their preferred organic yogurt.

In order to test the fourth hypothesis, a Chi-Square Test was used, having as a Null Hypothesis that the consumers' reaction to the OOS of their preferred organic yogurt would be independent from Awareness of organic yogurts, meaning that the level of Organic Yogurts Awareness would not have an impact on the consumers' response to the lack of availability of their preferred organic yogurt. The Alternative Hypothesis will be that consumers' reaction to the OOS situation depends on the level of Organic Yogurts Awareness.

The metric variable Organic Yogurts Awareness was recoded in a non-metric one, using the median value (6.500) as the cut point, in order to perform the Chi-Square Test. The recoded variable is divided in Low Awareness and High Awareness.

When analyzing the Crosstabulation, it was possible to observe that from the group of consumers that opted for continuing to buy an organic yogurt, 50.9% have a High Awareness, while only 22.2% of consumers who changed to non-organic yogurt or chose a substitute product have a High Awareness. Through the analysis of the Fisher's Exact Test, it can be concluded that for a significance level of 5%, there is not a significant relationship between Organic Yogurts Awareness and the consumers' reaction when their preferred organic yogurt is OOS (p-value=0.156), meaning that consumers response to the stock out doesn't depend on the level of Awareness of organic yogurts.

In conclusion, the consumers' OOS reaction is independent from their Organic Yogurts Awareness.

4.2.6. Hypothesis 5 - Chi-Square Test: In a stock out of organic yogurts, the response of consumers will depend on the level of Attitude towards organic yogurts

With the purpose of analyzing this hypothesis, a Chi-Square Test was performed, only taking into consideration the respondents that consume organic yogurts, since the aim is to understand if the Attitude towards organic yogurts has an impact on the consumers' response to the lack of availability of their preferred organic yogurt. The two groups created are the same that were used for hypothesis four (consumers that continue to choose an organic yogurt and consumers that change to a non-organic yogurt or a substitute product). For the Chi-Square Test performed, the Null Hypothesis comprises that the Attitude towards organic yogurts is independent from consumers' reaction to the OOS of their preferred organic yogurt. The Alternative Hypothesis states that consumers' response of maintaining the preference for an organic yogurt or changing to a non-organic yogurt or to a substitute product, in the OOS situation, depends on the level of Organic Yogurts Awareness.

In order to perform the Chi-Square Test, the metric variable Attitude towards organic yogurts was recoded into a non-metric variable, using the median (6.1429) as the cut point, being the new variable divided in Weak Attitude and Strong Attitude.

The Crosstabulation table shows that, from the group of consumers that, after the OOS situation, continue to opt for an organic yogurt, 54.4% have a Strong Attitude towards organic

yogurts, while from the group of consumers that changed to a non-organic yogurt or to a substitute product just 44.4% have a Strong Attitude. Through the examination of the Fisher's Exact Test it is concluded that there is no significant association between the Attitude towards organic yogurts and consumers' OOS reaction ($p\text{-value}=0.723$) for a significance level of 5%.

In conclusion, the choice that consumers make after the stock out of their preferred organic yogurt is not influenced by the level of Attitude that consumers have towards organic yogurts.

4.2.7. Hypothesis 6 - Chi-Square Test: In a stock out of organic yogurts, the response of consumers will depend on the level of Purchase Intention of organic yogurts

A Chi-Square Test was performed, in order to understand if the level of Organic Yogurts Purchase Intention influences consumers' reaction to the stock out their preferred organic yogurt. For this analysis, only consumers of organic yogurts were taken into account. The test performed, considers as Null Hypothesis that Purchase Intention is independent from the consumers' response to the OOS situation. The Alternative Hypothesis states that the level of Purchase Intention influences the consumers' reaction to the lack of availability of their preferred organic yogurt: continuing to opt for an organic yogurt or changing to a non-organic yogurt or to a substitute product.

To execute the Chi-Square Test, the metric variable Organic Yogurts Purchase Intention was recoded into a non-metric one, which was divided in Low Purchase Intention and High Purchase Intention. The median could not be used as a cut point, since only 34.4% of consumers had an intention to purchase organic yogurts lower than 7, so the Purchase Intention was split in Low Purchase Intention, for consumers with a level from 1 to 6, and High Purchase Intention, for consumers with a level of 7.

The Crosstabulation presents that from the consumers that maintain their preference for organic yogurts after the OOS situation, 67.3% have a High Purchase Intention, whereas only 55.6% from the group of consumers that changed to a non-organic yogurt or to a substitute product, have a High Purchase Intention. Through the analysis of the Fisher's Exact Test, it can be concluded that the consumers' OOS reaction is independent from their intention to purchase organic yogurts ($p\text{-value}=0.480$), when using a significance level of 5%.

In conclusion, there is not a significant association between Organic Yogurts Purchase Intention, and the consumers' reaction to the unavailability of their preferred organic yogurt.

In order to understand how consumers of organic and non-organic yogurts reacted to the unavailability of their preferred yogurt, table 1 was created.

Table 1 - Comparison between Organic Yogurt Consumers' and Non-Organic Yogurt Consumers' reaction to OOS of their preferred yogurt

Out of Stock Reaction	Organic Yogurt Consumers	Non-Organic Yogurt Consumers
Same store only to buy the same yogurt	7.8%	6%
Another store to buy the same yogurt	25.0%	11.2%
Same yogurt whenever coming back to the same store	23.4%	14%
Another product to substitute the yogurt	9.4%	12%
Same brand but another flavor	10.9%	24.8%
Same brand but not organic/organic	1.6%	2.8%
Another organic brand	18.8%	3.6%
Another non-organic brand	3.1%	25.6%

When impacted by the stock out of their preferred organic yogurt, 85.9% of respondents continue to choose organic yogurts, from which 65.5% keep on opting for the same yogurt, unwilling to change their preferred option. From the remaining 14.1% respondents, 33.3% of these chose non-organic yogurts and 66.7% opted for a substitute product. In comparison, 81.6% of non-organic yogurt consumers still choose a non-organic yogurt, from which only 38.2% continue to opt for their preferred non-organic yogurt. After analyzing the existing 18.4% consumers, 34.8% chose an organic yogurt and 65.2% selected a substitute product.

4.3 In depth Interviews

4.3.1 Consumption habits of grocery products

Regarding frequency of purchasing groceries, consumers that usually purchase organic products tend to buy groceries on a more frequent basis, more than once a week, while non-organic consumers only buy claim to buy once a week. Both groups of interviewees stated Pingo Doce and Continente are their main retailer choice for grocery shopping. For non-organic respondents, grocery shopping is seen as a chore, since they claim to waste much time

on the stores and don't like to shop just by themselves. On the other side, organic consumers don't perceive as much grocery shopping as a chore because they like to select fresh products and enjoy buying new products, claiming that the worst part is waiting on the shopping cues. Regarding the selection of grocery products, non-organic consumers tend to use promotions as their main criteria when selecting the products. For organic consumers, fresh products and quality price ratio is their key driver when choosing. About health, non-organic consumers claim to be health concerned, as they don't select private labels since they have a lower quality and at the same time purchase vegetables and fruit in order to have a diversified diet. Organic consumers also claim to be concerned with their health, since they try to eat less fat, sugar and red meat, while increasing the consumption of vegetables, fruits and fish.

4.3.2 Organic associative network

Non-organic respondents associate *Healthy* with vegetables, since those products are good for their health. Organic respondents associate it with something that is good, because they want to be healthy and take care of themselves. When thinking of *Environment*, non-organic consumers associate it with sustainable products, and non-organic ones associate it with negative connotations, such as pollution and the ozone layer hole. For non-organic respondents, *Natural* is associated with products that come from the nature and are good for our health, like fruit. For organic respondents, *Natural* is something that can be trusted. Concerning the Retailer, where respondents usually purchase groceries, non-organic consumers relate it to savings and diversity of products, and organic consumers associate it to good products. For non-organic consumers, *Quality* is directly associated with retailers, especially the ones that they don't usually shop (Jumbo and El Corte Inglés). When given the same stimuli to organic consumers, they associate it with something "good", "tasty" that they are willing to pay for. When thinking about *Organic*, non-organic respondents associate it with products that come from the nature, particularly fruits and vegetables. They also relate it with the places, where they can buy organic (Continente, Brio and Celeiro) and with the people they consider that purchase those products - more alternative individuals, persons that practice yoga and older and richer individuals. On the other hand, organic consumers link *Organic* with its definition (products without the use of pesticides and chemicals) and benefits for themselves and the world, since those products have a "healthy component" and are taken care in an "environmentally sustainable" way.

Concerning the definition of organic products, both organic and non-organic consumers have a clear idea of what organic products stand for, and both intend to purchase organic products,

with the distinction that non-organic respondents defend that they don't purchase organic products in a regular way, because they are expensive and consider that there isn't enough information about those types of products that would make them choose them over their regular non-organic options.

Regarding the specialty stores Miosótis, Brio and Celeiro, both organic and non-organic consumers only recognized the second and third alternatives. Non-organic respondents relate those stores with cozy places that sell natural products, and that they visit only by recommendation of a friend to buy specific products, such as egg yolks (gym purposes) or seeds for the salads, for example. Organic consumers associate Brio and Celeiro with products that are good for their health, but for convenience they prefer to buy at large retailers because they are more easily accessible.

4.3.3 Perception of consumers about consumption of organic products

The organic and non-organic respondents that don't know anyone that purchases organic products, associate that their reason for not consuming organic is the high price of the products, when compared with non-organic ones. Additionally, respondents that know someone who purchases organic products, believe that their main motivation can be the result of one of two concerns: their own health or/and the planet.

4.3.4 General insights regarding organic products

At retail stores, vegetables and fruit are the organic products claim to be seen by non-organic respondents, when purchasing groceries. In order for non-organic consumers to start consuming organic food, there are two main changes that would need to be made according to these respondents: the prices would need to drop and more information about the advantages of organic would need to be available, for example through deep reports on TV. If non-organic respondents would start consuming organic food, fruit would be their first choice because these products don't need to be cooked in order to be consumed, and therefore are more susceptible and vulnerable to fungi or insects, for example.

Regarding organic respondents, fruits and vegetables are the main organic products consumed, and the reason for not consuming organic yogurts is their lack of understanding about the benefits of consuming organic yogurts. It is difficult for them to realize what are the advantages of organic yogurts, when compared with non-organic ones. This motive, together with the uncertainty of some products being really organic, are the reasons for not consuming more organic food products. Organic respondents explain that when organic was a curiosity

finding organic food at large retailers (where these respondents usually purchase groceries) was hard, but nowadays there is a greater concern on the retailer side to have the products better exposed, simplifying the search of the ones interested on buying organic.

4.3.5 Availability of yogurts

Both groups of organic and non-organic consumers purchase yogurts for themselves and their family aggregate. Some of the organic consumers, typically consume organic yogurts purchased at the store or done by themselves. On the other hand, non-organic consumers don't consume organic yogurts, although one of them eats a very specific type of yogurt, zero lactose and low fat. When purchasing yogurts for themselves and their preferred option is not available at the store, non-organic consumers claim to opt for buying the same yogurt only when they would come back to the same store to purchase groceries, due to the fact that their preferred yogurt has a very specific flavor or characteristics (low fat and zero lactose), which makes it difficult for them to find a similar yogurt to substitute the unavailable option. However, when choosing yogurts for their family aggregate usually they are guided by their preferred flavors but the brand is chosen mostly according with the promotions available. On the other hand, organic consumers would choose to purchase for themselves and their family aggregate another yogurt brand with the same preferred flavor, being the organic component not always a must. When choosing which yogurts to buy, non-organic consumers tend to prioritize promotions while organic respondents tend to opt for the ones that have their preferred features, such as low fat, without sugar or zero lactose.

Chapter 5: Conclusions, Limitations and Future Research

5.1 Conclusions

RQ₁: What is the depth of Awareness for organic yogurts?

In this study, Awareness is associated with the capability consumers have to identify in different situations (Keller 1993) organic yogurts. Awareness of organic yogurts was composed of two different items. One refers to the knowledge about brands of organic yogurts and the other to the capacity of consumers to distinguish between organic and non-organic yogurts (Kim and Kim 2016). When considering the consumers of non-organic products, it is possible to conclude that only 39.6% are aware of brands of organic yogurts, while if we take into consideration those who normally consume organic products have a much higher share of the sample that are aware, more specifically 60.8%. Regarding the capacity to distinguish between organic and non-organic yogurts, from the consumers that don't purchase organic products only 35.6% affirm to be capable of differentiating both types of yogurts, while a much higher portion of organic consumers (61.9%) are capable to discriminate organic from non-organic yogurts. In general, consumers that don't purchase organic products have a lower Awareness of organic yogurts than the ones that purchase organic. According to the results, it was found that Awareness has an important and positive effect on Purchase Intention.

RQ₂: What are the Attitudes towards organic yogurts?

Attitude in this analysis, consists of the consumer's internal evaluation (Mitchell and Olson 1981) of organic yogurts. Attitude for organic yogurts was considered to be the combination of 7 items (Chryssohoidis and Krystallis 2005; Elena et al. 2014; Gil et al. 2000; Kim and Kim 2016; Krystallis and Chryssohoidis 2005; Zanolli and Naspetti 2002): Tastiness, Healthiness, Trust in Quality, Health Safety, Willingness to Pay, Environmentally Friendly and Certification. Concerning the tastiness of organic yogurts, the opinion of organic and non-organic consumers is not visibly distinctive, since there isn't a clear opinion regarding organic yogurts being tastier than non-organic ones. Organic and non-organic consumers have an evidently positive opinion about organic yogurts being healthier than non-organic ones. Regarding the Safety and Trust in Quality, organic respondents believe that organic yogurts are safer, and have more trust in the quality than non-organic respondents, although both consider organic yogurts to be safer and trustier in quality than non-organic yogurts. Environmentally Friendly was another characteristic that both organic and non-organic

consumers believed to be more intrinsic to organic yogurts than to non-organic ones. Considering Willingness to Pay, non-organic consumers are not disposed to pay more for yogurts that are organic, while on the contrary organic respondents were inclined to pay more for those yogurts. Both organic and non-organic consumers trust more on the quality of organic yogurts that are certified, which was confirmed by the organic interviewees to be a major decision factor when buying organic food products.

Considering the results obtained for the sample used, Attitude for organic yogurts was perceived to have a positive and impactful influence on Purchase Intention. Furthermore, it was also shown that Awareness and Attitude are positive correlated.

RQ3: What drives Purchase Intent for organic yogurts?

As mentioned before, Purchase Intention is influenced in a positive way by Awareness and Attitude, having the latter a greater power over the respondents' intention to purchase an organic yogurt. At the same time, the qualitative study also suggests that some aspects, such as the high price of organic products in general or the lack of knowledge about the advantages of organic yogurts over non-organic ones, lead consumers to not plan to purchase organic yogurts or to not bother changing to non-organic, when their preferred option (organic) is not available. Additionally, organic consumers also mentioned on the qualitative study that sometimes they have the feeling of being misguided through marketing assertions about what "bio" means when present on the yogurt's packaging, which makes them doubt about the origin of those products, especially when buying at a regular retail store. However, they stated that they would feel safer and trust more, if the yogurts have an organic certification. These motivations that arise from the qualitative study go in the same direction of the conclusions made, which were grounded on the survey study. Concluding, both Awareness and Attitude for organic yogurts are important drivers of Purchase Intention. When consumers develop a positive Attitude towards organic yogurts, consequentially their Awareness will be higher meaning there is a greater probability of those products being on their evoked set, which increases their Purchase Intention.

RQ4: What do consumers do when organic yogurts are out of stock?

Consumers' reaction to the out of stock of their preferred yogurt differs between organic and non-organic yogurt consumers. Consumers of organic yogurts mostly prefer to continue to purchase organic yogurts (85.9%), and more than half of those consumers are unwilling to substitute their preferred yogurt choice. The main responses given by organic yogurt

consumers was going to another store to buy the same yogurt and waiting until coming back to the same store to purchase the preferred yogurt that was stocked out. On the other hand, only 16 out of 250 non-organic yogurt consumers were willing to change to an organic yogurt if their preferred option was not available. Furthermore, almost one third of non-organic yogurt consumers are unwilling to change their preferred yogurt when it is OOS. However, their main reactions are to purchase another brand of non-organic yogurt and to purchase another flavor of the same brand. The later OOS reaction was perceived to be one of the major responses of non-organic and organic consumers that purchase non-organic yogurts during the qualitative study. When comparing organic and non-organic consumers who purchase non-organic yogurts, it can be noticed that when faced with a stock out of their preferred yogurt, organic consumers have a higher predisposition to opt for an organic yogurt. The reason for this occurrence can lie on the fact that organic consumers are more thoughtful and concerned about organic products, which makes them more aware and inclined to organic alternatives. Based on the qualitative analysis, another common reaction among non-organic consumers was to not substitute their favorite option, opting for purchasing their preferred yogurt only when they would return to the same store to buy groceries again, which also corresponds to the third most typical reaction for this group of consumers according to the survey.

Concerning only the consumers of organic yogurts, it was possible to understand through the data analysis, that the Awareness, Attitude and Purchase Intention are independent from the OOS reaction of their preferred organic yogurt, meaning that the level of Awareness, Attitude and Purchase Intention do not influence the reaction consumers have when their preferred organic yogurt is out of stock. The group that in response to the OOS continued to opt for organic yogurts have a higher percentage of consumers with High Awareness, Strong Attitude and High Purchase Intention, when compared with the group that changed to a non-organic yogurt or to a substitute product.

The results show that Awareness, Attitude and Purchase Intention are independent from the OOS reaction, which can be related with the insight collected from the qualitative analysis, which displays that some organic yogurt consumers do not know the real benefits and advantages of organic yogurts.

5.2 Limitations and Future Research

The study presents some limitations, which give opportunity to be explored in future research. Firstly, the sample obtained for the quantitative study has approximately 50% of consumers who purchase organic food products and 50% that don't purchase those products, which doesn't represent the Portuguese population (Oliveira 2011). Despite this downside, the fact that it was possible to obtain a great number of consumers of organic products, improved the analysis of the three first hypotheses, since Awareness, Attitude and Purchase Intention are given in equal proportion for both groups of consumers, due to the even split of the sample. For the fourth, fifth and sixth hypothesis, which only evaluate organic yogurt consumers, it was possible to obtain a considerable sample for the study due to the great amount of responses from consumers that purchase organic food. For a future research, it would be suitable to have a bigger and representative sample in order to collect more information and increase the reliability of the results.

Secondly, when studying the drivers of Purchase Intention, only Awareness and Attitude were taken into consideration, so in further research other drivers of Purchase Intention should be studied in order to have a deeper analysis of the reactions to out of stock.

Thirdly, in further research, instead of only using a survey, which evaluates consumers' reaction to the hypothetical out of stock of their preferred yogurt, a survey together with a field experiment should be implemented in order to validate, if what consumers expect to do consists with what they really do.

Fourthly, the organic food products/categories studied should be extended to fresh produce (vegetables, fruits), baby food, fish among others with the aim of understanding, which are the products/categories that consumers of organic products would not be willing to change for a non-organic variety in an OOS situation. This could have a relevant impact on how retailers address these consumers' needs, which would open the opportunity to study how organic consumers' loyalty towards retailers can be influenced by the OOS of the organic food products that they are reluctant to substitute for a non-organic variety. Additionally, it can be studied in future research, if the store loyalty of consumers of organic products is or is not influenced by promotions.

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ANNEXES

Annex 1 - Online Survey

Dear participant, my name is Carolina and I'm a master student in management from Católica Lisbon School of Business and Economics. The purpose of this survey is to understand consumers' awareness, attitude and purchase intention of organic products in the Portuguese market.

This survey will take around 5 minutes to be completed and it is important that you answer honestly. All the information will be treated confidentially.

Thank you for your collaboration!

I - Consumption habits of grocery products and yogurts in particular

1. Do you live in Portugal?

- Yes
- No

(Only respondents that live in Portugal will continue to answer to the next questions)

2. Are you responsible for the purchase of groceries of your family aggregate?

- Yes
- No

(Only respondents that answered NO to the previous question will answer question 3)

3. Do you usually go accompany the person that purchases the groceries?

- Yes
- No

4. Do you usually buy yogurts?

- Yes
- No

5. In which place do you usually purchase the groceries and the yogurts? (Choose all the places that apply)

	Groceries Purchase	Yogurts Purchase
Hypermarket		
Supermarket		
Local Grocery Store		
Specialty Store (Celeiro, Brio, Miosótis...)		
Weekly Market		
Restaurant/Café		
Other don't mentioned		

(Only respondents that answered YES to question 4 will respond to question 6)

6. How often do you buy yogurts?

- Once or less a week
- to 3 times a week
- to 5 times a week
- More than 5 times a week

7. Do you usually consume yogurts?

- Yes
- No

(Only respondents that answered YES to question 7 will respond to question 8)

8. How often do you consume yogurts?

- Once or less a week
- to 3 times a week
- to 5 times a week
- More than 5 times a week

(Only respondents that answered YES to question 2 or 3 will respond to question 9)

9. How long does it take to go from your house to the place that you usually purchase yogurts?

- Less than 5 minutes
- Between 5 and 15 minutes
- More than 15 minutes

10. How much do you usually spend on a yogurt?

- Less than 0.55€
- Between 0.55 and 0.85€
- More than 0.85€

II- Organic products awareness, attitude, purchase intention and consumption (1st Part)

11. On a scale from 1 (Completely disagree) to 7 (Completely agree), how much do you do agree with the following sentences related with the definition of:

“A biological product is...”

- a product created in a natural way
- a product without chemical and artificial ingredients
- a product sold in the traditional market
- a product with a high price
- the same as an organic product

12. On a scale from 1 (Completely disagree) to 7 (Completely agree), how much do you do agree with the following sentences:

- I think I have heard of organic products
- I know brands of organic products

- I am capable of distinguishing between organic and non-organic products
13. On a scale from 1 (Completely disagree) to 7 (Completely agree), how much do you do agree with the following sentences:
- Organic products are tastier
 - Organic products are healthier
 - I have more confidence on the quality of organic products
 - Organic products are safer for my health
 - I am willing to pay more for an organic product
 - Organic products are better for the environment
 - I know a certification for organic products
14. Do you usually buy organic food products?
- Yes
 - No
- (Only respondents that answered YES to question 14 will respond to questions 15, 16, 21,22)*
15. Which type of organic food products do you usually buy? (Choose all the options that you usually buy)
- Fruit
 - Vegetables
 - Dairy (Milk, Yogurts, Cheese...)
 - Meat
 - Fish
 - Cereals (rice, cookies, pasta...)
 - Others
16. Which type of yogurts do you consume more frequently?
- Non-organic yogurts
 - Organic yogurts
 - Both in the same proportion
17. On a scale from 1 (Completely disagree) to 7 (Completely agree), how much do you do agree with the following sentence:
- I am willing to purchase organic yogurts

III - Yogurts out of stock reaction

18. If the yogurt you usually choose is not available to sell on the store, what would you do?
- I would come back later to the same store only to buy the yogurt
 - I would go to another store to buy the same yogurt

- I would buy the yogurt whenever I'd come back to the same store
- I would buy another product to substitute a yogurt
- I would buy another yogurt

(Respondents that answered "Organic yogurts" or "Both in the same proportion" in question 16 will respond to question 19, otherwise will respond to question 20)

19. Which other yogurt would you buy?

- I would buy from the same brand but another flavor
- I would buy from the same brand but not organic
- I would buy from another organic brand
- I would buy from another non-organic brand

20. Which other yogurt would you buy?

- I would buy from the same brand but another flavor
- I would buy from the same brand but organic
- I would buy from another organic brand
- I would buy from another non-organic brand

II - Organic products awareness, attitude, purchase intention and consumption

(2nd Part)

21. On a scale from 1 (Completely disagree) to 7 (Completely agree), how much do you do agree with the following sentences:

- I think I have heard of organic yogurts
- I know brands of organic yogurts
- I am capable of distinguishing between organic and non-organic yogurts

22. On a scale from 1 (Completely disagree) to 7 (Completely agree), how much do you do agree with the following sentences:

- Organic yogurts are tastier
- Organic yogurts are healthier
- I have more confidence on the quality of organic yogurts
- Organic yogurts are safer for my health
- I am willing to pay more for an organic yogurt
- Organic yogurts are better for the environment
- I know a certification for organic yogurts

IV - Demographic Questions

23. Gender

- Female
- Male

24. Age

- Less than 18
- 18-29
- 30-39
- 40-59
- More than 60

25. What was the last level of education that you finished?

- 9th grade
- High School
- Bachelor
- Master
- Other

26. What is your occupation nowadays?

- Student
- Worker
- Retired
- Other

27. How many people does your family aggregate was counting with you?

- 1
- 2
- 3
- 4
- 5 or more

28. Only for statistical studies, which of the options better describes your family aggregate salary (before tax deductions)?

- Less than 25000
- 25000-50000
- 50000-75000
- More than 75000

Annex 2 - In-depth Interviews Questionnaire Guide: Potential questions

1. What kind of food do you buy?

- 1.1. How regularly do you buy grocery products?
- 1.2. Do you usually buy the groceries by yourself?
- 1.3. In which day and at what time do you usually buy the groceries?
- 1.4. In which store do you usually buy the groceries? Why?
- 1.5. How long does it take for you to get to the store you usually go?
- 1.6. How much time do you usually take in your normal grocery shopping trip?
- 1.7. Do you consider that purchasing the groceries is a chore or do you enjoy doing it?
- 1.8. Do you usually do a shopping list of groceries that you are going to buy? And do you follow it strictly?
- 1.9. How do you choose the groceries that you are going to buy? Why do you use those criteria?
- 1.10. Are you concerned with your health when choosing the groceries?

2. What does organic mean to you?

2.1. What do you associate with each of the following words? Why?

- Healthy
- Environment
- Natural
- (Say the place where the interviewee usually purchases the groceries)
- Quality
- Organic

2.2. How would you explain what is an organic product to someone else?

2.3. Would you consider buying organic food? Why?

2.4. Do you usually buy organic food? Why?

2.5. Do you know Miosótis? Brio? Celeiro? What do you associate to each of them? Have you ever visited one of the stores?

3. Perception of organic food buyers in society

3.1. Do you know someone that usually purchases organic food?

If the interviewee knows someone...

3.2. Why do you think they consume organic food?

If the interviewee doesn't know anyone...

3.3. Why do you think they don't consume organic food?

4. Your general ideas about organic food

If the interviewee doesn't consume organic food:

4.1. On the place that you usually purchase your groceries, did you ever notice if there are organic products being sold?

4.2. What would make you consume organic food? What would need to be changed?

4.3. If you would start consuming organic products, which would be the first category you would consider? Why?

If the interviewee consumes organic food:

4.4. Which type of organic products do you consume? Do you only consume organic products? Why?

4.5. Do you consider that it is easy to find organic products at the stores? Why?

4.6. What do you think could be done regarding grocery stores in order for the organic products to be found?

5. Availability of food products

5.1. Do you usually buy yogurts? For you? And for your family aggregate?

5.2. Do you usually have yogurts at home when you are buying yogurts?

5.3. When you are purchasing your groceries and the yogurts that you wanted to buy are not available at the store, what would you do? Why? And if it was milk?

5.4. How do you choose the yogurts?

Annex 3 - SPSS Output

Table 1 – “Do you live in Portugal?”

Reside em Portugal?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sim	353	96.2	96.2	96.2
	Não	14	3.8	3.8	100.0
	Total	367	100.0	100.0	

Table 2 – “Gender”

Género

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Feminino	258	73.1	73.1	73.1
	Masculino	95	26.9	26.9	100.0
	Total	353	100.0	100.0	

Table 3 – “Age”

Idade

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Menos de 18	6	1.7	1.7	1.7
	18 - 29	84	23.8	23.8	25.5
	30 - 39	41	11.6	11.6	37.1
	40 - 59	192	54.4	54.4	91.5
	Mais de 60	30	8.5	8.5	100.0
	Total	353	100.0	100.0	

Table 4 – “How many people does your family aggregate was counting with you?”

Quantas pessoas tem o seu agregado familiar, contando consigo?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	27	7.6	7.6	7.6
	2	66	18.7	18.7	26.3
	3	82	23.2	23.2	49.6
	4	118	33.4	33.4	83.0
	5 ou mais	60	17.0	17.0	100.0
	Total	353	100.0	100.0	

Table 5 – “Only for statistical studies, which of the options better describes your family aggregate salary (before tax deductions)?”

Apenas para estudo estatístico, qual das opções melhor descreve o rendimento anual do seu agregad...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Menos de 25.000	69	19.5	19.5	19.5
	25.000 - 50.000	149	42.2	42.2	61.8
	50.000 - 75.000	73	20.7	20.7	82.4
	Mais de 75.000	62	17.6	17.6	100.0
	Total	353	100.0	100.0	

Table 6 – “What is your occupation nowadays?”

Qual a sua ocupação actualmente?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Estudante	62	17.6	17.6	17.6
	Trabalhador	253	71.7	71.7	89.2
	Reformado	22	6.2	6.2	95.5
	Outro	16	4.5	4.5	100.0
	Total	353	100.0	100.0	

Consumers that chose the option “other”

Qual a sua ocupação actualmente?–TEXT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		345	97.7	97.7	97.7
	aposentada mas a dar aulas em reg. voluntariado	1	.3	.3	98.0
	Desempregada	1	.3	.3	98.3
	Desempregado	1	.3	.3	98.6
	Estudante e Profissional Liberal	1	.3	.3	98.9
	Prereforma	1	.3	.3	99.2
	reformada invalidez	1	.3	.3	99.4
	Sócia de uma empresa	1	.3	.3	99.7
	trabalhador/estudante	1	.3	.3	100.0
	Total	353	100.0	100.0	

Table 7 – “What was the last level of education that you finished?”

Qual foi o ultimo nível de educação que completou?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	9º ano	6	1.7	1.7	1.7
	12º ano	63	17.8	17.8	19.5
	Licenciatura	175	49.6	49.6	69.1
	Mestrado	79	22.4	22.4	91.5
	Outro	30	8.5	8.5	100.0
	Total	353	100.0	100.0	

Consumers that chose the option “other”

Qual foi o ultimo nível de educação que completou?–TEXT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		329	93.2	93.2	93.2
	11º	1	.3	.3	93.5
	6	1	.3	.3	93.8
	Bacharelato	3	.8	.8	94.6
	curso intermédio de secretariado tirado depois do 12º ano. Curso de dois anos	1	.3	.3	94.9
	doutoramento	1	.3	.3	95.2
	Doutoramento	6	1.7	1.7	96.9
	MBA	1	.3	.3	97.2
	pós graduação	1	.3	.3	97.5
	Pós-graduação	1	.3	.3	97.7
	Pós-graduação	4	1.1	1.1	98.9
	Pós-Graduação	3	.8	.8	99.7
	Pós-graduações	1	.3	.3	100.0
	Total	353	100.0	100.0	

Table 8 – “Are you responsible for the purchase of groceries of your family aggregate?”

É responsável pelas compras alimentares do seu agregado familiar?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sim	258	73.1	73.1	73.1
	Não	95	26.9	26.9	100.0
	Total	353	100.0	100.0	

Table 9– “Do you usually go accompany the person that purchases the groceries?”

Costuma acompanhar quem faz as compras alimentares?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sim	65	18.4	68.4	68.4
	Não	30	8.5	31.6	100.0
	Total	95	26.9	100.0	
Missing	System	258	73.1		
Total		353	100.0		

Table 10– “How long does it take to go from your house to the place that you usually purchase yogurts?”

Quanto tempo demora a viagem de sua casa até ao local onde normalmente compra os iogurtes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Até 5 minutos	124	35.1	39.5	39.5
	Entre 5 e 15 minutos	146	41.4	46.5	86.0
	Mais de 15 minutos	44	12.5	14.0	100.0
	Total	314	89.0	100.0	
Missing	System	39	11.0		
Total		353	100.0		

Table 11– “Do you usually buy yogurts?”

Costuma comprar iogurtes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sim	314	89.0	89.0	89.0
	Não	39	11.0	11.0	100.0
	Total	353	100.0	100.0	

Table 12– “How often do you buy yogurts?”

Com que regularidade costuma comprar iogurtes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 vez ou menos por semana	258	73.1	82.2	82.2
	2 a 3 vezes por semana	52	14.7	16.6	98.7
	4 a 5 vezes por semana	4	1.1	1.3	100.0
	Total	314	89.0	100.0	
Missing	System	39	11.0		
Total		353	100.0		

Table 13– “Do you usually consume yogurts?”

Costuma consumir iogurtes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sim	301	85.3	85.3	85.3
	Não	52	14.7	14.7	100.0
	Total	353	100.0	100.0	

Table 14– “How often do you consume yogurts?”

Qual a regularidade com que consome iogurtes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 vez ou menos por semana	37	10.5	12.3	12.3
	2 a 3 vezes por semana	106	30.0	35.2	47.5
	4 a 5 vezes por semana	79	22.4	26.2	73.8
	Mais de 5 vezes por semana	79	22.4	26.2	100.0
	Total	301	85.3	100.0	
Missing	System	52	14.7		
Total		353	100.0		

Table 15– “In which place do you usually purchase the groceries and the yogurts?” (Choose all the places that apply)

Hipermercado

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras Alimentares	236	66.9	100.0	100.0
Missing	System	117	33.1		
Total		353	100.0		

Supermercado

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras Alimentares	232	65.7	100.0	100.0
Missing	System	121	34.3		
Total		353	100.0		

Mercearia local

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras Alimentares	93	26.3	100.0	100.0
Missing	System	260	73.7		
Total		353	100.0		

Loja de especialidade (Brio, Miosótis, Celeiro...)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras Alimentares	74	21.0	100.0	100.0
Missing	System	279	79.0		
Total		353	100.0		

Mercado semanal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras Alimentares	36	10.2	100.0	100.0
Missing	System	317	89.8		
Total		353	100.0		

Restaurante/Café

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras Alimentares	12	3.4	100.0	100.0
Missing	System	341	96.6		
Total		353	100.0		

Hipermercado

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras de logurtes	215	60.9	100.0	100.0
Missing	System	138	39.1		
Total		353	100.0		

Supermercado

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras de logurtes	205	58.1	100.0	100.0
Missing	System	148	41.9		
Total		353	100.0		

Mercearia local

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras de logurtes	43	12.2	100.0	100.0
Missing	System	310	87.8		
Total		353	100.0		

Loja de especialidade (Brio, Miosótis, Celeiro...)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras de logurtes	49	13.9	100.0	100.0
Missing	System	304	86.1		
Total		353	100.0		

Mercado semanal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Compras de logurtes	3	.8	100.0	100.0
Missing	System	350	99.2		
Total		353	100.0		

Restaurante/Café

		Frequency	Percent
Missing	System	353	100.0

Other option for purchase location of groceries and yogurts

Outro não referido - TEXT

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	345	97.7	97.7	97.7
cabaz natura	1	.3	.3	98.0
Compras online	1	.3	.3	98.3
Faço iogurtes em casa com leite biológico	1	.3	.3	98.6
Fornecedor legumes biológicos	1	.3	.3	98.9
Pomar da Rosa - expo	1	.3	.3	99.2
Quinta Biológica	1	.3	.3	99.4
Talho	2	.6	.6	100.0
Total	353	100.0	100.0	

Table 16– “A biological product is...”

Costuma comprar produtos alimentares biológicos?		um produto criado de forma natural	um produto sem ingredientes químicos ou artificiais	um produto vendido no mercado tradicional	um produto com preço elevado	o mesmo que um produto orgânico
Sim	N	Valid 159	Valid 159	Valid 159	Valid 159	Valid 159
		Missing 0	Missing 0	Missing 0	Missing 0	Missing 0
	Median	6.00	7.00	3.00	4.00	4.00
Não	N	Valid 155	Valid 155	Valid 155	Valid 155	Valid 155
		Missing 0	Missing 0	Missing 0	Missing 0	Missing 0
	Median	6.00	6.00	3.00	5.00	4.00

Table 17– “Do you usually buy organic food products?”

Costuma comprar produtos alimentares biológicos?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Sim	176	49.9	49.9	49.9
Não	177	50.1	50.1	100.0
Total	353	100.0	100.0	

Table 18– “Which type of organic food products do you usually buy?” (Choose all the options that you usually buy)

Fruta

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	151	42.8	100.0	100.0
Missing System	202	57.2		
Total	353	100.0		

Vegetais

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	152	43.1	100.0	100.0
Missing System	201	56.9		
Total	353	100.0		

Lactínios (Leite, iogurte, Queijo...)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	91	25.8	100.0	100.0
Missing System	262	74.2		
Total	353	100.0		

Carne

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	53	15.0	100.0	100.0
Missing System	300	85.0		
Total	353	100.0		

Peixe

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	26	7.4	100.0	100.0
Missing System	327	92.6		
Total	353	100.0		

Cereais (Massa, Arroz, Bolachas...)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	87	24.6	100.0	100.0
Missing System	266	75.4		
Total	353	100.0		

Outros-TEXT

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	335	94.9	94.9	94.9
bebidas,cosmética...	1	.3	.3	95.2
café, chá	1	.3	.3	95.5
cosmética	1	.3	.3	95.8
Cosmeticos	1	.3	.3	96.0
Cosmeticos e produtos de limpeza	1	.3	.3	96.3
Cremes	1	.3	.3	96.6
Detergentes e afins	1	.3	.3	96.9
enlatados	1	.3	.3	97.2
Especiarias	1	.3	.3	97.5
frutos secos	1	.3	.3	97.7
Frutos secos	1	.3	.3	98.0
Frutos Secos	1	.3	.3	98.3
leites vegetais, tofu, produtos embalados/pré-feitos ...	1	.3	.3	98.6
produtos de higiene e cosmética, pão	1	.3	.3	98.9
Produtos de higiene e limpeza, cosmética, vestuário	1	.3	.3	99.2
sabonetes;shampoo	1	.3	.3	99.4
sal	1	.3	.3	99.7
Sementes	1	.3	.3	100.0
Total	353	100.0	100.0	

Table 19- “How much do you usually spend on a yogurt?”

Quanto costuma pagar normalmente por um iogurte?

TypeOfYog		Frequency	Percent	Valid Percent	Cumulative Percent
Non-Organic Yogurt	Valid	Menos de 0.55€	77	30.8	30.8
		Entre 0.55€ e 0.85€	145	58.0	88.8
		Mais de 0.85€	28	11.2	100.0
		Total	250	100.0	100.0
Organic Yogurt	Valid	Menos de 0.55€	11	17.2	17.2
		Entre 0.55€ e 0.85€	36	56.3	73.4
		Mais de 0.85€	17	26.6	100.0
		Total	64	100.0	100.0

Table 20- “Reliability analysis for the Awareness concept (Consumers of non-organic products)”

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.555	.542	3

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.706	3.808	6.390	2.582	1.678	2.129	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Acho que já ouvi falar de produtos biológicos	7.73	11.517	.210	.047	.646
Eu conheço marcas de produtos biológicos	10.20	5.546	.451	.236	.317
Sou capaz de distinguir produtos biológicos de não biológicos	10.31	6.613	.491	.250	.235

Table 21- “Reliability analysis for the Awareness concept (Consumers of organic products)”

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.832	.835	3

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	5.170	4.869	5.750	.881	1.181	.252	3

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Acho que já ouvi falar de iogurtes biológicos	9.76	14.697	.651	.436	.811
Eu conheço marcas de iogurtes biológicos	10.62	11.620	.692	.495	.776
Sou capaz de distinguir iogurtes biológicos de não biológicos	10.64	12.231	.750	.563	.709

Table 22– “Reliability analysis for the Attitude concept (Consumers of non-organic products)”

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.879	.881	7

Summary Item Statistics							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.946	3.746	5.689	1.944	1.519	.430	7

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Os produtos biológicos são mais saborosos	30.08	56.198	.557	.342	.875
Os produtos biológicos são mais saudáveis	28.93	53.700	.773	.635	.850
Eu tenho mais confiança na qualidade dos produtos biológicos	29.84	52.100	.708	.578	.856
Os produtos biológicos são mais seguros para a minha saúde	29.48	51.467	.800	.697	.844
Estou disposto/a a pagar mais por um produto biológico	30.88	54.234	.601	.370	.871
Os produtos biológicos são melhores para o ambiente	29.33	55.144	.634	.467	.866
Um produto biológico que tenha um selo de certificação dá-me mais confiança na sua qualidade	29.19	54.334	.601	.437	.871

Table 23– “Reliability analysis for the Attitude concept (Consumers of organic products)”

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.924	.928	7

Summary Item Statistics							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	5.430	4.733	5.966	1.233	1.261	.200	7

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Os iogurtes biológicos são mais saborosos	33.28	58.853	.617	.402	.928
Os iogurtes biológicos são mais saudáveis	32.19	57.102	.846	.754	.906
Eu tenho mais confiança na qualidade dos iogurtes biológicos	32.60	54.128	.868	.781	.902
Os iogurtes biológicos são mais seguros para a minha saúde	32.34	55.950	.851	.763	.904
Estou disposto/a a pagar mais por um iogurte biológico	33.04	56.027	.708	.521	.919
Os iogurtes biológicos são melhores para o ambiente	32.59	56.256	.723	.554	.917
Um iogurte biológico que tenha um selo de certificação dá-me mais confiança na sua qualidade	32.05	59.255	.772	.630	.913

Table 24- Hypothesis 1: Regression Analysis

$$Aw\ddot{a}reness = \widehat{\delta}_1 + \widehat{\delta}_2 Attitude^*$$

*Awareness and Attitude are referred to organic yogurts

Descriptive Statistics

	Mean	Std. Deviation	N
AWARENESS	4.8807	1.91683	176
ATTITUDE	5.4302	1.24820	176

Correlations

		AWARENESS	ATTITUDE
Pearson Correlation	AWARENESS	1.000	.531
	ATTITUDE	.531	1.000
Sig. (1-tailed)	AWARENESS	.	.000
	ATTITUDE	.000	.
N	AWARENESS	176	176
	ATTITUDE	176	176

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	ATTITUDE ^b	.	Enter

a. Dependent Variable: AWARENESS

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.531 ^a	.282	.278	1.62856	1.681

a. Predictors: (Constant), ATTITUDE

b. Dependent Variable: AWARENESS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	181.512	1	181.512	68.438	.000 ^b
	Residual	461.483	174	2.652		
	Total	642.994	175			

a. Dependent Variable: AWARENESS

b. Predictors: (Constant), ATTITUDE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.450	.549		.819	.414		
	ATTITUDE	.816	.099	.531	8.273	.000	1.000	1.000

a. Dependent Variable: AWARENESS

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.2660	6.1615	4.8807	1.01843	176
Residual	-5.16152	4.80152	.00000	1.62390	176
Std. Predicted Value	-3.549	1.258	.000	1.000	176
Std. Residual	-3.169	2.948	.000	.997	176

a. Dependent Variable: AWARENESS

Scatterplot

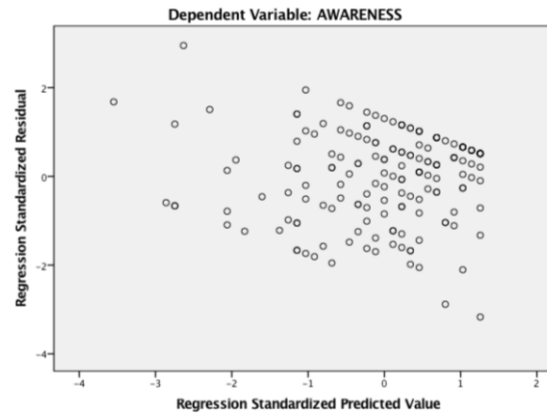


Table 25– Hypothesis 1: Addition of the Interaction Term
Feminine*Attitude

Descriptive Statistics

	Mean	Std. Deviation	N
AWARENESS	6.1250	1.09472	64
ATTITUDE	6.0067	.94912	64
FEMININExATTITUDE	5.5402	1.86948	64

Correlations

		AWARENESS	ATTITUDE	FEMININExATTITUDE
Pearson Correlation	AWARENESS	1.000	.411	.276
	ATTITUDE	.411	1.000	.490
	FEMININExATTITUDE	.276	.490	1.000
Sig. (1-tailed)	AWARENESS	.	.000	.014
	ATTITUDE	.000	.	.000
	FEMININExATTITUDE	.014	.000	.
N	AWARENESS	64	64	64
	ATTITUDE	64	64	64
	FEMININExATTITUDE	64	64	64

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.419 ^a	.176	.149	1.00990	1.685

a. Predictors: (Constant), FEMININExATTITUDE, ATTITUDE

b. Dependent Variable: AWARENESS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.286	2	6.643	6.513	.003 ^b
	Residual	62.214	61	1.020		
	Total	75.500	63			

a. Dependent Variable: AWARENESS

b. Predictors: (Constant), FEMININExATTITUDE, ATTITUDE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.295	.815		4.042	.000		
	ATTITUDE	.418	.154	.362	2.717	.009	.760	1.316
	FEMININExATTITUDE	.058	.078	.099	.740	.462	.760	1.316

a. Dependent Variable: AWARENESS

Table 26– Hypothesis 1: Addition of the Interaction Term
SalaryAboveAverage*Attitude

Descriptive Statistics

	Mean	Std. Deviation	N
AWARENESS	6.1250	1.09472	64
ATTITUDE	6.0067	.94912	64
SalaryAboveAverageXAttitude	3.8683	2.99652	64

Correlations

		AWARENESS	ATTITUDE	SalaryAboveAverageXAttitude
Pearson Correlation	AWARENESS	1.000	.411	-.091
	ATTITUDE	.411	1.000	.202
	SalaryAboveAverageXAttitude	-.091	.202	1.000
Sig. (1-tailed)	AWARENESS	.	.000	.236
	ATTITUDE	.000	.	.054
	SalaryAboveAverageXAttitude	.236	.054	.
N	AWARENESS	64	64	64
	ATTITUDE	64	64	64
	SalaryAboveAverageXAttitude	64	64	64

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.448 ^a	.200	.174	.99488	1.753

a. Predictors: (Constant), SalaryAboveAverageXAttitude, ATTITUDE

b. Dependent Variable: AWARENESS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.123	2	7.562	7.640	.001 ^b
	Residual	60.377	61	.990		
	Total	75.500	63			

a. Dependent Variable: AWARENESS

b. Predictors: (Constant), SalaryAboveAverageXAttitude, ATTITUDE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.282	.803		4.088	.000		
	ATTITUDE	.516	.135	.447	3.827	.000	.959	1.043
	SalaryAboveAverageXAttitude	-.066	.043	-.182	-1.556	.125	.959	1.043

a. Dependent Variable: AWARENESS

Table 27– Hypothesis 1: Addition of the Interaction Term
PurchaseGroceries*Attitude

Descriptive Statistics

	Mean	Std. Deviation	N
AWARENESS	6.1250	1.09472	64
ATTITUDE	6.0067	.94912	64
PurchaseGroceriesXAttitude	5.3728	2.11334	64

Correlations

		AWARENESS	ATTITUDE	PurchaseGroceriesXAttitude
Pearson Correlation	AWARENESS	1.000	.411	.200
	ATTITUDE	.411	1.000	.502
	PurchaseGroceriesXAttitude	.200	.502	1.000
Sig. (1-tailed)	AWARENESS	.	.000	.057
	ATTITUDE	.000	.	.000
	PurchaseGroceriesXAttitude	.057	.000	.
N	AWARENESS	64	64	64
	ATTITUDE	64	64	64
	PurchaseGroceriesXAttitude	64	64	64

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.411 ^a	.169	.141	1.01440	1.703

a. Predictors: (Constant), PurchaseGroceriesXAttitude, ATTITUDE

b. Dependent Variable: AWARENESS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.731	2	6.365	6.186	.004 ^b
	Residual	62.769	61	1.029		
	Total	75.500	63			

a. Dependent Variable: AWARENESS

b. Predictors: (Constant), PurchaseGroceriesXAttitude, ATTITUDE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.275	.824		3.974	.000		
	ATTITUDE	.478	.156	.415	3.074	.003	.748	1.336
	PurchaseGroceriesXAttitude	-.004	.070	-.009	-.063	.950	.748	1.336

a. Dependent Variable: AWARENESS

Table 28– Hypothesis 1: Addition of the Interaction Term
BuyYogurt*Attitude

Descriptive Statistics

	Mean	Std. Deviation	N
AWARENESS	6.1250	1.09472	64
ATTITUDE	6.0067	.94912	64
BuyYogurtXAttitude	6.0067	.94912	64

Correlations

		AWARENESS	ATTITUDE	BuyYogXAttitude
Pearson Correlation	AWARENESS	1.000	.411	.411
	ATTITUDE	.411	1.000	1.000
	BuyYogXAttitude	.411	1.000	1.000
Sig. (1-tailed)	AWARENESS	.	.000	.000
	ATTITUDE	.000	.	.000
	BuyYogXAttitude	.000	.000	.
N	AWARENESS	64	64	64
	ATTITUDE	64	64	64
	BuyYogXAttitude	64	64	64

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.411 ^a	.169	.155	1.00622	1.702

a. Predictors: (Constant), BuyYogXAttitude

b. Dependent Variable: AWARENESS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.727	1	12.727	12.570	.001 ^b
	Residual	62.773	62	1.012		
	Total	75.500	63			

a. Dependent Variable: AWARENESS

b. Predictors: (Constant), BuyYogXAttitude

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.281	.812		4.040	.000		
	BuyYogXAttitude	.474	.134	.411	3.545	.001	1.000	1.000

a. Dependent Variable: AWARENESS

Table 29- Hypothesis 2: Regression Analysis

$$\widehat{Purchase\ Intention} = \widehat{\alpha}_1 + \widehat{\alpha}_2 AWARENESS^*$$

*Purchase Intention and Awareness are referred to organic yogurts

Descriptive Statistics

	Mean	Std. Deviation	N
Estou disposto/a a comprar iogurtes biológicos	5.73	1.468	176
AWARENESS	4.8807	1.91683	176

Correlations

		Estou disposto/a a comprar iogurtes biológicos	AWARENESS
Pearson Correlation	Estou disposto/a a comprar iogurtes biológicos	1.000	.322
	AWARENESS	.322	1.000
Sig. (1-tailed)	Estou disposto/a a comprar iogurtes biológicos	.	.000
	AWARENESS	.000	.
N	Estou disposto/a a comprar iogurtes biológicos	176	176
	AWARENESS	176	176

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	AWARENESS ^b	.	Enter

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.322 ^a	.103	.098	1.394	1.797

a. Predictors: (Constant), AWARENESS

b. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.959	1	38.959	20.059	.000 ^b
	Residual	337.950	174	1.942		
	Total	376.909	175			

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

b. Predictors: (Constant), AWARENESS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.526	.288		15.711	.000		
	AWARENESS	.246	.055	.322	4.479	.000	1.000	1.000

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	4.77	6.25	5.73	.472	176
Residual	-4.757	2.228	.000	1.390	176
Std. Predicted Value	-2.025	1.106	.000	1.000	176
Std. Residual	-3.413	1.599	.000	.997	176

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

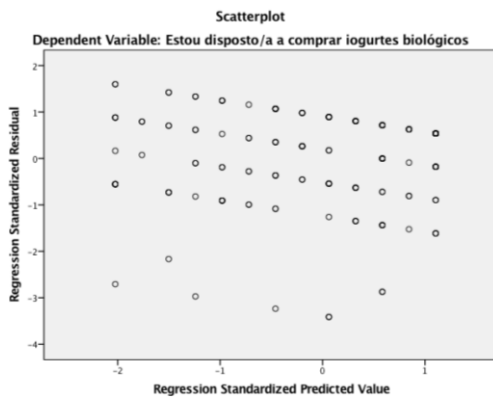


Table 30– Hypothesis 2: Addition of the Interaction Term BuyYogurt*Awareness

Descriptive Statistics

	Mean	Std. Deviation	N
Estou disposto/a a comprar iogurtes biológicos	6.47	.854	64
AWARENESS	6.1250	1.09472	64
BuyYogurtsxAwareness	6.1250	1.09472	64

Correlations

		Estou disposto/a a comprar iogurtes biológicos	AWARENESS	BuyYogurtsxAwareness
Pearson Correlation	Estou disposto/a a comprar iogurtes biológicos	1.000	.216	.216
	AWARENESS	.216	1.000	1.000
	BuyYogurtsxAwareness	.216	1.000	1.000
Sig. (1-tailed)	Estou disposto/a a comprar iogurtes biológicos	.	.043	.043
	AWARENESS	.043	.	.000
	BuyYogurtsxAwareness	.043	.000	.
N	Estou disposto/a a comprar iogurtes biológicos	64	64	64
	AWARENESS	64	64	64
	BuyYogurtsxAwareness	64	64	64

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.216 ^a	.047	.031	.840	2.028

a. Predictors: (Constant), BuyYogurtsxAwareness

b. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.153	1	2.153	3.049	.086 ^b
	Residual	43.784	62	.706		
	Total	45.938	63			

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

b. Predictors: (Constant), BuyYogurtsxAwareness

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	5.434	.602		9.033	.000		
	BuyYogurtsxAwareness	.169	.097	.216	1.746	.086	1.000	1.000

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	ATTITUDE ^b	.	Enter

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.498 ^a	.248	.243	1.277	1.860

a. Predictors: (Constant), ATTITUDE

b. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.314	1	93.314	57.253	.000 ^b
	Residual	283.595	174	1.630		
	Total	376.909	175			

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

b. Predictors: (Constant), ATTITUDE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.551	.431		5.921	.000		
	ATTITUDE	.585	.077	.498	7.567	.000	1.000	1.000

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.14	6.65	5.73	.730	176
Residual	-5.646	2.196	.000	1.273	176
Std. Predicted Value	-3.549	1.258	.000	1.000	176
Std. Residual	-4.422	1.720	.000	.997	176

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

Table 31- Hypothesis 3: Regression Analysis

$$\widehat{Purchase\ Intention} = \widehat{\beta}_1 + \widehat{\beta}_2 Attitude^*$$

*Purchase Intention and Attitude are referred to organic yogurts

Descriptive Statistics

	Mean	Std. Deviation	N
Estou disposto/a a comprar iogurtes biológicos	5.73	1.468	176
ATTITUDE	5.4302	1.24820	176

Correlations

		Estou disposto/a a comprar iogurtes biológicos	ATTITUDE
Pearson Correlation	Estou disposto/a a comprar iogurtes biológicos	1.000	.498
	ATTITUDE	.498	1.000
Sig. (1-tailed)	Estou disposto/a a comprar iogurtes biológicos	.	.000
	ATTITUDE	.000	.
N	Estou disposto/a a comprar iogurtes biológicos	176	176
	ATTITUDE	176	176

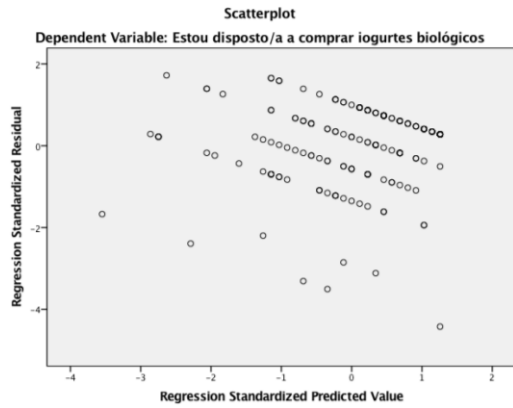


Table 32– Hypothesis 3: Addition of the Interaction Term
BuyYogurt*Attitude

Descriptive Statistics

	Mean	Std. Deviation	N
Estou disposto/a a comprar iogurtes biológicos	5.43	1.441	353
ATTITUDE	5.1874	1.25180	353
BuyYogXAttitude	4.6321	2.01234	353

Correlations

		Estou disposto/a a comprar iogurtes biológicos	ATTITUDE	BuyYogXAttitude
Pearson Correlation	Estou disposto/a a comprar iogurtes biológicos	1.000	.691	.473
	ATTITUDE	.691	1.000	.584
	BuyYogXAttitude	.473	.584	1.000
Sig. (1-tailed)	Estou disposto/a a comprar iogurtes biológicos	.	.000	.000
	ATTITUDE	.000	.	.000
	BuyYogXAttitude	.000	.000	.
N	Estou disposto/a a comprar iogurtes biológicos	353	353	353
	ATTITUDE	353	353	353
	BuyYogXAttitude	353	353	353

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	BuyYogXAttitude, ATTITUDE ^b	.	Enter

- a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos
b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.696 ^a	.485	.482	1.037	2.017

- a. Predictors: (Constant), BuyYogXAttitude, ATTITUDE
b. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	354.197	2	177.098	164.638	.000 ^b
	Residual	376.489	350	1.076		
	Total	730.686	352			

- a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos
b. Predictors: (Constant), BuyYogXAttitude, ATTITUDE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.326	.236		5.625	.000		
	ATTITUDE	.724	.054	.629	13.312	.000	.659	1.517
	BuyYogXAttitude	.076	.034	.106	2.243	.026	.659	1.517

- a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

Table 33- Additional Study: Regression Analysis

$$Purchase\ Intention = \hat{\theta}_1 + \hat{\theta}_2 Awareness + \hat{\theta}_3 Attitude^*$$

*Purchase Intention, Awareness and Attitude are referred to organic yogurts

Descriptive Statistics

	Mean	Std. Deviation	N
Estou disposto/a a comprar iogurtes biológicos	5.73	1.468	176
ATTITUDE	5.4302	1.24820	176
AWARENESS	4.8807	1.91683	176

Correlations

		Estou disposto/a a comprar iogurtes biológicos	ATTITUDE	AWARENESS
Pearson Correlation	Estou disposto/a a comprar iogurtes biológicos	1.000	.498	.322
	ATTITUDE	.498	1.000	.531
	AWARENESS	.322	.531	1.000
Sig. (1-tailed)	Estou disposto/a a comprar iogurtes biológicos	.	.000	.000
	ATTITUDE	.000	.	.000
	AWARENESS	.000	.000	.
N	Estou disposto/a a comprar iogurtes biológicos	176	176	176
	ATTITUDE	176	176	176
	AWARENESS	176	176	176

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	AWARENESS, ATTITUDE ^b	.	Enter

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.502 ^a	.252	.243	1.276	1.832

a. Predictors: (Constant), AWARENESS, ATTITUDE

b. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	95.029	2	47.514	29.161	.000 ^b
	Residual	281.881	173	1.629		
	Total	376.909	175			

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

b. Predictors: (Constant), AWARENESS, ATTITUDE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.523	.431		5.847	.000		
	ATTITUDE	.535	.091	.455	5.866	.000	.718	1.393
	AWARENESS	.061	.059	.080	1.026	.306	.718	1.393

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.30	6.70	5.73	.737	176
Residual	-5.331	2.275	.000	1.269	176
Std. Predicted Value	-3.291	1.316	.000	1.000	176
Std. Residual	-4.176	1.782	.000	.994	176

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	ATTITUDE	AWARENESS
1	1	2.905	1.000	.01	.00	.01
	2	.073	6.313	.21	.03	.83
	3	.023	11.361	.78	.97	.16

a. Dependent Variable: Estou disposto/a a comprar iogurtes biológicos

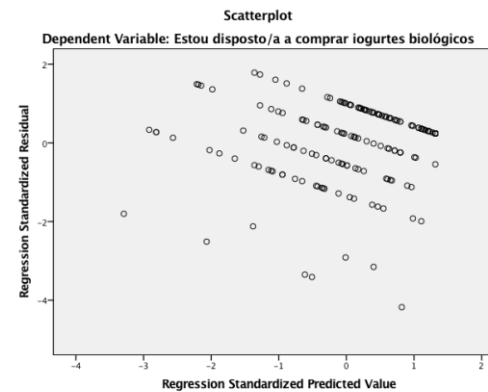


Table 34 – Mediator Model: Attitude Direct and Indirect Impact on Purchase Intention

Run MATRIX procedure:

```
***** PROCESS Procedure for SPSS Release 2.16.3 *****
      Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
      Documentation available in Hayes (2013). www.guilford.com/p/hayes3

*****
Model = 4
Y = P_I
X = ATTITUDE
M = AWARENES

Sample size
  353

*****
Outcome: AWARENES

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .4879      .2381      2.6936      109.6722      1.0000      351.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      .5748      .3729      1.5416      .1241      -.1585      1.3082
ATTITUDE      .7318      .0699      10.4724      .0000      .5944      .8693

*****
Outcome: P_I

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .7006      .4909      1.0629      168.7326      2.0000      350.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      1.2497      .2350      5.3173      .0000      .7874      1.7119
AWARENES      .1023      .0335      3.0513      .0025      .0364      .1682
ATTITUDE      .7203      .0503      14.3236      .0000      .6214      .8192

***** TOTAL EFFECT MODEL *****
Outcome: P_I

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .6909      .4773      1.0880      320.5651      1.0000      351.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      1.3085      .2370      5.5213      .0000      .8424      1.7746
ATTITUDE      .7952      .0444      17.9043      .0000      .7078      .8825
```

```
***** TOTAL, DIRECT, AND INDIRECT EFFECTS *****

Total effect of X on Y
      Effect      SE      t      p      LLCI      ULCI
      .7952      .0444      17.9043      .0000      .7078      .8825

Direct effect of X on Y
      Effect      SE      t      p      LLCI      ULCI
      .7203      .0503      14.3236      .0000      .6214      .8192

Indirect effect of X on Y
AWARENES      Effect      Boot SE      BootLLCI      BootULCI
      .0749      .0323      .0159      .1442

Partially standardized indirect effect of X on Y
AWARENES      Effect      Boot SE      BootLLCI      BootULCI
      .0520      .0223      .0104      .0987

Completely standardized indirect effect of X on Y
AWARENES      Effect      Boot SE      BootLLCI      BootULCI
      .0651      .0276      .0133      .1227

Ratio of indirect to total effect of X on Y
AWARENES      Effect      Boot SE      BootLLCI      BootULCI
      .0942      .0428      .0193      .1913

Ratio of indirect to direct effect of X on Y
AWARENES      Effect      Boot SE      BootLLCI      BootULCI
      .1039      .0536      .0197      .2366

R-squared mediation effect size (R-sq_med)
AWARENES      Effect      Boot SE      BootLLCI      BootULCI
      .1789      .0350      .1142      .2514

***** ANALYSIS NOTES AND WARNINGS *****

Number of bootstrap samples for bias corrected bootstrap confidence intervals:
  5000

Level of confidence for all confidence intervals in output:
  95.00

NOTE: Kappa-squared is disabled from output as of version 2.16.

----- END MATRIX -----
```

Table 35- Cut point for the recodification of Awareness, Attitude and Purchase Intention into non-metric variables

		Statistics		
		AWARENESS	ATTITUDE	Estou disposto/a a comprar iogurtes biológicos
N	Valid	64	64	64
	Missing	0	0	0
Percentiles	25	5.6250	5.5714	6.00
	50	6.5000	6.1429	7.00
	75	7.0000	6.8214	7.00

Table 36- H4: Chi-Square Test

OOSreaction * AWARENESS (Binned) Crosstabulation

		AWARENESS (Binned)			Total
		Low Awareness	High Awareness		
OOSreaction	Organic Yogurt	Count	27	28	55
		% within OOSreaction	49.1%	50.9%	100.0%
	Non Organic Yogurt OR Substitute Product	Count	7	2	9
		% within OOSreaction	77.8%	22.2%	100.0%
Total		Count	34	30	64
		% within OOSreaction	53.1%	46.9%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.556 ^a	1	.110		
Continuity Correction ^b	1.534	1	.216		
Likelihood Ratio	2.710	1	.100		
Fisher's Exact Test				.156	.107
Linear-by-Linear Association	2.516	1	.113		
N of Valid Cases	64				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 4.22.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.200	.110
	Cramer's V	.200	.110
	Contingency Coefficient	.196	.110
N of Valid Cases		64	

Table 37- H5: Chi-Square Test

OOSreaction * ATTITUDE (Binned) Crosstabulation

		ATTITUDE (Binned)			Total
		Negative Attitude	Positive Attitude		
OOSreaction	Organic Yogurt	Count	25	30	55
		% within OOSreaction	45.5%	54.5%	100.0%
	Non Organic Yogurt OR Substitute Product	Count	5	4	9
		% within OOSreaction	55.6%	44.4%	100.0%
Total		Count	30	34	64
		% within OOSreaction	46.9%	53.1%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.317 ^a	1	.573		
Continuity Correction ^b	.041	1	.839		
Likelihood Ratio	.316	1	.574		
Fisher's Exact Test				.723	.418
Linear-by-Linear Association	.312	1	.576		
N of Valid Cases	64				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 4.22.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.070	.573
	Cramer's V	.070	.573
	Contingency Coefficient	.070	.573
N of Valid Cases		64	

Table 38- H6: Chi-Square Test

OOSreaction * P.INTENTION (Binned) Crosstabulation

		P.INTENTION (Binned)		Total	
		Low Purchase Intention	High Purchase Intention		
OOSreaction	Organic Yogurt	Count	18	37	55
		% within OOSreaction	32.7%	67.3%	100.0%
	Non Organic Yogurt OR Substitute Product	Count	4	5	9
		% within OOSreaction	44.4%	55.6%	100.0%
Total		Count	22	42	64
		% within OOSreaction	34.4%	65.6%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.471 ^a	1	.493		
Continuity Correction ^b	.095	1	.758		
Likelihood Ratio	.456	1	.499		
Fisher's Exact Test				.480	.370
Linear-by-Linear Association	.463	1	.496		
N of Valid Cases		64			

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.09.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.086	.493
	Cramer's V	.086	.493
	Contingency Coefficient	.085	.493
N of Valid Cases		64	

Annex 4 - Out of Stock Reactions

Table 1 - Aggregated comparison between Organic Yogurt Consumers' and Non-Organic Yogurt Consumers' reaction to OOS of their preferred yogurt*

Out of Stock Reaction	Organic Yogurt Consumers	Non-Organic Yogurt Consumers
Continue to opt for the preferred yogurt	56.25%	31.20%
Opted for an organic yogurt	85.90%	6.40%
Opted for a non-organic yogurt	4.70%	81.60%
Opted for another product	9.40%	12.00%
Total of consumers	64	250

*Continue to opt for the preferred yogurt = "Same store only to buy the same yogurt" + "Another store to buy the same yogurt" + "Same yogurt whenever coming back to the same store"

Opted for another product = Another product to substitute the yogurt"

For Organic Yogurt Consumers:

Opted for an organic yogurt = "Same store only to buy the same yogurt" + "Another store to buy the same yogurt" + "Same yogurt whenever coming back to the same store" + "Same brand but another flavor" + "Another organic brand"

Opted for a non-organic yogurt = "Same brand but not organic" + "Another non-organic brand"

For Non-Organic Yogurt Consumers:

Opted for an organic yogurt = "Same brand but not organic" + "Another organic brand"

Opted for a non-organic yogurt = "Same store only to buy the same yogurt" + "Another store to buy the same yogurt" + "Same yogurt whenever coming back to the same store" + "Same brand but another flavor" + "Another non-organic brand"

Table 2 – Detailed Out of Stock Reaction of Organic and Non-Organic Yogurt Consumers

Out of Stock Reaction	Organic Yogurt Consumers	Non-Organic Yogurt Consumers		
		Consumers of Non-Organic Products	Consumers of Organic Products	Total
Same store only to buy the same yogurt	7.8%	7.1%	4.2%	6%
Another store to buy the same yogurt	25.0%	9.0%	14.7%	11.2%
Same yogurt whenever coming back to the same store	23.4%	16.8%	9.5%	14%
Another product to substitute the yogurt	9.4%	11.6%	12.6%	12%
Same brand but another flavor	10.9%	25.8%	23.2%	24.8%
Same brand but not organic/organic	1.6%	0.7%	6.3%	2.8%
Another organic brand	18.8%	1.3%	7.4%	3.6%
Another non-organic brand	3.1%	27.7%	22.1%	25.6%

