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# The Impact of Country-of-Origin Labeling and Product's Ethnicity on the Purchase Intention of Portuguese Individuals: The Moderation Effect of Patriotism

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## **ABSTRACT**

**Title:** The Impact of Country-of-Origin Labeling and Product's Ethnicity on the Purchase Intention of Portuguese Individuals: The Moderation Effect of Patriotism

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The call to consume domestically produced products from governments and national companies is something consumers are used to. However, the Covid-19 pandemic is bolstering the appeals on patriotic feelings.

Patriotism affects the decision to buy domestic products, but the product's attributes and the buyer's perceptions also do. This lead us to question if playing on patriotic feelings is optimal for every product. Is it possible that emphasizing the product's country-of-origin can make consumers aware of an origin they do not associate with the product in question, leading them to purchase another product? This study aimed to answer to this question.

The research approach includes secondary and primary data. The latter comprises three studies: a survey to collect products' ethnicity, interviews to test and confirm the designed stimuli and another survey to assess the hypotheses' validity

Findings suggest that Portuguese consumers have higher purchase intentions for products "*made in Portugal*" if these are neutral or ethnic associated with Portugal. However, for ethnic products associated with foreign countries, differences were not found on the purchase intentions between domestically produced, imported or without information on their origin. Furthermore, patriotism moderates the relationship between the country-of-origin labeling and purchase intention. Ergo, managers are advised to keep using "*made in Portugal*" labels together with calls on consumer's patriotic feelings. However, it is prudent not to do it for ethnic products associated with foreign countries until further research.

**Keywords:** Country-of-Origin Labeling, Product Ethnicity, Patriotism, Portugal, Food Packaged Goods

## SUMÁRIO

**Título:** O Impacto do Selo de Identificação de País de Origem e a da Etnicidade do Produto na Intenção de Compra dos Portugueses: O Efeito Moderador do Patriotismo

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O apelo ao consumo de produtos nacionais por parte dos governos e das empresas nacionais é algo habitual. Apesar disso, a pandemia do Covid-19 está a ampliar os apelos aos sentimentos patriotistas.

Comprar nacional é influenciado pelo patriotismo, mas os atributos do produto e as perceções do consumidor sobre o mesmo, também. Isto faz-nos questionar se os apelos aos sentimentos patriotistas serão solução para todos os produtos. Será possível que informar os consumidores sobre a origem de um produto com a qual não associam o produto em questão, possa levá-los a comprar outro produto? Este estudo procurou responder a esta questão. O método de investigação inclui dados secundários e primários. Este último inclui três estudos: um questionário para recolha da etnicidade dos produtos, entrevistas para testar e confirmar os estímulos criados e outro questionário para validação das hipóteses.

Os resultados revelam que os Portugueses têm uma intenção de compra maior por produtos “*made in Portugal*” se forem neutros ou étnicos associados a Portugal. No entanto, se forem étnicos associados com outros países, não são encontradas diferenças na intenção de compra entre produtos nacionais, importados ou sem informação de origem. Para além disto, o patriotismo modera a relação entre o selo de país de origem e a intenção de compra. Dado isto, os gestores deverão continuar a usar o selo “*made in Portugal*” em conjunto com apelos ao patriotismo embora seja prudente não o fazer para produtos étnicos associados a outros países, até que mais pesquisa seja realizada.

**Palavras-Chave:** Selo de Identificação do País de Origem, Etnicidade do Produto, Patriotismo, Portugal, Produtos Alimentares Embalados

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## **GLOSSARY**

COO – Country-of-Origin

COOL – Country-of-Origin Labeling

FPG – Food Packaged Goods

MWW – Mann -Whitney-Wilcoxon Test or Mann-Whitney U Test

PI – Purchase Intention

## CHAPTER 1: INTRODUCTION

### 1.1 Background and Problem Statement

It is not possible to look at the world as it is without thinking about globalization, i.e. the increasing interdependence of national economies involving consumers, producers, suppliers, and governments (Knight, 2000). It enables consumers in most countries to choose from a wider variety of goods, locally produced and imported (Granzin & Painter, 2001). There are quite a few driving factors of globalization, one of them being the significant reduction in transport and communication costs (Naz & Ahmad, 2018) which was welcomed by everyone, at least up until recently.

The Covid-19 pandemic has changed the way people live as well as the way things are perceived. The “praise of globalization” has now been substituted by “skepticism towards globalization” as the outbreak got out of control affecting the entire globe (Tuncer, 2020). Although it is impossible to predict whether globalization will be entirely restored after the pandemic or not, this crisis might be boosting trends of nationalism (Bieber, 2020). It led countries to impose restrictions on economic and social activities as well as to encourage consumers to buy national products. Consequently, some consumers are forced to buy national due to the disruption of the supply chain, while others think it is the proper course of action (He & Harris, 2020).

Governments and companies are used to encourage consumers to buy national products. This is nothing new. Although the campaigns’ goals are generally well accepted, the effectiveness and resultant impact on the country’s balance of trade is often unclear (Elliott & Cameron, 1994). Is it truly the best solution to simply keep playing on patriotic feelings?

The decision to select domestic over foreign products does not exclusively depend on the social norms and beliefs of the buyer. The product attributes and the buyer perceptions are similarly important to the purchase decision (Vida & Reardon, 2008).

Thus, this dissertation explores the impact of one extrinsic informational product cue, country-of-origin labeling, as well as the impact of product’s ethnicity i.e., the stereotypical association of a generic product with a particular country, on the purchase intention of Portuguese individuals by means of consumer’s patriotism.

Essentially, the problem statement can be defined as:

*“How the country-of-origin labeling and product’s ethnicity impact the purchase intention of Portuguese consumers?”*

The research questions identified to solve the previously mentioned problem statement are the following:

**RQ1:** What is the impact of the Country-of-Origin Labeling on the Purchase Intention of Portuguese consumers for ethnic and neutral products?

**RQ2:** What is the impact of the existence of the Country-of-Origin Labeling on the Purchase Intention of Portuguese consumers for ethnic and neutral products?

**RQ3:** What effect does Patriotism have on the relationship between Country-of-Origin Labeling and Purchase Intention of Portuguese consumers?

## **1.2 Relevance**

It is estimated that 73% of buying decisions are made in-store where the consumers' perception of the products' properties is carried quickly (Rettie & Brewer, 2000). This reveals the importance of packaging as well as the importance of its visual and informational elements on the consumers' buying decisions. Moreover, it is known that approximately 40% of marketing budgets are allocated to packaging (Rettie & Brewer, 2000) hence being in the best interest of companies to define an effective product packaging that could facilitate their products' sales.

The country-of-origin can be considered an informational cue that influences consumers' perceptions as well as their overall evaluation of the product (Thakor & Katsanis, 1997). Many times, the country-of-origin is used in product evaluation as a stereotyping process, consumers make associations between products and countries to infer the quality of a product and help them in the decision-making process (Maheswaran, 1994). These associations made by consumers differ from country to country (Cattin et al., 1982; Nagashima, 1970; Roth & Romeo, 1992) and, as academic literature lacks information on Portuguese associations, this study will investigate them.

Additionally, the encouragement to buy domestic over foreign products is generally made through campaigns appealing to consumer patriotism but is this an effective approach for every product? Literature suggests that it might not be optimal to always emphasize product source information (Vida & Reardon, 2008). Ergo, this study will analyze patriotism effects for different types of products, based on the strength and exclusivity of product-country and country-product associations made by Portuguese consumers.

The main goal of the research is to provide marketing managers recommendations on whether the country-of-origin labeling should be incorporated or not in the packaging of

different Portuguese products to be sold in Portugal. Hopefully, that would result in an improvement in their purchase intention and consequently, on the domestic consumption.

### **1.3 Research Methods**

The research design includes both secondary and primary data in order to solve the abovementioned problem statement. Firstly, an extensive analysis of the existing literature on the variables being studied was performed to better define the problem. Likewise, the relationship between them had to be understood to help not only on the development of the research hypothesis but also in defining the primary data collection process.

Secondly, an initial survey was run to identify the Portuguese consumer's product-country and country-product associations. The existing literature was used to structure and design the questionnaire. After analyzing the results from the initial study, the stimuli to be used in the following phase of the study was created and then tested through personal semi-structured interviews. Problems raised by the participants were noted, and suitable changes were done accordingly.

Finally, to assess the hypotheses, a survey was delivered through the internet to gather a large and diversified quantity of respondents since at least 450 valid responses needed to be collected. Different versions of the survey were designed depending on the stimuli created and tested in the previously mentioned interviews:

- a) Ethnic Product Associated with Portugal – identified as Portuguese, as Foreign, or with no country-of-origin label.
- b) Ethnic Product Associated with a Foreign country – identified as Portuguese, as Foreign, or with no country-of-origin label.
- c) Neutral Product – identified as Portuguese, as Foreign, or with no country-of-origin label.

Common sections across all versions of the survey include: the general screening questions block, the consumer consumption frequency of product to be shown and spontaneous association with it, the section with the main questions about consumer's purchase intention and patriotism as well as a manipulation check and the final block to collect demographic data.

## **1.4 Dissertation Outline**

This thesis has a total of five chapters, the introduction where the background and problem statement are presented as well as a quick overview of the study's managerial relevance and research methods. The next chapter is dedicated to the literature review, where the main findings on subjects of former studies like country-of-origin labeling, product ethnicity, patriotism, and purchase intention are uncovered to help on the hypothesis development. The third chapter presents the methodology, including the purpose of secondary sources usage and a detailed description on how primary data was gathered, measured, and analyzed

Afterward, the fourth chapter shows the results drawn from the collected data. Lastly, the fifth chapter aims at presenting the main findings and conclusions of the study, answering each research question and, consequently, solving the problem statement. Moreover, the managerial and academic implications, the dissertation's limitations, and the recommendations for further research are included in the fifth and final chapter.

## **CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

This chapter presents a theoretical framework on the subjects being studied, by summarizing existing literature from academic journals to demonstrate in what manner this dissertation relates to what other scholars have done before. The formulation of the hypothesis will be built around the existing data from these studies.

The literature review will start by covering the concept of purchase intention specifically for domestic versus foreign products. Secondly, a packaging informational cue capable to induce consumers' purchase intention is presented, the country-of-origin labeling, followed by product's ethnicity, a stereotyping process that helps consumers in the decision-making process. Lastly, to better understand the relationship between purchase intention, country-of-origin labeling and product's ethnicity, the concept of patriotism is added to the equation. At the end of the chapter, the conceptual framework is introduced to visually explain the variables at hand and the relationship between them.

### **2.1 Purchase Intention for Domestic versus Foreign Products**

Intentions are distinct from attitudes consequently, purchase intention is the consumer's conscious plan to make an effort to acquire a specific product (Spears & Singh, 2004). Habitually, the purchase intention is established assuming an hypothetical pending transaction but, it is often considered an important indicator of actual purchase as it was proven to be able to measure the degree of motivation and willingness to purchase a specific product (Chang & Wildt, 1994). In fact, there are innumerable studies comprising purchase intentions for items such as new food products, frequently purchased package goods, appliances, automobiles, and capital equipment (Morrison, 1979). In this study the purchase intention will be measured for frequently purchased packaged food.

Price and product attributes influence perceived price and perceived quality which in their turn influence the purchase intention by means of perceived value (Chang & Wildt, 1994). In the specific case of purchase intention for domestic over foreign goods, there are also driving factors related with the social norms and beliefs of the consumer besides the factors abovementioned.

Generally, consumers foresee the probability of a product produced in a specific country to have certain characteristics and consequently, infer its quality. This is a stereotyping process that helps consumers in the decision-making process (Maheswaran, 1994; Thakor & Katsanis, 1997). Furthermore, these effects are stronger in specific product categories, as consumers

prefer to buy products made in well-known countries in those product categories than to buy the same products from other countries (Okechuku, 1994; Roth & Romeo, 1992). Likewise, the products' perceptions might differ from country to country. Consumers from developed nations tend to favor domestic products, then picking other developed nations products', and lastly products from less developed nations (Okechuku, 1994; C. K. Wang & Lamb, 1980). Besides the products' perceived attributes, prior experience and familiarity with products are also important for the selection of domestic over foreign products (Johansson et al., 1985)

However, some consumers consider the act of purchasing non-domestic products as immoral and unpatriotic as it does not impact the domestic economy positively (Ahmed et al., 2004; Sharma et al., 1995). Apart from that, buying domestic can also be seen as a helping behavior to potentially help threatened national workers, domestic companies, and subsequently, the nation itself (Granzin & Olsen, 1998).

Anderson and Cunningham (1972) uncovered an inverse relationship between conservatism and attitude toward foreign products as conservative individuals protect traditional values and ideas and oppose to changes (Anderson & Cunningham, 1972). The authors found an inverse relationship as well between the level of dogmatism, the predisposition to hold on principles as unquestionably true, disregarding pieces of evidence and others' opinions, and the preference for imports. However, Tongberg came to different results. The researcher couldn't show any relationship between the level of dogmatism and the attitudes toward products although, amongst high dogmatics, a positive attitude toward products from culturally similar countries was detected (Bilkey & Nes, 1982).

Another social norm, ethnocentrism i.e. *“a personal ideological system that holds out groups to be the objects of stereotyped negative opinions and hostile attitudes, whereas in-groups are the objects of positive opinions and uncritically supportive attitudes”*, plays an important role in preference formation for national over imported products, as consumers think products from their home country are the best while undervaluing imports (Granzin & Olsen, 1998; Sharma et al., 1995; C. L. Wang & Chen, 2004)

More recently, Vida and Reardon (2008) verified once again relative product quality and consumer ethnocentrism exerts a direct and significant impact on the purchase intention for domestic products. The study is valuable because the role of patriotism and cosmopolitanism as driving factors of ethnocentrism was proven. Moreover, their findings on the relative strength of each variable on domestic consumption were surprising. It could have been expected the quality of the product to have a higher impact on the customer's decision but the authors

concluded consumers are not always rational on their decisions as the ethnocentric and patriotic behaviors can be stronger determinants of domestic consumption (Vida & Reardon, 2008).

Globalization had brought with it the development of individual views, behaviors, and sentiments which go beyond national frontiers, mostly resulting in positive sentiments in the field of individual consumption, choice, and cultural openness. Still, concerns about the health and vitality of the local economy and culture are invariably present (Woodward et al., 2008). Governments and local producers are the most concerned about the country's balance of trade and business viability, respectively. Normally, these institutions ask people to purchase domestic products over imports, trying to appeal to the consumers' patriotic feelings. In the face of financial and economic crises, they fight doggedly through "buy national" campaigns, as it is currently happening due to the Covid-19 pandemic (Bieber, 2020).

However, like it was aforesaid, the decision to purchase domestic over foreign products does not entirely depend on the ideologies and norms of the consumer, the product attributes and stereotyping are important to the purchase decision as well. If the ultimate goal is to increase domestic consumption, perhaps there are better ways to convince consumers to buy national products besides campaigns merely playing on patriotic feelings. Ergo, this study will proceed by exploring the specific effects of country-of-origin labeling and product's ethnicity on the purchase intention of consumers.

## **2.2 Country-of-origin Labeling**

The role of packaging has been evolving throughout the years. Awhile back, packaging was purely considered to be an extrinsic element of the product, the wrapping material to contain and protect the product (Deliya & Parmar, 2012). Nowadays extremely globalized market requires companies to be more careful about their products' packaging as it can be a source of competitive advantage and an incentive for the consumer's buying behavior (Silayoi & Speece, 2004; Underwood, 2003). Accordingly, the basic functions of packaging are both logistics and marketing. The package itself needs to be attractive and communicative enough to attract consumer's attention but at the same time comply with its basic function of containing, apportioning, and unitizing the product (Prendergast & Pitt, 1996).

The product's packaging always comprises visual and informational elements. The first consist of graphics, size, and shape of packaging while the second relate to product information, both of them influence consumer's buying decision (Prendergast & Pitt, 1996).

Consumers make use of these extrinsic cues because most often intrinsic quality is not detectable until the product's acquisition except if, there was already a prior experience with

the product. It is also possible for the consumer to search for product information but that is more common when there is substantial financial commitment involved (Han & Terpstra, 1988). Actually, it is estimated that 73% of buying decisions are made in-store, through extrinsic cues perception, where the consumers' assessment of the products' properties is carried quickly (Rettie & Brewer, 2000).

The country-of-origin labeling can be considered an informational cue. Usually, it is presented by the short phrase "Made in (name of country)", which has already been proven to influence consumers' perceptions of a product's attributes as well as their overall evaluation of the product (Thakor & Katsanis, 1997). It can also influence industrial purchasing decisions (Bilkey & Nes, 1982) but this study will be focused on consumer's purchasing decisions.

Research has already investigated the influence of consumer characteristics such as demographics and product knowledge on the relationship between COO and product evaluations. Regarding demographics, Schooler (1971) found that younger, females, and with higher education levels evaluate foreign goods more favorably than older people, males, and with fewer levels of education (Schooler, 1971). However, Han (1988) concluded that females and blue-collar consumers evaluate domestic products more favorably (Han, 1988). As for product knowledge, novices use COO information in their evaluations in every situation while experts only use this information when attribute information is ambiguous (Maheswaran, 1994). Lee and Lee (2009) also verified that consumers with high product knowledge were less likely to be influenced by COO. Besides, the researchers proved that consumers with high objective knowledge would be less likely to rely on COO cues (Lee & Lee, 2009).

Furthermore, if the COO labeled is the consumer's own country, possibly COO is even more relevant than other informational cues as consumers have a propensity to be less acquainted with products from foreign origin (Han & Terpstra, 1988). Some other reasons for the consumer to favor their own country's products include the social norms and beliefs already mentioned in the "Purchase Intention for Domestic versus Foreign Products" subsection.

On the other hand, if the country labeled is foreign, it matters to the country itself as well as it belongs to a developed country or not. Consumer perceptions differ depending on how well the country's perceived production and marketing strengths are associated with the product category (Roth & Romeo, 1992). Also, it was demonstrated a positive relationship between product evaluations and a nation's degree of economic development (Schooler, 1971).

All in all, one can conclude COO labeling is able to induce consumption as it affects consumer's purchase decisions, for both local and foreign products. Since the objective of the present study is to understand in which situations the usage of the COO labeling induces

purchase intention and in which situation it does not or even if it has the opposite effect when used, the investigation will proceed by looking into product ethnicity and patriotism to gain a better understanding on these variables and hopefully understand their effects on the relationship between COO labeling and purchase intention.

### **2.3 Product Ethnicity**

Consumers make associations between products and countries, and vice-versa. Albeit certain products can be associated with one country or more, many products are not associated with specific countries. These associations may be due to the country's location, climate, natural resources, and/or manufacturing know-how. Countries can likewise be associated with products since they can be distinguished as the place of invention, transformation, use, or even the home to a brand related to the nation through its language (Usunier & Cestre, 2007).

While Roth and Romeo (1992) referred to these as product-country matches, Usunier and Cestre (2007) named "*the stereotypical association of a generic product with a particular COO*" as product ethnicity. Hence, product ethnicity is the degree of product-country match. Products are considered to be ethnic in case of high product ethnicity whereas neutral in case of low product ethnicity. If a product-country association is held by many, internationally and the product subject to study is associated with only one or a few countries, a product is considered to be globally ethnic (Roth & Romeo, 1992; Usunier & Cestre, 2007).

This leads us to believe consumers from different countries may have distinct associations precisely on the same product. In fact, research has found differences on product-country association, for instance, in Japan and U.S. (Nagashima, 1970), France and U.S (Cattin et al., 1982) and Ireland, Mexico, and Germany (Roth & Romeo, 1992). Ergo, it is important to identify the product-country matches held by each nationality.

The product-country matches are linked with consumers' willingness to buy foreign products. The identification of product-country matches helps to predict the consumer's purchase intention. In case of a strong match, a COO cue affects product evaluation positively and, consequently, purchase intention. Conversely, in presence of a mismatch, displaying a COO cue may be detrimental to product evaluations and purchase intention (Roth & Romeo, 1992).

This study will investigate the Portuguese consumers' perceptions on this matter, identifying which products are neutral, ethnic associated with Portugal, and ethnic associated with other countries. Such information can be used by managers to select or exclude certain country information in their communications.

## **2.4 Patriotism**

Patriotism is an attachment to and a sense of pride in one's own country, a desire to live there, a readiness to make sacrifices for it, respect for and devotion toward its people. It is not the same as ethnocentrism although they are related. A patriotic person does not reject other countries, foreign cultures, or traditions (Barnes & Curlette, 1985) however there is a positive correlation between patriotism and consumer ethnocentric tendencies (Sharma et al., 1995). Moreover, it can be seen as national generosity in the sense in which it defines the ground within a patriotic will support others (Granzin & Olsen, 1998).

The encouragement to buy domestic over foreign products is generally made, as already mentioned, through campaigns drawn on the essence of patriotism and expected penalties of not buying domestic goods. In fact, this method achieves results in terms of creating awareness but it is not clear what the impact on behavioral response is (Elliott & Cameron, 1994).

Han (1988) showed that not only patriotic responses played a significant role in the choice of purchasing domestic products but also on consumer's positive evaluation of quality and serviceability for these products. Thus, the researcher concluded the selection of domestic over imports is motivated by extremely emotional factors like consumer patriotism.. (Han, 1988). Vida and Reardon (2008) also proved that patriotism is a strong factor in inducing domestic consumption, recommending local brands to associate their products with the home country icons to boost their marketing communication. Nevertheless, the researchers remind that the perceived quality of domestic relative to foreign offerings is also important in consumer preference formation and purchase behavior therefore while some promotional activities must emphasize product source information, others should downplay it (Vida & Reardon, 2008). It can be concluded patriotism is a strong determinant of purchase intention for domestic products, but this is not a matter of black and white.

In this research, patriotism represents one's love, loyalty, and support to Portuguese goods and its effects on the purchase intention of Portuguese individuals will analyzed.

## **2.5 Hypothesis Framing**

From what was found on the academic literature, it becomes reasonable to presume that when there is a match between the stereotypical association made by the consumer and the country-of-origin of the product being evaluated, the purchase intention is higher than when there is a mismatch. When the product being appraised does not elicit any association with a specific country, it is relevant the consumer's familiarity and sympathy with the country-of-origin labeled, which means that the consumers tend to favor their own country over foreign

ones. Consumer's level of patriotism is expected to enhance or detract the effects of the country-of-origin labeling on the purchase intention of individuals.

According to what is aforesaid, the hypothesis below were drawn. It was opted to divide them into four main groups:

1) The impact of the country identified as the origin

*H1a: Purchase intention is higher for an ethnic product associated with Portugal identified as Portuguese rather than for an ethnic product associated with Portugal identified as Foreign.*

*H1b: Purchase intention is higher for an ethnic product associated with a Foreign country identified as Foreign rather than for an ethnic product associated with a Foreign country identified as Portuguese.*

*H1c: Purchase intention is higher for a neutral product identified as Portuguese rather than for a neutral product identified as Foreign.*

2) The impact of existence of the country-of-origin labeling identifying Portugal

*H2a: Purchase Intention is higher when the country-of-origin labeling identifies Portugal as the origin rather than when there is no label, in the presence of an ethnic product associated with Portugal.*

*H2b: Purchase Intention is lower when the country-of-origin labeling identifies Portugal as the origin rather than when there is no label, in the presence of an ethnic product associated with a Foreign country.*

*H2c: Purchase Intention is higher when the country-of-origin labeling identifies Portugal as the origin rather than when there is no label, in the presence of a neutral product.*

3) The impact of existence of the country-of-origin labeling identifying a Foreign country

*H3a: Purchase Intention is higher when there is no label identifying the country-of-origin rather than when the country-of-origin labeling identifies a Foreign country as the origin country-of-origin, in the presence of an ethnic product associated with Portugal.*

*H3b: Purchase Intention is higher when the country-of-origin labeling identifies a Foreign country as the origin rather than when there is no label, in the presence of an ethnic product associated with a Foreign country.*

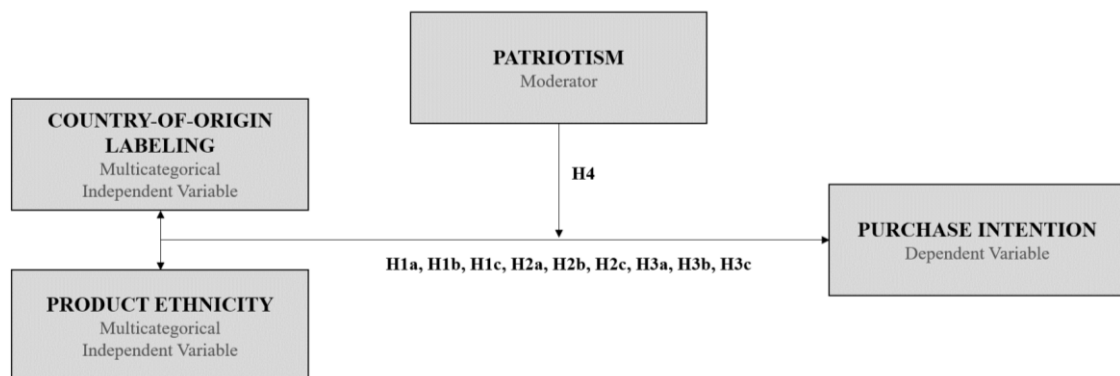
*H3c: Purchase Intention is higher when the country-of-origin labeling identifies a Foreign country as the origin rather than when there is no label, in the presence of a neutral product.*

4) The impact of patriotism on the purchase intention of consumers

*H4: The effect of country-of-origin labeling on purchase intention is moderated by consumer's patriotism.*

## 2.6 Conceptual Framework

Figure 1 illustrates the variables to be tested as well as the relationships expected to be found between them:



*Figure 1: Conceptual Framework*

## **CHAPTER 3: METHODOLOGY**

The present chapter aims at providing a detailed description of the methodology used to answer to the research questions and to draw conclusions about the hypotheses formulated in the previous chapter. Primarily, an explanation of the research approach adopted is provided. Then, the purpose of secondary sources usage is specified followed by a detailed description of the primary data collected. Within the primary data sub-chapter, one can find three complementary studies containing explanations on how data was gathered, measured, and analyzed.

### **3.1 Research Approach**

To fully comprehend the research methodology approach adopted, one must bear in mind the main goal of the present study - provide recommendations on whether the country-of-origin labeling should be incorporated or not in the packaging of different Portuguese products to be sold in Portugal with the aim of stimulating domestic consumption. Thus, regarding the type of research design used, both exploratory and explanatory research were conducted.

The first step was to review the existing academic literature to help outlining the problem. Topics such as purchase intention, country-of-origin labeling, product ethnicity, and patriotism were scrutinized. This was essential to develop the research hypothesis and to build the initial conceptual framework, already presented in the previous chapter. Also, the secondary data was useful for designing the primary data collection process.

Afterward, primary data had to be collected as secondary sources were not enough to solve the issue at hand. First, the associations made by Portuguese consumers between products and countries and vice-versa, were investigated through an online pre-survey. It allowed us to reach a great number of Portuguese consumers and conclude what products are neutral, ethnic associated with Portugal, and ethnic associated with other countries. Based on this, nine different stimuli were created and then, tested, changed, and confirmed through online semi-structured interviews, as this method allows interviewees to develop more complete answers about the stimuli being observed. Each stimulus consisted of one out of three different products (neutral, Portuguese ethnicity, or foreign ethnicity) with a label either identifying the country-of-origin as Portuguese or as foreign or without it.

Finally, an online survey was conducted to assess the validity of the research hypothesis formulated, explain the relationships between the variables being studied, and answer the research questions. Here, patriotism is finally introduced in the equation. To test the

questionnaire's efficacy and avoid overlooking errors, a pilot survey was conducted using a relatively small sample. Then, the responses were coded and analyzed. Changes were done according to the identified mistakes.

### **3.2 Secondary Sources**

Secondary data was collected from online databases such as Google Scholar and B-On Online Knowledge Library where articles from Top Journals like Journal of Marketing, Journal of Business Studies, or Journal of Consumer Research can be easily found, ensuring the quality of the content used for the development of the literature review and subsequently, the quality of the hypothesis formulated. Moreover, the data helped in building the conceptual framework. Finally but not less important, the data collected from these sources helped in the primary data collection design process as well as in defining the appropriate constructs to be used in the present research.

### **3.3 Primary Data**

To find the answers to the research questions presented in the previous chapters, two studies were performed before the key study. The first one was meant to uncover the products' ethnicity according to the associations held by the Portuguese consumers and the second one had the purpose of verifying the validity of the stimuli formerly created to later be used in the key study.

#### **3.3.1 Product Ethnicity**

As mentioned in the literature review chapter, each nationality holds different product-country and country-product associations. The purpose of this exploratory research is to identify the associations made by the Portuguese consumers as it is expected to be useful to attain the main goal of the present study.

##### **3.3.1.1 Data Collection**

The online survey was the method adopted as it is costless, and it enables to reach a lot of consumers within a short period of time. It was developed in English (Appendix 1) but a Portuguese version was also created to give people who are unable to understand English, the opportunity to answer as well. Only frequent purchasers of consumer-packaged goods specifically for food and beverages living in Portugal were the target of this study therefore, the first block of the questionnaire had two screening questions. Then, the order of questions in the second block was randomly switched to avoid sequence-related bias. In one of them, the

country-product associations were elicited by showing the country stimuli while in the other the product-country associations were brought out by providing the product stimuli. At last, the respondent demographics were collected.

### **3.3.1.2 Measurement**

To investigate the consumer's associations between products and countries, it was employed a survey method developed by Usunier & Cestre (2007). Since product ethnicity is only verified when associations are bidirectional, the measurement consists of checking the association in both directions. Respondents write down the first country or product that comes to their minds in a single line text entry when the product or country is presented. However, responses are not forced, as associations are not always made. 25 different products and 20 countries have been chosen. Some products were already used in COO research (pasta, chocolate, coffee) and others are often purchased (rice, beans, hamburger). The countries were selected either because of their impact on the Portuguese balance of trade (Spain, Germany, France) and/or because they are known as an important manufacturing origin (Belgium, China, Norway).

### **3.3.1.3 Data Analysis and Results**

The questionnaire was developed using *Qualtrics* and spread mainly through social media, namely *WhatsApp* and *Instagram*, which allowed us to gather 342 responses but only 303 were completed and valid. To analyze the data, Excel was used because of the amount of text entries needed to be analyzed, translated into English and organized. The main tools used were the trim function to remove leading, extra, and trailing spaces, filters to identify the different answers given and help re-writing/translating text entries and lastly, the “countif” and the “countblank” functions to respectively calculate COO/product and blank entries.

The sample was demographically characterized through frequency statistics (Appendix 2). It can be concluded that approximately three fifths of the sample are female, mostly portuguese either between 18 and 24 or 45 and 54 years old with a bachelor's degree, employed and with a monthly gross income between 1000 and 1499 euros.

Based on the frequency which respondents mentioned a particular product or COO in association with a given COO or product while considering the number of modalities cited for either a product or COO, the product-country ethnicity for 25 different products (Appendix 3) and the country-product ethnicity for 20 different countries (Appendix 4) were calculated. To find bidirectional ethnicity and finally conclude which products are neutral and which ones are ethnic, a geometric mean of product ethnicity scores was calculated (Appendix 5).

The ethnic products associated with foreign countries identified were hamburger, sausages, cheese, pasta, pizza, codfish, chocolate, rice, dry-cured ham, and vodka. The ones associated with Portugal were wine and olive oil. Everything else was found to be neutral.

From this point onwards olive oil represents the class of ethnic products spontaneously associated with Portugal, pizza represents the class of ethnic products associated with a foreign country and mushrooms represent the class of neutral products. None of the products selected to represent the class have the highest bidirectional ethnicity observed so that conclusions drawn for the stimuli can be easily generalized for each class.

### 3.3.2 Stimuli Creation and Confirmation through Semi-Structured Interviews

After conducting the initial survey, nine stimuli were created with the help of Illustrator CC 2019 and Photoshop CC 2019. Every package was designed brandless as well as free from any price cues to lead the consumer to simply evaluate the product for what it is and from where it was made. The COOL was strategically placed as pictorial elements should be on the top right-hand side of packages (Otterbring et al., 2013). Although an English and Portuguese version of each stimulus were designed, the following figures are in English for the purpose of coherence:



*Figure 2: Ethnic product associated with Portugal identified as Portuguese*



*Figure 3: Ethnic product associated with Portugal identified as Spanish*



*Figure 4: Ethnic product associated with Italy identified as Portuguese*



*Figure 5: Ethnic product associated with Italy identified as Italian*



*Figure 6: Neutral product identified as Portuguese*



*Figure 7: Neutral product identified as French*

Besides the stimuli above, versions of these products without the COOL were also designed. To avoid the consequences of investigator bias on the effectiveness of the created stimuli, it was crucial to look for external opinions.

### **3.3.2.1 Data Collection**

The data collection method which best fits the stimuli confirmation is the semi-structured interview which allow the interviewees to build on their thoughts on the effectiveness of the stimuli being shown without bias from other respondents. Besides, the interviewer does not have to strictly follow the script i.e., changes can be done depending on the interviewee's answer. Although the script is written in English (Appendix 6), most of the interviews were conducted in Portuguese since Portuguese purchasers of consumer-packaged goods specifically for food and beverages are the study's target. Also, a foreign person living in Portugal was interviewed in order to access the possible difference in his associations. The sample of 11 participants was carefully selected so that people with different genders, ages and backgrounds could give their input thus giving more credibility to the results. All the interviews occurred via *Zoom* where the stimuli were shown through the "screen share" tool, to follow the current social

distancing advice and, recorded with the interviewees consent. Each stimulus was presented individually together with its correspondent questions.

### 3.3.2.2 Data Analysis and Results

The goals were to understand if individuals were able to intuitively recognize the products, their country-of-origin and verify the product-country associations. All the interviewees were fast in recognizing the products and not even one mistaken them with something else and, the expected product-country associations were made. Regarding the country-of-origin labeling it was not noticed by one of the interviewees when the bottles of olive oil from Portugal and Spain were exhibited. After drawing the attention for the labeling, it was said that because the cellphone was being used instead of a computer, it was impossible for the interviewee to see what was in “the black stamp”. Thus, it was decided to change the stimuli image crop from *landscape* to *portrait* keeping everything else constant to make it mobile friendly. Even though all the other labels were easily identified, three of the interviewees said that it was hard to read what was the pizza’s COO because of the side view therefore a top view was designed. Regarding the mushrooms’ stimuli, not even one issue was identified. The new versions, depicted below, were tested before moving on to the next phase.



*Figure 8: Ethnic product associated with Portugal identified as Portuguese (Version II)*



*Figure 9: Ethnic product associated with Portugal identified as Spanish (Version II)*



*Figure 10: Ethnic product associated with Italy identified as Italian (Version II)*



*Figure 11: Ethnic product associated with Italy identified as Portuguese (Version II)*

### **3.3.3 Key Study**

Finally, after confirming the effectiveness of the created stimuli, the key explanatory research could be conducted. Thus, allowing to assess the validity of the research hypothesis formulated, to explain the relationships between the variables being studied, and to answer the research questions.

#### **3.3.3.1 Data Collection**

The key study's data collection took place between November 20 and November 25, 2020, through an online survey (Appendix 7), available in English and Portuguese. Once again, this was the method selected as it is gratuitous and allows to easily reach the target, i.e., frequent Portuguese purchasers of consumer-packaged goods specifically for food and beverages.

Similar to the first block of the initial survey, the beginning of the key study's questionnaire was composed by two screening questions where individuals regarded as ineligible by these questions were the terminated from the survey. Then, the second block was based on a cross-sectional design including 9 different scenarios, each one of them

corresponding to one of the nine created stimuli, in which respondents were randomly allocated, as shown in the figure below. Before seeing the stimuli, the respondents were asked about their frequency of consumption and spontaneous association with the product to be shown right after.

	Ethnic Associated with Portugal	Ethnic Associated with Foreign Country	Neutral
Portugal	S1 Portuguese Olive Oil	S4 Portuguese Pizza	S7 Portuguese Mushrooms
Foreign Country	S2 Spanish Olive Oil	S5 Italian Pizza	S8 French Mushrooms
No COOL	S3 Olive Oil	S6 Pizza	S9 Mushrooms

Table 1: Stimuli Scenarios

Then, the respondents were questioned about their purchase intentions as well as about the presence of the COOL on the stimuli formerly shown. After that, questions about individual’s patriotism were displayed to help figuring out how this possible could impact their purchase intention. In the last block of questions, the respondent demographics, specifically gender, age, education, occupation, and income, were collected. To promote efficiency in conducting the questionnaire, a participatory pilot survey was administered to a convenience sample of 30 respondents where after filling out the survey respondents were asked about their opinions and suggestions. In light of this, the survey was subject to some, albeit relatively minor, changes.

**3.3.3.2 Measurement / Indicators**

To measure purchase intention, the construct used was adapted from a study by Bao, Bao, and Sheng (2011). Amendments were done so that the construct could be used for the products to be shown. A 7-point Likert Scale was applied, ranging from 1=Strongly Disagree to 7=Strongly Agree, with the following statements: “I pretend to buy the product presented before”, “It is likely that I will buy the product presented before” and “I am willing to buy the product presented before”.

To measure patriotism, the construct used was adapted from a study by Han (1988) which was meant to analyze patriotic responses of American consumers on a 5-point scale. A 7-point Likert scale was applied instead. Respondents had to specify their level of agreement or disagreement, from 1=Strongly Disagree to 7=Strongly Agree, with the following

statements: “I should buy Portuguese products because I am Portuguese”, “Foreign imports are and will be hurting Portuguese industry”, “Foreign imports are and will be replacing Portuguese jobs” and “I feel guilty if I choose to buy foreign products instead of Portuguese products”. These measures intended to capture the dimensions of patriotism which are specifically related to the choice between domestic and foreign products, not broad concepts of political patriotism.

Construct	Scale	Number of Items	Literature
Purchase Intention	7-point Likert Scale	3	(Bao et al., 2011)
Patriotism	7-point Likert Scale	4	(Han, 1988)

*Table 2: Operational Model*

### 3.3.3.3 Data Analysis

The questionnaire was once more developed using *Qualtrics* and spread mainly through social media, namely *WhatsApp* and *Instagram*, and it was closed with 768 responses although only 687 were completed and 546 considered valid after excluding respondents who did not answer to one of the manipulation check questions.

This time instead of Excel, the SPSS IBM software was the data analysis tool preferred. Firstly, the sample was demographically characterized through descriptive statistics. Then, to measure internal consistency and understand how strongly related a set of items are as a group, the Cronbach’s alpha test was performed. After that, the hypothesis 1 up until 3 were tested by means of the Mann-Whitney U Test, the nonparametric alternative to the Independent Samples T-Test, to determine if there are statistically differences between two independent groups on a continuous or ordinal dependent variable. Before starting the analysis, all the assumptions required for this test were verified so that the Mann-Whitney U Test could provide valid results.

Subsequently, in order to test the moderation suggested in hypothesis 4, the Hayes’ PROCESS Model 1 (depicted in the figure below) was used. Before moving to the analysis, the nine groups of different stimuli were split up into three and then an automatic coding for the categorical variable was created. Additionally, and because one of the assumptions for running a regression was violated namely, the homoscedasticity assumption, it was necessary to include heteroscedasticity-consist standard errors in the model.

To make it easier for readers to understand the results, each and every hypothesis is accompanied by an image or a diagram.

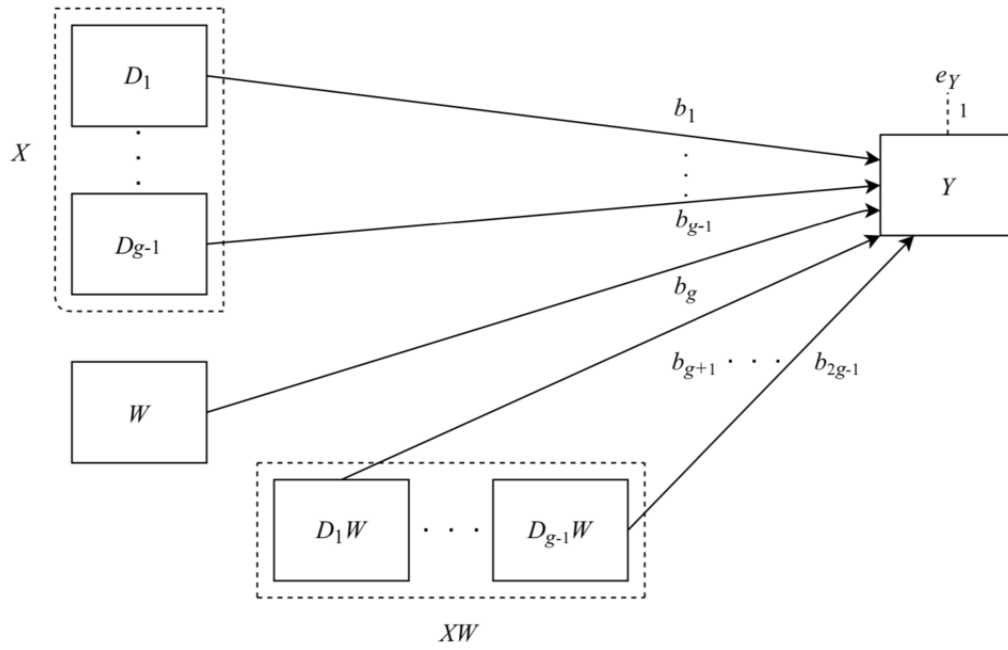


Figure 12: A statistical diagram of a moderation with a categorical independent variable

**CHAPTER 4: RESULTS AND DISCUSSION**

This chapter is dedicated to the results of the key study. After the data preparation, an exploratory and a confirmatory data analysis were done. The exploratory analysis includes the sample characterization and an assessment of the reliability of the measures used whereas the confirmatory analysis includes the results from the hypotheses testing. Furthermore, results from additional data analysis will be presented.

**4.1 Data Preparation**

The survey registered a response rate of 89% as it was started by 768 respondents and only 81 were not able to complete it. From the 687 completed questionnaires, 45 did not pass the general screening questions and 18 stated not to consume the product presented. The remaining 624 respondents went through the whole questionnaire but 78 were excluded from the sample since they failed to correctly answer the manipulation check related with the existence of the COO labeling which could decrease the statistical power of the data (Hauser et al., 2018). It was decided to exclude inattentive participants from the analysis therefore, the valid sample size ended up with 546 responses. Though, it is important to clarify that, if these responses were included, the results from the hypotheses testing would remain the same. Regarding the other manipulation check question related to the ethnicity of the products shown, it was confirmed for all three products (Appendix 8).

The table below shows their distribution across the nine different stimuli. Although the *Qualtrics* “Randomizer” tool was used, the distribution is not as even as it is desired because of the unfinished and deleted questionnaires:

S1	S2	S3	S4	S5	S6	S7	S8	S9	Total
53	64	68	64	54	58	57	64	64	546

*Table 3: Valid Responses Distribution*

**4.2 Sample Characterization**

The sample is only composed by portuguese individuals as they are the study’s target (Appendix 9). It is observable a predominance of women (63%) over men (37%). The majority of respondents belong to the range from 18 to 24 years old (46,5%) while the others are almost evenly distributed between the ranges from 25 to 34 (16,1%), 35 to 44 (13%) and 45 to 54 (15,6%). The other age ranges are not as significant as the ones previously mentioned. Regarding education levels, the sample is mainly composed of respondents with a Bachelor’s degree (49,5%) or a Master’s degree (30%) who are currently studying (27,7%) or working

(54,2%). Moreover, there are a significant number of respondents who stated not to have income (26,6%) which makes sense as they are still studying. On the other hand, more than half of the respondents have a monthly gross income up to 1999€ (57,5%).

Due to the sampling technique adopted the odds of this sample to be representative of the total population are low (Biernacki & Waldorf, 1981). The snowball sampling, where the initial respondents were asked to share the survey with family and friends who also recruited other respondents from their acquaintances, was the non-probabilistic sampling technique adopted. Otherwise, it would not be possible to get enough participants.

### 4.3 Measures Reliability

To assess the internal consistency of the measurement instruments employed, purchase intention and patriotism, the coefficient of reliability Cronbach's alpha test was performed, and the quality of the results was ranked according to the guidelines proposed by George and Mallery (2003) (Appendix 10). It is important to recall that both constructs were already tested as they were taken from existing literature, yet still slight changes were done to adjust the constructs to the study and to the portuguese survey version. For those reasons, it was necessary to verify if the adjustments made did not alter the trustworthiness of the measures.

Regarding the measure of purchase intention, the general coefficient was equal to 0,949, which is excellent. For each one of the nine stimuli the values varied between 0,898 and 0,954. As for the measure of patriotism, the general coefficient was equal to 0,787 which is acceptable. When considering each stimulus, the alpha ranged from 0,847 to 0,678. Since there are no values below 0,5 which is the limit for accepting a scale according to George & Mallery and especially because, the Cronbach's alpha would be lower if it was decided to delete one item from the measures (Appendix 11), no changes were performed.

Construct	Number of Items	Cronbach's Alpha	Quality
Purchase Intention	3	0,949	Excellent
Patriotism	4	0,787	Acceptable

*Table 4: Cronbach's Alpha*

### 4.4 Results from Hypothesis Testing

To validate the research hypothesis defined, it is crucial to select the appropriate statistical test. Thereunto, the variables involved had to be classified. The independent variable is categorical while the dependent variable is quantitative, which led us to carry out a comparison of means test where two groups are going to be compared at the same time for

every hypothesis except for the fourth. Thus, an Independent Sample T-Test seemed to be the appropriate statistical test to be adopted but the assumptions required needed to be checked first. The independence of observations was verified since each participant was exposed to a single stimulus, there were no significant outliers according to the Mahalanobis Distance Test however after performing the Kolmogorov-Smirnov and Shapiro-Wilk Tests for Normality at a significance level of 5% , it was noticed a statistically significant difference between purchase intention in each group of stimuli and the normal distribution so it was concluded that purchase intention is not normally distributed in neither of the stimuli groups (Appendix 12).

The solution was to perform a nonparametric statistical test, the Mann-Whitney U Test as an alternative to the Independent Sample T-Test, which would allow to make comparisons without assumptions about the data distribution. Since the nature of the variables was already validated as well as the independence of observations and it was already demonstrated that purchase intention is not normally distributed, this nonparametric test was used to analyze the data. It is important to mention that the stimuli groups distribution had different shapes (Appendix 13) consequently, the Mann-Whitney U Test will be used to compare mean ranks instead of medians.

#### **4.4.1 The impact of the country on the label**

*H1a: Purchase intention is higher for an ethnic product associated with Portugal identified as Portuguese rather than for an ethnic product associated with Portugal identified as Foreign.* (Appendix 14)

To understand if the consumer's purchase intention differed based on the country labeled on the packaging (S1 – “*Made in Portugal*” vs. S2 – “*Made in Spain*”) of an ethnic product associated with Portugal, the selected test was the Mann-Whitney U Test. Looking at the descriptive statistics for both groups, one could see that S1 had a higher mean and less variation (M=5,3270; SD=1,22734) than S2 (M=2,8906; SD=1,66302). Concerning the mean ranks, the group with the highest was S1 (82,19 vs. 39,80). Finally, based on the data taken from the test statistics table, it was concluded that purchase intention in S1 was statistically significantly higher than the purchase intention in S2 (U=467; p=0,000).

That is, the hypothesis was validated, the impact of the country-of-origin labeling on purchase intention is higher for an ethnic product associated with Portugal identified as Portuguese rather than for an ethnic product associated with Portugal identified as Foreign.



Figure 13: H1a – Findings

*H1b: Purchase intention is higher for an ethnic product associated with a Foreign country identified as Foreign rather than for an ethnic product associated with a Foreign country identified as Portuguese. (Appendix 15)*

Similar to what has been done before, the differences in the purchase intention between the two independent groups (S4 – “Made in Portugal” vs. S5 – “Made in Italy”) for an ethnic product associated with a Foreign country needed to be tested through the Mann-Whitney U Test. Regarding the descriptive statistics, it was not possible to see great differences between S4 and S5, although S4 had a slightly higher mean and a smaller variation (M=5,3802; SD=1,00767) than S5 (M=5,0556; SD=1,40193). The mean rank of S4 was higher (62,48) than S5 (55,96) but then, the data from the test statistics table indicated that there was no statistically significant difference in the purchase intention between the two groups (U=1537; p=0,297).

Thus, the hypothesis was not validated, the impact of the country-of-origin labeling on purchase intention is the same for an ethnic product associated with a Foreign country identified as Foreign or identified as Portuguese.



Figure 14: H1b – Findings

*H1c: Purchase intention is higher for a neutral product identified as Portuguese rather than for a neutral product identified as Foreign. (Appendix 16)*

Once more the Mann-Whitney U Test was selected to assess the differences in purchase intention between the two groups (S7 – “Made in Portugal” vs. S8 – “Made in France”). This time, the product put to the test was neutral. Just by looking at the descriptive statistics, one was able to verify that S7 not only had a higher mean but also a smaller variation (M=5,5673; SD=1,20344) than S8 (M=3,5208; SD=1,63394). As for the mean ranks, it was clearly higher for S7 (83,93) than for S8 (40,58). From the data on the test statistics table, it was concluded that purchase intention in S7 was statistically significantly higher than the purchase intention in S8 (U=517; p=0,000).

Accordingly, the hypothesis was validated, the impact of the country-of-origin labeling on purchase intention is higher for a neutral product identified as Portuguese rather than for a neutral product identified as Foreign.



*Figure 15: H1c – Findings*

#### **4.4.2 The impact of the COO labeling existence identifying Portugal as the origin**

*H2a: Purchase Intention is higher when the country-of-origin labeling identifies Portugal as the origin rather than when there is no label, in the presence of an ethnic product associated with Portugal. (Appendix 17)*

To get a grasp on how the consumer’s purchase intention differed based on the presence of the label identifying Portugal as the country-of-origin on the packaging (S1 – “Made in Portugal” vs. S3 – “Without COO Labeling”) of an ethnic product associated with Portugal, the selected test was the Mann-Whitney U Test. The descriptive statistics for both groups suggested that S1 had a higher mean and variation (M=5,3270; SD=1,22734) than S3

( $M=4,6176$ ;  $SD=1,20153$ ). In addition, the group with the highest mean rank was S1 (72,79 vs. 51,81). Lastly, based on the data taken from the test statistics table, it was concluded that purchase intention in S1 was statistically significantly higher than the purchase intention in S3 ( $U=1177$ ;  $p=0,001$ ).

Thus, the hypothesis was validated, purchase intention is higher when the country-of-origin labeling identifies Portugal as the origin rather than when there is no label, in the presence of an ethnic product associated with Portugal.



Figure 16: H2a – Findings

*H2b: Purchase Intention is lower when the country-of-origin labeling identifies Portugal as the origin rather than when there is no label, in the presence of an ethnic product associated with a Foreign country. (Appendix 18)*

The same test was chosen to assess the differences in purchase intention between two groups (S4 – “Made in Portugal” vs. S6 – “Without COO Labeling”). The type of product analyzed in this hypothesis is ethnic associated with a Foreign country. Regarding the descriptive statistics, S4 not only had a higher mean but also a smaller variation ( $M=5,3802$ ;  $SD=1,00767$ ) than S6 ( $M=4,9368$ ;  $SD=1,33546$ ) which was surprising. The mean rank was also higher for S4 (66,80) than for S6 (55,66). On the other hand, from the data on the test statistics table, one was able to conclude that there was no statistically significant difference in the purchase intention between S4 and S6 ( $U=1517$ ;  $p=0,077$ ).

Consequently, the hypothesis was not validated, purchase intention does not differ when the country-of-origin labeling identifies Portugal or when there is no label, in the presence of an ethnic product associated with a Foreign country.



Figure 17: H2b – Findings

*H2c: Purchase Intention is higher when the country-of-origin labeling identifies Portugal as the origin rather than when there is no label, in the presence of a neutral product. (Appendix 19)*

Again, the Mann-Whitney U Test was selected to assess the differences in purchase intention between the two groups (S7 – “Made in Portugal” vs. S9 – “Without COO Labeling”). The kind of product tested was neutral. By glancing an eye on the descriptive statistics, it can be verified that S7 had a higher mean and a smaller variation (M=5,5673; SD=1,20344) than S9 (M=4,9688; SD=1,40886). As for the mean ranks, it was undoubtedly higher for S7 (70,34) than for S9 (52,68). Finally, the data on the test statistics table led us to conclude that purchase intention in S7 was statistically significantly higher than the purchase intention in S9 (U=1291,5; p=0,005).

Therefore, the hypothesis was validated, purchase intention is higher when the country-of-origin labeling identifies Portugal as the origin rather than when there is no label, in the presence of a neutral product.



Figure 18: H2c – Findings

#### 4.4.3 The impact of COO labeling existence identifying a Foreign country as the origin

*H3a: Purchase Intention is higher when there is no label identifying the country-of-origin rather than when the country-of-origin labeling identifies a Foreign country as the origin, in the presence of an ethnic product associated with Portugal. (Appendix 20)*

The differences in the purchase intention between the two independent groups (S2 – “Made in Spain” vs. S3 – “Without COO Labeling”) for an ethnic product associated with Portugal needed to be tested through the Mann-Whitney U Test. Regarding the descriptive statistics, the differences between S2 and S3 were evident, S2 had a lower mean and a higher variation (M=2,8906; SD=1,66302) than S3 (M=4,6176; SD=1,20153). Also, the mean rank of S2 was a lot lower (47,00) than S3 (84,85). From the data, it was concluded that purchase intention in S3 was statistically significantly higher than the purchase intention in S2 (U=928; p=0,000).

Hence, the hypothesis was validated, purchase intention is higher when there is no label identifying the country-of-origin rather than when the country-of-origin labeling identifies a Foreign country as the origin, in the presence of an ethnic product associated with Portugal.



Figure 19: H3a – Findings

*H3b: Purchase Intention is higher when the country-of-origin labeling identifies a Foreign country as the origin rather than when there is no label, in the presence of an ethnic product associated with a Foreign country. (Appendix 21)*

Like it was done for every hypothesis, the differences in the purchase intention between the two independent groups (S5 – “Made in Italy” vs. S6 – “Without COO Labeling”) for an ethnic product associated with a Foreign country needed to be tested through the Mann-Whitney U Test. Regarding the descriptive statistics, it was hard to see great differences between S5 and S6, although S5 had a somewhat higher mean and variation (M=5,0556; SD=1,40193) than S6

( $M=4,9368$ ;  $SD=1,33546$ ). Concerning the mean ranks, it was higher for S5 (58,29) than for S6 (54,84) although the difference is tiny. With the data from the test statistics table, one was able to finally conclude that, unexpectedly, there was no statistically significant difference in the purchase intention between the two groups ( $U=1469,5$ ;  $p=0,571$ ).

As a result, the hypothesis was not validated, purchase intention does not differ when the country-of-origin labeling identifies a Foreign country or when there is no label, in the presence of an ethnic product associated with a Foreign country.



Figure 20: H3b – Findings

*H3c: Purchase Intention is higher when the country-of-origin labeling identifies a Foreign country as the origin rather than when there is no label, in the presence of a neutral product. (Appendix 22)*

For the last time, the Mann-Whitney U Test was the test used to assess the differences in purchase intention between two groups (S8 – “Made in France” vs. S9 – “Without COO Labeling”) for a neutral product. Based on the descriptive statistics, one can see that S8 had a lower mean and a higher variation ( $M=3,5208$ ;  $SD=1,63394$ ) than S9 ( $M=4,9688$ ;  $SD=1,40886$ ). Moreover, the mean ranks were much lower for S8 (48,11) than for S9 (80,89). The test statistics table came to corroborate that purchase intention in S9 was statistically significantly higher than the purchase intention in S8 ( $U=999$ ;  $p=0,000$ ), which was not expected.

Hence, the hypothesis was not validated, purchase intention is higher when there is no label identifying the country-of-origin rather than when the label identifies a foreign country as the origin, in the presence of a neutral product.



Figure 21: H1c – Findings

#### 4.4.4 Moderation effect of consumer's patriotism

*H4: The effect of country-of-origin labeling on purchase intention is moderated by consumer's patriotism.*

To study the moderating effect of consumer's patriotism between country-of-origin labeling and purchase intention, the Hayes' PROCESS Model 1 was utilized, and its results can be found on Appendix 23. Before running the analysis, the nine groups of different stimuli were divided into three: Portuguese Origin (S1, S4 and S7), Foreign Origin (S2, S5 and S8) and Control (S3, S6 and S9). The coding automatically generated for the categorical variable was X1 for Foreign Origin, X2 for the Control and the reference was the Portuguese Origin. Also, it is important to mention there is a violation of the homoscedasticity assumption for running a regression (Appendix 24). Consequently, to allow the fitting of the model, heteroscedasticity-consistent standard errors were used, in particular Eicker-Huber-White standard errors because it is appropriate to be used when samples are 500 or larger in size (Long & Ervin, 2000).

Looking at the model summary, one can see the model is significant with a p-value of 0,0000 and 20,40% of the variance in purchase intention is explained by it. Concerning the simple effect of X1 when W=0, the coefficient is -1,6760 and its p-value is significant which means that participants exposed to the products identified as foreign reported lower purchase intentions, by less 1,6760 units on the scale, than those exposed to the products identified as portuguese. As for the simple effect of X2 when W=0, the coefficient is again negative, -0,5706, and significant i.e., participants exposed to the product without the country-of-origin labeling reported lower purchase intentions, by less 0,5706 units on the scale, than those exposed to the products identified as portuguese. When X=0, the regression coefficient for patriotism is 0,1316

but not statistically different from zero as its p-value is 0,0551 which is higher than the 5% level of significance set. However, the interaction between patriotism and country-of-origin labeling identifying a foreign country as the origin is significant with a p-value of 0,0010. Its coefficient, -0,4132, quantifies how the effect on X1 on purchase intention changes as patriotism changes by one unit, relative to the reference group. On the other hand, the interaction between patriotism and the control is negative and not significant (*coeff.* = -0,0514; *p* = 0,6179) relative to the reference group although it is very close to the significance level of 5%. Still, the hypothesis can be validated, patriotism moderates the relationship between country-of-origin labeling and purchase intention. The figure below shows the statistical diagram of the moderation analysis:

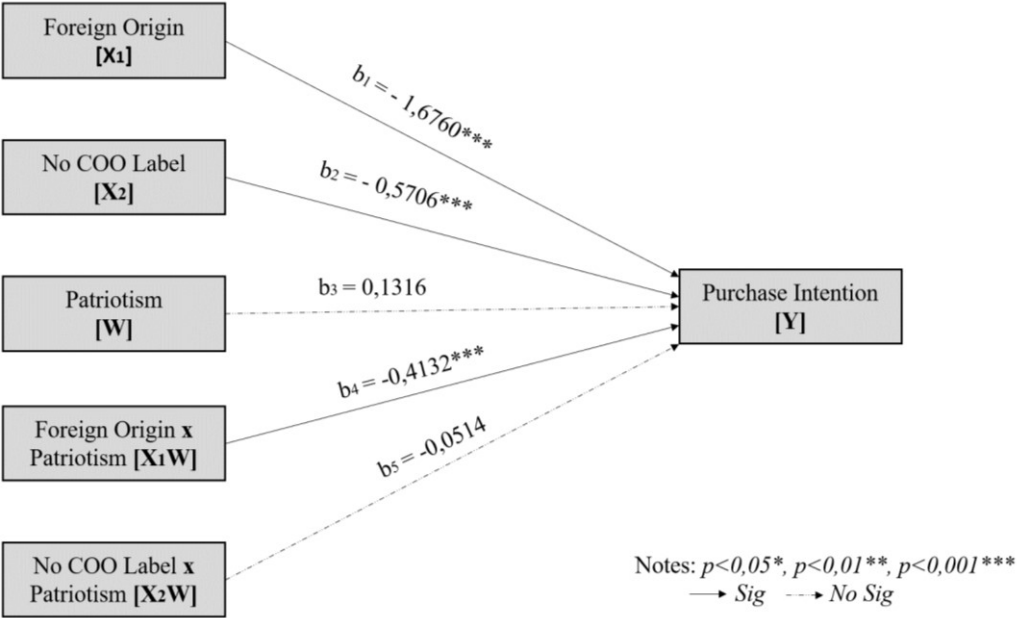


Figure 22: Statistical diagram of patriotism as a moderator

Additionally, through the F-test of highest order unconditional interaction where the null hypothesis states the linear relationship between X and Y is the same at all levels of W, one can see the p-value is 0,0034 which is below the 5% significance level established so, the null hypothesis is rejected, and it is concluded that the interactions are statistically significant. Before analyzing the t-tests for the simple slopes within each level of patriotism, it is important to mention that patriotism was mean centered prior to analysis and its values in the conditional are the mean and minus/plus one standard deviation. Through the t-tests, the null hypothesis for each one of the three tests says that in the population the slope equals 0. All three tests, for both X1 and X2, have a p-value lower than 5% so we conclude the slope is different from 0 within each level of patriotism for both focal antecedents. More specifically, the low levels of

patriotism (the centered mean minus one standard deviation) have an effect of -1,1471 for X1 and -0,5049 for X2 on purchase intention relative to the reference group. The medium levels of patriotism (the centered mean) have an effect of -1,6760 for X1 and -0,5706 for X2 on purchase intention relative to the reference group. Lastly, the high levels of patriotism (the centered mean plus one standard deviation) have an effect of -2,2050 for X1 and -0,6363 for X2 on purchase intention relative to the reference group. Looking at the graph below it is easy to understand how the different levels of patriotism will affect the purchase intention when the country labeled is Portugal or a Foreign country, and when the country-of-origin is not identified.

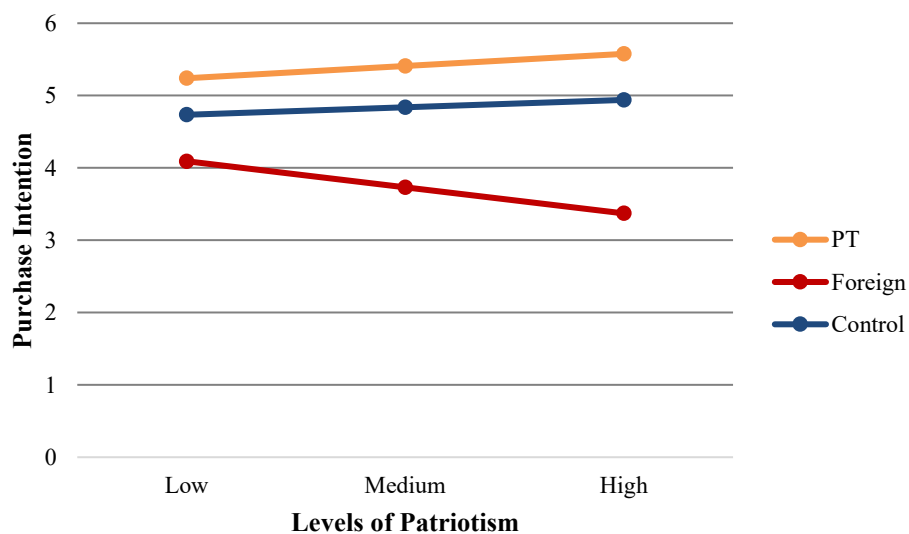


Figure 23: Impact of COO labeling on purchase intention under three levels of patriotism

The table below summarizes the analysis done and the results from the hypothesis testing:

	Hypotheses	Test	Sig.	Decision	Findings
H1a	$PI(S1) > PI(S2)$	MWW	0,0000	Validated	$PI(S1) > PI(S2)$
H1b	$PI(S4) > PI(S5)$	MWW	0,297	Not Validated	$PI(S4) = PI(S5)$
H1c	$PI(S7) > PI(S8)$	MWW	0,0000	Validated	$PI(S7) > PI(S8)$
H2a	$PI(S1) > PI(S3)$	MWW	0,001	Validated	$PI(S1) > PI(S3)$
H2b	$PI(S4) < PI(S6)$	MWW	0,077	Not Validated	$PI(S4) = PI(S6)$
H2c	$PI(S7) > PI(S9)$	MWW	0,005	Validated	$PI(S7) > PI(S9)$
H3a	$PI(S2) < PI(S3)$	MWW	0,0000	Validated	$PI(S2) < PI(S3)$
H3b	$PI(S5) > PI(S6)$	MWW	0,571	Not Validated	$PI(S5) = PI(S6)$
H3c	$PI(S8) > PI(S9)$	MWW	0,0000	Not Validated	$PI(S8) < PI(S9)$
H4	Moderation of Patriotism	PROCESS Model 1	0,0034	Validated	Moderation of Patriotism

Table 5: Hypothesis Test Summary

## **CHAPTER 5: CONCLUSIONS AND LIMITATIONS**

The fifth and last chapter sums up the dissertation findings and provides conclusions not only derived from the collected data but also from previous research. Thereunto, the managerial and academic implications are presented. Lastly, the limitations are acknowledged, and further research topics are recommended.

### **5.1 Main Findings & Conclusions**

Firstly, the online pre-study results enabled us to create a list of product-country associations in Portugal which up until now have not been studied. From this list, it was decided to select olive oil as the ethnic product associated with Portugal, pizza as the ethnic product associated with a Foreign country (Italy) and mushrooms as the neutral product i.e., no specific country is associated with it. Given that, nine different stimuli were designed and then six of them tested through semi-structured interviews to verify if the products were recognized and interpreted as expected. Some changes were made, then the stimuli were tested once again and after that they were ready to be employed in the key study. Below, the conclusions drawn from the research findings and literature are unveiled.

#### **5.1.1 What is the impact of the COOL on the PI of Portuguese consumers for ethnic and neutral products?**

The results revealed that when the country-of-origin labeled on the packaging of a product is Portugal, the purchase intention of Portuguese consumers is higher than when the country-of-origin labeled is a foreign country. However, in the case of an ethnic product associated with a foreign country that difference is not statistically significantly higher. Actually, and according to the literature, it was expected to find a difference statistically significantly lower and consequently, the use of the country-of-origin labeling identifying Portugal as the origin for an ethnic product associated with a foreign country was expected to be harmful (Roth & Romeo, 1992). One possible reason for this could be that Portuguese consumers are becoming more supportive of buying domestically produced goods and increasingly less affected by stereotypes in their purchase decisions.

#### **5.1.2 What is the impact of the existence of the COOL on the PI of Portuguese consumers for ethnic and neutral products?**

Data suggests that when the country-of-origin labeled on the packaging of a product is Portugal, the purchase intention of Portuguese consumers is higher than when there is no label

identifying the origin of the product. Yet, in the case of an ethnic product associated with a foreign country that difference is not statistically significantly higher. Once again, this result was not expected. Omitting the country-of-origin of an ethnic product associated with a foreign country should be better than displaying a country-of-origin which does not match with the country which is spontaneously associated with that product (Vida & Reardon, 2008). Again, these findings suggest that stereotypes are becoming less relevant on the decision-making process of Portuguese consumers.

Moreover, when the country-of-origin labeled on the packaging of a product is a foreign country, the purchase intention of Portuguese consumers is lower than when there is no label identifying the origin of the product except for the situation of an ethnic product associated with a foreign country where the purchase intention is higher although not statistically significant. Again, displaying a country-of-origin which matches with the country which is spontaneously associated with that product was expected to have a statistically significantly higher impact on the purchase intention than having no label identifying the origin of the product. As for the case where purchase intention is higher when there is no label identifying the country-of-origin rather than when the label identifies a foreign country as the origin for neutral products, that was not expected either. This result, in particular, lead us to believe that Portuguese consumers are deciding to buy domestic products over imports in order to potentially help threatened national workers and domestic companies (Granzin & Olsen, 1998).

### **5.1.3 What effect does Patriotism have on the relationship between COOL and PI of Portuguese consumers?**

This study proves that patriotism moderates the relationship between country-of-origin labeling and purchase intention. In particular, when the consumer presents higher levels of patriotism, the effects of the country-of-origin labeling identifying Portugal will be augmented whereas the effects of the country-of-origin labeling identifying a foreign country will be diminished. In contrast, when lower levels of consumer patriotism are registered smaller differences are observed on the purchase intentions between domestically produced, imported or without information on their origin.

All in all, the use of country-of-origin labelling can boost purchase intentions for domestically produced products, especially if consumers hold on to some patriotism values.

## **5.2 Managerial Implications**

First of all, it is important to mention that managerial implications are targeting Portuguese FPG companies which will be able to take some of these advices in order to define an effective product packaging that could expedite the sales of their products and consequently, domestic consumption.

The findings verified the influence of the country-of-origin labeling on consumers' purchase intention (Thakor & Katsanis, 1997). Nevertheless, product ethnicity also plays a role as suggested by Vida & Reardon (2008). For ethnic products associated with Portugal and neutral, it is clear the advantage of using the "made in Portugal" label. Conversely, for ethnic products associated with foreign countries, it is not easy to put things in black and white as differences were not observed between domestically produced, imported or without information on their origin. Although it is suspected that it is being observed a trend on consumers helping behavior - caused by the Covid-19 pandemic which in its turn might be causing Portuguese consumers to prefer domestically produced goods and reducing the stereotypes' effects on purchase decisions - it is prudent not to include the label until other products from the same class are tested to verify the validity of these results.

Regarding the moderation effect of patriotism, it can be concluded that the use of the "made in Portugal" together with calls on consumer's patriotism seem to be effective on increasing the purchase intention of Portuguese individuals. But then again it is not advised to do it for ethnic products associated with other countries.

## **5.3 Academic Implications**

Although it is known that product-country and country-product associations may differ from country to country, the current academic research on this topic lacks information on the associations made by Portuguese individuals. Thus, the initial study on this thesis addressed that research gap (Appendix 5). Additionally, the products typically analyzed in previous studies are from a variety of industries and categories, cars were mixed with cosmetics and food. This research is possibly the first one fully dedicated in discovering spontaneous associations for FPG.

Last but certainly not least, the combination of both country-of-origin labeling and product ethnicity and its impact on the purchase intentions of consumers is something that has never been done before.

#### 5.4 Limitations and Further Research

Nevertheless, and despite the results from this research, some limitations have to be considered and addressed by future researchers. To begin with, the approach adopted for this study was not flexible to ensure that deadlines and budget were not exceeded, which might have backfired. It is advised to reconduct the study using other type of project management style.

The most obvious limitation in this research was assuming that products are “made in” in one single country. The hybrid products brought by globalization and multinational companies are becoming increasingly common which decreases the validity of “made in” labels especially for processed foods (Chao, 1993). In the future, it is necessary to carefully address this topic and study its effects in the purchase intention of consumers.

Regarding the initial study which had the purpose to identify the Portuguese consumer’s product-country and country-product associations, the data was collected through an online survey to reach as many Portuguese consumers as possible for free. However, it would be better to use printed surveys. The latter does not need internet connection to let participants answer, it allows to reach people that are otherwise missed by the online surveys and prevents participants from online searching during the study (Boyer et al., 2002) which is really important when collecting spontaneous associations.

After the initial study, it was decided to select only three products – olive oil, pizza, and mushrooms – to be used to represent ethnic products associated with Portugal, ethnic products associated with a Foreign country and neutral products, respectively. It is suggested that the effects of this products in the purchase intention of Portuguese consumers should be compared with other products from the product’s ethnicity list created. Also, the impact on purchase intention of Portuguese individuals for an ethnic product associated with a foreign country and the country-of-origin labeling identifying other foreign country was not examined, for example, a pizza which is spontaneously associated with Italy being “made in” France. It can be interesting to compare that with the results of the present study.

In addition, the stimuli were designed brandless and free from any price cues to draw consumers’ attention to the country-of-origin labeling as well as to the product itself. In real marketplace situations these effects cannot be controlled therefore, they are likely to be weaker than the results showed in this thesis (Okechuku, 1994). To tackle this problem, it is suggested to reconduct this research using a field experiment where the participants are not aware of the fact that they are being studied, which helps to avoid participant bias. Still within the stimuli design limitations, the country-of-origin labeling was also created from scratch instead of using an official one, regulated and licensed by the Portuguese government like the “*Portugal Sou*

*Eu*” labeling. It was not used to avert consumers from associating the label to the whole campaign which involves a lot more than the country-of-origin labeling. Once again, in real marketplace situations these effects would not be monitored and so, it is prudent to employ the official labeling in a field experiment.

To test the effectiveness of the stimuli designed, 11 semi-structured interviews were carried out through “screen sharing” in *Zoom* to follow the current social distancing advice from *World Health Organization*, which can somehow limit the levels of interaction with the interviewees and consequently, lessening the reliability of the results (Mann & Stewart, 2000). Further research should incorporate in-person interviews rather than virtual to maximize the quality of the data collected.

With regard to the usage of an online survey to collect data to the key study, it was undoubtedly the most suitable method to be chosen but the sampling technique adopted, the snowball sampling, lowered the odds of the samples to be representative of the total population (Biernacki & Waldorf, 1981), as the respondents were biased towards a younger age group, between 18 and 24, and may not represent the purchase intention of the Portuguese population at large. Also, the sample for each stimulus was quite small. Thus, the study should be reconducted applying a probability sampling method where participants are randomly selected and at the same time aim to gather a higher number of respondents. It must be further stressed that purchase intention was used in the online survey as an indicator of actual purchase even though an intention is not the same as an attitude (Spears & Singh, 2004). For that reason, it can be important to reconduct this investigation through a field experiment where purchase could actually be measured.

Further research should as well incorporate an analysis of the reasons for the associations made by the Portuguese individuals and if those reasons can actually lead or prevent them to purchase a specific product from a particular country. To help with that, perceived quality could be examined as a mediator.

Lastly, it would be interesting to test for the Covid-19 effects on the increase of patriotism as it suspected to might be causing the invalidity of the hypotheses tested, as previously mentioned.

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## APPENDICES

### Appendix 1: Product-country and Country-product Associations – Initial Survey

#### Introduction

Dear respondent,

First and foremost, let me **thank you** for your willingness to participate in this survey!

This questionnaire is being conducted to gather data to be used in my master's dissertation therefore it is important that you give **your input without consulting other's opinions and/or the internet!** Please be aware there are no right or wrong answers, the main goal is to uncover the consumers' associations between products and countries, and vice-versa. **It will not take you more than 5 minutes to complete it** and your anonymity is ensured. Demographic data is simply collected for research purposes and will be kept strictly confidential. Only aggregated results will be used in any report on the survey.

In case of any doubt, please do not hesitate to contact me: [ana.salesluis@hotmail.com](mailto:ana.salesluis@hotmail.com).

**Once again thank you for your precious time!**

**Please click on the “Next” button to begin the survey.**

#### Block 1: Screening Questions

##### Q1 - Are you living in Portugal?

- Yes
- No

Condition: No is selected. Skip to: End of Survey

##### Q2 - Did you purchase packaged goods, food and beverages, in the past three months?

- Yes
- No

Condition: No is selected. Skip to: End of Survey

#### Block 2 Randomized: Product-country and Country-Product Associations

**Q3 or Q4 -** For each product presented below, what country do you spontaneously associate it with? Please write down **only the first country that comes to your mind**, if you cannot think of any move on to the next product.

- Wine: \_\_\_\_\_
- Beer: \_\_\_\_\_
- Vodka: \_\_\_\_\_
- Coffee: \_\_\_\_\_
- Tea: \_\_\_\_\_
- Yogurt: \_\_\_\_\_
- Cheese: \_\_\_\_\_

- Dry-cured Ham: \_\_\_\_\_
- Chocolate: \_\_\_\_\_
- Potato chips: \_\_\_\_\_
- Pasta: \_\_\_\_\_
- Rice: \_\_\_\_\_
- Olive oil: \_\_\_\_\_
- Beans: \_\_\_\_\_
- Peppers: \_\_\_\_\_
- Tomatoes: \_\_\_\_\_
- Mushrooms: \_\_\_\_\_
- Sausages: \_\_\_\_\_
- Hamburger: \_\_\_\_\_
- Tuna: \_\_\_\_\_
- Codfish: \_\_\_\_\_
- Pork: \_\_\_\_\_
- Chicken: \_\_\_\_\_
- Beef: \_\_\_\_\_
- Pizza: \_\_\_\_\_

**Q3 or Q4** - For each country presented below, what **packaged product (food or beverage)** do you spontaneously associate it with? Please write down **only the first product that comes to your mind**, if you cannot think of any move on to the next country.

- USA: \_\_\_\_\_
- Japan: \_\_\_\_\_
- Germany: \_\_\_\_\_
- France: \_\_\_\_\_
- UK: \_\_\_\_\_
- Ireland: \_\_\_\_\_
- Ecuador: \_\_\_\_\_
- Italy: \_\_\_\_\_
- Mexico: \_\_\_\_\_
- Norway: \_\_\_\_\_
- Brazil: \_\_\_\_\_
- Netherlands: \_\_\_\_\_
- Switzerland: \_\_\_\_\_
- China: \_\_\_\_\_
- Portugal: \_\_\_\_\_

- Belgium: \_\_\_\_\_
- Poland: \_\_\_\_\_
- Greece: \_\_\_\_\_
- Spain: \_\_\_\_\_
- Russia: \_\_\_\_\_

### **Block 3: Demographics**

#### **Q5 - What is your gender?**

- Female
- Male
- Prefer not to say

#### **Q6 - What is your nationality?**

- Portuguese
- German
- Italian
- French
- Dutch
- Other: \_\_\_\_\_

#### **Q7 - What is your age?**

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- Older than 64

#### **Q8 –What is the highest degree you have completed?**

- Less than high school
- High school graduate or equivalent
- Bachelor's degree
- Master's degree/ MBA
- Ph.D./ Post-Doctoral Degree
- Other

**Q9 - What is your current occupation?**

- Student
- Student and Worker
- Employed
- Unemployed
- Retired
- Other

**Q10 - What is your monthly gross income?**

- Less than 500€
- 500€ – 999€
- 1000€ – 1499€
- 1500€ – 1999€
- 2000€ - 2499€
- 2500€ – 2999€
- 3000€ – 3499€
- 3500€ – 4000€
- More than 4000€

**Appendix 2: Initial Survey – Sample Characteristics (n=303)**

<b>Frequency Distribution Table</b>			
	<b>Values</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Female	194	64,0%
	Male	107	35,3%
	Prefer not to say	2	0,7%
<b>Nationality</b>	Portuguese	293	96,7%
	German	2	0,7%
	Italian	3	1,0%
	French	0	0,0%
	Dutch	1	0,3%
<b>Age</b>	18 - 24	106	35,0%
	25 - 34	45	14,9%
	35 - 44	45	14,9%
	45 - 54	64	21,1%
	55 - 64	35	11,6%
	Older than 64	8	2,6%
<b>Education</b>	Less than high school	3	1,0%
	High school graduate or equivalent	27	8,9%
	Bachelor's degree	150	49,5%
	Master's degree	101	33,3%
	Ph.D. / Post-Doctoral Degree	20	6,6%
	Other	2	0,7%
<b>Occupation</b>	Student	69	22,8%
	Student and Worker	23	7,6%
	Employed	194	64,0%
	Unemployed	5	1,7%
	Retired	7	2,3%
	Other	5	1,7%
<b>Income</b>	Less than 500€	67	22,1%
	500€ – 999€	42	13,9%
	1000€ – 1499€	69	22,8%
	1500€ – 1999€	41	13,5%
	2000€ – 2499€	27	8,9%
	2500€ – 2999€	18	5,9%
	3000€ – 3499€	15	5,0%
	3500€ – 4000€	11	3,6%
	More than 4000€	13	4,3%

### Appendix 3: Product-country Association and Ethnicity

	Country	Frequency	$A^{PC}$	$PE^{PC}$	
Wine	Portugal	247	0,815	0,813	
	France	38	0,125	0,000	
	Italy	8	0,026	0,000	
	Blank	6	0,020	-	
	Chile	3	0,010	0,000	
	Spain	1	0,003	0,000	
Beer	Germany	148	0,488	0,482	
	Portugal	64	0,211	0,136	
	Belgium	38	0,125	0,000	
	Ireland	21	0,069	0,000	
	Netherlands	11	0,036	0,000	
	Blank	10	0,033	-	
	UK	4	0,013	0,000	
	Czech Republic	3	0,010	0,000	
	USA	1	0,003	0,000	
	Brazil	1	0,003	0,000	
	Poland	1	0,003	0,000	
	Sweden	1	0,003	0,000	
	Vodka	Russia	256	0,845	0,844
		Poland	22	0,073	0,000
Blank		14	0,046	-	
Germany		4	0,013	0,000	
Ukraine		2	0,007	0,000	
UK		2	0,007	0,000	
Sweden		1	0,003	0,000	
Lithuania		1	0,003	0,000	
Finland		1	0,003	0,000	
Tea		UK	133	0,439	0,431
	China	74	0,244	0,201	
	Portugal	28	0,092	0,000	
	India	23	0,076	0,000	
	Blank	20	0,066	-	
	Japan	15	0,050	0,000	
	Thailand	3	0,010	0,000	
	Brazil	2	0,007	0,000	
	France	1	0,003	0,000	
	Morocco	1	0,003	0,000	
	Russia	1	0,003	0,000	
	Sri Lanka	1	0,003	0,000	
	Turkey	1	0,003	0,000	

Coffee	Brazil	106	0,350	0,345
	Portugal	64	0,211	0,195
	Colombia	45	0,149	0,121
	Blank	18	0,059	-
	Italy	14	0,046	0,000
	Ecuador	10	0,033	0,000
	São Tomé and Príncipe	10	0,033	0,000
	Timor	6	0,020	0,000
	Angola	6	0,020	0,000
	Guinea-Bissau	3	0,010	0,000
	Ethiopia	2	0,007	0,000
	Kenya	2	0,007	0,000
	Cape Verde	2	0,007	0,000
	USA	2	0,007	0,000
	Vietnam	2	0,007	0,000
	Costa Rica	2	0,007	0,000
	France	1	0,003	0,000
	India	1	0,003	0,000
	UK	1	0,003	0,000
	Finland	1	0,003	0,000
	Mexico	1	0,003	0,000
	Mozambique	1	0,003	0,000
	Peru	1	0,003	0,000
Venezuela	1	0,003	0,000	
Cuba	1	0,003	0,000	
Yogurt	Greece	106	0,350	0,347
	Blank	80	0,264	-
	Portugal	51	0,168	0,142
	France	23	0,076	0,000
	Switzerland	10	0,033	0,000
	Netherlands	8	0,026	0,000
	Bulgaria	6	0,020	0,000
	Italy	3	0,010	0,000
	Spain	3	0,010	0,000
	Turkey	3	0,010	0,000
	Sweden	2	0,007	0,000
	USA	2	0,007	0,000
	Germany	1	0,003	0,000
	Belgium	1	0,003	0,000
	Hungary	1	0,003	0,000
	India	1	0,003	0,000
	Iran	1	0,003	0,000
	Norway	1	0,003	0,000

Cheese	France	115	0,380	0,371
	Portugal	88	0,290	0,232
	Switzerland	50	0,165	0,000
	Blank	18	0,059	-
	Netherlands	14	0,046	0,000
	Italy	14	0,046	0,000
	Greece	4	0,013	0,000
Dry-cured Ham	Spain	182	0,601	0,599
	Portugal	75	0,248	0,024
	Blank	22	0,073	-
	Italy	17	0,056	0,000
	France	4	0,013	0,000
	Netherlands	1	0,003	0,000
	Switzerland	1	0,003	0,000
	EUA	1	0,003	0,000
Chocolate	Switzerland	189	0,624	0,620
	Belgium	70	0,231	0,145
	Blank	19	0,063	-
	Brazil	5	0,017	0,000
	USA	4	0,013	0,000
	France	3	0,010	0,000
	Portugal	3	0,010	0,000
	Ecuador	2	0,007	0,000
	Germany	2	0,007	0,000
	São Tomé and Príncipe	2	0,007	0,000
	Bolivia	1	0,003	0,000
	Colombia	1	0,003	0,000
	Mexico	1	0,003	0,000
	UK	1	0,003	0,000
Olive Oil	Portugal	262	0,865	0,864
	Blank	17	0,056	-
	Italy	14	0,046	0,000
	Greece	6	0,020	0,000
	Spain	4	0,013	0,000
Potato Chips	USA	142	0,469	0,464
	Blank	48	0,158	-
	Belgium	43	0,142	0,000
	Portugal	29	0,096	0,000
	UK	20	0,066	0,000
	France	12	0,040	0,000
	Netherlands	4	0,013	0,000
	Spain	2	0,007	0,000
	Germany	1	0,003	0,000
	São Tomé and Príncipe	1	0,003	0,000
	Switzerland	1	0,003	0,000

Pasta	Italy	267	0,881	0,880	
	Blank	19	0,063	-	
	Portugal	15	0,050	0,000	
	China	2	0,007	0,000	
Rice	China	186	0,614	0,612	
	Portugal	40	0,132	0,000	
	Blank	28	0,092	-	
	Japan	27	0,089	0,000	
	Vietnam	5	0,017	0,000	
	Italy	4	0,013	0,000	
	India	3	0,010	0,000	
	Indonesia	3	0,010	0,000	
	Thailand	3	0,010	0,000	
	Brazil	1	0,003	0,000	
	France	1	0,003	0,000	
	Nepal	1	0,003	0,000	
	South Korea	1	0,003	0,000	
	Beans	Brazil	102	0,337	0,324
Portugal		90	0,297	0,278	
Blank		69	0,228	-	
Mexico		23	0,076	0,000	
UK		10	0,033	0,000	
USA		3	0,010	0,000	
Angola		1	0,003	0,000	
Cape Verde		1	0,003	0,000	
Colombia		1	0,003	0,000	
Cuba		1	0,003	0,000	
Turkey		1	0,003	0,000	
Ukraine		1	0,003	0,000	
Peppers		Blank	87	0,287	-
		Portugal	86	0,284	0,276
	Mexico	54	0,178	0,155	
	Spain	49	0,162	0,134	
	India	9	0,030	0,000	
	Italy	5	0,017	0,000	
	Hungary	2	0,007	0,000	
	Turkey	2	0,007	0,000	
	USA	2	0,007	0,000	
	Argentina	1	0,003	0,000	
	Brazil	1	0,003	0,000	
	Ecuador	1	0,003	0,000	
	France	1	0,003	0,000	
	Germany	1	0,003	0,000	
	Poland	1	0,003	0,000	
	Thailand	1	0,003	0,000	

<b>Tomatoes</b>	Portugal	125	0,413	0,402
	Blank	62	0,205	-
	Italy	61	0,201	0,115
	Spain	43	0,142	0,000
	France	3	0,010	0,000
	Mexico	3	0,010	0,000
	USA	3	0,010	0,000
	Chile	2	0,007	0,000
	Netherlands	1	0,003	0,000
	<b>Mushrooms</b>	Blank	112	0,370
Portugal		77	0,254	0,249
France		48	0,158	0,143
Italy		35	0,116	0,089
Netherlands		8	0,026	0,000
China		4	0,013	0,000
Japan		4	0,013	0,000
Spain		3	0,010	0,000
Poland		2	0,007	0,000
Germany		1	0,003	0,000
Greece		1	0,003	0,000
India		1	0,003	0,000
Sweden		1	0,003	0,000
Switzerland		1	0,003	0,000
Thailand		1	0,003	0,000
Turkey		1	0,003	0,000
UK		1	0,003	0,000
Uruguay		1	0,003	0,000
USA		1	0,003	0,000
<b>Sausages</b>		Germany	242	0,799
	Blank	36	0,119	-
	Portugal	10	0,033	0,000
	USA	7	0,023	0,000
	Poland	2	0,007	0,000
	Austria	1	0,003	0,000
	Brazil	1	0,003	0,000
	Ireland	1	0,003	0,000
	Italy	1	0,003	0,000
	Netherlands	1	0,003	0,000
	Switzerland	1	0,003	0,000
	<b>Hamburger</b>	USA	239	0,789
Blank		33	0,109	-
Germany		14	0,046	0,000
Portugal		11	0,036	0,000
UK		6	0,020	0,000

Tuna	Portugal	133	0,439	0,436	
	Blank	92	0,304	-	
	Japan	36	0,119	0,000	
	Norway	30	0,099	0,000	
	Cape Verde	3	0,010	0,000	
	Sweden	3	0,010	0,000	
	Spain	2	0,007	0,000	
	China	1	0,003	0,000	
	Finland	1	0,003	0,000	
	New Zealand	1	0,003	0,000	
	USA	1	0,003	0,000	
	Codfish	Norway	157	0,518	0,415
		Portugal	133	0,439	0,242
Blank		12	0,040	-	
Ireland		1	0,003	0,000	
Pork	Portugal	194	0,640	0,640	
	Blank	59	0,195	-	
	Spain	28	0,092	0,000	
	China	5	0,017	0,000	
	USA	5	0,017	0,000	
	Germany	4	0,013	0,000	
	South Korea	2	0,007	0,000	
	Belgium	1	0,003	0,000	
	Denmark	1	0,003	0,000	
	Hungary	1	0,003	0,000	
	Romania	1	0,003	0,000	
	Turkey	1	0,003	0,000	
	UK	1	0,003	0,000	
	Chicken	Portugal	168	0,554	0,554
Blank		82	0,271	-	
USA		19	0,063	0,000	
UK		8	0,026	0,000	
Brazil		5	0,017	0,000	
Spain		4	0,013	0,000	
France		3	0,010	0,000	
Angola		2	0,007	0,000	
Germany		2	0,007	0,000	
India		2	0,007	0,000	
South Korea		2	0,007	0,000	
China		1	0,003	0,000	
Indonesia		1	0,003	0,000	
Italy		1	0,003	0,000	
Mexico		1	0,003	0,000	
Mozambique		1	0,003	0,000	
Poland		1	0,003	0,000	

Beef	Portugal	118	0,389	0,386
	Blank	78	0,257	-
	Argentina	44	0,145	0,088
	Brazil	19	0,063	0,000
	USA	17	0,056	0,000
	UK	11	0,036	0,000
	China	3	0,010	0,000
	Spain	3	0,010	0,000
	India	2	0,007	0,000
	Ireland	2	0,007	0,000
	Japan	2	0,007	0,000
	Uruguay	2	0,007	0,000
	Italy	1	0,003	0,000
	Mexico	1	0,003	0,000
	Pizza	Italy	277	0,914
Blank		12	0,040	-
USA		8	0,026	0,000
Portugal		6	0,020	0,000

#### Appendix 4: Country-product Association and Ethnicity

	Product	Frequency	$A^{CP}$	$PE^{CP}$
USA	Hamburguer	111	0,366	0,363
	Coke	73	0,241	0,229
	Blank	45	0,149	-
	Potato Chips	17	0,056	0,000
	Sodas	7	0,023	0,000
	Other	50	0,165	-
Japan	Sushi	154	0,508	0,508
	Blank	83	0,274	-
	Rice	18	0,059	0,000
	Noodles	17	0,056	0,000
	Sake	8	0,026	0,000
	Other	23	0,076	-
Germany	Sausages	168	0,554	0,551
	Beer	64	0,211	0,129
	Blank	58	0,191	-
	Pretzels	4	0,013	0,000
	Other	9	0,030	-
France	Cheese	100	0,330	0,326
	Blank	71	0,234	-
	Croissant	52	0,172	0,150
	Wine	18	0,059	0,000
	Baguette	16	0,053	0,000

	Bread	15	0,050	0,000
	Champagne	13	0,043	0,000
	Other	18	0,059	-
UK	Blank	133	0,439	-
	Tea	56	0,185	0,183
	Fish and Chips	25	0,083	0,072
	Potato Chips	21	0,069	0,055
	Whisky	9	0,030	0,000
	Other	59	0,195	-
Ireland	Blank	131	0,432	-
	Beer	125	0,413	0,412
	Whisky	26	0,086	0,000
	Other	21	0,069	-
Ecuador	Blank	202	0,667	-
	Coffee	47	0,155	0,155
	Banana	17	0,056	0,049
	Chocolate	8	0,026	0,000
	Other	29	0,096	-
Italy	Pasta	125	0,413	0,390
	Pizza	116	0,383	0,354
	Blank	46	0,152	-
	Other	16	0,053	-
Mexico	Blank	94	0,310	-
	Tacos	62	0,205	0,203
	Nachos	21	0,069	0,050
	Chilli Peppers	20	0,066	0,045
	Guacamole	19	0,063	0,040
	Other	87	0,287	-
Norway	Codfish	145	0,479	0,477
	Blank	107	0,353	-
	Salmon	35	0,116	0,000
	Fish	6	0,020	0,000
	Other	10	0,033	-
Brazil	Blank	77	0,254	-
	Coffee	39	0,129	0,125
	Beans	37	0,122	0,118
	Picanha	35	0,116	0,111
	Meat	15	0,050	0,032
	Caipirinha	13	0,043	0,019
	Other	87	0,287	-
Netherlands	Blank	199	0,657	-
	Cheese	40	0,132	0,131
	Beer	18	0,059	0,048
	Stroopwafel	13	0,043	0,022
	Milk	7	0,023	0,000

	Other	26	0,086	-
Switzerland	Chocolate	167	0,551	0,544
	Blank	89	0,294	-
	Cheese	45	0,149	0,000
	Other	2	0,007	-
China	Blank	117	0,386	-
	Rice	95	0,314	0,312
	Noodles	30	0,099	0,068
	Tea	18	0,059	0,000
	Peking Duck	6	0,020	0,000
	Other	37	0,122	-
Portugal	Wine	57	0,188	0,186
	Blank	48	0,158	-
	Olive Oil	34	0,112	0,106
	Codfish	32	0,106	0,099
	Sweet Pastery	16	0,053	0,035
	Tuna	12	0,040	0,000
	Other	104	0,343	-
Belgium	Blank	146	0,482	-
	Chocolate	85	0,281	0,278
	Beer	36	0,119	0,082
	Potato Chips	14	0,046	0,000
	Moules	6	0,020	0,000
	Other	16	0,053	-
Poland	Blank	227	0,749	-
	Vodka	38	0,125	0,125
	Beer	9	0,030	0,000
	Potatoes	5	0,017	0,000
	Pierogi	4	0,013	0,000
	Other	20	0,066	-
Greece	Blank	144	0,475	-
	Yogurt	67	0,221	0,218
	Cheese	50	0,165	0,159
	Olive Oil	10	0,033	0,000
	Other	32	0,106	-
Spain	Dry-cured Ham	94	0,310	0,310
	Blank	90	0,297	-
	Paella	26	0,086	0,067
	Tapas	20	0,066	0,038
	Fruit	8	0,026	0,000
	Other	65	0,215	-
Russia	Vodka	154	0,508	0,508
	Blank	132	0,436	-
	Other	17	0,056	-

## Appendix 5: List of Ethnic and Neutral Products considering Bidirectional Ethnicity

Country	Product	$PE^{CP}$	$PE^{PC}$	Bidirecional Ethnicity*	
USA	Hamburguer	0,363	0,788	0,535	Ethnic
Germany	Sausages	0,551	0,799	0,663	Ethnic
	Beer	0,129	0,482	0,249	Neutral
France	Cheese	0,326	0,371	0,348	Ethnic
UK	Tea	0,183	0,431	0,281	Neutral
Italy	Pasta	0,390	0,880	0,586	Ethnic
	Pizza	0,354	0,914	0,569	Ethnic
Mexico	Chilli Peppers	0,045	0,155	0,084	Neutral
Norway	Codfish	0,477	0,415	0,445	Ethnic
Brazil	Coffee	0,125	0,345	0,208	Neutral
	Beans	0,118	0,324	0,195	Neutral
Switzerland	Chocolate	0,544	0,620	0,581	Ethnic
China	Rice	0,312	0,612	0,437	Ethnic
Portugal	Wine	0,186	0,813	0,389	Ethnic
	Olive Oil	0,106	0,864	0,303	Ethnic
	Codfish	0,099	0,242	0,155	Neutral
Belgium	Chocolate	0,278	0,145	0,200	Neutral
Greece	Yogurt	0,218	0,347	0,275	Neutral
Spain	Dry-cured Ham	0,310	0,599	0,431	Ethnic
Russia	Vodka	0,508	0,844	0,655	Ethnic

\*Products are ethnic when the ethnicity bidirecional > 0,3

It is important to mention that potato chips, tomatoes, mushrooms, tuna, pork, chicken, and beef are not on the table but were concluded to be neutral. It was not worth to calculate their bidirectional ethnicity because either their  $PE^{PC}$  or their  $PE^{CP}$  were 0 which lead us to conclude their bidirectional ethnicity will certainly be 0.

The formulas used were:

$A^{PC} = \frac{\text{Frequency of association}}{\text{Total number of respondents}}$	$PE^{PC} = \sqrt{A^{PC^2} - \frac{\sum \text{other } A^{PC^2}}{(\text{Number of countries cited} - 1)}}$
$A^{CP} = \frac{\text{Frequency of association}}{\text{Total number of respondents}}$	$PE^{CP} = \sqrt{A^{CP^2} - \frac{\sum \text{other } A^{CP^2}}{(\text{Number of products cited} - 1)}}$
$\text{Bidirectional Ethnity} = \sqrt{PE^{PC} * PE^{CP}}$	

## Appendix 6: Stimuli Confirmation – Semi-structured Interviews

### Introduction

First of all, let me thank you for taking the time to help me with my master's dissertation research. I am Ana Sales Luís and I am conducting this interview to find if you interpret six products as expected to confirm their effectiveness for the final and key study of my thesis. It will not take more than 15 minutes and it is important for me to record the interview so that I can later transcribe it into text, may I have your consent?

### The Participants Characteristics

Demographics				
Gender	Nationality	Age	Education	Occupation
Female	Portuguese	19	High School	Bachelor Student
Male	Portuguese	22	Bachelor's	Master Student
Female	Portuguese	22	Bachelor's	Master Student
Male	Swiss	25	Bachelor's	Master Student
Male	Portuguese	27	Bachelor's	Master Student
Female	Portuguese	29	Master's	Architect
Female	Portuguese	36	Master's	Dentist
Female	Portuguese	40	Bachelor's	Research Manager
Female	Portuguese	46	PhD	Marine Biologist
Male	Portuguese	57	PhD	H.S. Professor
Female	Portuguese	62	High School	Housekeeper

### Stimuli Confirmation



#### QUESTIONS

##### What do you see in this image?

All interviewees stated to be seeing a bottle of olive oil identifying its COO except for a female using her cellphone to do the zoom call that could notice the COO labeling.

##### Does the product remind you of a country?

Portuguese individuals associate Portugal to olive oil. The Swiss associates it with Italy.

#### CONCLUSION

Although the stimuli were interpreted as desired, their effectiveness was not confirmed when one of the interviewees was using a cellphone therefore it was decided to change the stimuli image crop from landscape to portrait but everything else was kept the same.



## QUESTIONS

### What do you see in this image?

All interviewees stated to be seeing a package with mushrooms identifying its COO.

### Does the product remind you of a country?

Every interviewee stated not to associate the product with a specific country except for a female who specified Portugal because she knows some people who normally do mushroom hunting in Portugal.

## CONCLUSION

The stimuli were interpreted as desired and their effectiveness was confirmed. Only one interviewee associating mushrooms with a specific country is not enough to compromise the neutrality of the product.

## QUESTIONS

### What do you see in this image?

All interviewees stated to be seeing a package of pizza identifying its COO but three interviewees said that it was hard to read what was the COO because of the side view.

### Does the product remind you of a country?

Every interviewee stated to associate the product with Italy except for male who associates pizza not only with Italy but also with USA.

## CONCLUSION

The stimuli were interpreted as desired and, but their effectiveness was not totally confirmed therefore a top view from each stimulus was designed. Moreover, only one interviewee associating pizza with two countries is not enough to compromise the Italian ethnicity of the product.

## New version of the stimuli

A second round of interviews had to be done to verify the effectiveness of the new stimuli. The images were assessed as desired therefore these new stimuli were ready to be used in the key survey.

## Closing

I already gathered all the information that I needed. Do you have any further questions? It was a pleasure to have your feedback, thank you for your time!

## Appendix 7: Key Study – Online Survey

### Introduction

Dear respondent,

First of all, let me **thank you** for your willingness to participate in this survey!

This is the second questionnaire being conducted for my master’s dissertation. It is important that you give **your most sincere answer and not what you think I am expecting to observe!** Please be aware there are no right or wrong answers. **It will not take you more than 4 minutes to complete it** and, your anonymity is ensured. Demographic data is simply collected for research purposes and will be kept strictly confidential. Only aggregated results will be used in any report on the survey.

In case of any doubt, please do not hesitate to contact me: [ana.salesluis@hotmail.com](mailto:ana.salesluis@hotmail.com)

**Once again, thank you for your precious time!**

**Please click on the “Next” button to begin the survey.**

### Block 1: General Screening Questions

#### Q1 - What is your nationality?

- Portuguese
- German
- Italian
- French
- Dutch
- Other: \_\_\_\_\_

Condition: Portuguese Is Not Selected. Skip to: End of Survey

#### Q2 - Did you purchase food packaged goods in the past three months?

- Yes
- No

Condition: No Is Not Selected. Skip to: End of Survey

### Block 2 Randomizer: Randomly and evenly present olive oil, pizza or mushrooms

#### Q3 - On average, how often did you consume \_\_\_\_\_ in the past three months?

- Never
- Rarely (once a month or less)
- Occasionally (2-3 times a month)
- Frequently (1-3 times a week)
- Very Frequently (4 times a week)

Condition: Never Is Not Selected. Skip to: End of Survey

**Q4 - What country do you spontaneously associate \_\_\_\_\_ with?**

- I don't associate the product with a specific country
- Portugal
- France
- Spain
- Italy
- Other: \_\_\_\_\_

**Block 3 Then Branch If: Questions about olive oil, pizza or mushrooms were displayed**

**From Stimuli 1 to 3: Ethnic Product Associated with Portugal**

Imagine that you are at the supermarket and one of the items in your shopping list is olive oil. You have plenty of options, both nationally produced and imported, at cooking oil aisle. One of the options is presented below.

**Look at it carefully.**



**From Stimuli 4 to 6: Ethnic Product Associated with Foreign Country (Italy)**

Imagine that you are at the supermarket and one of the items in your shopping list is pizza for your dinner. You have plenty of options, both nationally produced and imported, at boxed dinners section. One of the options is presented below. **Look at it carefully.**



**From Stimuli 7 to 9: Neutral Product**

Imagine that you are at the supermarket and one of the items in your shopping list is a mushrooms' pack. You have plenty of options, both nationally produced and imported, at fresh products aisle. One of the options is presented below. **Look at it carefully.**

S7.



S8.



S9.



**Block 4: Purchase Intention**

**Q5 - Regarding the product previously shown, please indicate the extent to which you agree or disagree with each of the following statements using the scale from "Strongly Disagree" to "Strongly Agree":**

	Strongly Disagree	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree	Strongly Agree
I pretend to buy the product presented before.							
It is likely that I will buy the product presented before.							
I am willing to buy the product presented before.							

**Q6 - Regarding the image shown earlier, did you notice the label identifying the country-of-origin of the product?**

- Yes, and the country labeled was Portugal
- Yes, and the country labeled was a Foreign country
- No

**Q7 - Please indicate the extent to which you agree or disagree with each of the following statements using the scale from "Strongly Disagree" to "Strongly Agree":**

	Strongly Disagree	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree	Strongly Agree
I should buy Portuguese products because I am Portuguese.							
Foreign imports are and will be hurting Portuguese industry.							
Foreign imports are and will be replacing Portuguese jobs.							
I feel guilty if I choose to buy foreign products instead of Portuguese products.							

**Block 5: Demographics**

**Q8 - What is your gender?**

- Female
- Male

**Q9 - What is your age?**

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- Older than 64

**Q10 - What is the highest degree you have completed?**

- Less than high school
- High school graduate or equivalent
- Bachelor's degree
- Master's degree/ MBA
- Ph.D./ Post-Doctoral Degree
- Other

**Q11 - What is your current occupation?**

- Student
- Student and Worker
- Employed
- Unemployed
- Retired
- Other

**Q12 - What is your monthly gross income?**

- No income
- Less than 500€
- 500€ – 999€
- 1000€ – 1499€
- 1500€ – 1999€
- 2000€ - 2499€
- 2500€ – 2999€
- 3000€ – 3499€
- 3500€ – 4000€
- More than 4000€

Appendix 8: Key Study – Manipulation Check Product Ethnicity

<b>OLIVE OIL</b>			
<b>Country</b>	<b>Frequency</b>	<b><math>A^{PC}</math></b>	<b><math>PE^{PC}</math></b>
Portugal	169	0,91	0,9134
No Assoc.	9	0,05	-
Spain	4	0,02	-
France	1	0,01	-
Italy	1	0,01	-
Greece	1	0,01	-
<b>Sum</b>	<b>185</b>	<b>1</b>	

<b>PIZZA</b>			
<b>Country</b>	<b>Frequency</b>	<b><math>A^{PC}</math></b>	<b><math>PE^{PC}</math></b>
Italy	169	0,96	0,96
No Assoc.	5	0,03	-
USA	2	0,01	-
<b>Sum</b>	<b>176</b>	<b>1</b>	

<b>MUSHROOMS</b>			
<b>Country</b>	<b>Frequency</b>	<b><math>A^{PC}</math></b>	<b><math>PE^{PC}</math></b>
Portugal	21	0,11	0,0725
France	34	0,18	0,1741
Spain	2	0,01	-
Italy	12	0,06	-
Japan	1	0,01	-
Poland	1	0,01	-
No Assoc.	114	0,62	-
<b>Sum</b>	<b>185</b>	<b>1</b>	

## Appendix 9: Key Study – Sample Characteristics

		S1	S2	S3	S4	S5	S6	S7	S8	S9	Total
		53	64	68	64	54	58	57	64	64	546
Gender	Female	66%	67%	66%	64%	52%	60%	68%	69%	53%	63%
	Male	34%	33%	34%	36%	48%	40%	32%	31%	47%	37%
Age	Under 18	0%	3%	0%	2%	0%	2%	0%	2%	0%	1%
	18 - 24	51%	56%	46%	47%	48%	48%	35%	48%	39%	47%
	25 - 34	9%	11%	21%	8%	17%	14%	28%	14%	23%	16%
	35 - 44	17%	8%	9%	23%	13%	17%	19%	3%	9%	13%
	45 - 54	19%	14%	16%	13%	13%	9%	12%	27%	17%	16%
	55 - 64	2%	5%	7%	8%	7%	7%	4%	3%	9%	6%
	Older than 64	2%	3%	1%	0%	2%	3%	2%	3%	2%	2%
Education	Less than high school	0%	3%	1%	0%	0%	0%	2%	0%	0%	1%
	High school graduate	15%	19%	13%	13%	35%	24%	11%	17%	11%	16%
	Bachelor's degree	55%	44%	49%	59%	52%	41%	49%	50%	47%	49%
	Master's degree / MBA	28%	28%	32%	25%	28%	29%	35%	28%	36%	30%
	Ph.D. / Post-Doctoral Degree	2%	6%	4%	3%	2%	5%	2%	3%	6%	4%
	Other	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%
Occupation	Student	34%	33%	28%	28%	33%	28%	16%	28%	22%	28%
	Student and Worker	11%	14%	12%	14%	17%	12%	19%	8%	11%	13%
	Employed	51%	45%	56%	53%	44%	57%	60%	55%	66%	54%
	Unemployed	0%	3%	1%	3%	0%	0%	4%	5%	2%	2%
	Retired	2%	5%	3%	0%	4%	2%	0%	3%	0%	2%
	Other	2%	0%	0%	2%	2%	2%	2%	2%	0%	1%
Income	Less than 500€	6%	11%	7%	2%	11%	3%	9%	11%	3%	7%
	500€ – 999€	17%	14%	24%	22%	11%	19%	19%	17%	22%	18%
	1000€ – 1499€	19%	20%	18%	16%	17%	28%	30%	22%	23%	21%
	1500€ – 1999€	8%	11%	15%	16%	6%	9%	11%	9%	13%	11%
	2000€ - 2499€	6%	3%	0%	6%	7%	5%	4%	3%	3%	4%
	2500€ – 2999€	2%	2%	1%	2%	9%	0%	2%	8%	3%	3%
	3000€ – 3499€	4%	6%	3%	5%	2%	2%	2%	3%	6%	4%
	3500€ – 4000€	4%	0%	1%	0%	0%	0%	0%	0%	2%	1%
	More than 4000€	4%	0%	6%	3%	6%	5%	5%	5%	6%	4%
	No income	32%	33%	25%	30%	31%	29%	19%	22%	19%	27%

**Appendix 10: Key Study – Cronbach’s Alpha**

<b>Construct</b>	<b>Number of Items</b>	<b>Cronbach's Alpha</b>	<b>Quality</b>
<b>Purchase Intention</b>	<b>3</b>	<b>0,949</b>	<b>Excellent</b>
S1	3	0,898	Excellent
S2	3	0,946	Excellent
S3	3	0,873	Good
S4	3	0,906	Excellent
S5	3	0,954	Excellent
S6	3	0,95	Excellent
S7	3	0,937	Excellent
S8	3	0,944	Excellent
S9	3	0,925	Excellent
<b>Patriotism</b>	<b>4</b>	<b>0,787</b>	<b>Acceptable</b>
S1	4	0,847	Good
S2	4	0,806	Good
S3	4	0,804	Good
S4	4	0,812	Good
S5	4	0,703	Acceptable
S6	4	0,678	Questionable
S7	4	0,796	Good
S8	4	0,682	Questionable
S9	4	0,821	Good

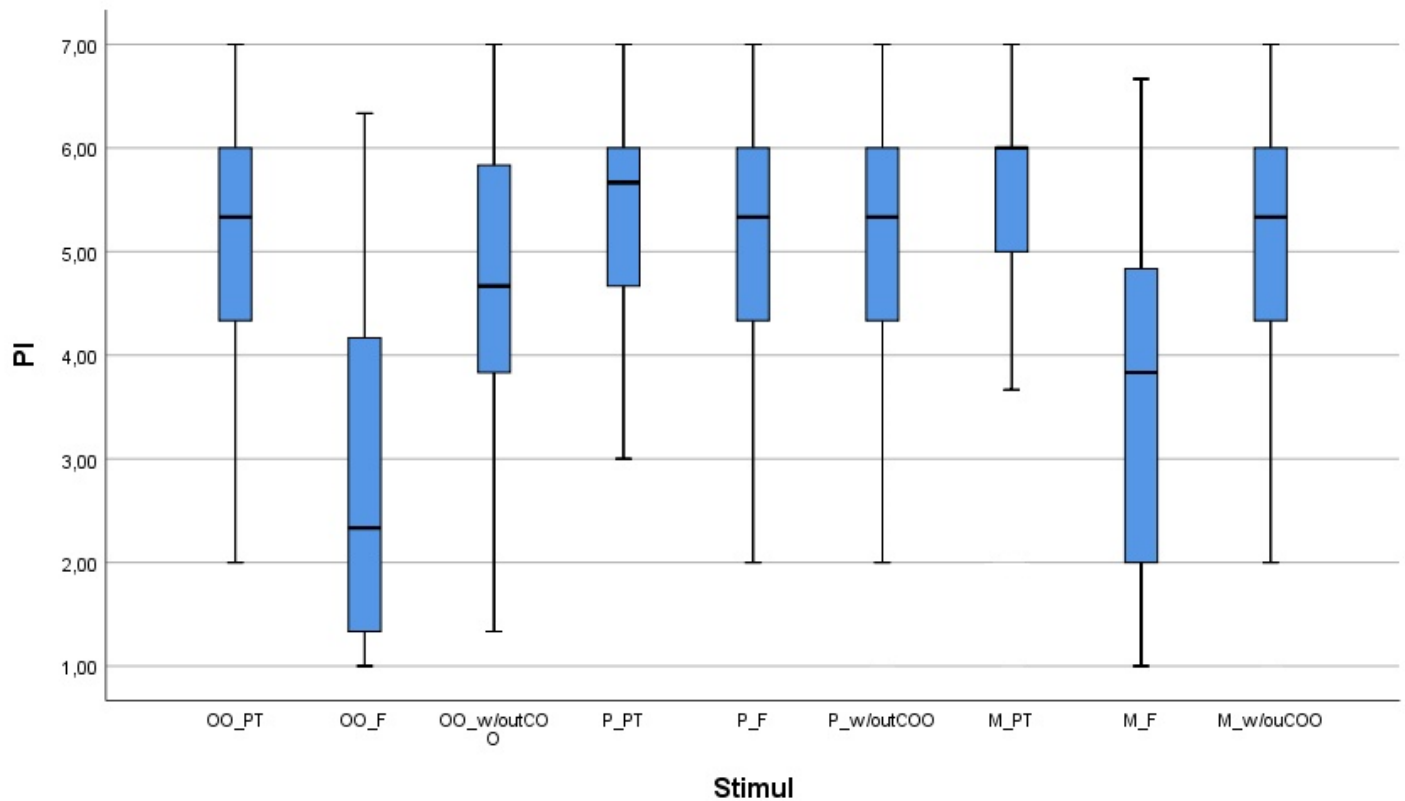
**Appendix 11: Key Study – Cronbach’s Alpha if Item is Deleted**

<b>Item-Total Statistics</b>	
<b>Purchase Intention</b>	<b>Cronbach's Alpha if Item Deleted</b>
Item1	0,923
Item2	0,905
Item3	0,945
<b>Patriotism</b>	<b>Cronbach's Alpha if Item Deleted</b>
Item1	0,786
Item2	0,716
Item3	0,691
Item4	0,74

## Appendix 12: Key Study – Kolmogorov-Smirnov Test for Normality

Purchase Intention		Tests of Normality					
		Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
S1		0,199	53	0,000	0,923	53	0,002
S2		0,188	64	0,000	0,893	64	0,000
S3		0,125	68	0,010	0,959	68	0,024
S4		0,168	64	0,000	0,925	64	0,001
S5		0,169	54	0,001	0,921	54	0,002
S6		0,191	58	0,000	0,859	58	0,000
S7		0,272	57	0,000	0,771	57	0,000
S8		0,121	64	0,021	0,942	64	0,005
S9		0,149	64	0,001	0,912	64	0,000

## Appendix 13: Key Study – Stimuli Groups Distribution



### Appendix 14: H1a – Descriptive Statistics, Ranks and Test Statistics

	Descriptive Statistics			Ranks
	N	Mean	Std. Deviation	Mean Rank
S1	53	5,327	1,22734	82,19
S2	64	2,8906	1,66302	39,80

	Purchase Intention
Mann-Whitney U	467,000
Wilcoxon W	2547,000
Z	-6,761
Asymp. Sig. (2-tailed)	0,000

### Appendix 15: H1b – Descriptive Statistics, Ranks and Test Statistics

	Descriptive Statistics			Ranks
	N	Mean	Std. Deviation	Mean Rank
S4	64	5,3802	1,00767	62,48
S5	54	5,0556	1,40193	55,96

	Purchase Intention
Mann-Whitney U	1537,000
Wilcoxon W	3022,000
Z	-1,042
Asymp. Sig. (2-tailed)	0,297

### Appendix 16: H1c – Descriptive Statistics, Ranks and Test Statistics

	Descriptive Statistics			Ranks
	N	Mean	Std. Deviation	Mean Rank
S7	57	5,5673	1,20344	83,93
S8	64	3,5208	1,63394	40,58

	Purchase Intention
Mann-Whitney U	517,000
Wilcoxon W	2597,000
Z	-6,845
Asymp. Sig. (2-tailed)	0,000

### Appendix 17: H2a – Descriptive Statistics, Ranks and Test Statistics

	Descriptive Statistics			Ranks
	N	Mean	Std. Deviation	Mean Rank
S1	53	5,327	1,22734	72,79
S3	68	4,6176	1,20153	51,81

	Purchase Intention
Mann-Whitney U	1177,000
Wilcoxon W	3523,000
Z	-3,296
Asymp. Sig. (2-tailed)	0,001

### Appendix 18: H2b – Descriptive Statistics, Ranks and Test Statistics

	Descriptive Statistics			Ranks
	N	Mean	Std. Deviation	Mean Rank
S4	64	5,3802	1,00767	66,80
S6	58	4,9368	1,33546	55,66

	Purchase Intention
Mann-Whitney U	1517,000
Wilcoxon W	3228,000
Z	-1,767
Asymp. Sig. (2-tailed)	0,077

### Appendix 19: H2c – Descriptive Statistics, Ranks and Test Statistics

	Descriptive Statistics			Ranks
	N	Mean	Std. Deviation	Mean Rank
S7	57	5,5673	1,20344	70,34
S9	64	4,9688	1,40886	52,68

	Purchase Intention
Mann-Whitney U	1291,500
Wilcoxon W	3371,500
Z	-2,826
Asymp. Sig. (2-tailed)	0,005

### Appendix 20: H3a – Descriptive Statistics, Ranks and Test Statistics

	Descriptive Statistics			Ranks
	N	Mean	Std. Deviation	Mean Rank
S2	64	2,8906	1,66302	47,00
S3	68	4,6176	1,20153	84,85

	Purchase Intention
Mann-Whitney U	928,000
Wilcoxon W	3008,000
Z	-5,703
Asymp. Sig. (2-tailed)	0,000

### Appendix 21: H3b – Descriptive Statistics, Ranks and Test Statistics

	Descriptive Statistics			Ranks
	N	Mean	Std. Deviation	Mean Rank
S5	54	5,0556	1,40193	58,29
S6	58	4,9368	1,33546	54,84

	Purchase Intention
Mann-Whitney U	1469,500
Wilcoxon W	3180,500
Z	-0,567
Asymp. Sig. (2-tailed)	0,571

### Appendix 22: H3c – Descriptive Statistics, Ranks and Test Statistics

	Descriptive Statistics			Ranks
	N	Mean	Std. Deviation	Mean Rank
S8	64	3,5208	1,63394	48,11
S9	64	4,9688	1,40886	80,89

	Purchase Intention
Mann-Whitney U	999,000
Wilcoxon W	3079,000
Z	-5,022
Asymp. Sig. (2-tailed)	0,000

## Appendix 23: Key Study – Moderation: Matrix Procedure

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.5 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D.      www.afhayes.com  
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

\*\*\*\*\*

Model : 1  
Y : PI  
X : Stimul  
W : Patriot

Sample  
Size: 546

Coding of categorical X variable for analysis:

Stimul	X1	X2
1,000	,000	,000
2,000	1,000	,000
3,000	,000	1,000

\*\*\*\*\*

OUTCOME VARIABLE:

PI

Model Summary

R	R-sq	MSE	F(HC0)	df1	df2	p
,4517	,2040	2,0632	26,6598	5,0000	540,0000	,0000

Model

	coeff	se(HC0)	t	p	LLCI	ULCI
constant	5,4075	,0864	62,5890	,0000	5,2378	5,5773
X1	-1,6760	,1565	-10,7065	,0000	-1,9836	-1,3685
X2	-,5706	,1285	-4,4412	,0000	-,8230	-,3182
Patriot	,1316	,0684	1,9226	,0551	-,0029	,2660
Int_1	-,4132	,1251	-3,3018	,0010	-,6590	-,1674
Int_2	-,0514	,1009	-,5091	,6109	-,2495	,1468

Product terms key:

Int_1	:	X1	x	Patriot
Int_2	:	X2	x	Patriot

Covariance matrix of regression parameter estimates:

	constant	X1	X2	Patriot	Int_1	Int_2
constant	,0075	-,0075	-,0075	-,0011	,0011	,0011
X1	-,0075	,0245	,0075	,0011	-,0012	-,0011
X2	-,0075	,0075	,0165	,0011	-,0011	-,0009
Patriot	-,0011	,0011	,0011	,0047	-,0047	-,0047
Int_1	,0011	-,0012	-,0011	-,0047	,0157	,0047
Int_2	,0011	-,0011	-,0009	-,0047	,0047	,0102

Test(s) of highest order unconditional interaction(s):

	R2-chng	F(HC0)	df1	df2	p
X*W	,0204	5,7481	2,0000	540,0000	,0034

-----

Focal predict: Stimul (X)  
Mod var: Patriot (W)

Conditional effects of the focal predictor at values of the moderator(s):

Moderator value(s):  
Patriot -1,2802

	Effect	se(HC0)	t	p	LLCI	ULCI
X1	-1,1471	,2310	-4,9665	,0000	-1,6008	-,6934
X2	-,5049	,1886	-2,6770	,0077	-,8753	-,1344

Test of equality of conditional means

F(HC0)	df1	df2	p
12,5791	2,0000	540,0000	,0000

Estimated conditional means being compared:

Stimul	PI
1,0000	5,2391
2,0000	4,0920
3,0000	4,7342

-----  
Moderator value(s):

Patriot ,0000

	Effect	se(HC0)	t	p	LLCI	ULCI
X1	-1,6760	,1565	-10,7065	,0000	-1,9836	-1,3685
X2	-,5706	,1285	-4,4412	,0000	-,8230	-,3182

Test of equality of conditional means

F(HC0)	df1	df2	p
57,4415	2,0000	540,0000	,0000

Estimated conditional means being compared:

Stimul	PI
1,0000	5,4075
2,0000	3,7315
3,0000	4,8369

-----  
Moderator value(s):

Patriot 1,2802

	Effect	se(HC0)	t	p	LLCI	ULCI
X1	-2,2050	,2168	-10,1712	,0000	-2,6308	-1,7791
X2	-,6363	,1755	-3,6256	,0003	-,9811	-,2916

Test of equality of conditional means

F(HC0)	df1	df2	p
51,7797	2,0000	540,0000	,0000

Estimated conditional means being compared:

Stimul	PI
1,0000	5,5760
2,0000	3,3710
3,0000	4,9396

Data for visualizing the conditional effect of the focal predictor:  
Paste text below into a SPSS syntax window and execute to produce plot.

```
DATA LIST FREE/
  Stimul    Patriot    PI    .
BEGIN DATA.
  1,0000    -1,2802    5,2391
  2,0000    -1,2802    4,0920
  3,0000    -1,2802    4,7342
  1,0000     ,0000    5,4075
  2,0000     ,0000    3,7315
  3,0000     ,0000    4,8369
  1,0000     1,2802    5,5760
  2,0000     1,2802    3,3710
  3,0000     1,2802    4,9396
END DATA.
GRAPH/SCATTERPLOT=
  Patriot WITH    PI    BY    Stimul    .
```

\*\*\*\*\* BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS \*\*\*\*\*

OUTCOME VARIABLE:

PI

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	5,4075	5,4080	,0866	5,2337	5,5737
X1	-1,6760	-1,6718	,1538	-1,9687	-1,3649
X2	-,5706	-,5715	,1293	-,8287	-,3210
Patriot	,1316	,1315	,0696	-,0063	,2679
Int_1	-,4132	-,4101	,1250	-,6507	-,1665
Int_2	-,0514	-,0521	,1012	-,2581	,1492

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

W values in conditional tables are the mean and +/- SD from the mean.

NOTE: A heteroscedasticity consistent standard error and covariance matrix estimator was used.

NOTE: The following variables were mean centered prior to analysis:

Patriot

----- END MATRIX -----

## Appendix 24: Key Study – Verification of the Homoscedasticity Assumption

Purchase Intention	Test of Homogeneity of Variances			
	Levene Statistic	df1	df2	Sig.
Based on Mean	4,846	8	537	0,000
Based on Median	4,055	8	537	0,000
Based on Median and with adjusted df	4,055	8	487,594	0,000
Based on trimmed mean	4,873	8	537	0,000

